NASA Student Launch

Safety Manual

Revision G

Updated January 18, 2018

Table of Contents

1. Introduction

1.1 Purpose

The purpose of the safety manual is to clearly identify all rules and regulations that the team must follow. It is the Safety Officer's responsibility to ensure the overall good health and safety of the team, students, and all other personnel present during team events. The manual also outlines applicable laws and regulations that the team must comply with. This document is the means for the Safety Officer to effectively communicate the requirements to the team as well as provide all Safety Data Sheets and other safety information as necessary.

1.2 Revision History

The revision history for the Safety Manual is in Table 1: Safety Manual revision history.

Revision	Reason for Change	Reviser	Effective Date
---	---	Emily	1/10/2014
A	Updated education safety and MSDS	Emily	2/25/2014
B		Daniel	2/26/2014
C	Updated MSDS	Emily	4/17/2014
D	Updated MSDS	Emily	10/4/14
E	Updated MSDS	Kevin	11/1/2016
F	Updated formatting, added locations of safety equipment, motor certified members, and MSDS	Maria	10/26/2017
G	Updated team safety	Maria	1/18/18

Table 1: Safety Manual revision history.

2. Team Safety

1.3 Purpose

Maintaining a safe work environment is essential for the team. This is a means of protecting all personnel from harm as well as the rocket and any equipment from damage. The following details general safety guidelines that are set forth by the team as well as by the Engineering Education Garage, later referred to as "the Garage".

1.4 Engineering Education Garage Rules

Participation Release Form
The University requires that Mike Miller, the Garage manager, have all people working in the Garage to sign a U of L participation release form. Mike will keep the originals in his office and a binder will be kept in the main area of the garage for the Safety Officer or team lead to ensure that all prospective or current team members comply.

Garage Access
Once the Participation Release Form has been completed, the team member will be granted access to the building with their University of Louisville Student ID called a Cardinal Card. Students that have not completed the form may enter the garage but are not allowed to assist with or complete any work for the team. The Safety Officer is responsible for ensuring that each member has completed this form.

Machine Cage
If the team member needs access to the garage Machine Cage he or she must pass an online safety quiz as required by the Garage. Following completion, the team member will notify Mike Miller and receive access through the Cardinal Card.

Prior to using the equipment in the Machine Cage, the team member must be mentored by an experienced member and certified by Mike Miller. CNC classes are offered by request. Members are only allowed to operate machines that they have been certified on doing otherwise is grounds to be barred from the Garage.

Safety glasses, long pants, and close toed shoes are required to be worn whenever in the Machine Cage. Two people must be in the Machine Cage any time when equipment is turned on. In case there is an emergency, the lab partner will be able to engage an emergency shutoff. There are Job Safety and Sequence Instruction cards at each machine that will remain available for review at any time. The safety manuals for each machine are available from Mike Miller upon request. If a team member has any issues or concerns with a piece of equipment, place an "Equipment needs repair" sign on the machine and contact Mike Miller.

If the machine makes an unusual noise or acts in any suspicious manner, you must stop the machine and inform the Engineering Garage manager, Mike Miller, immediately.

Electronics' Work Bench

Mike Miller must certify any team member who wishes to use the Electronics' Work Bench. The soldering irons tips must always be tinned to prevent damage. Caution must be exercised when using the soldering tips as they can reach up to 750 degrees Fahrenheit. Similarly, the heat gun approaches 480 degrees Fahrenheit and require the same caution. Power supplies must be used properly to avoid shorting the equipment leading to hazards as severe as explosions.

1.5 Manufacturing and Assembly Rules

Attire

All team members must wear appropriate attire when working in the lab

- No loose clothing or jewelry that could be caught in moving or revolving machinery or tools should be worn. This includes lanyards or jackets and shirts with strings
- Long hair should be tied back to prevent tangling in moving machinery
- Jewelry or other metal objects should not be worn while working with energized electrical circuits
- Long sleeves and long pants must be worn when sanding, cutting, or epoxying carbon fiber or fiberglass

Tool Training

Individuals must be trained on any tools used such as drills, Dremels, and soldering equipment. Those not trained should not attempt to learn on their own. The trainee should seek out a mentor, who has been recently trained or is experienced on the piece of equipment. If there are further questions about the operation of the tool, the trainee should consult the user manual.

Workspace

All work spaces should be kept clean and orderly. A clean-as-you-go mentality should be used to prevent a cluttered workspace and misplaced tools. All flammable materials should be returned to the flammable cabinet when they are no longer in use.

Heated elements like hot glue guns and heat guns must be placed on tables appropriately labeled with a hot surface warning, such as that shown in Figure 1 below.

Figure 1: Hot surface sign.

The team has a wooden stand that was built with the sign shown in Figure 1 etched on both sides. The stand is shown in Figure 2.

Figure 2: Constructed hot surface warning stand.

The following materials cannot be disposed in regular trash or recycling containers and require separate waste bins that are available in the Garage:

- Oily waste
- Metal or wooden sharps
- Solvent contaminated rags or paper towels
- Aerosol cans
- Batteries

Cardboard should be placed on the workbenches prior to protect the surface of the benches. Any dust or metal shavings shall be vacuumed and all tools and parts should be accounted for and put away. By using Foreign Object Elimination (FOE) techniques, Foreign Object Debris (FOD) can be avoided. FOD can be particularly dangerous in the electrical components that are Foreign Object Sensitive (FOS), causing shorts, failures, or the charging of undesired components.

You must not enter the shop area under the influence of drugs or alcohol, specifically over the-counter drugs that include warnings against operating machinery. You must not consume alcohol within 8 hours of entering the shop area.

Emergency Equipment

The Garage is equipped with the following equipment:

- Seven mounted fire extinguishers in the garage including one on the back wall of the Machine Cage
- Four first aid and eyewash stations are available with single use eyewash kits and
- Automated external defibrillator (AED)
- Emergency burn kit

- Bloodborne pathogens protection kit

Each team member is responsible for knowing where each is located as shown in Figure 3 below.

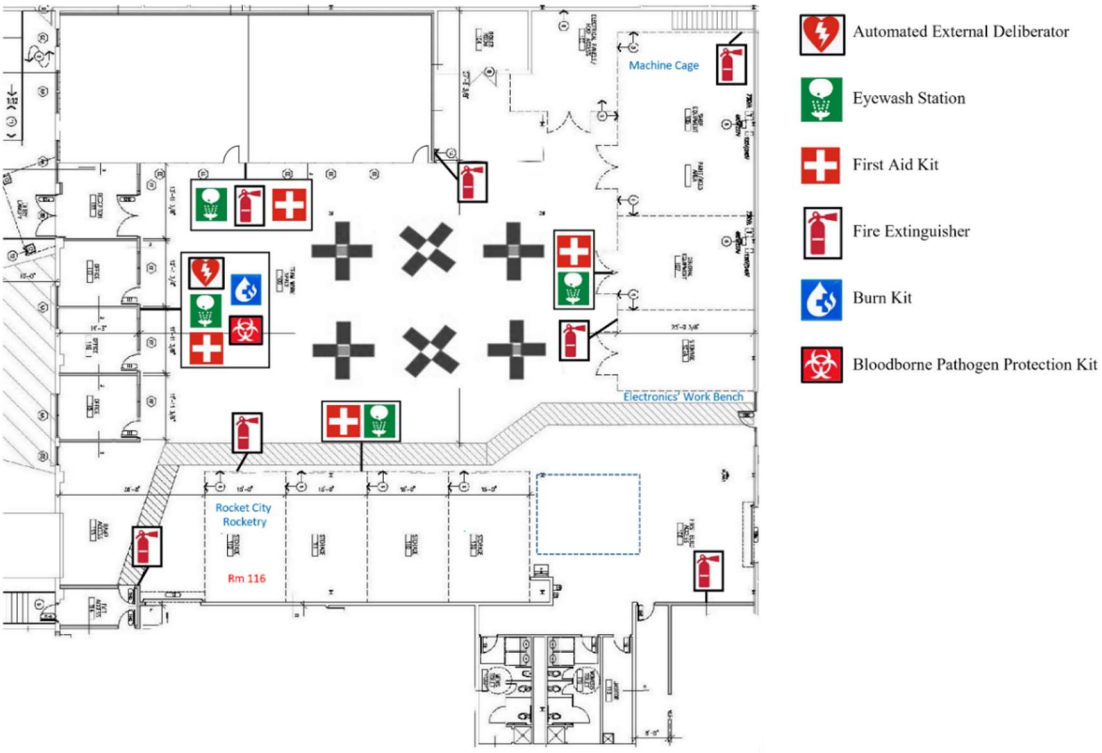


Figure 3. Emergency equipment locations in the Garage.

1.6 Personal Protection Equipment (PPE)

Hazardous Tasks

All lab user shall assess any hazardous tasks and take the proper precautions. Material Safety Data Sheets (MSDS) and operator manuals shall be consulted as necessary. Appropriate Personal Protective Equipment (PPE) should be worn and is required when performing hazardous tasks.

Safety Glasses

Safety glasses shall be worn when performing tasks where flying foreign debris or splashed chemicals could get in one's face. Safety glasses will always be available in the cage and near the first aid kits in the Garage. Children must wear safety glasses during educational event activities where foreign debris or objects could damage the student's eye.

Hearing Protection

Hearing protection should be worn when working with heavy power tools and during any other loud operations as required. Ear plugs are available at the first aid kit locations in the Garage. The OSHA permissible noise exposure levels and durations are shown in Figure 3Figure 4.

Duration per day, hours	Sound level dBA slow response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

Figure 4: Permissible noise exposure.

The CDC gathered average noise levels for common tools and they are listed in Figure 5.

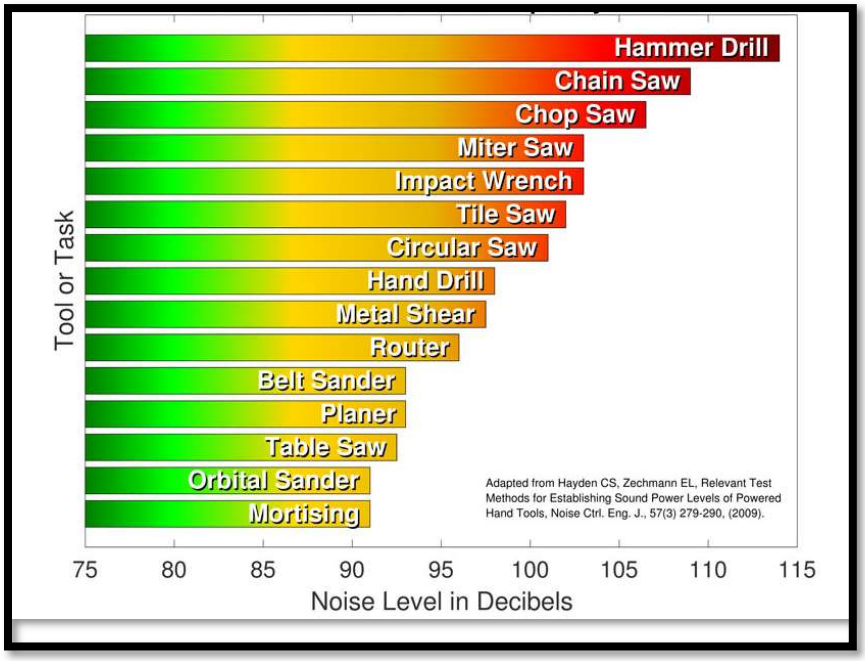


Figure 5: Common tool noise levels.

Protective Gloves

Different types of gloves shall be worn to protect hands during various operations:

- Cut resistant gloves should be worn when working with cutting instruments to mitigate the risks of severe cuts from tooling.
- Nitrile gloves should be worn while working with materials such as airframe epoxy, carbon fiber dust, paint, or lubricants.
- Thermal gloves should be worn while working with high heat elements or components, like welding.

Face Masks
Different types of masks shall be worn during various tasks to mitigate various safety hazards. MSDS should be consulted to determine if the use of a mask is necessary.

- Dust or particulate masks shall be worn when working with materials such as carbon fiber or fiberglass that generate dust particles, particularly while sanding.
- When working with chemicals producing toxic fumes, a vapor mask should be worn. The MSDS should be consulted prior to working with any chemicals to see if a vapor mask is necessary. It is important to make sure that the vapor mask provides the appropriate filtration for the chemical used.
- A full-face shield should be worn when performing any operation that produces sparks as a secondary measure *in addition to* safety glasses.

1.7 Tool Specific Safety

It is important to be familiar with any tool specific safety information for personal safety and to ensure that the rocket is not damaged by improper tool use. It is particularly important to know these guidelines to keep the equipment in good condition. The team heavily uses the Garage equipment that other engineering teams depend on as well.

Universal Laser System
The Garage has a universal laser system. The following are the safety rules and regulations for the laser set forth by the Garage:

- Do not run a material without knowing what it is.
- Turn on compressed air and filtration system/dust collector (foot switch will activate dust collector).
- Always follow the step by step read me file on laser's PC.
- Complete job.
- Make sure the Read Me First Document PDF is open on the Desk Top so that it is the first thing the next user sees.

SawStop table saw
The Garage has a SawStop table saw. The team utilizes this machine to cut sheets of materials into smaller manageable pieces. The following are the safety rules and regulations for the SawStop table saw set forth by the Garage:

- Inspect blade and guard before using.
- Set fence to desired location.
- Hit Foot Switch to turn dust collection on.
- Turn on machine (Note: Cut non-conductive materials only). If you are using a Formica or other plastic that may build up electrostatic charge, see shop manager to have that material tested before you use the saw. Failure to do so will trip the brake and damage the brake cartridge and blade).

- Slide the material against fence and push toward blade, holding material down on table while cutting.
- Push material toward saw blade, (Note: If possible, use push T-slide or finger board tools while pushing material, keeping hands away from blade at all times).
- After desired cut is made, turn off table saw.
- Wait for the saw blade to stop rotating, then remove material.
- Clean area and equipment.

DO NOT CUT CARBON FIBER OR ANY CONDUCTIVE MATERIALS ON THIS SAW

Jet vertical band saw

The Garage has a vertical band saw. The following are the safety rules and regulations for the vertical band saw as outlined by the Garage:

- Adjust saw guard to the height for object being cut.
- Turn on machine.
- Slide work to blade to cut insuring hands are well away from blade.
- Push workpiece against cutting blade. If possible use T-slide to push material against blade. Never get close to the blade.
- Let the saw do the work. Excess pressure will damage the blade.
- When desired cut is made, turn off machine.
- Remove workpiece.
- Clean area and equipment.

Bench grinder

The Garage has a bench grinder. The following are the safety rules and regulations for the bench grinder set forth by the Garage:

- Adjust plastic shield if needed to protect against flying sparks from metal.
- Turn on machine.
- Hold workpiece against grinding wheel, insuring hands are well away from grinding wheel. (Use pliers or vise grips if working on a small piece).
- Do not let workpiece bind in the between the grinding wheel and grinder housing that could cause it to catch and turn work piece into projectile if not clamped securely.
- When desired sanding is complete, remove workpiece.
- Turn off machine.
- Clean area and equipment.

Aluminum must not be ground as aluminum powder or grinding swarf is potentially dangerous if it is mixed with iron or steel grinding wastes.

Jet 55 ton shop press

The Garage has a 55 ton shop press. The following are the safety rules and regulations for the 55 ton shop press set forth by the Garage:

- Do not bend or shear material larger than 30" 20-gauge mild steel. Failure to comply may cause serious injury and/or damage to the machine.
- See attached pages for basic operation (attached pages will be located directly to the left of the shop press.
- Clean area and equipment.

Jet Horizontal band saw
The Garage has a horizontal band saw. The following are the safety rules and regulations for the horizontal band saw as set by the Garage:

- Adjust lever on hydraulic cylinder to hold blade away from work area.
- Clamp workpiece in place securely.
- Keep hands away from blade and turn on machine.
- Let the weight of the saw do the work. Do not ad pressure to saw.
- When desired cut is made, turn off machine, if the machine did not turn off automatically.
- Remove workpiece.
- Clean area and equipment.

Media blaster
The Garage has a media blaster. The following are the safety rules and regulations for the media blaster as set forth by the Garage:

- Open side door.
- Place work piece on blaster table.
- Close side door.
- Turn on machine and light.
- Put hands in black long gloves.
- Hold part and blaster want.
- Depress foot switch.
- Move wand over part to blast.
- Turn off machine.
- Remove workpiece.
- Clean area and equipment.

Jet 3-axis manual mill
The Garage has a 3-axis manual mill. The following are the safety rules and regulations for the 3-axis manual mill as set by the Garage:

- Place work in mill vise.
- Load tool in mill head.

- Return all tools and chuck key to the tool tray beside the machine.
- Machine work as needed.
- Turn off machine.
- Remove workpiece.
- Clean area and equipment.

4’ x 8’ SHOPBOT

The Garage has a 4’ x 8’ SHOPBOT. The following are the safety rules and regulations for the SHOPBOT as defined by the Garage:

- Turn on machine
- Program machine.
- Set work holding for job.
- Select and set tools for job.
- Check program in machine.
- Dry run program
- Hit foot switch to turn dust collector on.
- Run program.
- After program is finished move SHOPBOT head away from part and shut off machine.
- Retrieve your part from the work area.
- Clean area and equipment

Tormach CNC 3-axis mill

The Garage has a CNC 3–axis mill. The following are the safety rules and regulations for the CNC 3-axis mill set forth by the Garage:

- Turn on machine.
- Program Machine.
- Set work holding for job.
- Select and set tools for job.
- Check program in machine.
- Always hit Emergency Stop before putting your hand or head in the enclosure.
- Never have someone operate the controls with your hand or head in the enclosure.
- Dry run program.
- Run program.
- Clean area and equipment once coolant has dried.

Jet drill press

The Garage has a drill press. The following are the safety rules and regulations for the drill press as outlined by the Garage:

- Secure drill bit with chuck key (key can be found in a clip on the back-right side of the drill).
- Remove key from chuck and place back in the clip on the drill press.
- Adjust worktable to the proper vertical and horizontal position so the drill bit will reach the workpiece and drill through the center hole of this worktable without hitting the worktable.
- Place workpiece on drill press worktable or clap in vise to secure material. Never hold small workpieces with your hands. Clamp them with C-Clamps or U-Clamps.
- Turn on machine and lower spindle to drill hole.
- Once hole is drilled, turn off machine.
- Remove workpiece.
- Clean area and equipment.

Jet 13" x 40" lathe

The Garage has a manual lathe. The following are the safety rules and regulations for the lathe set forth by the Garage:

- The chuck key is on the front right attached to a magnet.
- Place workpiece in lathe using the chuck key.
- Always remove chuck key and return it back to its home on the magnet on the right front, not in the tray. Never ever leave it in the chuck or it will become a missile.
- Load tool in tool holder.
- Machine workpiece as needed.
- Turn off machine.
- Remove workpiece.
- Clean area and equipment.

3. NAR/TRA Procedures

1.8 NAR Safety Code

Table 2 describes each component of the High-Power Safety Code, as provided by NAR, and how the team will comply with each component. The minimum distance table is also included below in Table 3.

NAR Code	Team Compliance
1. **Certification.** I will only fly high power rockets or possess high power rocket motors that are within the scope of my user certification and required licensing.	Only Matthew Cosgrove, the Launch Vehicle Lead, Darryl Hankes, the team mentor, or certified team members are permitted to pack or handle the rocket motors.
2. **Materials.** I will use only lightweight materials such as paper, wood, rubber, plastic, fiberglass, or when necessary ductile metal, for the construction of my rocket.	The Vehicle and Payload sub-teams will select appropriate materials for the rocket while considering structure and weight.
3. **Motors.** I will use only certified, commercially made rocket motors, and will not tamper with these motors or use them for any purposes except those recommended by the manufacturer. I will not allow smoking, open flames, nor heat sources within 25 feet of these motors.	The motors will be purchased from Chris' Rocket Supplies and will be stored and handled only by certified members. The entire team will understand and agree to the motor safety portion of this safety manual.
4. **Ignition System.** I will launch my rockets with an electrical launch system, and with electrical motor igniters that are installed in the motor only after my rocket is at the launch pad or in a designated prepping area. My launch system will have a safety interlock that is in series with the launch switch that is not installed until my rocket is ready for launch, and will use a launch switch that returns to the "off" position when released. The function of onboard energetics and firing circuits will be inhibited except when my rocket is in the launching position.	All launches will be conducted at NAR/TRA certified events. The Range Safety Officer will have the final say over any safety issues. There will be arming switches for the altimeters that will inhibit premature activation of firing circuits that will not be armed before the rocket is on the launch pad. These arming switches may include screw switches, key switches, or pull pins.
5. **Misfires.** If my rocket does not launch when I press the button of my electrical launch system, I will remove the launcher's safety interlock or disconnect its battery, and will wait 60 seconds after the last launch attempt before allowing anyone to approach the rocket.	The Safety Officer will remind the team of this rule prior to the 5-second countdown. The safety captain will communicate any precautions given by the Range Safety Officer the day of the launch.

6. **Launch Safety.** I will use a 5-second countdown before launch. I will ensure that a means is available to warn participants and spectators in the event of a problem. I will ensure that no person is closer to the launch pad than allowed by the accompanying Minimum Distance Table. When arming onboard energetics and firing circuits I will ensure that no person is at the pad except safety personnel and those required for arming and disarming operations. I will check the stability of my rocket before flight and will not fly it if it cannot be determined to be stable. When conducting a simultaneous launch of more than one high power rocket I will observe the additional requirements of NFPA 1127.7.	The Safety Officer will sound an air horn prior to the 5-second countdown to ensure spectator awareness. In the event of a ballistic rocket, the airhorn will be used again to warn all spectators and personnel at the launch field. The team will comply with this rule and any other rules given by the Range Safety Officer the day of the launch.
7. **Launcher.** I will launch my rocket from a stable device that provides rigid guidance until the rocket has attained a speed that ensures a stable flight, and that is pointed to within 20 degrees of vertical. If the wind speed exceeds 5 miles per hour I will use a launcher length that permits the rocket to attain a safe velocity before separation from the launcher. I will use a blast deflector to prevent the motor's exhaust from hitting the ground. I will ensure that dry grass is cleared around each launch pad in accordance with the accompanying Minimum Distance table, and will increase this distance by a factor of 1.5 and clear that area of all combustible material if the rocket motor being launched uses titanium sponge in the propellant.	The team will comply with this rule by launching off a 12 ft. 1515 rail which is the same rail provided at competition. The team prefers to launch in surface winds less than 4 times the exit rail velocity or less than 20 miles per hour to ensure the stability of the rocket.
8. **Size.** My rocket will not contain any combination of motors that total more than 40,960 N-sec (9,208 pound-seconds) of total impulse. My rocket will not weigh more at liftoff than one-third of the certified average thrust of the high power rocket motor(s) intended to be ignited at launch.	The team will comply to this rule when designing the rocket and selecting an appropriate motor.
9. **Flight Safety.** I will not launch my rocket at targets, into clouds, near airplanes, nor on trajectories that take it directly over the heads of spectators or beyond the boundaries of the launch site, and will not put any flammable or	A wind gauge and weather predictions will be used to make a launch day weather assessment. Appropriate FAA waivers and adequate notice will be in place before the launch occurs. The team will

explosive payload in my rocket. I will not launch my rockets if wind speeds exceed 20 miles per hour. I will comply with Federal Aviation Administration airspace regulations when flying, and will ensure that my rocket will not exceed any applicable altitude limit in effect at that launch site.	comply with this and any determination made by the Range Safety Officer on the day of the launch.
10. **Launch Site.** I will launch my rocket outdoors, in an open area where trees, power lines, occupied buildings, and persons not involved in the launch do not present a hazard, and that is at least as large on its smallest dimension as one-half of the maximum altitude to which rockets are allowed to be flown at that site or 1,500 feet, whichever is greater, or 1,000 feet for rockets with a combined total impulse of less than 160 N-sec, a total liftoff weight of less than 1,500 grams, and a maximum expected altitude of less than 610 meters (2,000 feet).	All team launches will be at NAR/TRA certified events. The Range Safety Officer will have the final say over any rocketry safety issues.
11. **Launcher Location.** My launcher will be 1,500 feet from any occupied building or from any public highway on which traffic flow exceeds 10 vehicles per hour, not including traffic flow related to the launch. It will also be no closer than the appropriate Minimum Personnel Distance from the accompanying table from any boundary of the launch site.	The team will comply with this rule and any determination the Range Safety Officer makes on launch day.
12. **Recovery System.** I will use a recovery system such as a parachute in my rocket so that all parts of my rocket return safely and undamaged and can be flown again, and I will use only flame-resistant or fireproof recovery system wadding in my rocket.	The Recovery subteam will be responsible for designing, constructing, and testing a safe recovery system for the rocket. A clear recovery checklist will be followed for launch day to ensure that all critical steps in preparing and packing the recovery components are completed.
13. **Recovery Safety.** I will not attempt to recover my rocket from power lines, tall trees, or other dangerous places, fly it under conditions where it is likely to recover in spectator areas or outside the launch site, nor attempt to catch it as it approaches the ground.	The team will comply with this rule and any determination the Range Safety Officer makes on launch day. If necessary, professionals will be contacted for rocket retrieval.

Table 2. NAR regulations and team compliance.

Installed Total Impulse (Newton-Seconds)	Equivalent High Power Motor Type	Minimum Diameter of Cleared Area (ft.)	Minimum Personnel Distance (ft.)	Minimum Personnel Distance (Complex Rocket) (ft.)
0-320.00	H or smaller	50	100	200
320.01-640.00	I	50	100	200
640.01-1,280.00	J	50	100	200
1,280.01-2,2560.00	K	75	200	300
2,560.01-5,120.00	L	100	300	500
5,120.01-10,240.00	M	125	500	1,000
10,240.01-20,480.00	N	125	1,000	1,500
20,480.01-40,960.00	O	125	1,500	2,000
Note: A complex rocket is one that is multi-staged or that is propelled by two or more rocket motors.				

Table 3. NAR minimum distance table.

1.9 Local, State, and Federal Law Compliance

Everyone is required to review and acknowledge regulations regarding unmanned rocket launches and motor handling. The following regulations apply to high power rocketry and can be found at the respective links:

- Federal Aviation Regulations 14 CFR, Subchapter F, Part 101, Subpart C: https://www.ecfr.gov/cgi-bin/text-idx?rgn=div5&node=14:2.0.1.3.15
- Amateur Rockets, Code of Federal Regulation 27 Part 55: Commerce in Explosives: https://www.gpo.gov/fdsys/pkg/CFR-2001-title27-vol1/pdf/CFR-2001-title27-vol1-part55.pdf
- Fire prevention, NFPA 1127 "Code for High Power Rocket Motors": http://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1127

Additionally, the Explosives Laws and Regulations can be found at the following link: http://www.atf.gov/files/publications/download/p/atf-p-5400-7.pdf.

4. Launch Safety

1.10 Launch Day Briefing

Prior to each launch, a briefing will be held to review potential hazards and accident avoidance strategies. Attendance will be mandatory for team members to attend launches. To prevent accidents, thorough safety checklists will be created prior to launch day for each subsystem, the overall assembly, and the launch pad procedures. Throughout preparations, it will be the responsibility of the Safety Officer to confirm that each of the necessary tasks for a successful launch are completed. This will be verified by having two team members sign off on each step as they completed it, holding them accountable for that portion of the assembly.

Members will be reminded of the meaning of each label used in the Safety Precautions and Launch Procedures to ensure understanding of their importance.

1.11Motor Safety

Darryl Hankes, the team mentor, who has obtained his Level 3 TRA certification, will be responsible for acquiring, storing, and handling the teams rocket motors at all times. Team member Matthew Cosgrove, who obtained his Level 2 certification in October 2017, is also permitted to assist in this responsibility. If at any time, another member of the team acquires the appropriate certification, they will be added to the list of people permitted to handle the team's motors and the Safety Manual will be updated. By having obtained at minimum a Level 2 certification, the individual has demonstrated that he or she understands the safety guidelines regarding motors. Any certified member of the team that handles or stores the team's motors is responsible for following the appropriate measures. The motors for both test and competition launches will be transported by car to the launch site.

5. Educational Engagement Safety

General

- Children must never work unsupervised.
- A child is never to handle any size rocket motor on their own.
- Safety should always be encouraged when teaching young students about rockets and during construction.
- Personal Protective Equipment that a child, or any other participant in an educational event may need will be provided.

Rocket Construction

- Horseplay in the classroom is not to be tolerated.
- Students are not permitted to use exacto knives during builds. These operations must be performed by an adult.
- Students are not to use the hot glue guns without approval from their parent or teacher and must be informed on how to safely use a hot glue gun.
- Children must work supervised in order to ensure proper assembly of a safe rocket to launch.

Rocket Launch

- Prior to any launch, students are to be briefed on safety procedures. Any students not following these measures will not be able to participate in the remaining launches for the day.
- Students and educators standing near the launch pad are to be wearing safety glasses at all times.
- The secondary key for the launch mechanism must be removed when loading rockets onto the launch pad.
- Students must remain a designated safe distance from the launch pad at all times.
- The secondary key is not to be inserted until all launch pads are clear and the Safety Officer has given the okay.
- Students are not to launch until they have been given permission by the Safety Officer. Notification to observing students and a countdown will occur to signify this event.
- Should a rocket not launch on the first attempt, students and educators shall wait 30 seconds to ensure that it was a misfire. The secondary key shall be removed before approaching the launch pad to avoid and accidental launch.
- Students are never to catch a falling rocket or component of a rocket.

6. Material Safety Data Sheets (MSDS)

1.12 Purpose

Safety Data Sheets (MSDS) shall be consulted prior to working with any material, making the user aware of any risks in using the material and any safety precautions that should be followed. It is everyone's responsibility to analyze each potential hazard and take the appropriate safety provisions. If any person does not understand any portion of the safety sheet, they should consult the sub-team lead or the Safety Officer before proceeding with any operations with the material.

1.12.1 Material Labeling

All bottles and containers must have legible labels so that appropriate emergency medical care can be identified and administered. Unlabeled or illegibly labeled bottles must be discarded immediately.

1.12.2 Team MSDS

A hardcopy of the Team MSDS document is available in a binder that will remain on top of the flammable cabinet. The team MSDS are also listed below, in alphabetical order by company. The document will be available on the website so it can be referenced by members at any time.

The document is also included below.

MSDS

Updated 10/30/2017

MSDS Table of Contents

Safety Data Sheet

Document Group:	30-8055-3	**Version Number:**	2.00
Issue Date:	03/19/15	**Supercedes Date:**	06/22/12

Product identifier
Bondo® All-Purpose Putty, 20052, 20054, 30054, 31252, 31254

ID Number(s):

41-0003-7991-1, 41-0003-7992-9, 60-4550-6801-9, 60-4550-6802-7, 60-4550-6829-0, 60-4550-8112-9, 60-4550-8113-7

Recommended use
Putty/Filler used for home repairs.

Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive Aftermarket
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS), Article Information Sheet (AIS), or Article Information Letter (AIL) for each of these components is included. Please do not separate the component documents from this cover page. The document numbers for components of this product are:

30-8057-9, 29-5993-0

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M

3M USA SDSs are available at www.3M.com

Safety Data Sheet

Document Group:	30-8057-9	**Version Number:**	5.00
Issue Date:	08/10/17	**Supercedes Date:**	05/16/16

SECTION 1: Identification

1.1. Product identifier
Bondo® All-Purpose Putty, 20052, 20054, 30054

Product Identification Numbers
LB-K100-1204-9, LB-K100-1205-0, LB-K100-1205-1

1.2. Recommended use and restrictions on use

Recommended use
Putty/Filler used for home repairs.

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive Aftermarket
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification
Flammable Liquid: Category 3.
Serious Eye Damage/Irritation: Category 2B.
Carcinogenicity: Category 2.
Specific Target Organ Toxicity (single exposure): Category 1.
Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements
Signal word
Danger

Symbols
Flame | Health Hazard |

Pictograms

Hazard Statements
Flammable liquid and vapor.

Causes eye irritation.
Suspected of causing cancer.

Causes damage to organs:
liver |
sensory organs |

Causes damage to organs through prolonged or repeated exposure:
respiratory system |
sensory organs |

May cause damage to organs through prolonged or repeated exposure:
liver |

Precautionary Statements
General:
Keep out of reach of children.

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/bond container and receiving equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Keep container tightly closed.
Use explosion-proof electrical/ventilating/lighting equipment.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear protective gloves and eye/face protection.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.

Response:
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:

Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal:
Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Hazards not otherwise classified

3% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Polyester Resin	Trade Secret*	15 - 40 Trade Secret *
Talc	14807-96-6	10 - 30 Trade Secret *
Styrene Monomer	100-42-5	10 - 30 Trade Secret *
Magnesium Carbonate	546-93-0	7 - 15 Trade Secret *
Inert Filler	Trade Secret*	3 - 7 Trade Secret *
Limestone	1317-65-3	1 - 5 Trade Secret *
Synthetic Crystalline-Free Silica Gel	112926-00-8	1 - 5 Trade Secret *
Chlorite (Mineral)	1318-59-8	< 5 Trade Secret *
Titanium Dioxide	13463-67-7	< 1 Trade Secret *
Quartz Silica	14808-60-7	< 0.1 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:
Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

If Swallowed:
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance	Condition
Hydrocarbons	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

5.3. Special protective actions for fire-fighters
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Contain spill. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid breathing of dust created by cutting, sanding, grinding or machining. Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (gloves, respirators, etc.) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep cool. Keep container tightly closed. Protect from sunlight. Store away from

heat. Store away from acids. Store away from strong bases. Store away from oxidizing agents. Store away from areas where product may come into contact with food or pharmaceuticals. Store in a dry place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Styrene Monomer	100-42-5	ACGIH	TWA:20 ppm;STEL:40 ppm	A4: Not class. as human carcin
Styrene Monomer	100-42-5	OSHA	TWA:100 ppm;CEIL:200 ppm	
SILICA, AMORPHOUS	112926-00-8	OSHA	TWA concentration:0.8 mg/m3;TWA:20 millions of particles/cu. ft.	
Limestone	1317-65-3	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Titanium Dioxide	13463-67-7	ACGIH	TWA:10 mg/m3	A4: Not class. as human carcin
Titanium Dioxide	13463-67-7	OSHA	TWA(as total dust):15 mg/m3	
Talc	14807-96-6	OSHA	TWA:2 mg/m3	
Talc	14807-96-6	ACGIH	TWA(respirable fraction):2 mg/m3	A4: Not class. as human carcin
Quartz Silica	14808-60-7	OSHA	TWA Table Z-1(respirable):0.05 mg/m3;TWA Table Z-3(respirable):0.1 mg/m3	
Quartz Silica	14808-60-7	ACGIH	TWA(respirable fraction):0.025 mg/m3	A2: Suspected human carcin.
Magnesium Carbonate	546-93-0	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Inert Filler	Trade Secret	Manufacturer determined	TWA(as dust):10 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

To minimize the risk of injury to face and eyes, always wear eye and face protection when working at sanding or grinding operations or when near such operations. Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect Vented Goggles

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.
Gloves made from the following material(s) are recommended: Fluoroelastomer
Polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Liquid
Specific Physical Form:	Paste
Odor, Color, Grade:	Pungent Styrene Odor Grey Paste
Odor threshold	*No Data Available*
pH	*No Data Available*
Melting point	*No Data Available*
Boiling Point	293 ºF
Flash Point	88 ºF [*Test Method:*Closed Cup]
Evaporation rate	*No Data Available*
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	0.9 % [*Details:*based on styrene]
Flammable Limits(UEL)	6.8 % [*Details:*based on styrene]
Vapor Pressure	*No Data Available*
Vapor Density	3.6 [*Ref Std:*AIR=1]
Density	1.14 g/ml
Specific Gravity	1.14 [*Ref Std:*WATER=1]
Solubility in Water	Negligible
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*No Data Available*
Decomposition temperature	*No Data Available*
Viscosity	192,000 - 208,000 centipoise
Hazardous Air Pollutants	0.355 lb HAPS/lb solids
Volatile Organic Compounds	17.6 % weight [*Test Method:*calculated per CARB title 2]
Volatile Organic Compounds	200 g/l [*Test Method:*calculated SCAQMD rule 443.1]
Percent volatile	17.9 % weight
VOC Less H2O & Exempt Solvents	201 g/l [*Test Method:*calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Stable. Stable under normal conditions. May become unstable at elevated temperatures and/or pressure.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Sparks and/or flames
Heat

10.5. Incompatible materials
Strong acids
Strong oxidizing agents
Alkali and alkaline earth metals
Strong bases

10.6. Hazardous decomposition products

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:
May be harmful if inhaled.
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

Skin Contact:
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Eye Contact:
Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion:
May be harmful if swallowed.
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:
Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Prolonged or repeated exposure may cause target organ effects:
Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

Ocular Effects: Signs/symptoms may include blurred or significantly impaired vision.

Carcinogenicity:
Contains a chemical or chemicals which can cause cancer.

Ingredient	CAS No.	Class Description	Regulation
SILICA, CRYS AIRRESP	14808-60-7	Known human carcinogen	National Toxicology Program Carcinogens
Quartz Silica	14808-60-7	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
Styrene Monomer	100-42-5	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Styrene Monomer	100-42-5	Anticipated human carcinogen	National Toxicology Program Carcinogens
Titanium Dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE20 - 50 mg/l
Overall product	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
Polyester Resin	Dermal		LD50 estimated to be > 5,000 mg/kg
Polyester Resin	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Talc	Dermal		LD50 estimated to be > 5,000 mg/kg
Talc	Ingestion		LD50 estimated to be > 5,000 mg/kg
Styrene Monomer	Dermal	Rat	LD50 > 2,000 mg/kg
Styrene Monomer	Inhalation-Vapor (4 hours)	Rat	LC50 8.3 mg/l
Styrene Monomer	Ingestion	Rat	LD50 5,000 mg/kg
Magnesium Carbonate	Dermal		LD50 estimated to be > 5,000 mg/kg
Magnesium Carbonate	Ingestion	Mouse	LD50 > 5,000 mg/kg
Inert Filler	Dermal		LD50 estimated to be > 5,000 mg/kg
Inert Filler	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Limestone	Dermal	Rat	LD50 > 2,000 mg/kg
Limestone	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Limestone	Ingestion	Rat	LD50 6,450 mg/kg

Synthetic Crystalline-Free Silica Gel	Dermal	Rabbit	LD50 > 5,000 mg/kg
Synthetic Crystalline-Free Silica Gel	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Synthetic Crystalline-Free Silica Gel	Ingestion	Rat	LD50 > 5,110 mg/kg
Chlorite (Mineral)	Dermal		LD50 estimated to be > 5,000 mg/kg
Chlorite (Mineral)	Ingestion		LD50 estimated to be > 5,000 mg/kg
Titanium Dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium Dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium Dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Quartz Silica	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz Silica	Ingestion		LD50 estimated to be > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Talc	Rabbit	No significant irritation
Styrene Monomer	official classification	Mild irritant
Magnesium Carbonate	In vitro data	Minimal irritation
Inert Filler	Professional judgement	No significant irritation
Limestone	Rabbit	No significant irritation
Synthetic Crystalline-Free Silica Gel	Rabbit	No significant irritation
Chlorite (Mineral)	Professional judgement	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation
Quartz Silica	Professional judgement	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Talc	Rabbit	No significant irritation
Styrene Monomer	official classification	Moderate irritant
Magnesium Carbonate	Rabbit	Mild irritant
Inert Filler	Professional judgement	No significant irritation
Limestone	Rabbit	No significant irritation
Synthetic Crystalline-Free Silica Gel	Rabbit	No significant irritation
Chlorite (Mineral)	Professional judgement	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value

Styrene Monomer	Guinea pig	Not classified
Synthetic Crystalline-Free Silica Gel	Human and animal	Not classified
Titanium Dioxide	Human and animal	Not classified

Respiratory Sensitization

Name	Species	Value
Talc	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
Talc	In Vitro	Not mutagenic
Talc	In vivo	Not mutagenic
Styrene Monomer	In Vitro	Some positive data exist, but the data are not sufficient for classification
Styrene Monomer	In vivo	Some positive data exist, but the data are not sufficient for classification
Inert Filler	In Vitro	Some positive data exist, but the data are not sufficient for classification
Synthetic Crystalline-Free Silica Gel	In Vitro	Not mutagenic
Titanium Dioxide	In Vitro	Not mutagenic
Titanium Dioxide	In vivo	Not mutagenic
Quartz Silica	In Vitro	Some positive data exist, but the data are not sufficient for classification
Quartz Silica	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Talc	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Styrene Monomer	Ingestion	Mouse	Carcinogenic
Styrene Monomer	Inhalation	Human and animal	Carcinogenic
Inert Filler	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Synthetic Crystalline-Free Silica Gel	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
Titanium Dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium Dioxide	Inhalation	Rat	Carcinogenic
Quartz Silica	Inhalation	Human and animal	Carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Talc	Ingestion	Not classified for development	Rat	NOAEL 1,600 mg/kg	during organogenesis
Styrene Monomer	Ingestion	Not classified for female reproduction	Rat	NOAEL 21 mg/kg/day	3 generation

Styrene Monomer	Inhalation	Not classified for female reproduction	Rat	NOAEL 2.1 mg/l	2 generation
Styrene Monomer	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.1 mg/l	2 generation
Styrene Monomer	Ingestion	Not classified for male reproduction	Rat	NOAEL 400 mg/kg/day	60 days
Styrene Monomer	Ingestion	Not classified for development	Rat	NOAEL 400 mg/kg/day	during gestation
Styrene Monomer	Inhalation	Not classified for development	Multiple animal species	NOAEL 2.1 mg/l	during gestation
Limestone	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	premating & during gestation
Synthetic Crystalline-Free Silica Gel	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Synthetic Crystalline-Free Silica Gel	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Synthetic Crystalline-Free Silica Gel	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Styrene Monomer	Inhalation	auditory system	Causes damage to organs	Multiple animal species	LOAEL 4.3 mg/l	not available
Styrene Monomer	Inhalation	liver	Causes damage to organs	Mouse	LOAEL 2.1 mg/l	not available
Styrene Monomer	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	occupational exposure
Styrene Monomer	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
Styrene Monomer	Inhalation	endocrine system	Not classified	Rat	NOAEL Not available	not available
Styrene Monomer	Inhalation	kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2.1 mg/l	not available
Limestone	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Talc	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Talc	Inhalation	pulmonary fibrosis | respiratory system	Not classified	Rat	NOAEL 18 mg/m3	113 weeks
Styrene Monomer	Inhalation	eyes	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Styrene Monomer	Inhalation	auditory system	May cause damage to organs though prolonged or repeated exposure	Multiple animal species	NOAEL 1.3 mg/l	not available
Styrene Monomer	Inhalation	liver	May cause damage to organs though prolonged or repeated exposure	Mouse	LOAEL 0.85 mg/l	13 weeks
Styrene Monomer	Inhalation	nervous system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	LOAEL 1.1 mg/l	not available
Styrene Monomer	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 0.85 mg/l	7 days
Styrene Monomer	Inhalation	endocrine system	Not classified	Rat	NOAEL 0.6	10 days

					mg/l	
Styrene Monomer	Inhalation	respiratory system	Not classified	Multiple animal species	LOAEL 0.09 mg/l	not available
Styrene Monomer	Inhalation	heart | bone, teeth, nails, and/or hair | muscles | kidney and/or bladder	Not classified	Multiple animal species	NOAEL 4.3 mg/l	2 years
Styrene Monomer	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 500 mg/kg/day	8 weeks
Styrene Monomer	Ingestion	immune system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	not available
Styrene Monomer	Ingestion	liver | kidney and/or bladder	Not classified	Rat	NOAEL 677 mg/kg/day	6 months
Styrene Monomer	Ingestion	hematopoietic system	Not classified	Dog	NOAEL 600 mg/kg/day	470 days
Styrene Monomer	Ingestion	heart | respiratory system	Not classified	Rat	NOAEL 35 mg/kg/day	105 weeks
Inert Filler	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
Limestone	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Synthetic Crystalline-Free Silica Gel	Inhalation	respiratory system | silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Titanium Dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium Dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
Quartz Silica	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure

Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations
Contact manufacturer for more information
311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

EPCRA 311/312 Hazard Classifications (effective January 1, 2018):

Physical Hazards
Flammable (gases, aerosols, liquids, or solids)

Health Hazards
Carcinogenicity
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient	C.A.S. No	% by Wt
Styrene Monomer	100-42-5	Trade Secret 10 - 30

15.2. State Regulations
Contact manufacturer for more information
California Proposition 65

Ingredient	C.A.S. No.	Classification
SILICA, CRYSTALLINE (AIRBORNE PARTICLES OF RESPIRABLE SIZE)	None	Carcinogen
Styrene Monomer	100-42-5	Carcinogen
Titanium Dioxide	13463-67-7	Carcinogen

WARNING: This product contains a chemical known to the State of California to cause cancer.

15.3. Chemical Inventories
The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact manufacturer for more information

15.4. International Regulations
Contact manufacturer for more information

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification
Health: 2 **Flammability:** 3 **Instability:** 1 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Document Group:	30-8057-9	**Version Number:**	5.00
Issue Date:	08/10/17	**Supercedes Date:**	05/16/16

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued.3MMAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE.User is responsible for determining whether the3Mproduct is fit for a particular purpose and suitable for user's method of use or application.Given the variety of factors that can affect the use and application of a3Mproduct, some of which are uniquely within the user's knowledge and control,it is essential that the user evaluate the3Mproduct to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3Mprovides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information,3Mmakes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from3M

3M USA SDSs are available at www.3M.com

Safety Data Sheet

Document Group:	29-5993-0	**Version Number:**	3.05
Issue Date:	04/04/17	**Supercedes Date:**	02/06/17

SECTION 1: Identification

1.1. Product identifier
3M™ Cream Hardener (Red, White & Blue)

Product Identification Numbers
LB-K100-0965-7, LB-K100-0965-8, LB-K100-0965-9, LB-K100-0966-0, LB-K100-0966-1, LB-K100-0966-2, LB-K100-0966-3, LB-K100-1035-6, LB-K100-1045-4, LB-K100-1286-7, 41-0003-6674-4, 41-0003-6682-7, 41-0003-6685-0, 41-0003-6686-8, 41-0003-6687-6, 41-0003-7901-0, 41-0003-7903-6, 41-0003-7904-4, 41-0003-7922-6, 41-0003-7928-3, 41-0003-7930-9, 41-0003-7931-7, 41-0003-7932-5, 41-0003-7933-3, 41-0003-7935-8, 41-0003-7987-9, 41-0003-8059-6, 41-0003-8072-9, 41-0003-8073-7, 41-0003-8074-5, 41-0003-8146-1, 60-4550-6617-9, 60-4550-6830-8, 60-4550-6981-9, 60-4550-6982-7, 60-4550-8123-6

1.2. Recommended use and restrictions on use

Recommended use
Automotive, hardener for body fillers & glazes

1.3. Supplier's details
MANUFACTURER: 3M
DIVISION: Automotive Aftermarket
ADDRESS: 3M Center, St. Paul, MN 55144-1000, USA
Telephone: 1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification
Organic Peroxide: Type E.
Serious Eye Damage/Irritation: Category 2A.
Skin Sensitizer: Category 1.

2.2. Label elements

Signal word
Warning

Symbols
Flame | Exclamation mark |

Pictograms

Hazard Statements
Heating may cause a fire.

Causes serious eye irritation.
May cause an allergic skin reaction.

Precautionary Statements
General:
Keep out of reach of children.

Prevention:
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep away from clothing and other combustible materials.
Keep only in original container.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wear protective gloves and eye/face protection.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.

Response:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.

Storage:
Protect from sunlight.
Store at temperatures not exceeding 32C/90F. Keep cool.
Store away from other materials.

Disposal:
Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Hazards not otherwise classified
None.

8% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Benzoyl Peroxide	94-36-0	30 - 60 Trade Secret *
Water	7732-18-5	10 - 30 Trade Secret *
Benzoic Acid, C9-11-Branched Alkyl Esters	131298-44-7	10 - 30 Trade Secret *
Zinc Stearate	557-05-1	3 - 7 Trade Secret *
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	9038-95-3	1 - 5 Trade Secret *
Calcium Sulfate	7778-18-9	1 - 5 Trade Secret *
Iron Oxide (FE2O3)	1309-37-1	1 - 5 Trade Secret *
Ferric Ferrocyanide	14038-43-8	0 - 1 Trade Secret *
Ferric Ammonium Ferrocyanide	25869-00-5	0 - 1 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:
Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode. Part of the oxygen for combustion is supplied by the peroxide itself.

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Eliminate all ignition sources if safe to do so. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not use in a confined area with minimal air exchange. Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage including any incompatibilities
Keep container tightly closed. Protect from sunlight. Store away from heat. Store at temperatures not exceeding 32C/90F. Keep cool. Keep only in original container. Store away from other materials. Keep/store away from clothing and other combustible materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Iron Oxide (FE2O3)	1309-37-1	ACGIH	TWA(respirable fraction):5 mg/m3	A4: Not class. as human carcin
Iron Oxide (FE2O3)	1309-37-1	OSHA	TWA(as fume):10 mg/m3	
CYANIDES	14038-43-8	OSHA	TWA(as CN):5 mg/m3	SKIN
Zinc Stearate	557-05-1	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Calcium Sulfate	7778-18-9	ACGIH	TWA(inhalable fraction):10 mg/m3	
Calcium Sulfate	7778-18-9	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Benzoyl Peroxide	94-36-0	ACGIH	TWA:5 mg/m3	A4: Not class. as human

				carcin
Benzoyl Peroxide	94-36-0	OSHA	TWA:5 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Provide ventilation adequate to maintain dust concentration below minimum explosive concentrations. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect Vented Goggles

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
Gloves made from the following material(s) are recommended: Nitrile Rubber

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron – Nitrile

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Solid
Specific Physical Form:	Viscous
Odor, Color, Grade:	Red paste with slight ester odor
Odor threshold	*No Data Available*
pH	*No Data Available*
Melting point	*No Data Available*
Boiling Point	*No Data Available*

Flash Point	111 ºC [*Test Method:*Estimated]
Evaporation rate	*No Data Available*
Flammability (solid, gas)	Organic Peroxide: Type E.
Flammable Limits(LEL)	*Not Applicable*
Flammable Limits(UEL)	*Not Applicable*
Vapor Pressure	*Not Applicable*
Vapor Density	*Not Applicable*
Density	1.2 g/cm3
Specific Gravity	1.2 [@ 25 ºC] [*Ref Std:*WATER=1]
Solubility in Water	Negligible
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*No Data Available*
Decomposition temperature	*No Data Available*
Viscosity	*No Data Available*
Hazardous Air Pollutants	0 lb HAPS/lb solids [*Test Method:*Calculated]
Molecular weight	*Not Applicable*
Volatile Organic Compounds	0 g/l [*Test Method:*calculated SCAQMD rule 443.1]
Volatile Organic Compounds	0 % weight [*Test Method:*calculated per CARB title 2]
Percent volatile	20 % [*Details:*Water is the volatile component]
VOC Less H2O & Exempt Solvents	0 g/l [*Test Method:*calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Stable. Stable unless exposed to heat, flames and drying conditions.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Heat

10.5. Incompatible materials
Accelerators

10.6. Hazardous decomposition products

Substance	Condition
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:
May be harmful if inhaled. Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin Contact:
May be harmful in contact with skin.
Contact with the skin during product use is not expected to result in significant irritation. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:
Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE2,000 - 5,000 mg/kg
Overall product	Inhalation-Dust/Mist(4 hr)		No data available; calculated ATE5 - 12.5 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Benzoyl Peroxide	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Benzoyl Peroxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 24.3 mg/l
Benzoyl Peroxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Dermal	Rabbit	LD50 > 2,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Benzoic Acid, C9-11-Branched Alkyl Esters	Ingestion	Rat	LD50 > 5,000 mg/kg
Zinc Stearate	Dermal	Rabbit	LD50 > 2,000 mg/kg
Zinc Stearate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 50 mg/l
Zinc Stearate	Ingestion	Rat	LD50 > 5,000 mg/kg
Calcium Sulfate	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Dermal	Rabbit	LD50 > 16,960 mg/kg
Calcium Sulfate	Ingestion	Rat	LD50 > 5,000 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	LD50 4,240 mg/kg
Iron Oxide (FE2O3)	Dermal	Not	LD50 3,100 mg/kg

		available	
Iron Oxide (FE2O3)	Ingestion	Not available	LD50 3,700 mg/kg
Ferric Ammonium Ferrocyanide	Dermal		LD50 estimated to be > 5,000 mg/kg
Ferric Ferrocyanide	Dermal		LD50 estimated to be > 5,000 mg/kg
Ferric Ammonium Ferrocyanide	Ingestion	Rat	LD50 > 5,110 mg/kg
Ferric Ferrocyanide	Ingestion	Rat	LD50 > 8,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Minimal irritation
Zinc Stearate	Rabbit	No significant irritation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	Minimal irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Severe irritant
Zinc Stearate	Rabbit	No significant irritation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	No significant irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Benzoyl Peroxide	Guinea pig	Sensitizing
Iron Oxide (FE2O3)	Human	Some positive data exist, but the data are not sufficient for classification

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Benzoyl Peroxide	In Vitro	Not mutagenic
Benzoyl Peroxide	In vivo	Not mutagenic
Iron Oxide (FE2O3)	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Benzoyl Peroxide	Ingestion	Multiple animal species	Not carcinogenic
Benzoyl Peroxide	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	Not carcinogenic
Iron Oxide (FE2O3)	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Benzoyl Peroxide	Ingestion	Not toxic to female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation

Benzoyl Peroxide	Ingestion	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	premating & during gestation
Benzoyl Peroxide	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	premating & during gestation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 1 mg/l	2 weeks

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	endocrine system | hematopoietic system | liver | nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.005 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.001 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	heart	All data are negative	Rat	NOAEL 0.5 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 145 mg/kg/day	90 days
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	hematopoietic system	All data are negative	Rat	NOAEL 500 mg/kg/day	2 years
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	heart | endocrine system | respiratory system	All data are negative	Rat	NOAEL 3,770 mg/kg/day	90 days
Iron Oxide (FE2O3)	Inhalation	pulmonary fibrosis | pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure

Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations
Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - Yes Immediate Hazard - Yes Delayed Hazard - Yes

EPCRA 311/312 Hazard Classifications (effective January 1, 2018):

Physical Hazards
Organic peroxide

Health Hazards
Serious eye damage or eye irritation

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient	C.A.S. No	% by Wt
Zinc Stearate (ZINC COMPOUNDS)	557-05-1	3 - 7
Benzoyl Peroxide	94-36-0	Trade Secret 30 - 60
Ferric Ferrocyanide (CYANIDES)	14038-43-8	0 - 1

15.2. State Regulations
Contact 3M for more information.

15.3. Chemical Inventories
The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification
Health: 2 **Flammability:** 2 **Instability:** 1 **Special Hazards:** Oxidizer

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification
Health: 2 **Flammability:** 1 **Physical Hazard:** 1 **Personal Protection:** X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

Document Group:	29-5993-0	**Version Number:**	3.05
Issue Date:	04/04/17	**Supercedes Date:**	02/06/17

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued.3MMAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE.User is responsible for determining whether the3Mproduct is fit for a particular purpose and suitable for user's method of use or application.Given the variety of factors that can affect the use and application of a3Mproduct, some of which are uniquely within the user's knowledge and control,it is essential that the user evaluate the3Mproduct to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3Mprovides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information,3Mmakes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from3M

3M USA SDSs are available at www.3M.com

Safety Data Sheet

Document Group:	24-9280-9	**Version Number:**	3.00
Issue Date:	04/24/15	**Supercedes Date:**	08/17/11

Product identifier
3M™ BONDO® PROFESSIONAL GLAZING & SPOT PUTTY, 801

ID Number(s):

60-4550-5572-7

Recommended use
Automotive

Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive Aftermarket
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS), Article Information Sheet (AIS), or Article Information Letter (AIL) for each of these components is included. Please do not separate the component documents from this cover page. The document numbers for components of this product are:

24-4476-8, 24-2136-0

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M

3M USA SDSs are available at www.3M.com

Safety Data Sheet

Document Group:	24-4476-8	**Version Number:**	4.00
Issue Date:	04/23/15	**Supercedes Date:**	08/17/11

SECTION 1: Identification

1.1. Product identifier
3M™ BONDO® PROFESSIONAL GLAZING & SPOT PUTTY, 801

Product Identification Numbers
LB-K100-0425-9, 41-0003-6689-2

1.2. Recommended use and restrictions on use

Recommended use
Automotive, Auto Refinishing filler - Putty

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive Aftermarket
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification
Flammable Liquid: Category 3.
Serious Eye Damage/Irritation: Category 2B.
Carcinogenicity: Category 2.
Specific Target Organ Toxicity (single exposure): Category 1.
Specific Target Organ Toxicity (central nervous system): Category 3.
Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements
Signal word
Danger

Symbols

Flame | Exclamation mark | Health Hazard |

Pictograms

Hazard Statements
Flammable liquid and vapor.

Causes eye irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.

Causes damage to organs:
liver |
sensory organs |

Causes damage to organs through prolonged or repeated exposure:
respiratory system |
sensory organs |

May cause damage to organs through prolonged or repeated exposure:
liver |

Precautionary Statements
General:
Keep out of reach of children.

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/bond container and receiving equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Keep container tightly closed.
Use explosion-proof electrical/ventilating/lighting equipment.
Do not breathe dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wear protective gloves and eye/face protection.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.

Response:
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF exposed or concerned: Get medical advice/attention.
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:
Store in a well-ventilated place. Keep container tightly closed.
Keep cool.
Store locked up.

Disposal:
Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Hazards not otherwise classified
None.

26% of the mixture consists of ingredients of unknown acute oral toxicity.
26% of the mixture consists of ingredients of unknown acute dermal toxicity.
10% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Styrene Monomer	100-42-5	15 - 40 Trade Secret *
Talc	14807-96-6	10 - 30 Trade Secret *
Polyester Resin (Proprietary)	Trade Secret*	10 - 30 Trade Secret *
Limestone	1317-65-3	7 - 13 Trade Secret *
Titanium Dioxide	13463-67-7	5 - 10 Trade Secret *
Oxide Glass Chemicals	65997-17-3	5 - 10 Trade Secret *
Synthetic Crystalline-Free Silica Gel	112926-00-8	1 - 5 Trade Secret *
Light Aromatic Solvent Naphtha (Petroleum)	64742-95-6	<= 0.1 Trade Secret *
1,4-Naphthalenedione	130-15-4	< 0.1 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:
Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

If Swallowed:
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode.

5.3. Special protective actions for fire-fighters
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Contain spill. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid breathing of dust created by cutting, sanding, grinding or machining. Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (gloves, respirators, etc.) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Styrene Monomer	100-42-5	ACGIH	TWA:20 ppm;STEL:40 ppm	A4: Not class. as human carcin
Styrene Monomer	100-42-5	OSHA	TWA:100 ppm;CEIL:200 ppm	
SILICA, AMORPHOUS	112926-00-8	OSHA	TWA concentration:0.8 mg/m3;TWA:20 millions of particles/cu. ft.	
Limestone	1317-65-3	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Titanium Dioxide	13463-67-7	OSHA	TWA(as total dust):15 mg/m3	
Titanium Dioxide	13463-67-7	ACGIH	TWA:10 mg/m3	A4: Not class. as human carcin
Titanium Dioxide	13463-67-7	CMRG	TWA(as respirable dust):5 mg/m3	
Talc	14807-96-6	OSHA	TWA concentration(as total dust):0.3 mg/m3;TWA concentration(respirable):0.1 mg/m3(2.4 millions of particles/cu. ft.);TWA:20 millions of particles/cu. ft.	
Talc	14807-96-6	ACGIH	TWA(respirable fraction):2 mg/m3	A4: Not class. as human carcin
Talc	14807-96-6	CMRG	TWA(as respirable dust):0.5 mg/m3	
Light Aromatic Solvent Naphtha (Petroleum)	64742-95-6	CMRG	TWA:50 ppm(245 mg/m3)	
Oxide Glass Chemicals	65997-17-3	Manufacturer determined	TWA(as dust):10 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect Vented Goggles

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
Gloves made from the following material(s) are recommended: Nitrile Rubber

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Liquid
Odor, Color, Grade:	Strong Solvent Odor White paste
Odor threshold	*No Data Available*
pH	*No Data Available*
Melting point	*No Data Available*
Boiling Point	293 ºF
Flash Point	88 ºF [*Test Method:* Closed Cup]
Evaporation rate	0.1 - 0.5 [*Ref Std:* BUOAC=1]
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	*No Data Available*
Flammable Limits(UEL)	*No Data Available*
Vapor Pressure	4.5 mmHg
Vapor Density	3.6000 [*Ref Std:* AIR=1]
Density	1.02 g/ml
Specific Gravity	1.02 [*Ref Std:* WATER=1]
Solubility in Water	Nil
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*No Data Available*
Decomposition temperature	*No Data Available*
Hazardous Air Pollutants	0.58 lb HAPS/lb solids [*Test Method:* Calculated]
Volatile Organic Compounds	277 g/l [*Test Method:* calculated SCAQMD rule 443.1]
Volatile Organic Compounds	27.1 % weight [*Test Method:* calculated per CARB title 2]
Percent volatile	27.3 % weight
VOC Less H2O & Exempt Solvents	277 g/l [*Test Method:* calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Sparks and/or flames

10.5. Incompatible materials
Strong acids
Strong oxidizing agents
Alkali and alkaline earth metals

10.6. Hazardous decomposition products

Substance	Condition
Hydrocarbons	Not Specified
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:
May be harmful if inhaled.
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

Skin Contact:
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Eye Contact:
Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Dust created by cutting, grinding, sanding, or machining may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion:
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:
Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause target organ effects:
Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

Ocular Effects: Signs/symptoms may include blurred or significantly impaired vision.

Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Carcinogenicity:
Contains a chemical or chemicals which can cause cancer.

Ingredient	CAS No.	Class Description	Regulation
Styrene Monomer	100-42-5	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Styrene Monomer	100-42-5	Anticipated human carcinogen	National Toxicology Program Carcinogens
Titanium Dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE > 5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE 20 - 50 mg/l
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Styrene Monomer	Dermal	Rat	LD50 > 2,000 mg/kg
Styrene Monomer	Inhalation-Vapor (4 hours)	Rat	LC50 8.3 mg/l
Styrene Monomer	Ingestion	Rat	LD50 5,000 mg/kg
Talc	Dermal		LD50 Not available
Talc	Ingestion		LD50 Not available
Limestone	Dermal	Rat	LD50 > 2,000 mg/kg
Limestone	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3.0 mg/l
Limestone	Ingestion	Rat	LD50 6,450 mg/kg
Titanium Dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium Dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium Dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Oxide Glass Chemicals	Dermal		LD50 estimated to be > 5,000 mg/kg
Oxide Glass Chemicals	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg

Synthetic Crystalline-Free Silica Gel	Dermal	Rabbit	LD50 > 5,000 mg/kg
Synthetic Crystalline-Free Silica Gel	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Synthetic Crystalline-Free Silica Gel	Ingestion	Rat	LD50 > 5,110 mg/kg
Light Aromatic Solvent Naphtha (Petroleum)	Dermal	Rabbit	LD50 > 2,000 mg/kg
Light Aromatic Solvent Naphtha (Petroleum)	Inhalation-Vapor (4 hours)	Rat	LC50 > 5.2 mg/l
Light Aromatic Solvent Naphtha (Petroleum)	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Styrene Monomer	official classification	Mild irritant
Talc	Rabbit	No significant irritation
Limestone	Rabbit	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation
Oxide Glass Chemicals	Professional judgement	No significant irritation
Synthetic Crystalline-Free Silica Gel	Rabbit	No significant irritation
Light Aromatic Solvent Naphtha (Petroleum)	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
Styrene Monomer	official classification	Moderate irritant
Talc	Rabbit	No significant irritation
Limestone	Rabbit	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation
Oxide Glass Chemicals	Professional judgement	No significant irritation
Synthetic Crystalline-Free Silica Gel	Rabbit	No significant irritation
Light Aromatic Solvent Naphtha (Petroleum)	Rabbit	Mild irritant

Skin Sensitization

Name	Species	Value
Styrene Monomer	Guinea pig	Not sensitizing
Titanium Dioxide	Human and animal	Not sensitizing
Synthetic Crystalline-Free Silica Gel	Human and animal	Not sensitizing
Light Aromatic Solvent Naphtha (Petroleum)	Guinea pig	Not sensitizing

Respiratory Sensitization

Name	Species	Value
Talc	Human	Not sensitizing

Germ Cell Mutagenicity

Name	Route	Value

Styrene Monomer	In Vitro	Some positive data exist, but the data are not sufficient for classification
Styrene Monomer	In vivo	Some positive data exist, but the data are not sufficient for classification
Talc	In Vitro	Not mutagenic
Talc	In vivo	Not mutagenic
Titanium Dioxide	In Vitro	Not mutagenic
Titanium Dioxide	In vivo	Not mutagenic
Oxide Glass Chemicals	In Vitro	Some positive data exist, but the data are not sufficient for classification
Synthetic Crystalline-Free Silica Gel	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Styrene Monomer	Ingestion	Mouse	Carcinogenic
Styrene Monomer	Inhalation	Human and animal	Carcinogenic
Talc	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Titanium Dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium Dioxide	Inhalation	Rat	Carcinogenic
Oxide Glass Chemicals	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Synthetic Crystalline-Free Silica Gel	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
Light Aromatic Solvent Naphtha (Petroleum)	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Styrene Monomer	Ingestion	Not toxic to female reproduction	Rat	NOAEL 21 mg/kg/day	3 generation
Styrene Monomer	Inhalation	Not toxic to female reproduction	Rat	NOAEL 2.1 mg/l	2 generation
Styrene Monomer	Inhalation	Not toxic to male reproduction	Rat	NOAEL 2.1 mg/l	2 generation
Styrene Monomer	Ingestion	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 400 mg/kg/day	60 days
Styrene Monomer	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 400 mg/kg/day	during gestation
Styrene Monomer	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 2.1 mg/l	during gestation
Talc	Ingestion	Not toxic to development	Rat	NOAEL 1,600 mg/kg	during organogenesis
Limestone	Ingestion	Not toxic to development	Rat	NOAEL 625 mg/kg/day	premating & during gestation
Synthetic Crystalline-Free Silica Gel	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Synthetic Crystalline-Free Silica Gel	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Synthetic Crystalline-Free Silica Gel	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Light Aromatic Solvent Naphtha	Inhalation	Not toxic to female reproduction	Rat	NOAEL	2 generation

(Petroleum)				1,500 ppm	
Light Aromatic Solvent Naphtha (Petroleum)	Inhalation	Not toxic to male reproduction	Rat	NOAEL 1,500 ppm	2 generation
Light Aromatic Solvent Naphtha (Petroleum)	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 500 ppm	2 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Styrene Monomer	Inhalation	auditory system	Causes damage to organs	Multiple animal species	LOAEL 4.3 mg/l	not available
Styrene Monomer	Inhalation	liver	Causes damage to organs	Mouse	LOAEL 2.1 mg/l	not available
Styrene Monomer	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	occupational exposure
Styrene Monomer	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
Styrene Monomer	Inhalation	endocrine system	All data are negative	Rat	NOAEL Not available	not available
Styrene Monomer	Inhalation	kidney and/or bladder	All data are negative	Multiple animal species	NOAEL 2.1 mg/l	not available
Limestone	Inhalation	respiratory system	All data are negative	Rat	NOAEL 0.812 mg/l	90 minutes
Light Aromatic Solvent Naphtha (Petroleum)	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Light Aromatic Solvent Naphtha (Petroleum)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Professional judgement	NOAEL Not available	
Light Aromatic Solvent Naphtha (Petroleum)	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Styrene Monomer	Inhalation	eyes	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Styrene Monomer	Inhalation	auditory system	May cause damage to organs though prolonged or repeated exposure	Multiple animal species	NOAEL 1.3 mg/l	not available
Styrene Monomer	Inhalation	liver	May cause damage to organs though prolonged or repeated exposure	Mouse	LOAEL 0.85 mg/l	13 weeks
Styrene Monomer	Inhalation	nervous system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	LOAEL 1.1 mg/l	not available
Styrene Monomer	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.85 mg/l	7 days
Styrene Monomer	Inhalation	endocrine system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.6 mg/l	10 days
Styrene Monomer	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	LOAEL 0.09 mg/l	not available
Styrene Monomer	Inhalation	heart | bone, teeth,	All data are negative	Multiple	NOAEL 4.3	2 years

		nails, and/or hair | muscles | kidney and/or bladder		animal species	mg/l	
Styrene Monomer	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 500 mg/kg/day	8 weeks
Styrene Monomer	Ingestion	immune system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	not available
Styrene Monomer	Ingestion	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 677 mg/kg/day	6 months
Styrene Monomer	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 600 mg/kg/day	470 days
Styrene Monomer	Ingestion	heart | respiratory system	All data are negative	Rat	NOAEL 35 mg/kg/day	105 weeks
Talc	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Talc	Inhalation	pulmonary fibrosis | respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 18 mg/m3	113 weeks
Limestone	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Titanium Dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.010 mg/l	2 years
Titanium Dioxide	Inhalation	pulmonary fibrosis	All data are negative	Human	NOAEL Not available	occupational exposure
Oxide Glass Chemicals	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL not available	occupational exposure
Synthetic Crystalline-Free Silica Gel	Inhalation	respiratory system | silicosis	All data are negative	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

Name	Value
Light Aromatic Solvent Naphtha (Petroleum)	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical

substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

For Transport Information, please visit **http://3M.com/Transportinfo** or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient	C.A.S. No	% by Wt
Styrene Monomer	100-42-5	15 - 40

15.2. State Regulations

Contact 3M for more information.

California Proposition 65

Ingredient	C.A.S. No.	Classification
Titanium Dioxide	13463-67-7	Carcinogen

WARNING: This product contains a chemical known to the State of California to cause cancer.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification
Health: 2 **Flammability:** 3 **Instability:** 1 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include

the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Document Group:	24-4476-8	**Version Number:**	4.00
Issue Date:	04/23/15	**Supercedes Date:**	08/17/11

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M

3M USA SDSs are available at www.3M.com

Safety Data Sheet

Document Group:	24-2136-0	**Version Number:**	9.01
Issue Date:	08/22/17	**Supercedes Date:**	02/19/14

SECTION 1: Identification

1.1. Product identifier
3M™ Bondo Red Cream Hardener 307, 913, 913M, 913C, 913ES, 928, 928C, 9307, 7653079, 810505D, 510506D, 810507D

Product Identification Numbers
LB-K100-0415-4, LB-K100-0415-5, LB-K100-0415-6, LB-K100-0415-7, LB-K100-0540-4, LB-K100-1155-2, 41-0003-6615-7, 60-4550-4812-8, 60-4550-4999-3, 60-4550-5166-8, 60-4550-5582-6, 60-4550-5584-2, 60-4550-9184-7, 70-0080-0037-7, 70-0080-0039-3, 70-0080-0147-4, 70-0080-0164-9, 70-0080-0172-2, 70-0080-0173-0, 70-0080-0174-8, 70-0080-0704-2, 70-0080-0705-9, 70-0080-0706-7

1.2. Recommended use and restrictions on use

Recommended use
Automotive, Catalyst for Automotive Body Fillers

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive Aftermarket
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification
Organic Peroxide: Type E.
Serious Eye Damage/Irritation: Category 2A.
Skin Sensitizer: Category 1B.

2.2. Label elements
Signal word

Warning

Symbols
Flame | Exclamation mark |

Pictograms

Hazard Statements
Heating may cause a fire.

Causes serious eye irritation.
May cause an allergic skin reaction.

Precautionary Statements
General:
Keep out of reach of children.

Prevention:
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep away from clothing and other combustible materials.
Keep only in original container.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wear protective gloves and eye/face protection.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.

Response:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.

Storage:
Protect from sunlight.
Store at temperatures not exceeding 32C/90F. Keep cool.
Store away from other materials.

Disposal:
Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Hazards not otherwise classified

6% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Benzoyl Peroxide	94-36-0	30 - 60 Trade Secret *

Benzoic Acid, C9-11-Branched Alkyl Esters	131298-44-7	10 - 30 Trade Secret *
Water	7732-18-5	10 - 30 Trade Secret *
Zinc Stearate	557-05-1	3 - 7 Trade Secret *
Calcium Sulfate	7778-18-9	1 - 5 Trade Secret *
Iron Oxide (FE2O3)	1309-37-1	1 - 5 Trade Secret *
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	9038-95-3	1 - 5 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:
Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode. Part of the oxygen for combustion is supplied by the peroxide itself.

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Eliminate all ignition sources if safe to do so. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to

other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Collect as much of the spilled material as possible using non-sparking tools. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not use in a confined area with minimal air exchange. Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage including any incompatibilities
Protect from sunlight. Store away from heat. Store at temperatures not exceeding 32C/90F. Keep cool. Keep only in original container. Store away from other materials. Keep/store away from clothing and other combustible materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Iron Oxide (FE2O3)	1309-37-1	ACGIH	TWA(respirable fraction):5 mg/m3	A4: Not class. as human carcin
ROUGE	1309-37-1	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Iron Oxide (FE2O3)	1309-37-1	OSHA	TWA(as fume):10 mg/m3	
STEARATES	557-05-1	ACGIH	TWA(inhalable fraction):10 mg/m3;TWA(respirable fraction):3 mg/m3	A4: Not class. as human carcin
Zinc Stearate	557-05-1	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Calcium Sulfate	7778-18-9	ACGIH	TWA(inhalable fraction):10 mg/m3	
Calcium Sulfate	7778-18-9	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Benzoyl Peroxide	94-36-0	OSHA	TWA:5 mg/m3	
Benzoyl Peroxide	94-36-0	ACGIH	TWA:5 mg/m3	A4: Not class. as human carcin

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Provide ventilation adequate to maintain dust concentration below minimum explosive concentrations. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect Vented Goggles

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
Gloves made from the following material(s) are recommended: Nitrile Rubber

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron – Nitrile

Respiratory protection

Wear respiratory protection if ventilation is inadequate to prevent overexposure. An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Solid
Specific Physical Form:	Viscous
Odor, Color, Grade:	Red paste with slight ester odor
Odor threshold	*No Data Available*
pH	*No Data Available*
Melting point	*No Data Available*
Boiling Point	*No Data Available*
Flash Point	111 ºC [*Test Method:*Estimated]
Evaporation rate	*No Data Available*
Flammability (solid, gas)	Organic Peroxide: Type E.

Flammable Limits(LEL)	*Not Applicable*
Flammable Limits(UEL)	*Not Applicable*
Vapor Pressure	*Not Applicable*
Vapor Density	*Not Applicable*
Density	1.2 g/cm3
Specific Gravity	1.2 [@ 25 ºC] [*Ref Std:*WATER=1]
Solubility in Water	Negligible
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*No Data Available*
Decomposition temperature	*No Data Available*
Viscosity	*No Data Available*
Hazardous Air Pollutants	0 lb HAPS/lb solids [*Test Method:*Calculated]
Volatile Organic Compounds	0 g/l [*Test Method:*calculated SCAQMD rule 443.1]
Volatile Organic Compounds	0 % weight [*Test Method:*calculated per CARB title 2]
Percent volatile	20 % weight [*Details:*Water is the volatile component]
VOC Less H2O & Exempt Solvents	0 g/l [*Test Method:*calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Stable. Stable unless exposed to heat, flames and drying conditions.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Heat

10.5. Incompatible materials
Accelerators

10.6. Hazardous decomposition products

Substance	Condition
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin Contact:
May be harmful in contact with skin.
Contact with the skin during product use is not expected to result in significant irritation. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:
Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE2,000 - 5,000 mg/kg
Overall product	Inhalation-Dust/Mist(4 hr)		No data available; calculated ATE >12.5 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Benzoyl Peroxide	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Benzoyl Peroxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 24.3 mg/l
Benzoyl Peroxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Dermal	Rabbit	LD50 > 2,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Benzoic Acid, C9-11-Branched Alkyl Esters	Ingestion	Rat	LD50 > 5,000 mg/kg
Zinc Stearate	Dermal	Rabbit	LD50 > 2,000 mg/kg
Zinc Stearate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 50 mg/l
Zinc Stearate	Ingestion	Rat	LD50 > 5,000 mg/kg
Calcium Sulfate	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Dermal	Rabbit	LD50 > 16,960 mg/kg
Calcium Sulfate	Ingestion	Rat	LD50 > 5,000 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	LD50 4,240 mg/kg
Iron Oxide (FE2O3)	Dermal	Not available	LD50 3,100 mg/kg
Iron Oxide (FE2O3)	Ingestion	Not available	LD50 3,700 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Minimal irritation
Zinc Stearate	Rabbit	No significant irritation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	Minimal irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Severe irritant
Zinc Stearate	Rabbit	No significant irritation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	No significant irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Benzoyl Peroxide	Guinea pig	Sensitizing
Iron Oxide (FE2O3)	Human	Not classified

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Benzoyl Peroxide	In Vitro	Not mutagenic
Benzoyl Peroxide	In vivo	Not mutagenic
Iron Oxide (FE2O3)	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Benzoyl Peroxide	Ingestion	Multiple animal species	Not carcinogenic
Benzoyl Peroxide	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	Not carcinogenic
Iron Oxide (FE2O3)	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Benzoyl Peroxide	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Benzoyl Peroxide	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	premating & during gestation
Benzoyl Peroxide	Ingestion	Not classified for development	Rat	NOAEL 500 mg/kg/day	premating & during gestation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	Not classified for male reproduction	Rat	NOAEL 1 mg/l	2 weeks

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	nervous system	Not classified	Rat	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	endocrine system | hematopoietic system | liver | nervous system	Not classified	Rat	NOAEL 1 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 0.005 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	respiratory system	Not classified	Rat	LOAEL 0.001 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	heart	Not classified	Rat	NOAEL 0.5 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 145 mg/kg/day	90 days
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 500 mg/kg/day	2 years
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	heart | endocrine system | respiratory system	Not classified	Rat	NOAEL 3,770 mg/kg/day	90 days
Iron Oxide (FE2O3)	Inhalation	pulmonary fibrosis | pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure

Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional

fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities. This product has been classified on the basis that it is stable as sold. Material may become unstable if allowed to dry out. Classify appropriately before disposal.

SECTION 14: Transport Information

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations
Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - Yes Immediate Hazard - Yes Delayed Hazard - No

EPCRA 311/312 Hazard Classifications (effective January 1, 2018):

Physical Hazards
Organic peroxide

Health Hazards
Respiratory or Skin Sensitization
Serious eye damage or eye irritation

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient	C.A.S. No	% by Wt
Zinc Stearate (ZINC COMPOUNDS)	557-05-1	3 - 7
Benzoyl Peroxide	94-36-0	Trade Secret 30 - 60

15.2. State Regulations
Contact 3M for more information.

15.3. Chemical Inventories
The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

15.4. International Regulations
Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification
Health: 2 **Flammability:** 1 **Instability:** 1 **Special Hazards:** Oxidizer

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification
Health: 2 **Flammability:** 1 **Physical Hazard:** 1 **Personal Protection:** X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

Document Group:	24-2136-0	**Version Number:**	9.01
Issue Date:	08/22/17	**Supercedes Date:**	02/19/14

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued.3MMAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE.User is responsible for determining whether the3Mproduct is fit for a particular purpose and suitable for user's method of use or application.Given the variety of factors that can affect the use and application of a3Mproduct, some of which are uniquely within the user's knowledge and control,it is essential that the user evaluate the3Mproduct to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3Mprovides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information,3Mmakes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from3M

3M USA SDSs are available at www.3M.com

Safety Data Sheet

Document Group:	24-2136-0	**Version Number:**	9.01
Issue Date:	08/22/17	**Supercedes Date:**	02/19/14

SECTION 1: Identification

1.1. Product identifier
3M™ Bondo Red Cream Hardener 307, 913, 913M, 913C, 913ES, 928, 928C, 9307, 7653079, 810505D, 510506D, 810507D

Product Identification Numbers
LB-K100-0415-4, LB-K100-0415-5, LB-K100-0415-6, LB-K100-0415-7, LB-K100-0540-4, LB-K100-1155-2, 41-0003-6615-7, 60-4550-4812-8, 60-4550-4999-3, 60-4550-5166-8, 60-4550-5582-6, 60-4550-5584-2, 60-4550-9184-7, 70-0080-0037-7, 70-0080-0039-3, 70-0080-0147-4, 70-0080-0164-9, 70-0080-0172-2, 70-0080-0173-0, 70-0080-0174-8, 70-0080-0704-2, 70-0080-0705-9, 70-0080-0706-7

1.2. Recommended use and restrictions on use

Recommended use
Automotive, Catalyst for Automotive Body Fillers

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive Aftermarket
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification
Organic Peroxide: Type E.
Serious Eye Damage/Irritation: Category 2A.
Skin Sensitizer: Category 1B.

2.2. Label elements
Signal word

Warning

Symbols
Flame | Exclamation mark |

Pictograms

Hazard Statements
Heating may cause a fire.

Causes serious eye irritation.
May cause an allergic skin reaction.

Precautionary Statements
General:
Keep out of reach of children.

Prevention:
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep away from clothing and other combustible materials.
Keep only in original container.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wear protective gloves and eye/face protection.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.

Response:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.

Storage:
Protect from sunlight.
Store at temperatures not exceeding 32C/90F. Keep cool.
Store away from other materials.

Disposal:
Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Hazards not otherwise classified

6% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Benzoyl Peroxide	94-36-0	30 - 60 Trade Secret *

Benzoic Acid, C9-11-Branched Alkyl Esters	131298-44-7	10 - 30 Trade Secret *
Water	7732-18-5	10 - 30 Trade Secret *
Zinc Stearate	557-05-1	3 - 7 Trade Secret *
Calcium Sulfate	7778-18-9	1 - 5 Trade Secret *
Iron Oxide (FE2O3)	1309-37-1	1 - 5 Trade Secret *
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	9038-95-3	1 - 5 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:
Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode. Part of the oxygen for combustion is supplied by the peroxide itself.

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Eliminate all ignition sources if safe to do so. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to

other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Collect as much of the spilled material as possible using non-sparking tools. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not use in a confined area with minimal air exchange. Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage including any incompatibilities
Protect from sunlight. Store away from heat. Store at temperatures not exceeding 32C/90F. Keep cool. Keep only in original container. Store away from other materials. Keep/store away from clothing and other combustible materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Iron Oxide (FE2O3)	1309-37-1	ACGIH	TWA(respirable fraction):5 mg/m3	A4: Not class. as human carcin
ROUGE	1309-37-1	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Iron Oxide (FE2O3)	1309-37-1	OSHA	TWA(as fume):10 mg/m3	
STEARATES	557-05-1	ACGIH	TWA(inhalable fraction):10 mg/m3;TWA(respirable fraction):3 mg/m3	A4: Not class. as human carcin
Zinc Stearate	557-05-1	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Calcium Sulfate	7778-18-9	ACGIH	TWA(inhalable fraction):10 mg/m3	
Calcium Sulfate	7778-18-9	OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Benzoyl Peroxide	94-36-0	OSHA	TWA:5 mg/m3	
Benzoyl Peroxide	94-36-0	ACGIH	TWA:5 mg/m3	A4: Not class. as human carcin

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Provide ventilation adequate to maintain dust concentration below minimum explosive concentrations. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect Vented Goggles

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
Gloves made from the following material(s) are recommended: Nitrile Rubber

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron – Nitrile

Respiratory protection

Wear respiratory protection if ventilation is inadequate to prevent overexposure. An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Physical Form:	Solid
Specific Physical Form:	Viscous
Odor, Color, Grade:	Red paste with slight ester odor
Odor threshold	*No Data Available*
pH	*No Data Available*
Melting point	*No Data Available*
Boiling Point	*No Data Available*
Flash Point	111 ºC [*Test Method:*Estimated]
Evaporation rate	*No Data Available*
Flammability (solid, gas)	Organic Peroxide: Type E.

Flammable Limits(LEL)	*Not Applicable*
Flammable Limits(UEL)	*Not Applicable*
Vapor Pressure	*Not Applicable*
Vapor Density	*Not Applicable*
Density	1.2 g/cm3
Specific Gravity	1.2 [@ 25 ºC] [*Ref Std:*WATER=1]
Solubility in Water	Negligible
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*No Data Available*
Decomposition temperature	*No Data Available*
Viscosity	*No Data Available*
Hazardous Air Pollutants	0 lb HAPS/lb solids [*Test Method:*Calculated]
Volatile Organic Compounds	0 g/l [*Test Method:*calculated SCAQMD rule 443.1]
Volatile Organic Compounds	0 % weight [*Test Method:*calculated per CARB title 2]
Percent volatile	20 % weight [*Details:*Water is the volatile component]
VOC Less H2O & Exempt Solvents	0 g/l [*Test Method:*calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Stable. Stable unless exposed to heat, flames and drying conditions.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Heat

10.5. Incompatible materials
Accelerators

10.6. Hazardous decomposition products

Substance	Condition
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin Contact:
May be harmful in contact with skin.
Contact with the skin during product use is not expected to result in significant irritation. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:
Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE2,000 - 5,000 mg/kg
Overall product	Inhalation-Dust/Mist(4 hr)		No data available; calculated ATE >12.5 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Benzoyl Peroxide	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Benzoyl Peroxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 24.3 mg/l
Benzoyl Peroxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Dermal	Rabbit	LD50 > 2,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Benzoic Acid, C9-11-Branched Alkyl Esters	Ingestion	Rat	LD50 > 5,000 mg/kg
Zinc Stearate	Dermal	Rabbit	LD50 > 2,000 mg/kg
Zinc Stearate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 50 mg/l
Zinc Stearate	Ingestion	Rat	LD50 > 5,000 mg/kg
Calcium Sulfate	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Dermal	Rabbit	LD50 > 16,960 mg/kg
Calcium Sulfate	Ingestion	Rat	LD50 > 5,000 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	LD50 4,240 mg/kg
Iron Oxide (FE2O3)	Dermal	Not available	LD50 3,100 mg/kg
Iron Oxide (FE2O3)	Ingestion	Not available	LD50 3,700 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Minimal irritation
Zinc Stearate	Rabbit	No significant irritation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	Minimal irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Severe irritant
Zinc Stearate	Rabbit	No significant irritation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	No significant irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Benzoyl Peroxide	Guinea pig	Sensitizing
Iron Oxide (FE2O3)	Human	Not classified

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Benzoyl Peroxide	In Vitro	Not mutagenic
Benzoyl Peroxide	In vivo	Not mutagenic
Iron Oxide (FE2O3)	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Benzoyl Peroxide	Ingestion	Multiple animal species	Not carcinogenic
Benzoyl Peroxide	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	Not carcinogenic
Iron Oxide (FE2O3)	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Benzoyl Peroxide	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Benzoyl Peroxide	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	premating & during gestation
Benzoyl Peroxide	Ingestion	Not classified for development	Rat	NOAEL 500 mg/kg/day	premating & during gestation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	Not classified for male reproduction	Rat	NOAEL 1 mg/l	2 weeks

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	nervous system	Not classified	Rat	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	endocrine system | hematopoietic system | liver | nervous system	Not classified	Rat	NOAEL 1 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 0.005 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	respiratory system	Not classified	Rat	LOAEL 0.001 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	heart	Not classified	Rat	NOAEL 0.5 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 145 mg/kg/day	90 days
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 500 mg/kg/day	2 years
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	heart | endocrine system | respiratory system	Not classified	Rat	NOAEL 3,770 mg/kg/day	90 days
Iron Oxide (FE2O3)	Inhalation	pulmonary fibrosis | pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure

Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional

fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities. This product has been classified on the basis that it is stable as sold. Material may become unstable if allowed to dry out. Classify appropriately before disposal.

SECTION 14: Transport Information

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations
Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - Yes Immediate Hazard - Yes Delayed Hazard - No

EPCRA 311/312 Hazard Classifications (effective January 1, 2018):

Physical Hazards
Organic peroxide

Health Hazards
Respiratory or Skin Sensitization
Serious eye damage or eye irritation

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient	C.A.S. No	% by Wt
Zinc Stearate (ZINC COMPOUNDS)	557-05-1	3 - 7
Benzoyl Peroxide	94-36-0	Trade Secret 30 - 60

15.2. State Regulations
Contact 3M for more information.

15.3. Chemical Inventories
The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

15.4. International Regulations
Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification
Health: 2 **Flammability:** 1 **Instability:** 1 **Special Hazards:** Oxidizer

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification
Health: 2 **Flammability:** 1 **Physical Hazard:** 1 **Personal Protection:** X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

Document Group:	24-2136-0	**Version Number:**	9.01
Issue Date:	08/22/17	**Supercedes Date:**	02/19/14

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued.3MMAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE.User is responsible for determining whether the3Mproduct is fit for a particular purpose and suitable for user's method of use or application.Given the variety of factors that can affect the use and application of a3Mproduct, some of which are uniquely within the user's knowledge and control,it is essential that the user evaluate the3Mproduct to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3Mprovides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information,3Mmakes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from3M

3M USA SDSs are available at www.3M.com

GHS SAFETY DATA SHEET (SDS)

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

Product: AEROPOXY PH3660

PTM & W INDUSTRIES, INC. **PHONE NUMBER: (562) 946-4511**
10640 S. PAINTER AVE. ***CHEMICAL TRANSPORTATION EMERGENCY:***
SANTA FE SPRINGS, CA. 90670-4092 **CHEMTREC (800) 424-9300**

DATE OF PREPARATION: 4/30/2015 SUPERSEDES: 5/5/2014

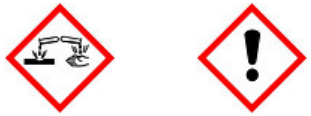
Product Type: Modified Amine Mixture

Product Use: Industrial Curing Agent supplied exclusively for workplace use.

Signal Word: Danger

Hazard Label(s):

Corrosive Irritant



Hazard statement(s):
H318: Causes serious eye damage. (Eye Dam. 1)
H302: Harmful if swallowed. (Acute Tox. 4 Oral)
H332: Harmful if inhaled. (Acute Tox. 4 Inhalation)
H317: May cause an allergic skin reaction. (Skin Sens. 1)

Precautionary statement(s):
P202: Do not handle until all safety precautions have been read and understood
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P270: Do not eat, drink or smoke when using this product.
P281: Use personal protective equipment as required.
P285: In case of inadequate ventilation wear respiratory protection.
P273: Avoid release to the environment.

SECTION 2 — HAZARD(S) IDENTIFICATION

NO.	CANCER	REPRO-TOX	TARGET ORGANS	ACGIH/TLV	OSHA/PEL
P	NO	NO	UNKNOWN	N.A.mg/M^3	N.A.mg/M^3

SECTION 3 — COMPOSITION / INFORMATION ON INGREDIENTS

UNDER GHS-OSHA §4.11 THE PRECISE COMPOSITION OF THIS PRODUCT IS WITHHELD AS CONFIDENTIAL BUSINESS INFORMATION (CBI). A MORE COMPLETE DISCLOSURE CAN BE PROVIDED TO A HEALTH, OR SAFETY PROFESSIONAL WHEN NECESSARY.

Substance/Mixture: Mixture

NO.	COMPONENT	CAS. NO.	PERCENT
P	MODIFIED AMINE MIXTURE	N.A.	< 100%

SECTION 4 — FIRST–AID MEASURES

EMERGENCY AND FIRST AID PROCEDURES:

- **EYES**: IMMEDIATELY FLUSH EYES WITH LARGE AMOUNTS OF WATER FOR 15 MINUTES. GET MEDICAL ATTENTION.
- **SKIN:** WASH AFFECTED AREA IMMEDIATELY WITH LARGE AMOUNTS OF SOAP AND WATER. REMOVE AND WASH CONTAMINATED CLOTHING BEFORE REUSE. CONTACT A PHYSICIAN IF IRRITATION OCCURS.
- **INHALATION:** REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION.
- **INGESTION:** DO NOT INDUCE VOMITING. GIVE LARGE QUANITIES OF WATER. CALL A PHYSICIAN IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

SECTION 5 — FIRE–FIGHTING MEASURES

FLASH POINT: ≥ 200ºF (FOR PRODUCT OR LOWEST FLASH POINT INGREDIENT)
FLAMMABILITY CLASSIFICATION: COMBUSTIBLE CLASS (IIIB)
EXTINGUISHING MEDIA: WATER FOG, DRY CHEMICAL, CARBON DIOXIDE, OR FOAM.
NOTE: EITHER ATMOSPHERE-SUPPLY OR AIR-PURIFYING RESPIRATORS SHOULD BE AVAILABLE FOR FIRE FIGHTERS (20 CFR 1910.134).

SECTION 6 — ACCIDENTAL RELEASE MEASURES

- **IF MATERIAL IS SPILLED:** AVOID CONTACT WITH MATERIAL. PERSONS NOT WEARING PROPER PROTECTIVE EQUIPMENT (SEE BELOW) SHOULD BE EXCLUDED FROM THE AREA UNTIL CLEAN UP IS COMPLETE. DIKE AREA TO PREVENT SPILL SPREADING AND SCOOP UP EXCESS TO RECOVERY CONTAINERS. ABSORB REMNANT ON NONCOMBUSTIBLE MATERIAL SUCH AS CLAY AND SHOVEL INTO CONTAINERS FOR DISPOSAL.
- **WASTE DISPOSAL METHOD:** DISPOSE OF ANY WASTE(S) GENERATED ABOVE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

SECTION 7 — HANDLING AND STORAGE

- AVOID SKIN AND EYE CONTACT.
- AVOID BREATHING VAPOR, MIST OR FUMES.
- ENSURE THAT ALL CONTAINERS ARE PROPERLY LABELED TO PREVENT ACCIDENTAL INGESTION OR IMPROPER DISPOSAL.
- RESEAL PARTLY USED CONTAINERS.
- WASH WITH SOAP AND WATER BEFORE EATING, DRINKING OR USING TOILET FACILITIES.
- STORE UNDER COOL, DRY CONDITIONS AND AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES.
- OBSERVE CONDITIONS OF GOOD INDUSTRIAL HYGIENE AND SAFE WORKING PRACTICE.

SECTION 8 — EXPOSURE CONTROLS/ PERSONAL PROTECTION

- **RESPIRATORY PROTECTION:** NOT NORMALLY NECESSARY UNLESS THE MATERIAL IS BEING USED IN SUCH A WAY AS TO PRODUCE DUST, MIST, VAPOR, FUMES, OR SMOKE, IN WHICH CASE NIOSH APPROVED RESPIRATORY PROTECTION SHOULD BE USED.
- **VENTILATION:** SHOULD BE SUFFICIENT TO CONTROL ANY DUST, MIST, VAPOR OR FUMES PRODUCED BY PROCESSING OR HANDLING METHOD. BREATHING OF VAPOR MUST BE AVOIDED.
- **HAND PROTECTION:** IMPERVIOUS GLOVES, NEOPRENE OR NILRILE RUBBER GLOVES.
- **EYE PROTECTION:** SPLASH PROOF GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS.
- **OTHER PROTECTIVE EQUIPMENT:** CLEAN, BODY COVERING CLOTHING AND FOOTWEAR.

SECTION 9 —PHYSICAL AND CHEMICAL PROPERTIES

- PHYSICAL STATE.....: LIQUID
- ODOR .....: AMMONIA LIKE
- COLOR .....: AMBER
- pH .....: ALKALINE
- SP. GR.....: 0.94
- DENSITY .....: 7.8 lbs. / gal.
- VAPOR PRESSURE.....: NEGLIGIBLE

NOTE: OTHER PROPERTIES ARE EITHER NOT AVAILABLE, OR DO NOT APPLY.

SECTION 10 — STABILITY AND REACTIVITY

- **STABILITY:** STABLE UNDER NORMAL STORAGE CONDITIONS. UNSTABLE AT ELEVATED TEMPERATURES. SLOWLY CORRODES COPPER, ALUMINUM, ZINC AND GALVANIZED SURFACES.
- **INCOMPATIBILITY:** STRONG OXIDIZING AGENTS, ORGANIC, LEWIS, OR MINERAL ACIDS, NITROUS ACID, SODIUM HYPOCHLORITE, AND PEROXIDES.
- **HAZARDOUS DECOMPOSITION PRODUCTS:** OXIDES OF CARBON AND NITROGEN, NITRIC ACID, NITROSOAMINE, AND OTHER UNKNOWN ORGANIC COMPOUNDS.

SECTION 11 — TOXICOLOGICAL INFORMATION

EFFECTS OF OVEREXPOSURE:

ACUTE:

- **EYES:** CAUSES SEVERE CONJUNCTIVAL IRRITATION, CORNEAL INJURY AND IRITIS.
- **SKIN:** MAY CAUSE IRRITATION, BURNS, ULCERATION, OR SKIN SENSITIZATION.
- **INHALATION:** VAPORS ARE IRRITATING AND MAY CAUSE TEARS, BURNING OF NOSE AND THROAT, COUGHING, WHEEZING, NAUSEA, AND VOMITING.
- **INGESTION:** MODERATELY TOXIC, MAY CAUSE MOUTH AND THROAT BURNS, ABDOMINAL PAIN, NAUSEA, VOMITING, WEAKNESS, THIRST, AND COMA.

CHRONIC:

- AMINE VAPORS MAY CAUSE LIVER & KIDNEY INJURY. EYE, SKIN OR LUNG DISORDERS MAY DEVELOP OR BE AGGRAVATED BY AMINES.

SECTION 12 — ECOLOGICAL INFORMATION

ECOTOXICITY EFFECTS:

- **AQUATIC TOXICITY:** NO DATA IS AVAILABLE ON THE PRODUCT ITSELF.
- **TOXICITY TO OTHER ORGANISMS:** NO DATA AVAILABLE.

PERSISTANCE AND DEGRADABILITY:

- **MOBILITY:** NO DATA IS AVAILABLE ON THE PRODUCT ITSELF.
- **BIOACCUMULATION:** NO DATA IS AVAILABLE ON THE PRODUCT ITSELF.

SECTION 13 — DISPOSAL CONSIDERATIONS

- **WASTE DISPOSAL METHOD:** DISPOSE OF WASTE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
- **CONTAINER DISPOSAL:** SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUE, ALL LABELED HAZARD PRECAUTIONS MUST BE OBSERVED. CONSULT WITH FEDERAL, STATE. AND LOCAL AUTHORITIES FOR DEFINITIONS OF “EMPTY” AND PROPER DISPOSAL PRACTICES.

SECTION 14 — TRANSPORT INFORMATION

- **U.S. Department of Transportation Ground (49 CFR)**

UN NUMBER.....: UN 1760
PROPER SHIPPING NAME.....: CORROSIVE LIQUID, N.O.S.
CONTAINS.....: MODIFIED AMINE MIXTURE
HAZARD CLASS.....: 8
PACKAGING GROUP.....: III

- **International Air Transportation (ICAO/IATA)**

UN NUMBER.....: UN 1760
PROPER SHIPPING NAME.....: CORROSIVE LIQUID, N.O.S.
CONTAINS.....: MODIFIED AMINE MIXTURE
HAZARD CLASS.....: 8
PACKAGING GROUP.....: III

- **Water Transportation (IMO/IMDG)**

UN NUMBER.....: UN 1760
PROPER SHIPPING NAME.....: CORROSIVE LIQUID, N.O.S.
CONTAINS.....: MODIFIED AMINE MIXTURE
HAZARD CLASS.....: 8
PACKAGING GROUP.....: III
MARINE POLLUTANT .....: NO

SECTION 15 — REGULATORY INFORMATION

A. CAL SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT OF 1986

NO.	CHEMICAL NAME	CAS. NO.	CANCER/REPRO.TOX	QUANTITY

THIS PRODUCT MAY CONTAIN TRACES OF PROP. 65 LISTED CHEMICALS AS IMPURITIES. HOWEVER, ANY USED AS INGREDIENTS ARE LISTED ABOVE.

B. CERCLA — §40 CFR 302.4

RELEASES EXCEEDING THE REPORTABLE QUANTITY **(RQ**) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER. (800)424-8802

RQ = 100 lbs. (UNLISTED HAZARDOUS WASTE — CHARACTERISTIC OF CORROSIVITY)

C. RCRA — §40 CFR 261.33

RQ = 1000 lbs. (UNLISTED CORROSIVE CONTENT > 10%)

D. SARA TITLE III — §52 CFR 13378, §52 CFR 21152

NO.	RQ (lbs.) (•1)	TPQ (lbs.) (•2)	SEC.313 (•3)	313 CAT. (•4)	311/312 (•5)
P	NONE	NOT LISTED	NOT LISTED	NONE	H1, H2

•1 = REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SEC. 302
•2 = THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SEC. 302
•3 = TOXIC CHEMICAL, SEC. 313 (INDIVIDUAL CHEMICAL LISTED)
•4 = TOXIC RELEASE INVENTORY FORM CATEGORY SEC. 313 (40 CFR 372.65 C)
•5 = HAZARD CATEGORY FOR SARA SEC. 311/312 REPORTING
H1 = IMMED. (ACUTE) HEALTH HAZARD **H2** = DELAYED (CHRONIC) HEALTH HAZARD
P3 = FIRE HAZARD **P4** = SUDDEN PRESSURE RELEASE HAZARD **P5** = REACTIVE HAZ.

E. VOC — SCAQMD RULES

NO.	CHEMICAL	QUANTITY	VP mm Hg	gms./l. @ 20ºC
	NIL			

NOTE: THIS PRODUCT DOES NOT CONTAIN SOLVENTS, BUT MAY CONTAIN INGREDIENTS WITH VP'S LOW ENOUGH TO BE EMITTED IF HEATED ALONE. WHEN 2 PART RESINS AND HARDENERS ARE PROPERLY MIXED TOGETHER THESE INGREDIENTS REACT TOGETHER AND ARE CONSUMED WITHOUT SIGNIFICANT ATMOSPHERIC EMISSIONS.

F. INTERNATIONAL CHEMICAL INVENTORY STATUS:

EINECS-EU	Listed, Exempted, Polymer substance, or as no longer polymer.
AICS-AUSTRALIA	All components are listed or exempted.
ENCS-JAPAN	All components are listed or exempted.
ISHL-JAPAN	All components are listed or exempted.
KECI/ECL-KOREA	All components are listed or exempted.
IECSC/SEPA-CHINA	All components are listed or exempted.
PICCS-PHILIPPINES	All components are listed or exempted.
DSL-CANADA	All components are listed or exempted.
TSCA-USA	All components are listed or exempted.

G. WHMIS (CANADA):

- WHMIS: D2B Materials Causing Other Toxic Effects –Toxic Material
- WHMIS: E — Corrosive Material

SECTION 16 — OTHER INFORMATION

HMIS III CODES:		RATINGS:	
HEALTH	= **3**	0 = MINIMAL	3 = SERIOUS
FLAMMABILITY	= **1**	1 = SLIGHT	4 = SEVERE
REACTIVITY	= **0**	2 = MODERATE	

⇒ PERSONAL PROTECTION RATING TO BE SUPPLIED BY USER DEPENDING ON CONDITIONS OF USE.

DATE OF PREPARATION: 4/30/2015 SUPERSEDES: 5/5/2014

We believe that the information contained herein is correct as of the date of this Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of this product are not within the control of PTM & W, it is the user's obligation to determine the conditions of safe use of the product.

PTM & W makes no warranty, expressed or implied regarding the accuracy of these data. PTM & W assumes no responsibility for injury from the use of the product described herein. Further, there are many international, federal, state, and local laws and regulations governing chemical products and as it is beyond the scope of this SDS to determine which of these apply, it is the responsibility of the user to determine how these affect their use of the product.

PTM&W assumes no obligation or liability for the information given, or results obtained, all such being given and accepted at users' risk.

Alteration of this document is strictly prohibited.

— END OF SDS —

GHS SAFETY DATA SHEET (SDS)

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

Product: AEROPOXY PH3665

PTM & W INDUSTRIES, INC. **PHONE NUMBER: (562) 946-4511**
10640 S. PAINTER AVE. ***CHEMICAL TRANSPORTATION EMERGENCY:***
SANTA FE SPRINGS, CA. 90670-4092 **CHEMTREC (800) 424-9300**

DATE OF PREPARATION: 4/30/2015 SUPERSEDES: 5/5/2014

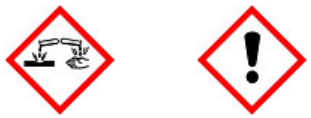
Product Type: Modified Amine Mixture

Product Use: Industrial Curing Agent supplied exclusively for workplace use.

Signal Word: Danger

Hazard Label(s):

Corrosive Irritant



Hazard statement(s):
H318: Causes serious eye damage. (Eye Dam. 1)
H302: Harmful if swallowed. (Acute Tox. 4 Oral)
H332: Harmful if inhaled. (Acute Tox. 4 Inhalation)
H317: May cause an allergic skin reaction. (Skin Sens. 1)

Precautionary statement(s):
P202: Do not handle until all safety precautions have been read and understood
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P270: Do not eat, drink or smoke when using this product.
P281: Use personal protective equipment as required.
P285: In case of inadequate ventilation wear respiratory protection.
P273: Avoid release to the environment.

SECTION 2 — HAZARD(S) IDENTIFICATION

NO.	CANCER	REPRO-TOX	TARGET ORGANS	ACGIH/TLV	OSHA/PEL
P	NO	NO	UNKNOWN	N.A.mg/M^3	N.A.mg/M^3

SECTION 3 — COMPOSITION / INFORMATION ON INGREDIENTS

UNDER GHS-OSHA §4.11 THE PRECISE COMPOSITION OF THIS PRODUCT IS WITHHELD AS CONFIDENTIAL BUSINESS INFORMATION (CBI). A MORE COMPLETE DISCLOSURE CAN BE PROVIDED TO A HEALTH, OR SAFETY PROFESSIONAL WHEN NECESSARY.

Substance/Mixture: Mixture

NO.	COMPONENT	CAS. NO.	PERCENT
P	MODIFIED AMINE MIXTURE	N.A.	< 100%

SECTION 4 — FIRST–AID MEASURES

EMERGENCY AND FIRST AID PROCEDURES:

- **EYES**: IMMEDIATELY FLUSH EYES WITH LARGE AMOUNTS OF WATER FOR 15 MINUTES. GET MEDICAL ATTENTION.
- **SKIN:** WASH AFFECTED AREA IMMEDIATELY WITH LARGE AMOUNTS OF SOAP AND WATER. REMOVE AND WASH CONTAMINATED CLOTHING BEFORE REUSE. CONTACT A PHYSICIAN IF IRRITATION OCCURS.
- **INHALATION:** REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION.
- **INGESTION:** DO NOT INDUCE VOMITING. GIVE LARGE QUANITIES OF WATER. CALL A PHYSICIAN IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

SECTION 5 — FIRE–FIGHTING MEASURES

FLASH POINT: ≥ 200ºF (FOR PRODUCT OR LOWEST FLASH POINT INGREDIENT)
FLAMMABILITY CLASSIFICATION: COMBUSTIBLE CLASS (IIIB)
EXTINGUISHING MEDIA: WATER FOG, DRY CHEMICAL, CARBON DIOXIDE, OR FOAM.
NOTE: EITHER ATMOSPHERE-SUPPLY OR AIR-PURIFYING RESPIRATORS SHOULD BE AVAILABLE FOR FIRE FIGHTERS (20 CFR 1910.134).

SECTION 6 — ACCIDENTAL RELEASE MEASURES

- **IF MATERIAL IS SPILLED:** AVOID CONTACT WITH MATERIAL. PERSONS NOT WEARING PROPER PROTECTIVE EQUIPMENT (SEE BELOW) SHOULD BE EXCLUDED FROM THE AREA UNTIL CLEAN UP IS COMPLETE. DIKE AREA TO PREVENT SPILL SPREADING AND SCOOP UP EXCESS TO RECOVERY CONTAINERS. ABSORB REMNANT ON NONCOMBUSTIBLE MATERIAL SUCH AS CLAY AND SHOVEL INTO CONTAINERS FOR DISPOSAL.
- **WASTE DISPOSAL METHOD:** DISPOSE OF ANY WASTE(S) GENERATED ABOVE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

SECTION 7 — HANDLING AND STORAGE

- AVOID SKIN AND EYE CONTACT.
- AVOID BREATHING VAPOR, MIST OR FUMES.
- ENSURE THAT ALL CONTAINERS ARE PROPERLY LABELED TO PREVENT ACCIDENTAL INGESTION OR IMPROPER DISPOSAL.
- RESEAL PARTLY USED CONTAINERS.
- WASH WITH SOAP AND WATER BEFORE EATING, DRINKING OR USING TOILET FACILITIES.
- STORE UNDER COOL, DRY CONDITIONS AND AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES.
- OBSERVE CONDITIONS OF GOOD INDUSTRIAL HYGIENE AND SAFE WORKING PRACTICE.

SECTION 8 — EXPOSURE CONTROLS/ PERSONAL PROTECTION

- **RESPIRATORY PROTECTION:** NOT NORMALLY NECESSARY UNLESS THE MATERIAL IS BEING USED IN SUCH A WAY AS TO PRODUCE DUST, MIST, VAPOR, FUMES, OR SMOKE, IN WHICH CASE NIOSH APPROVED RESPIRATORY PROTECTION SHOULD BE USED.
- **VENTILATION:** SHOULD BE SUFFICIENT TO CONTROL ANY DUST, MIST, VAPOR OR FUMES PRODUCED BY PROCESSING OR HANDLING METHOD. BREATHING OF VAPOR MUST BE AVOIDED.
- **HAND PROTECTION:** IMPERVIOUS GLOVES, NEOPRENE OR NILRILE RUBBER GLOVES.
- **EYE PROTECTION:** SPLASH PROOF GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS.
- **OTHER PROTECTIVE EQUIPMENT:** CLEAN, BODY COVERING CLOTHING AND FOOTWEAR.

SECTION 9 —PHYSICAL AND CHEMICAL PROPERTIES

- PHYSICAL STATE.....: LIQUID
- ODOR .....: AMMONIA LIKE
- COLOR .....: AMBER
- pH .....: ALKALINE
- SP. GR.....: 0.94
- DENSITY .....: 7.8 lbs. / gal.
- VAPOR PRESSURE.....: NEGLIGIBLE

NOTE: OTHER PROPERTIES ARE EITHER NOT AVAILABLE, OR DO NOT APPLY.

SECTION 10 — STABILITY AND REACTIVITY

- **STABILITY:** STABLE UNDER NORMAL STORAGE CONDITIONS. UNSTABLE AT ELEVATED TEMPERATURES. SLOWLY CORRODES COPPER, ALUMINUM, ZINC AND GALVANIZED SURFACES.
- **INCOMPATIBILITY:** STRONG OXIDIZING AGENTS, ORGANIC, LEWIS, OR MINERAL ACIDS, NITROUS ACID, SODIUM HYPOCHLORITE, AND PEROXIDES.
- **HAZARDOUS DECOMPOSITION PRODUCTS:** OXIDES OF CARBON AND NITROGEN, NITRIC ACID, NITROSOAMINE, AND OTHER UNKNOWN ORGANIC COMPOUNDS.

SECTION 11 — TOXICOLOGICAL INFORMATION

EFFECTS OF OVEREXPOSURE:

ACUTE:

- **EYES:** CAUSES SEVERE CONJUNCTIVAL IRRITATION, CORNEAL INJURY AND IRITIS.
- **SKIN:** MAY CAUSE IRRITATION, BURNS, ULCERATION, OR SKIN SENSITIZATION.
- **INHALATION:** VAPORS ARE IRRITATING AND MAY CAUSE TEARS, BURNING OF NOSE AND THROAT, COUGHING, WHEEZING, NAUSEA, AND VOMITING.
- **INGESTION:** MODERATELY TOXIC, MAY CAUSE MOUTH AND THROAT BURNS, ABDOMINAL PAIN, NAUSEA, VOMITING, WEAKNESS, THIRST, AND COMA.

CHRONIC:

- AMINE VAPORS MAY CAUSE LIVER & KIDNEY INJURY. EYE, SKIN OR LUNG DISORDERS MAY DEVELOP OR BE AGGRAVATED BY AMINES.

SECTION 12 — ECOLOGICAL INFORMATION

ECOTOXICITY EFFECTS:

- **AQUATIC TOXICITY:** NO DATA IS AVAILABLE ON THE PRODUCT ITSELF.
- **TOXICITY TO OTHER ORGANISMS:** NO DATA AVAILABLE.

PERSISTANCE AND DEGRADABILITY:

- **MOBILITY:** NO DATA IS AVAILABLE ON THE PRODUCT ITSELF.
- **BIOACCUMULATION:** NO DATA IS AVAILABLE ON THE PRODUCT ITSELF.

SECTION 13 — DISPOSAL CONSIDERATIONS

- **WASTE DISPOSAL METHOD:** DISPOSE OF WASTE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
- **CONTAINER DISPOSAL:** SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUE, ALL LABELED HAZARD PRECAUTIONS MUST BE OBSERVED. CONSULT WITH FEDERAL, STATE. AND LOCAL AUTHORITIES FOR DEFINITIONS OF “EMPTY” AND PROPER DISPOSAL PRACTICES.

SECTION 14 — TRANSPORT INFORMATION

- **U.S. Department of Transportation Ground (49 CFR)**

UN NUMBER.....: UN 1760
PROPER SHIPPING NAME.....: CORROSIVE LIQUID, N.O.S.
CONTAINS.....: MODIFIED AMINE MIXTURE
HAZARD CLASS.....: 8
PACKAGING GROUP.....: III

- **International Air Transportation (ICAO/IATA)**

UN NUMBER.....: UN 1760
PROPER SHIPPING NAME.....: CORROSIVE LIQUID, N.O.S.
CONTAINS.....: MODIFIED AMINE MIXTURE
HAZARD CLASS.....: 8
PACKAGING GROUP.....: III

- **Water Transportation (IMO/IMDG)**

UN NUMBER.....: UN 1760
PROPER SHIPPING NAME.....: CORROSIVE LIQUID, N.O.S.
CONTAINS.....: MODIFIED AMINE MIXTURE
HAZARD CLASS.....: 8
PACKAGING GROUP.....: III
MARINE POLLUTANT .....: NO

SECTION 15 — REGULATORY INFORMATION

A. CAL SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT OF 1986

NO.	CHEMICAL NAME	CAS. NO.	CANCER/REPRO.TOX	QUANTITY

THIS PRODUCT MAY CONTAIN TRACES OF PROP. 65 LISTED CHEMICALS AS IMPURITIES. HOWEVER, ANY USED AS INGREDIENTS ARE LISTED ABOVE.

B. CERCLA — §40 CFR 302.4

RELEASES EXCEEDING THE REPORTABLE QUANTITY **(RQ**) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER. (800)424-8802

RQ = 100 lbs. (UNLISTED HAZARDOUS WASTE — CHARACTERISTIC OF CORROSIVITY)

C. RCRA — §40 CFR 261.33

RQ = 1000 lbs. (UNLISTED CORROSIVE CONTENT > 10%)

D. SARA TITLE III — §52 CFR 13378, §52 CFR 21152

NO.	RQ (lbs.) (•1)	TPQ (lbs.) (•2)	SEC.313 (•3)	313 CAT. (•4)	311/312 (•5)
P	NONE	NOT LISTED	NOT LISTED	NONE	H1, H2

•1 = REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SEC. 302
•2 = THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SEC. 302
•3 = TOXIC CHEMICAL, SEC. 313 (INDIVIDUAL CHEMICAL LISTED)
•4 = TOXIC RELEASE INVENTORY FORM CATEGORY SEC. 313 (40 CFR 372.65 C)
•5 = HAZARD CATEGORY FOR SARA SEC. 311/312 REPORTING
H1 = IMMED. (ACUTE) HEALTH HAZARD **H2** = DELAYED (CHRONIC) HEALTH HAZARD
P3 = FIRE HAZARD **P4** = SUDDEN PRESSURE RELEASE HAZARD **P5** = REACTIVE HAZ.

E. VOC — SCAQMD RULES

NO.	CHEMICAL	QUANTITY	VP mm Hg	gms./l. @ 20ºC
	NIL			

NOTE: THIS PRODUCT DOES NOT CONTAIN SOLVENTS, BUT MAY CONTAIN INGREDIENTS WITH VP'S LOW ENOUGH TO BE EMITTED IF HEATED ALONE. WHEN 2 PART RESINS AND HARDENERS ARE PROPERLY MIXED TOGETHER THESE INGREDIENTS REACT TOGETHER AND ARE CONSUMED WITHOUT SIGNIFICANT ATMOSPHERIC EMISSIONS.

F. INTERNATIONAL CHEMICAL INVENTORY STATUS:

EINECS-EU	Listed, Exempted, Polymer substance, or as no longer polymer.
AICS-AUSTRALIA	All components are listed or exempted.
ENCS-JAPAN	All components are listed or exempted.
ISHL-JAPAN	All components are listed or exempted.
KECI/ECL-KOREA	All components are listed or exempted.
IECSC/SEPA-CHINA	All components are listed or exempted.
PICCS-PHILIPPINES	All components are listed or exempted.
DSL-CANADA	All components are listed or exempted.
TSCA-USA	All components are listed or exempted.

G. WHMIS (CANADA):

- WHMIS: D2B Materials Causing Other Toxic Effects –Toxic Material
- WHMIS: E — Corrosive Material

SECTION 16 — OTHER INFORMATION

HMIS III CODES:		RATINGS:	
HEALTH	= **3**	0 = MINIMAL	3 = SERIOUS
FLAMMABILITY	= **1**	1 = SLIGHT	4 = SEVERE
REACTIVITY	= **0**	2 = MODERATE	

⇒ PERSONAL PROTECTION RATING TO BE SUPPLIED BY USER DEPENDING ON CONDITIONS OF USE.

DATE OF PREPARATION: 4/30/2015 SUPERSEDES: 5/5/2014

We believe that the information contained herein is correct as of the date of this Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of this product are not within the control of PTM & W, it is the user's obligation to determine the conditions of safe use of the product.

PTM & W makes no warranty, expressed or implied regarding the accuracy of these data. PTM & W assumes no responsibility for injury from the use of the product described herein. Further, there are many international, federal, state, and local laws and regulations governing chemical products and as it is beyond the scope of this SDS to determine which of these apply, it is the responsibility of the user to determine how these affect their use of the product.

PTM&W assumes no obligation or liability for the information given, or results obtained, all such being given and accepted at users' risk.

Alteration of this document is strictly prohibited.

— END OF SDS —

MATERIAL SAFETY DATA SHEET

SECTION I — PRODUCT INFORMATION

AEROPOXY PR2032

PTM & W INDUSTRIES, INC. **PHONE NUMBER: (562)946-4511**
10640 S. PAINTER AVE. ***CHEMICAL TRANSPORTATION EMERGENCY:***
SANTA FE SPRINGS, CA. 90670-4092 **CHEMTREC (800) 424-9300**

DATE OF PREPARATION: 2/9/2007 SUPERSEDES: 6/7/2006

PROPER SHIPPING NAME .... : Plastic Material liquid, N.O.I.
CONTAINS ..... : NOT REGULATED
HAZARD CLASS..... : N.A.
UN NUMBER ..... : N.A.
PACKAGING GROUP..... : N.A.
HAZARD LABEL(S) ..... : N.A.

HMIS CODES: RATINGS:
HEALTH..... = 2 0 = MINIMAL 3 = SERIOUS
FLAMMABILITY ..... = 1 1 = SLIGHT 4 = SEVERE
REACTIVITY..... = 0 2 = MODERATE

⇒ PERSONAL PROTECTION RATING TO BE SUPPLIED BY USER DEPENDING ON USE CONDITIONS.

SECTION II — PRODUCT/COMPOSITION

THE PRECISE COMPOSITION OF THIS PRODUCT IS PRIVILEGED INFORMATION. A MORE COMPLETE DISCLOSURE CAN BE PROVIDED TO A HEALTH, SAFETY, OR REGULATORY PROFESSIONAL IF REQUIRED.

NO.	COMPONENT	CAS. NO.	PERCENT
1	MULTIFUNCTIONAL ACRYLATE	15625-89-5	< 0.8%

SECTION III — HAZARD STATUS

NO.	CANCER	REPRO-TOX	TARGET ORGANS	ACGIH/TLV	OSHA/PEL
1	NO	NO	UNKNOWN	N.A.mg/M^3	N.A.mg/M^3

SECTION IV — REGULATORY STATUS

A. CAL SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT OF 1986

NO.	CHEMICAL NAME	CAS. NO.	CANCER/REPRO.TOX	QUANTITY

THIS PRODUCT MAY CONTAIN TRACES OF, OR OTHER PROP. 65 LISTED CHEMICALS AS IMPURITIES. HOWEVER, NONE ARE USED AS INGREDIENTS.

B. CERCLA — 40 CFR 302

RELEASES EXCEEDING THE REPORTABLE QUANTITY **(RQ)** MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER. (800)424-8802

RQ NOT ESTABLISHED OR REQUIRED FOR THIS PRODUCT.

C. OSHA — 29 CFR 1910

ACCORDING TO OSHA CRITERIA THE FOLLOWING COMPONENT(S) ARE HAZARDOUS:

1	MULTIFUNCTIONAL ACRYLATE	15625-89-5	< 0.8%

D. RCRA — 40 CFR 261

NOT A HAZARDOUS WASTE BY RCRA CRITERIA (40CFR261.20-24).

E. SARA TITLE III — 52 CFR 13378, 52 CFR 21152

NO.	RQ(lbs.) (•1)	TPQ(lbs.) (•2)	SEC.313 (•3)	313 CAT. (•4)	311/312 (•5)
1	NONE	NOT LISTED	NOT LISTED	NONE	H1

OTHER SARA SUBSTANCE(S) IF PRESENT ARE ALL BELOW THE DE MINIMUS CONCENTRATION(S).

•1 = REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SEC. 302
•2 = THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SEC. 302
•3 = TOXIC CHEMICAL, SEC. 313 (INDIVIDUAL CHEMICAL LISTED)
•4 = TOXIC RELEASE INVENTORY FORM CATEGORY SEC. 313 (40 CFR 372.65 C)
•5 = HAZARD CATEGORY FOR SARA SEC. 311/312 REPORTING
H1 = IMMED. (ACUTE) HEALTH HAZARD **H2** = DELAYED (CHRONIC) HEALTH HAZARD
P3 = FIRE HAZARD **P4** = SUDDEN PRESSURE RELEASE HAZARD **P5** = REACTIVE HAZ.

F. TSCA — 44 CFR 59764

ALL COMPONENTS LISTED.

G. VOC — SCAQMD RULES

NO.	CHEMICAL	QUANTITY	VP mm HG	gms./l. @ 20ºC
1	ACRYLIC MONOMER	0.8%	13.0	8

SECTION V — PHYSICAL DATA

PHYSICAL STATE .....: LIQUID
COLOR.....: AMBER
SP. GR. .....: 1.14
DENSITY.....: 9.5 lbs./gal.

SECTION VI — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT : ≅ 300°F (FOR PRODUCT OR LOWEST FLASH POINT INGREDIENT)
FLAMMABILITY CLASSIFICATION: COMBUSTIBLE CLASS (IIIB)
EXTINGUISHING MEDIA: WATER FOG, DRY CHEMICAL, CARBON DIOXIDE, OR FOAM.
NOTE: EITHER ATMOSPHERE-SUPPLY OR AIR-PURIFYING RESPIRATORS SHOULD BE AVAILABLE FOR FIRE FIGHTERS (20 CFR 1910.134).

SECTION VII — HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

ACUTE:

- **EYES:** PRODUCT IS MODERATELY IRRITATING TO THE EYES.
- **SKIN:** PRODUCT IS MODERATELY IRRITATING TO THE SKIN AND MAY CAUSE SKIN SENSITIZATION.
- **INHALATION:** BECAUSE OF ITS LOW VOLATILITY THIS PRODUCT IS NOT LIKELY TO BE AN INHALATION HAZARD.
- **INGESTION:** PRODUCT IS CONSIDERED TO HAVE A LOW ORDER OF ACUTE ORAL TOXICITY.

CHRONIC:

- NO SPECIFIC HAZARDS KNOWN TO PTM & W. PREXISTING EYE, SKIN OR LUNG DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

EMERGENCY AND FIRST AID PROCEDURES:

- **EYES**: IMMEDIATELY FLUSH EYES WITH LARGE AMOUNTS OF WATER FOR 15 MINUTES. GET MEDICAL ATTENTION.
- **SKIN:** WASH AFFECTED AREA IMMEDIATELY WITH LARGE AMOUNTS OF SOAP AND WATER. REMOVE AND WASH CONTAMINATED CLOTHING BEFORE REUSE. CONTACT A PHYSICIAN IF IRRITATION OCCURS.
- **INHALATION:** REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION.
- **INGESTION:** DO NOT INDUCE VOMITING. GIVE LARGE QUANTITIES OF WATER. CALL A PHYSICIAN IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

SECTION VIII — REACTIVITY DATA

- **STABILITY:** STABLE UNDER NORMAL STORAGE CONDITIONS. UNSTABLE AT ELEVATED TEMPERATURES.
- **INCOMPATIBILITY:** STRONG OXIDIZING AGENTS, STRONG LEWIS OR MINERAL ACIDS, AND STRONG MINERAL AND ORGANIC BASES / ESPECIALLY ALIPHATIC AMINES.
- **HAZARDOUS DECOMPOSITION PRODUCTS:** CARBON OXIDES, ALDEHYDES, ACIDS, PHENOLICS, AND OTHER UNKNOWN COMPOUNDS.

SECTION IX — SPILL OR LEAK PROCEDURES

- **IF MATERIAL IS SPILLED:** AVOID CONTACT WITH MATERIAL. PERSONS NOT WEARING PROPER PROTECTIVE EQUIPMENT (SEE BELOW) SHOULD BE EXCLUDED FROM THE AREA UNTIL CLEAN UP IS COMPLETE. DIKE AREA TO PREVENT SPILL SPREADING AND SCOOP UP EXCESS TO RECOVERY CONTAINERS. ABSORB REMNANT ON NONCOMBUSTIBLE MATERIAL SUCH AS CLAY AND SHOVEL INTO CONTAINERS FOR DISPOSAL.
- **WASTE DISPOSAL METHOD:** DISPOSE OF WASTE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

SECTION X — SPECIAL PROTECTION INFORMATION

- **RESPIRATORY PROTECTION:** NOT NORMALLY NECESSARY UNLESS THE MATERIAL IS BEING USED IN SUCH A WAY AS TO PRODUCE DUST, MIST, VAPOR, FUMES, OR SMOKE, IN WHICH CASE NIOSH APPROVED RESPIRATORY PROTECTION SHOULD BE USED.
- **VENTILATION:** SHOULD BE SUFFICIENT TO CONTROL ANY DUST, MIST, VAPOR OR FUMES PRODUCED BY PROCESSING OR HANDLING METHOD. BREATHING OF VAPOR MUST BE AVOIDED.
- **HAND PROTECTION:** IMPERVIOUS GLOVES, NEOPRENE OR RUBBER GLOVES.
- **EYE PROTECTION:** SPLASH PROOF GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS.
- **OTHER PROTECTIVE EQUIPMENT:** CLEAN, BODY COVERING CLOTHING AND FOOTWEAR.

SECTION XI — SPECIAL PRECAUTIONS

- AVOID SKIN AND EYE CONTACT.
- AVOID BREATHING VAPOR, MIST OR FUMES.
- ENSURE THAT ALL CONTAINERS ARE PROPERLY LABELED TO PREVENT ACCIDENTAL INGESTION OR IMPROPER DISPOSAL.
- RESEAL PARTLY USED CONTAINERS.
- WASH WITH SOAP AND WATER BEFORE EATING, DRINKING OR USING TOILET FACILITIES.
- STORE UNDER COOL, DRY CONDITIONS AND AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES.
- OBSERVE CONDITIONS OF GOOD INDUSTRIAL HYGIENE AND SAFE WORKING PRACTICE.

We believe that the information contained herein is correct as of the date of this Material Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of this product are not within the control of PTM & W, it is the user's obligation to determine the conditions of safe use of the product.

PTM & W makes no warranty, expressed or implied regarding the accuracy of these data. PTM & W assumes no responsibility for injury from the use of the product described herein. Further, there are many federal, state, and local laws and regulations governing chemical products and it is beyond the scope of this MSDS to determine which of these apply and it is the responsibility of the user to determine how these effect their use of the product.

SAFETY DATA SHEET

Stainless Steel Cleaner Polish

Section 1. Identification

GHS product identifier : Stainless Steel Cleaner Polish

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Supplier's details : Betco Corporation
1001 Brown Avenue
Toledo, OH 43607
www.betco.com
888-462-3826

Emergency telephone number (with hours of operation) : Chemtrec 800-424-9300 (24 Hour)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
ASPIRATION HAZARD - Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Extremely flammable aerosol.
May be fatal if swallowed and enters airways.

Precautionary statements

Prevention : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Pressurized container: Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source.

Response : IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.

Storage : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

CAS number : Not applicable.

Product code : 065

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated light	≥10 - <25	64742-47-8
propane	≥5 - <10	74-98-6
Petroleum gases, liquefied, sweetened	≥1 - <3	68476-86-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Section 4. First aid measures

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Distillates (petroleum), hydrotreated light	**ACGIH TLV (United States, 4/2014).** **Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
propane	**OSHA PEL 1989 (United States, 3/1989).** TWA: 1000 ppm 8 hours. TWA: 1800 mg/m³ 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 1000 ppm 10 hours. TWA: 1800 mg/m³ 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 1000 ppm 8 hours. TWA: 1800 mg/m³ 8 hours.

Section 8. Exposure controls/personal protection

Appropriate engineering controls : The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: safety glasses

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. < 1 hour (breakthrough time): disposable vinyl

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Personal protective equipment (Pictograms) :

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Clear.

Odor : Characteristic.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : Not available.

Flash point : Open cup: -104.4°C (-155.9°F)

Evaporation rate : Not available.

Section 9. Physical and chemical properties

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 0.948

Solubility : Very slightly soluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Aerosol product

Type of aerosol : Spray

Heat of combustion : 9.684 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Section 11. Toxicological information

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Distillates (petroleum), hydrotreated light	Category 3	Not applicable.	Narcotic effects
propane	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
Distillates (petroleum), hydrotreated light	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Routes of entry anticipated: Dermal, Inhalation.
Routes of entry not anticipated: Oral.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 11. Toxicological information

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Distillates (petroleum), hydrotreated light	Acute LC50 2200 µg/l Fresh water	Fish - Lepomis macrochirus	4 days

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
propane Petroleum gases, liquefied, sweetened	1.09 1.09	- -	low low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	1950	1950	1950	1950	1950	
UN proper shipping name	Aerosols	Aerosols	Aerosols	Aerosols	Aerosols	Not available.
Transport hazard class(es)	2.1 	2.1 	2.1 	2 	2.1 	2.1 
Packing group	-	-	-	-	-	-

Section 14. Transport information

Environmental hazards	No.	No.	No.	No.	No.	No.
Additional information	**Limited quantity** Yes.	-	-	**Tunnel code** (D)	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) PAIR**: Siloxanes and Silicones, di-Me

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

All components are listed or exempted.

Clean Air Act (CAA) 112 regulated flammable substances: butane; propane

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Distillates (petroleum), hydrotreated light	≥10 - <25	No.	No.	No.	Yes.	No.
propane	≥5 - <10	Yes.	Yes.	No.	Yes.	No.
Petroleum gases, liquefied, sweetened	≥1 - <3	Yes.	Yes.	No.	No.	Yes.

State regulations

Massachusetts : The following components are listed: BUTANE; PROPANE

New York : None of the components are listed.

New Jersey : The following components are listed: BUTANE; MINERAL OIL (UNTREATED and MILDLY TREATED); PROPANE

Section 15. Regulatory information

Pennsylvania : The following components are listed: BUTANE; PROPANE

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

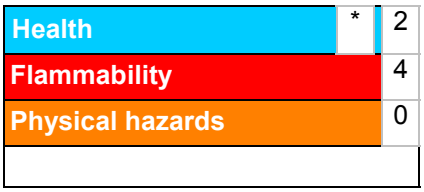
International lists

National inventory

Australia : All components are listed or exempted.
Canada : All components are listed or exempted.
China : All components are listed or exempted.
Europe : Not determined.
Japan : Not determined.
Malaysia : Not determined.
New Zealand : All components are listed or exempted.
Philippines : All components are listed or exempted.
Republic of Korea : All components are listed or exempted.
Taiwan : All components are listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
Flam. Aerosol 1, H222 Asp. Tox. 1, H304	Expert judgment Expert judgment

History

Date of printing : 4/9/2015.

Date of issue/Date of revision : 4/9/2015.

Date of previous issue : 4/9/2015.

Version : 2

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product name	**Never-Seez Regular Grade Cmpd.**
MSDS name	Never-Seez Regular Grade Compound Series
Product name(s) covered	See Section 16 for Product Names Covered.
CAS #	Mixture
Generic description	Miscellaneous
Manufacturer	Bostik, Inc. 211 Boston Street Middleton, MA 01949 USA
24 hour emergency assistance	Telephone: 1-800-227-0332
General assistance	Telephone: 1-978-777-0100
MSDS assistance	Telephone: 1-414-607-1347

2. Hazards Identification

Emergency overview	Irritating fumes and gases may be released upon thermal processing or during combustion. Extended contact with this material may cause irritation to the skin, eyes, and mucous membranes. Primary Routes of Exposure: eyes, skin, and inhalation.
Potential health effects	
Eyes	This product may cause irritation to the eyes.
Skin	This product may cause irritation to the skin. Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis.
Inhalation	Fumes released during thermal processing may irritate respiratory system, skin and eyes.
Ingestion	Ingestion may cause gastrointestinal tract discomfort or damage.
Target organs	Skin.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Copper Powder	7440-50-8	7 - 13
Aluminum	7429-90-5	1 - 5

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.
Skin contact	For minor exposures, wash thoroughly with soap and clean water. In situations involving considerable skin contact, place the contaminated person in a deluge shower for at least 15 minutes. Remove contaminated clothing to prevent further skin exposure and dispose of properly. Get medical attention if irritation persists.
Inhalation	Move person to non-contaminated air. If the affected person is not breathing, apply artificial respiration. Seek medical attention.
Ingestion	Do not induce vomiting. If person is conscious and can swallow, immediately give two glasses of water. Seek immediate medical attention. Do not give anything by mouth to an unconscious or convulsing person.
Notes to physician	Treat symptomatically and supportively. Contact Bostik to determine whether any additiona information is available.
General advice	Medical conditions aggravated by exposure to product include: dermatitis.
Medical conditions aggravated by exposure	Dermatitis.

5. Fire Fighting Measures

Extinguishing media	
Suitable extinguishing media	Use dry chemical, carbon dioxide, foam, or water spray (fog).
Fire fighting equipment/instructions	Firefighters should wear full protective clothing including self contained breathing apparatus.
Dust explosion hazard	None Known
Sensitivity to static discharge	None Known
Unusual fire & explosion hazards	Product may burn and produce toxic gases in a fire.
Flash point	475 °F (246.1 °C)

6. Accidental Release Measures

Emergency action	Appropriate safety measures and protective equipment should be used. See Section 8. Do not discharge to lakes, streams, ponds, or sewers. Dispose of in compliance with local, state, and federal regulations.
Environmental precautions	Prevent product from entering sewers and waterways.
Spill or leak procedure	Scrape up grease and deposit into appropriate containers for disposal.
Reporting	See Federal reporting requirements listed in Section 15. We recommend you contact local authorities to determine if there may be other local reporting requirements.

7. Handling and Storage

Handling	Wear appropriate protective equipment to avoid contact with skin and eyes. See Section 8.
Storage	Store in a clean, dry area. Keep containers closed.
Empty container precaution	Attention! Follow label warnings even after container is emptied since empty containers may retain product residues. Do not reuse empty container without professional cleaning for food, clothing, or products for human or animal consumption, or where skin contact can occur.

8. Exposure Controls / Personal Protection

Engineering controls	Ventilation is not normally required.
Personal protective equipment	
Eye protection	Wear safety glasses with side shields.
Skin and body protection	Wear protective impervious gloves to minimize skin exposure. Work clothing sufficient to prevent all skin contact should be worn, such as coveralls and long sleeves.
Respiratory protection	Not normally needed. Special applications may necessitate the use of more stringent respiratory protection equipment. When dusts or thermal processing fumes are generated and ventilation is not sufficient to effectively remove them, appropriate NIOSH/MSHA approved respiratory protection must be provided.

9. Physical & Chemical Properties

Target solids	100 %
Density	1.19 g/cc
Odor	Greaselike
Color	Silver - Gray
Physical state	Paste
Freeze protect	No

10. Chemical Stability & Reactivity Information

Hazardous reactions/decomposition products	If product is burned hazardous gases such as oxides of carbon and nitrogen and various hydrocarbons may be produced.
Hazardous polymerization	Will not occur.
Stability	Stable under normal conditions.

11. Toxicological Information

Chronic effects Chronic overexposure to the hazardous materials in this product has been associated with dermatitis.

Carcinogenicity If this product contains any carcinogens, they will be noted below:

12. Ecological Information

Ecotoxicological information No data available for this product.

13. Disposal Considerations

It is the obligation of each user of the product mentioned herein to determine and comply with the requirements of all applicable local, state and federal regulations.

Waste disposal Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. Be aware that State and Local requirements may differ widely depending on location and may in many cases be different from Federal rules.

14. Transport Information

DOT

Not regulated as hazardous goods.

IATA

Not regulated as hazardous goods.

IMDG

Basic shipping requirements:

Proper shipping name	Environmentally Hazardous Substances, Liquid, N.O.S., (COPPER)
Hazard class	9
UN number	UN3082
Packing group	III
Marine pollutant	Marine Pollutant

15. Regulatory Information

This MSDS is prepared and distributed pursuant to the Federal Hazard Communication Standard, 29 CFR 1910.1200.

Federal regulations All components are on the U.S. EPA TSCA Inventory List.

State regulations If this product contains any ingredients listed under California Proposition 65, they will be noted below:

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Lithium carbonate	554-13-2	Listed: January 1, 1991 Developmental toxin.

International regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and contains all the information required by the Controlled Products Regulations.

All components are included on the Canadian Domestic Substances List (DSL).

HMIS Ratings
Health: 1*
Flammability: 1
Physical hazard: 0
Personal protection: X

SARA 311/312 HAZARD CATEGORIES
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

WHMIS status Non-controlled

16. Other Information

Product name(s) covered	V047740 - NEV-SZ REG NS40 24/ 1/4LB CAN V048740 - NEV-SZ REG NS160 12/1LB CAN V052440 - NEV-SZ REG NS168 12/ 8LB CAN V054350 - NEV-SZ REG NS42B 42LB PL V056440 - NEV-SZ REG NSB16 12/1LB BT CAN V057640 - NEV-SZ REG NSBT8 8OZ BT CAN V057740 - NEV-SZ REG NSBT16 1LB BT CAN V057840 - NEV-SZ REG NSC1 1LB CTG V057940 - NEV-SZ REG NS10 150/1OZ TUBE V058240 - NEV-SZ REG NSB4 1/4LB TUBE V058650 - NEV-SZ REG NS130B 130LB DR V059052 - NEV-SZ REG NS425B 425LB DR V166252 - NEV-SZ REG NS425B W/LINER V332731 - NEV-SZ REG 7.5GR PP V435703 - NEV-SZ REG NSBT4 STD LBL
Disclaimer	The data in this MSDS has been compiled from publicly available sources. This data relates only to the designated product and not to the use of said product in combination with other materials. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Responsibility for proper precautions and safe use of the product lies with the user. All data in this MSDS is typical of the product as a whole, and does not represent any individual lot or batch, therefore, Bostik, Inc. makes no warranty about the accuracy of the data herein and assumes no liability for the use of such data. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.
Issue date	12/12/2008
Prepared by	Pam Larsen
Supercedes	10/03/2007
This data sheet contains changes from the previous version in section(s):	First Aid Measures: Ingestion Fire Fighting Measures: Suitable extinguishing media Toxicological Information: Carcinogenicity Regulatory Information: International regulations

RECKITT BENCKISER

Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name	**BRASSO® MULTI-PURPOSE METAL POLISH**
Product Description	Multi-purpose metal polish for cleaning and polishing brass, pewter, chrome, copper and stainless steel.
Manufacturer	Reckitt Benckiser North America, Inc. Morris Corporate Center IV 399 Interpace Parkway (P.O. Box 225) Parsippany, N.J. 07054-0225
Product Identifier	Not available.
Item Number	0024708

MSDS#	Not available.
Validation Date	**3/24/2005**
Print Date	3/24/2005

In case of Emergency:	Telephone: 800-228-4722
Transportation Emergencies:	Chemtrec: 1-800-424-9300 (U.S. & Canada) Outside the U.S & Canada (North America), call: 703-527-3887

Formula Number	1341-014 (0024708)
UPC Number	26600-06200 (8 oz.); 26600-76523 (8 oz.); 26600-05315 (1 gal.).

Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits : TLV/PEL
1) PETROLEUM DISTILLATE (STODDARD SOLVENT)	8052-41-3	25-30	TWA: 525 (mg/m^3) from ACGIH (TLV) [United States] TWA: 100 (ppm) from ACGIH (TLV) [United States] TWA: 2900 (mg/m^3) from OSHA (PEL) [United States] TWA: 500 (ppm) from OSHA (PEL) [United States]
2) DESULFURIZED PETROLEUM DISTILLATE	64742-81-0	30-35	Not available.
3) SILICA, CRYSTALLINE	14808-60-7	9-12	TWA: 0.1 (mg/m^3) from ACGIH (TLV) [United States] Respirable. TWA: 0.3 (mg/m^3) from OSHA (PEL) [United States] Respirable.
4) KAOLIN	1332-58-7	10-15	TWA: 5 (mg/m3) from OSHA (PEL) [United States] Respirable. TWA: 15 (mg/m3) from OSHA (PEL) [United States] Total Dust. TWA: 2 (mg/m3) from ACGIH (TLV) [United States] Respirable.
5) OLEIC ACID	112-80-1	7-10	Not available.
6) AMMONIUM HYDROXIDE	1336-21-6	2-3	Not available.

Section 3. Hazards Identification

Emergency Overview

DANGER: HARMFUL OR FATAL IF SWALLOWED. EYE AND SKIN IRRITANT. VAPORS HARMFUL IF INHALED. COMBUSTIBLE. Do not ingest. DO NOT inhale. DO NOT breathe dust from dried product. Use product in a well ventilated area. Keep away from heat, sparks and flame. Keep container closed when not in use. Contains petroleum distillates and silica.

KEEP OUT OF REACH OF CHILDREN.

Continued on Next Page

Section 4. First Aid Measures

Eye Contact	Immediately rinse eyes with water, remove any contact lenses, and continue rinsing eyes for fifteen minutes. Call a doctor or poison control center if symptoms persist.
Skin Contact	In case of skin contact, wash skin thoroughly with soap and water. If irritation persists, consult a physician.
Inhalation	Remove to fresh air. If irritation persists or there is any trouble breathing, get immediate medical attention.
Ingestion	If swallowed, DO NOT induce vomiting! Rinse mouth with water. IMMEDIATELY contact a physician or poison control center . NEVER give an unconscious person anything to ingest.

Section 5. Fire and Explosion Data

Flammability	Combustible. See Section 14 for any Shipping Classifications.
Flash Point	CLOSED CUP: 41.5°C (106.7°F). (Setaflash.)
Explosive Limits in Air	Not available.
Products of Combustion	Not available.
Fire and Explosion Hazards	Keep away from heat, sparks or open flame.
Fire Fighting Media and Instructions	Use water fog, foam, dry chemical or carbon dioxide. Product will float and can be reignited on surface of water.
Special Fire Fighting Instructions	The use of a direct stream of water can spread burning liquid. Wear self-contained breathing apparatus and full protective clothing appropriate for fighting a chemical fire.

Section 6. Accidental Release Measures

Accidental Spill	Small spills: Soak up with an inert absorbent material and dispose of in an appropriate waste container. Wipe surface residue with dry paper towels and discard into trash. Large spills should be diked, contained and collected for later disposal according to local, state or federal regulations.

Section 7. Handling and Storage

Handling and Storage	DANGER: HARMFUL OR FATAL IF SWALLOWED. EYE AND SKIN IRRITANT. VAPORS HARMFUL IF INHALED. COMBUSTIBLE. Do not ingest. DO NOT inhale. DO NOT breathe the dust from dried product. Use product in a well ventilated area. Keep away from heat, sparks and flame. Keep container closed when not in use. Contains petroleum distillates and silica. Store in an area inaccessable to children and pets. Close container after each use. KEEP OUT OF REACH OF CHILDREN.

Section 8. Exposure Controls/Personal Protection

Ventilation Requirements	None normally required. Use sufficient ventilation to keep hazardous ingredients below their Threshold Limit Values (see Section #2) during major spills, clean-up or fire operations.
Eye Protection	Avoid contact with eyes. Emergency responders should wear full eye and face protection.
Skin Protection	None required under normal use conditions. May cause mild skin irritation after prolonged or repeated use. Emergency responders should wear impermeable gloves.
Respiratory Protection	None required.
Other Protection	None required under normal use conditions. Emergency responders should wear impermeable clothing and footwear when responding to a situation where contact with the liquid is possible.
Work/Hygienic Practices	Wash thoroughly with soap and water after handling.

Continued on Next Page

Section 9. Physical and Chemical Properties

Description	Liquid. (Slightly viscous. Opaque liquid.)
pH	Not applicable.
Boiling/Condensation Point	82.22 - 93.33º C (180 - 200º F)
Specific Gravity	0.97 (Water = 1)
Vapor Pressure	Not available.
Vapor Density	Not available.
Viscosity	Not available.
Solubility	Insoluble.
Physical Chemical Comments	Not available.

Odor	Ammoniacal.
Color	Beige to Tan. (Light.)

Section 10. Stability and Reactivity Data

Chemical Stability	The product is stable.
Conditions of Instability	Keep away from heat and open flame.
Incompatibility with Various Substances	Strong oxidizing agents.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide and unidentified organic compounds.
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

Exposure effects

Eye Contact	Eye irritant.
Skin Contact	Skin irritant.
Inhalation	Harmful if inhaled.
Ingestion	May be harmful or fatal if swallowed.
Carcinogenicity	Respirable crystalline silica is designated as an IARC Group 1 carcinogen, NTP suspect carcinogen and OSHA suspect carcinogen. However, the silica present in this product is not in a respirable form, when used according to label directions.

Section 12. Ecological Information

Ecotoxicity	Not available.

Continued on Next Page

Section 13. Disposal Considerations

Waste Disposal	Dispose of in accordance with local, state and federal regulations.

Section 14. Transport Information

DOT Classification	Not regulated (Non Bulk Road / Rail) see 49 CFR 173.150 (f) (2) (3).
Proper Shipping Name	Not applicable.
DOT Identification Number	Not applicable.
Packing Group	Not applicable.
Maritime Transportation	Not applicable.
Hazardous Substances Reportable Quantity	Not applicable.
Special Provisions for Transport	IMDG / IMO: See IMDG Code and EMS = F-E, S-E. ICAO / IATA: See DG List.
TDG Classification	Not regulated (Non Bulk Road / Rail) see TDG Part 2.17.2 & Part 23.2.
ADR Classification	Not applicable.
IMDG Classification	UN 1993, Flammable Liquid, N.O.S. (Petroleum Distillate), Class 3, PG III, Limited Quantity.
IATA Classification	UN 1993, Flammable Liquid, N.O.S. (Petroleum Distillate), Class 3, PG III

Section 15. Regulatory Information

Federal and State Regulations

SARA Title III, Section 313 Toxic Chemical Notification & Release Reporting:

1) AMMONIUM HYDROXIDE	Not available.	2-3	Not avai

California Proposition 65: This product contains the following ingredients which require a warning under the Safe Drinking Water & Toxic Enforcement Act:

1) SILICA, CRYSTALLINE	Not available.	10.5	Not avai

Other Classifications

WHMIS (Canada) Not a WHMIS controlled product.

Section 16. Other Information

HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	2
Reactivity	0
Personal Protection	B

National Fire Protection Association (U.S.A.)

Health

Fire Hazard

Reactivity

Specific hazard

NFPA Aerosol Level Not applicable.

Validated by Product Safety on 3/24/2005.

Printed 3/24/2005.

Notice to Reader

Continued on Next Page

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : Derakane™ 8084
epoxy vinyl ester resin
™ Trademark, Ashland or its subsidiaries, registered in various countries

Recommended use of the chemical and restrictions on use

Use of the Substance/Mixture : Reserved for industrial and professional use.

Details of the supplier of the safety data sheet	**Emergency telephone number**
Ashland P.O. Box 2219 Columbus, OH 43216 United States of America EHS Customer Requests@ashland.com	1-800-ASHLAND (1-800-274-5263) **Regulatory Information Number** 1-800-325-3751 **Product Information** 614-790-3333

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids	:	Category 3
Combustible Dust	:	
Skin irritation	:	Category 2
Eye irritation	:	Category 2A
Specific target organ systemic toxicity - single exposure	:	Category 3 (Respiratory system)
Specific target organ systemic toxicity - repeated exposure (Inhalation)	:	Category 1 (Auditory system)

GHS Label element

Hazard pictograms :

Signal Word : Danger

Hazard Statements : Flammable liquid and vapor.
May form combustible dust concentrations in air.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
Causes damage to organs (Auditory system) through prolonged or repeated exposure if inhaled.

Precautionary Statements : **Prevention:**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/ eye protection/ face protection.
Response:
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Get medical advice/ attention if you feel unwell.
If skin irritation occurs: Get medical advice/ attention.
If eye irritation persists: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Storage:
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.
Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Static Accumulating liquid

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Static Accumulator

Chemical nature : Defatter

Hazardous components

Chemical Name	CAS-No.	Classification	Concentration (%)
STYRENE	100-42-5	Flam. Liq. 3; H226 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2A; H319 STOT SE 3; H335 STOT RE 1; H372 Asp. Tox. 1; H304	39.82

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Call a POISON CENTRE or doctor/physician if exposed or you feel unwell.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : Move to fresh air.
IF INHALED: Call a POISON CENTER or doctor/ physician if you feel unwell.
Keep patient warm and at rest.
If unconscious place in recovery position and seek medical advice.

In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.
If on skin, rinse well with water.
Wash contaminated clothing before re-use.

If on clothes, remove clothes.

In case of eye contact	:	Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye.
If swallowed	:	Obtain medical attention. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.
Most important symptoms and effects, both acute and delayed	:	Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways) confusion Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure if inhaled.
Notes to physician	:	No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray Foam Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	Organic dusts at sufficient concentration can form explosive mixtures in air. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Hydrocarbons carbon dioxide and carbon monoxide

Specific extinguishing methods :

Product is compatible with standard fire-fighting agents.

Further information : Do not use a solid water stream as it may scatter and spread fire.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Use a water spray to cool fully closed containers.

Polymerization will take place under fire conditions. If polymerization occurs in a closed container, there is a possibility it will rupture violently. Cool storage container with water, if exposed to fire.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Remove all sources of ignition.
Use personal protective equipment.
Ensure adequate ventilation.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Other information : Comply with all applicable federal, state, and local regulations.
Suppress (knock down) gases/vapours/mists with a water spray jet.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Open drum carefully as content may be under pressure.

Avoid formation of aerosol.
Provide sufficient air exchange and/or exhaust in work rooms.
Do not breathe vapours/dust.
Do not smoke.
Container hazardous when empty.
Take precautionary measures against static discharges.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
Dispose of rinse water in accordance with local and national regulations.
Secondary operations, such as grinding and sanding, may produce dust.
Maintain good housekeeping. Do not permit dust layers to accumulate, for example, on floors, ledges, and equipment, in order to avoid any potential for dust explosion hazards.

For further guidance on prevention of dust explosions, refer to National Fire Protection Association (NFPA) 654: “Standard for the Prevention of Fire and Dust Explosions, from the Manufacturing, Processing and Handling of Combustible Particulate Solids”.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
No smoking.
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
STYRENE	100-42-5	TWA	20 ppm	ACGIH
		STEL	40 ppm	ACGIH
		REL	50 ppm 215 mg/m3	NIOSH/GUIDE
		STEL	100 ppm 425 mg/m3	NIOSH/GUIDE
		TWA	100 ppm	OSHA/Z2
		Ceiling	200 ppm	OSHA/Z2

	MAX. CONC	600 ppm	OSHA/Z2	

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
STYRENE	100-42-5	styrene	Venous blood	Sampling time: End of shift.	0.2 mg/l	
Remarks:	Semi-quantitative					
		Mandelic acid plus phenylglyoxylic acid	Creatinine in urine	Sampling time: End of shift.	400 mg/g	
Remarks:	Nonspecific					

Engineering measures : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.
Provide appropriate exhaust ventilation at places where dust is formed.

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

Hand protection
Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection : Wear as appropriate:
impervious clothing
Safety shoes
Flame-resistant clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Discard gloves that show tears, pinholes, or signs of wear.
Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures : Wash hands before breaks and at the end of workday.
When using do not eat or drink.
When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid
Odour	:	pungent
Odour Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	293.4 °F / 145.2 °C
Flash point	:	84.9 °F / 29.4 °C Method: ASTM D 56
Evaporation rate	:	No data available
Flammability (solid, gas)	:	
		May form combustible dust concentrations in air (during processing).
Flammability (liquids)	:	Static Accumulating liquid
Flammability (liquids)	:	
Upper explosion limit	:	6.1 %(V)
Lower explosion limit	:	1.1 %(V)
Vapour pressure	:	8.53248 hPa (25 °C) Calculated Vapor Pressure
Relative vapour density	:	> 1AIR=1
Relative density	:	No data available
Density	:	1.078 g/cm3 (20 °C)
Solubility(ies)		
Water solubility	:	insoluble

Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Thermal decomposition	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	> 20.5 mm2/s (40 °C)
Oxidizing properties	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	Stable under recommended storage conditions.
Possibility of hazardous reactions	:	Hazardous polymerisation may occur. Vapours may form explosive mixture with air. This product does not present a dust explosion hazard as delivered. However, fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source, is a potential dust explosion hazard.
Conditions to avoid	:	Heat, flames and sparks. Exposure to air. Exposure to sunlight.
Incompatible materials	:	Acids aluminum aluminum chloride Bases Copper Copper alloys halogens iron chloride metal salts Strong oxidizing agents Peroxides
Hazardous decomposition products		carbon dioxide and carbon monoxide Hydrocarbons

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity
Not classified based on available information.
Components:
STYRENE:
Acute oral toxicity : LD50 Oral (Rat): > 2,000 mg/kg

Acute inhalation toxicity : LC 50 (Rat): 11.8 mg/l, 2770 ppm
Exposure time: 4 h
Test atmosphere: vapour

No observed adverse effect level (Humans): 100 ppm
Exposure time: 7 h
Test atmosphere: vapour

Acute dermal toxicity : LD 50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

Skin corrosion/irritation
Causes skin irritation.
Product:
Remarks: May cause skin irritation and/or dermatitis.

Result: Repeated exposure may cause skin dryness or cracking.

Components:
STYRENE:
Species: Rabbit
Result: Irritating to skin

Serious eye damage/eye irritation
Causes serious eye irritation.
Product:
Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

Components:
STYRENE:
Result: Irritating to eyes
Remarks: Vapour during processing may be irritating to the respiratory tract and to the eyes.

Respiratory or skin sensitisation
Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Components:

STYRENE:

Exposure routes: Skin contact
Species: Guinea pig
Assessment: Does not cause skin sensitisation.
Result: negative

Exposure routes: inhalation (vapour)
Species: Humans
Assessment: Does not cause respiratory sensitisation.
Result: negative

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Product:

Carcinogenicity - Assessment	:	Styrene has been tested for carcinogenicity in rats and mice. Styrene caused lung tumors in mice only. These tumors are not considered to be relevant to humans.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

May cause respiratory irritation.

Components:

STYRENE:

Assessment: May cause respiratory irritation.

STOT - repeated exposure

Causes damage to organs (Auditory system) through prolonged or repeated exposure if inhaled.

Components:

STYRENE:

Exposure routes: inhalation (vapour)
Target Organs: Auditory system
Assessment: Causes damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Components:

STYRENE:

Species: Human
85 mg/m3
Application Route: inhalation (vapour)

Species: Human
615 mg/kg
Application Route: Skin contact

Aspiration toxicity

Not classified based on available information.

Components:

STYRENE:

May be fatal if swallowed and enters airways.

Further information
Product:
Remarks: Solvents may degrease the skin.

Carcinogenicity:

IARC	Group 2B: Possibly carcinogenic to humans	
	STYRENE	100-42-5
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.	
NTP	Reasonably anticipated to be a human carcinogen	
	STYRENE	100-42-5

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:
STYRENE:

Toxicity to fish	:	LC 50 (Pimephales promelas (fathead minnow)): 4.02 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC 50 (Water flea (Daphnia magna)): 4.7 mg/l Exposure time: 48 h
Toxicity to algae	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 4.9 mg/l Exposure time: 72 h
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Water flea (Daphnia magna)): 1.01 mg/l Exposure time: 21 d
Toxicity to bacteria	:	EC 50 (activated sludge): ca. 500 mg/l Exposure time: 0.5 h
Toxicity to soil dwelling organisms	:	NOEC (Eisenia fetida (earthworms)): 34 mg/kg Exposure time: 14 d Method: OECD Test Guideline 207

Persistence and degradability

Components:
STYRENE:

Biodegradability : Result: Readily biodegradable
Biodegradation: > 60 %
Exposure time: 10 d

Bioaccumulative potential

Components:

STYRENE:
Bioaccumulation : Bioconcentration factor (BCF): < 100

Partition coefficient: n-octanol/water : log Pow: 2.96 (25 °C)

Mobility in soil

Components:

STYRENE:
Distribution among environmental compartments : Koc: 352

Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life.

Components:

STYRENE:
Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

General advice : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.

U.S. DOT - ROAD

UN	1866	Resin solution	3	III	

U.S. DOT - RAIL

UN	1866	Resin solution	3	III	

U.S. DOT - INLAND WATERWAYS

UN	1866	Resin solution	3	III	

TRANSPORT CANADA - ROAD

UN	1866	RESIN SOLUTION	3	III	

TRANSPORT CANADA - RAIL

UN	1866	RESIN SOLUTION	3	III	

TRANSPORT CANADA - INLAND WATERWAYS

UN	1866	RESIN SOLUTION	3	III	

INTERNATIONAL MARITIME DANGEROUS GOODS

UN	1866	RESIN SOLUTION	3	III	

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

UN	1866	Resin solution	3	III	

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN	1866	Resin solution	3	III	

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

UN	1866	RESINA, SOLUCIONES DE	3	III	

***ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Marine pollutant		no

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
STYRENE	100-42-5	1000	2510.676652

SARA 311/312 Hazards : Reactivity Hazard
Acute Health Hazard
Fire Hazard
Chronic Health Hazard

SARA 313 Component(s)

STYRENE	100-42-5	39.82 %

California Prop 65

WARNING! This product contains a chemical known to the State of California to cause cancer.
BENZENE 71-43-2

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
BENZENE 71-43-2

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : This product contains one or several components that are not on the Canadian DSL and have annual quantity limits.

AUSTR : On the inventory, or in compliance with the inventory

ENCS : Not in compliance with the inventory

KECL : Not in compliance with the inventory

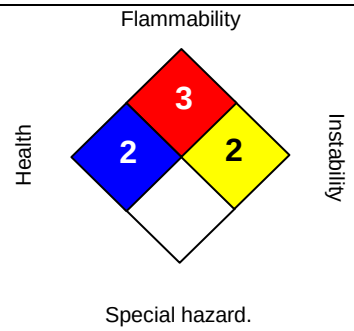
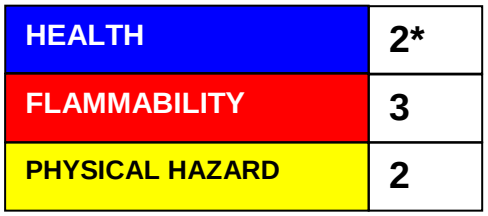
PICCS : Not in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

Inventories
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information
Revision Date: 05/22/2015

NFPA:	HMIS III:
	 0 = not significant, 1 =Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic

NFPA Flammable and Combustible Liquids Classification
Flammable Liquid Class IC

Full text of H-Statements referred to under sections 2 and 3.

H226	Flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure if inhaled.

Sources of key data used to compile the Safety Data Sheet
Ashland internal data including own and sponsored test reports
The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :
ACGIH : American Conference of Industrial Hygienists
BEI : Biological Exposure Index
CAS : Chemical Abstracts Service (Division of the American Chemical Society).
CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
FG : Food grade
GHS : Globally Harmonized System of Classification and Labeling of Chemicals.
H-statement : Hazard Statement
IATA : International Air Transport Association.
IATA-DGR : Dangerous Goods Regulation by the “International Air Transport Association” (IATA).

ICAO : International Civil Aviation Organization
ICAO-TI (ICAO) : Technical Instructions by the “International Civil Aviation Organization”
IMDG : International Maritime Code for Dangerous Goods
ISO : International Organization for Standardization
logPow : octanol-water partition coefficient
LCxx : Lethal Concentration, for xx percent of test population
LDxx : Lethal Dose, for xx percent of test population.
ICxx : Inhibitory Concentration for xx of a substance
Ecxx : Effective Concentration of xx
N.O.S.: Not Otherwise Specified
OECD : Organization for Economic Co-operation and Development
OEL : Occupational Exposure Limit
P-Statement : Precautionary Statement
PBT : Persistent , Bioaccumulative and Toxic
PPE : Personal Protective Equipment
STEL : Short-term exposure limit
STOT : Specific Target Organ Toxicity
TLV : Threshold Limit Value
TWA : Time-weighted average
vPvB : Very Persistent and Very Bioaccumulative
WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act
DOT : Department of Transportation
FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
HMIRC : Hazardous Materials Information Review Commission
HMIS : Hazardous Materials Identification System
NFPA : National Fire Protection Association
NIOSH : National Institute for Occupational Safety and Health
OSHA : Occupational Safety and Health Administration
PMRA : Health Canada Pest Management Regulatory Agency
RTK : Right to Know
WHMIS : Workplace Hazardous Materials Information System

5-MINUTE EPOXY RESIN

This product appears in the following stock number(s):

14098 14200 14210 14250 14250G 14270 14270G 14630
DA007 DA032 DA051 DA208 DA275 VC018

Last revised: 06/10/04
Printed: 7/2/2004

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: 5-MINUTE EPOXY RESIN

Product Identifier: EPOXY RESIN

General use: This information applies to the resin component of the two-part kit; handle freshly-mixed resin and hardener as recommended for the hardener. After curing, the product is not hazardous.

Chemical family: Epoxy resin

MANUFACTURER

ITW Devcon
30 Endicott St.
Danvers, MA 01923

EMERGENCY INFORMATION

Emergency telephone number
(CHEMTREC): (800) 424-9300
Other Calls: (978) 777-1100

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS **Exposure limits**

Constituent	Abbr.	CAS No.	Weight percent	ACGIH TLV	OSHA PEL	Other Limits
Bisphenol A diglycidyl ether resin	DGEBPA	25068386	>60	n/e	n/e	n/e

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit."n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance, form, odor: Clear viscous liquid with little odor.

WARNING! Eye and skin irritant. Potential skin sensitizer.

Potential health effects

Primary routes of exposure: ☒ Skin contact ☐ Skin absorption ☒ Eye contact ☐ Inhalation ☐ Ingestion

Symptoms of acute overexposure:

Skin: Moderate irritant. Contact at elevated temperatures can cause thermal burns which may result in permanent damage. May cause skin sensitization (itching, redness, rashes, hives, burning, swelling).

Eyes: Moderate irritant (stinging, burning sensation, tearing, redness, swelling). Contact at elevated temperatures can cause thermal burns which may result in permanent damage or blindness.

Inhalation:
The low vapor pressure of the resin makes inhalation unlikely in normal use. In applications where vapors (caused by high temperature) or mists (caused by mixing) are created, breathing may cause a mild burning sensation in the nose, throat and lungs.

Ingestion:
Acute oral toxicity is low. May cause gastric distress (nausea, vomiting, diarrhea).

Effects of chronic overexposure:
Prolonged or repeated skin contact may cause sensitization, with itching, swelling, or rashes on later exposure.

Carcinogenicity -- OSHA regulated: No **ACGIH: No** **National Toxicology Program: No**
International Agency for Research on Cancer: No
Cancer-suspect constituent(s) : Phenyl glycidyl ether

Medical conditions which may be aggravated by exposure:
Preexisting eye and skin disorders. Development of preexisting skin or lung allergy symptoms may increase.

Other effects:
See section 11.

4. FIRST AID MEASURES

First aid for eyes:
Flush eye with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids. Get immediate medical attention.

First aid for skin:
Immediately remove contaminated clothing and excess contaminant. Flush skin with water for at least 15 minutes. Wash thoroughly with soap and warm water. Consult a physician if irritation develops.

First aid for inhalation:
Remove patient to fresh air. Administer oxygen if breathing is difficult. Get medical attention if symptoms persist.

First aid for ingestion:
Do NOT induce vomiting unless directed by medical personnel. Rinse mouth out with water, then sip water to remove taste from mouth. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips (if sitting) or to the side (if lying down) to prevent aspiration. Get medical attention.

5. FIRE FIGHTING MEASURES

Extinguishing media:
☐ Water ☒ Carbon dioxide ☒ Dry chemical ☒ Foam ☐ Alcohol foam

Flash Point (°F): >400 **Method:** PMCC

Explosive limits in air (percent) -- **Lower:** n/d **Upper:** n/d

Special firefighting procedures:
Material will not burn unless preheated. Do not enter confined space without full bunker gear. Firefighters should wear self-contained breathing apparatus and protective clothing. Cool fire exposed containers with water.

Unusual fire and explosion hazards:
Heating above 300 deg F in the presence of air may cause slow oxidative decomposition and above 500 deg F may cause polymerization. Personnel in vicinity and downwind should be evacuated.

Hazardous products of combustion:
When heated to decomposition it emits fumes of Cl- , carbon monoxide, other fumes and vapors varying in composition and toxicity.

6. ACCIDENTAL RELEASE MEASURES

Spill control:

Avoid personal contact. Eliminate ignition sources. Ventilate area.

Containment:

Dike, contain and absorb with clay, sand or other suitable material.

Cleanup:

For large spills, pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand, or other suitable material and dispose of properly. Flush area with water to remove trace residue.

Special procedures:

Prevent spill from entering drainage/sewer systems, waterways, and surface waters.

7. HANDLING AND STORAGE

Handling precautions:

Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after using and particularly before eating, drinking, smoking, applying cosmetics, or using toilet facilities.
Launder contaminated clothing and protective gear before reuse. Discard contaminated leather articles.
Handle mixed resin and hardener in accordance with the potential hazard of the curing agent used. Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product.

Storage:

Store in a cool, dry area away from high temperatures and flames. Keep containers closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation :

Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits (or to the lowest feasible levels when limits have not been established). Although good general mechanical ventilation is usually adequate for most industrial applications, local exhaust ventilation is preferred (see ACGIH - Industrial Ventilation). Local exhaust may be required for confined areas (see OSHA 1910.146).

Other engineering controls :

Have emergency shower and eye wash available.

Personal protective equipment

Eye and face protection:

Chemical goggles if liquid contact is likely, or Safety glasses with side shields.

Skin protection:

Chemical-resistant gloves (i.e. butyl) and other gear as required to prevent skin contact.

Respiratory protection:

None needed in normal use with proper ventilation. In poorly ventilated areas use NIOSH approved organic vapor cartidges respirator for uncured resin, dust/particle respirators during grinding/sanding operations for cured resin, or fresh airline respirator as exposure levels dictate (see OSHA 1910.134).

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	1.17	**Boiling point (°F):**	>500
Melting point (°F):	n/d	**Vapor density (air = 1):**	>1
Vapor pressure (mmHg):	0.03 mm Hg at 171 °F	**Evaporation rate (butyl acetate = 1):**	<<1
VOC (grams/liter):	0	**Solubility in water:**	Negligible
Percent volatile by volume:	0	**pH (5% solution or slurry in water):**	neutral
Percent solids by weight:	100		

10. STABILITY AND REACTIVITY

This material is chemically stable. Hazardous polymerization will not occur.

Conditions to avoid :
Open flame and extreme heat

Incompatible materials:
Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (esp. primary and secondary aliphatic amines).

Hazardous products of decomposition:
Oxides of carbon; aldehydes, acids and other organic substances may be formed during combustion or elevated temperature (>500 deg F) degradation.

Conditions under which hazardous polymerization may occur:
Heat is generated when resin is mixed with curing agents; Run-a-way cure reactions may char and decompose the resin, generating unidentified fumes and vapors which may be toxic.

11. TOXICOLOGICAL INFORMATION

Acute oral effects: LD50 (rat): 11,400 mg/kg (DGEBPA Resin)

Acute dermal effects: LD50 (rabbit): >20 ml/kg (DGEBPA Resin)
DGEBPA: Draize -1.6 (rabbit)

Acute inhalation effects: LC50 (rat): No deaths in saturated air (DGEBPA) Exposure: 8 hours.

Eye irritation:
DGEBPA: Draize -2 (rabbit)

Subchronic effects:
No data available.

Carcinogenicity, teratogenicity, and mutagenicity:
1) MUTAGENICITY: Liquid resins based on diglycidyl ether of Bisphenol A (DGEBPA), have proved to be inactive when tested by in vivo mutagenicity assays. These resins have shown activity in in vitro microbial mutagenicity screening and have produced chromosomal aberrations in cultured rat liver cells. The significance of these tests to

man is unknown. 2) CARCINOGENICITY: Recent 2-year bioassays in rats and mice exposed by the dermal route to DGEBPA yielded no evidence of carcinogenicy to the skin or any other organs. This study clarifies prior equivocal results from a 2-year mouse skin painting study, which were suggestive, but not conclusive, for weak carcinogenic activity. 3) The International Agency for Research on Cancer (IARC) concluded that DGEBPA is not classifiable as a carcinogen (IARC group 3), that is human and animal evidence of carcinogenicy is inadequate.

Other chronic effects:

Prolonged or repeated skin contact may cause sensitization, with itching, swelling, or rashes on later exposure. Studies have shown bisphenol A diglycidyl ether resin to cause allergic contact dermititis.

Toxicological information on hazardous chemical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr, (rat)
Bisphenol A diglycidyl ether resin	11.4 g/kg	>20 ml/kg	no deaths

'n/d' = 'not determined'

12 ECOLOGICAL INFORMATION

Ecotoxicity:

No data available.

Mobility and persistence:

No data available.

Environmental fate:

No data available.

13. DISPOSAL CONSIDERATIONS

Please see also Section 15, Regulatory Information.

Waste management recommendations:

If this resin becomes a waste, it would not be a hazardous waste by RCRA criteria (40CFR 261). Dispose of according to applicable federal, state, and local regulations. Incineration is the preferred method of disposal.

14. TRANSPORT INFORMATION

Proper shipping name: Non-regulated
Technical name : N/A
Hazard class : N/A
UN number: N/A
Packing group: N/A
Emergency Response Guide no.: N/A
IMDG page number: N/A
Other: N/A

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA

All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

The following RCRA code(s) applies to this material if it becomes waste:

None

Regulatory status of hazardous chemical constituents of this product:

Constituent	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	TSCA 12B Export Notification
Bisphenol A diglycidyl ether resin	No	No	0.0	Not required

*Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substance list.

**Substances for which the "Toxic Chemical" column is marked "Yes" are on the SARA Section 313 list of Toxic Chemicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.

For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material: - Immediate health hazard -- Delayed health hazard -

Canadian regulations

WHMIS hazard class(es) : D2B

All components of this product are on the Domestic Substances List.

California regulations:

For purposes of the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Prop. 65), this product contains a chemical or chemicals known to the State of California to cause cancer.

16. OTHER INFORMATION

Hazardous Materials Identification System (HMIS) ratings:	Health	Flammability	Reactivity
	2*	1	1

The information and recommendations in this document are based on the best information available to us at the time of preparation, but we make no other warranty, express or implied, as to its correctness or completeness, or as to the results of reliance on this document.

5-MINUTE EPOXY HARDENER

This product appears in the following stock number(s):

14098 14200 14210 14250 14250G 14270 14270G 14630
DA005 DA007 DA009 DA032 DA043 DA051 DA208 DA275
DC014 DC040 VC020

Last revised: 06/10/04
Printed: 7/2/2004

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: 5-MINUTE EPOXY HARDENER

General use: The following information applies to the hardener component of the two-part kit and to freshly mixed resin and hardener. After curing, this product is not hazardous.

Chemical family: Polymercaptan/polyamine mixture

MANUFACTURER

ITW Devcon
30 Endicott St.
Danvers, MA 01923

EMERGENCY INFORMATION

Emergency telephone number
(CHEMTREC): (800) 424-9300
Other Calls: (978) 777-1100

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS **Exposure limits**

Constituent	Abbr.	CAS No.	Weight percent	ACGIH TLV	OSHA PEL	Other Limits
Mercaptan amine blend		*	90-100	n/e	n/e	n/e

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit."n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance, form, odor: Clear to slight yellow liquid with Mercaptan odor.

WARNING! Eye, skin and respiratory irritant. Potential skin sensitizer. Overexposure may cause delayed lung effects.

Potential health effects

Primary routes of exposure: ☒ Skin contact ☐ Skin absorption ☒ Eye contact ☒ Inhalation ☐ Ingestion

Symptoms of acute overexposure:

Skin: Can cause severe irritation, especially on prolonged contact. Potential sensitizer.
Eyes: Causes severe irritation with possible permanent damage and even blindness.
Inhalation:
Considered slightly toxic. Can cause irritation of respiratory tract. Over exposure to fumes or vapors may cause delayed lung injury and chemical pneumonia.

Ingestion:
Slightly toxic. May cause fatigue, muscle weakness, gastrointestinal irritation, nausea, vomiting and diarrhea.

Effects of chronic overexposure:
Prolonged or severe overexposure to vapor can cause delayed lung damage and chemical pneumonia. Prolonged or repeated contact with this material may cause skin sensitization.

Carcinogenicity -- OSHA regulated: No **ACGIH: No** **National Toxicology Program: No**
International Agency for Research on Cancer: No
Cancer-suspect constituent(s) : None

Medical conditions which may be aggravated by exposure:
May aggravate existing skin, eye, and lung conditions.

4. FIRST AID MEASURES

First aid for eyes:
Flush eye with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids. Get immediate medical attention.

First aid for skin:
Immediately remove contaminated clothing and excess contaminant. Flush skin with water for at least 15 minutes. Wash thoroughly with soap and warm water. Consult a physician if irritation develops.

First aid for inhalation:
Remove patient to fresh air. Administer oxygen if breathing is difficult. Get medical attention if symptoms persist.

First aid for ingestion:
Do NOT induce vomiting. Administer 3-4 glasses of milk or water. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips (if sitting) or to the side (if lying down) to prevent aspiration. Get immediate medical attention.

5. FIRE FIGHTING MEASURES

General fire and explosion characteristics:
Class IIIB.

Extinguishing media:
☒ Water ☒ Carbon dioxide ☒ Dry chemical ☒ Foam ☐ Alcohol foam

Flash Point (°F): >200 **Method:** PMCC

Explosive limits in air (percent) -- **Lower:** n/d **Upper:** n/d

Special firefighting procedures:
Do not enter confined space without full bunker gear. Firefighters should wear self-contained breathing apparatus and protective clothing to prevent all skin and eye contact with this material. Cool fire exposed containers with water.

Unusual fire and explosion hazards:
Personnel in vicinity and downwind should be evacuated.

Hazardous products of combustion:
Acrid and toxic fumes with organic amines, ammonia, oxides of carbon and nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Spill control:
Avoid personal contact. Evacuate area. Eliminate ignition sources. Ventilate area.

Containment:

Dike, contain and absorb with clay, sand or other suitable material.

Cleanup:

For large spills, pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand, or other suitable material and dispose of properly. Flush area with water to remove trace residue. Clean-up waste water should be placed in appropriate containers for proper disposal.

Special procedures:

Prevent spill from entering drainage/sewer systems, waterways, and surface waters. Collect run-off water and transfer to drums or tanks for later disposal. Notify local health authorities and other appropriate agencies if such contamination occurs.

7. HANDLING AND STORAGE

Handling precautions:

Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after using and particularly before eating, drinking, smoking, applying cosmetics, or using toilet facilities.
Launder contaminated clothing and protective gear before reuse. Discard contaminated leather articles.
Handle mixed resin and hardener in accordance with the potential hazard of the curing agent used. Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product.

Storage:

Store in a cool, dry area away from high temperatures and flames. Keep container tightly closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation :

Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits (or to the lowest feasible levels when limits have not been established). Although good general mechanical ventilation is usually adequate for most industrial applications, local exhaust ventilation is preferred (see ACGIH - Industrial Ventilation). Local exhaust may be required for confined areas (see OSHA 1910.146).

Other engineering controls :

Have emergency shower and eye wash available.

Personal protective equipment

Eye and face protection:

Chemical goggles if liquid contact is likely, or Safety glasses with side shields.

Skin protection:

Chemical-resistant rubber (e.g. neoprene, butyl rubber, nitrile) gloves and other protective gear as needed to prevent skin contact.

Respiratory protection:

None needed in normal use with proper ventilation. In poorly ventilated areas use NIOSH approved organic vapor cartidges respirator for uncured resin, dust/particle respirators during grinding/sanding operations for cured resin, or fresh airline respirator as exposure levels dictate (see OSHA 1910.134).

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	1.13	**Boiling point (°F):**	n/d
Melting point (°F):	n/d	**Vapor density (air = 1):**	n/d
Vapor pressure (mmHg):	<<1 at 70 °F	**Evaporation rate (butyl acetate = 1):**	n/d
VOC (grams/liter):	0	**Solubility in water:**	Negligible
Percent volatile by volume:	0	**pH (5% solution or slurry in water):**	9.5
Percent solids by weight:	100		

10. STABILITY AND REACTIVITY

This material is chemically stable. Hazardous polymerization will not occur.

Conditions to avoid :
Open flame and extreme heat.

Incompatible materials:
Strong oxidizing agents. Amines.

Hazardous products of decomposition:
Oxides of carbon, oxides of sulfur, oxides of nitrogen.

Conditions under which hazardous polymerization may occur:
Heat is generated when resin is mixed with curing agents; Run-a-way cure reactions may char and decompose the resin, generating unidentified fumes and vapors which may be toxic.

11. TOXICOLOGICAL INFORMATION

Acute oral effects: LD50 (rat): Not available.

Acute dermal effects: LD50 (rabbit): Not available.
Rabbit: Severe irritant.

Acute inhalation effects: LC50 (rat): Not available. Exposure: 0 hours.

Eye irritation:
Rabbit: Severe irritant. Result = 4.8 (Scale 0-8)

Subchronic effects:
No data.

Carcinogenicity, teratogenicity, and mutagenicity:
No data.

Other chronic effects:
No data.

Toxicological information on hazardous chemical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr, (rat)
Mercaptan amine blend	n/d	n/d	n/d

'n/d' = 'not determined'

12 ECOLOGICAL INFORMATION

Ecotoxicity:
No data.

Mobility and persistence:
No data.

Environmental fate:
No data.

13. DISPOSAL CONSIDERATIONS

Please see also Section 15, Regulatory Information.

Waste management recommendations:
If this resin becomes a waste, it would not be a hazardous waste by RCRA criteria (40CFR 261). Dispose of according to applicable federal, state, and local regulations. Incineration is the preferred method of disposal.

14. TRANSPORT INFORMATION

Proper shipping name: Non-regulated
Technical name : N/A
Hazard class : N/A
UN number: N/A
Packing group: N/A
Emergency Response Guide no.: N/A
IMDG page number: N/A
Other: N/A

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA
All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

The following RCRA code(s) applies to this material if it becomes waste:
None

Regulatory status of hazardous chemical constituents of this product:

Constituent	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	TSCA 12B Export Notification
Mercaptan amine blend	No	No	0.0	Not required

*Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substance list.

**Substances for which the "Toxic Chemical" column is marked "Yes" are on the SARA Section 313 list of Toxic Chemicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.

For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material: - Immediate health hazard -- Delayed health hazard -

Canadian regulations

WHMIS hazard class(es) : D2B
All components of this product are on the Domestic Substances List.

16. OTHER INFORMATION

Hazardous Materials Identification System (HMIS) ratings:	Health	Flammability	Reactivity
	3*	1	1

The information and recommendations in this document are based on the best information available to us at the time of preparation, but we make no other warranty, express or implied, as to its correctness or completeness, or as to the results of reliance on this document.

Dixon Southwestern Graphite

Hazard Communication Standard
29 CFR 1910, 1200.

TYPE: **Natural Graphite**

IDENTITY (As Used on Label and List) **Natural Graphite**	Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

SECTION I

Manufacturer's Name: **Dixon Southwestern Graphite, Inc.**	Emergency Telephone Number **908-537-2155**
PO BOX 144, 405 OLD MAIN STREET	Telephone Number for Information **908-537-2155**
ASBURY, NJ 08802	Date: Jan 11, 2000 Review Date: 1/2001
	Prepared by: (optional) AVT

SECTION II - NON-HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Component(s) (Specific Chemical Identity, Common Name(s)	OSHA PEL	Other Limits ACGIH TLV	Recommended	% (optional)
Graphite CAS NO. 7782-42-5		**2.0 mg/m3**	**Respirable dust.**	**100**

SECTION III- HAZARDOUS INGREDIENTS/ IDENTITY INFORMATION

Hazardous Components (Specific Chemical Identity, Common Name(s)	OSHA PEL	ACGIH TLV	Recommended	% (optional)
Silica CAS NO. 14808-60-7		**0.1 mg/m3**	**Respirable dust**	**0.0-4.0**

SECTION IV - PHYSICAL CHEMICAL CHARACTERISTICS

Boiling Point: N/**A**	Specific Gravity (H2O = 1): 2.20 **- 2.35**
Vapor Pressure (mm Hg.): N/**A**	Melting Point: N/**A**
Vapor Density (AIR = 1): **N/A**	Evaporation Rate: (Butyl Acetate = 1) **N/A**

Solubility in Water: Insoluble

Appearance and Odor: Grey **to Black - No Odor**

SECTION V - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): **N/A** Flammable Limits: **N/A** LEL: **N/A** LEL: **N/A**

Extinguishing Media: **Water**

Special Fire Fighting Procedures: **Spray with water.**

Unusual Fire and Explosion Hazards: None**.**

HMIS RATING: 1 1 0 E **NFP RATING:** 0 1 0

Stability: **This material is stable.**	Conditions to Avoid: None
Hazardous polymerization: **This material will not polymerize.**	Conditions to Avoid: None

Incompatibility (Materials to Avoid): **Oxidizing Agents.**

Hazardous decomposition or byproducts**: CO2, CO (carbon dioxide, carbon monoxide)**

SECTION VII - HEALTH HAZARD DATA

Route(s) of Entry: Inhalation? **X** Skin? **X** Ingestion?

Health Hazards (Acute and Chronic): **Cases of pulmonary fibrosis, emphysema and corpulmonale may result from prolonged inhalation of dust (chronic). Minor skin and/or eye irritation may occur.**

Carcinogenicity: **Silica** NTP? **Yes** IARC, Monographs? **Yes** OSHA Regulated? **No**

IARC Monograph Vol. 68, 1997, concludes that there is sufficient evidence that inhaled crystalline silica causes cancer in humans. IARC Classification Group1

Signs and Symptoms of Exposure: Inhalation - **nose and/or throat irritation, shortness of breath.**

Skin/Eyes - redness of skin, irritation of eyes.

Medical Conditions Generally Aggravated by Exposure **Emphysema, Asthma, or other respiratory problems.**

Emergency and First Aid Procedures **Inhalation - Remove from dust area. Seek medical attention if symptoms persist.**

Skin - Wash with mild soap and water. *

Eyes - Rinse eyes with sterile eye wash. *

*** Seek medical attention if any irritation persists.**

SECTION VIII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled: **Sweep or vacuum.**

Waste Disposal Method **Dispose of in an approved manner based on federal/local regulations.**

Precautions to be taken in handling and storing: **Handle and transfer in a manner, which avoids excessive dusting. Store away from oxidizing agents.**

Other Precautions: **Graphite is a conductor of electricity. Exercise caution when handling graphite in areas where contact with electrical circuitry is possible.**

SECTION IX - CONTROL MEASURES

Respiratory Protection (Specify Type): Use **OSHA approved respirator for nuisance dust.**

Ventilation:	Local Exhaust: **To dust collector.**	Special: **None**
	Mechanical (General): **To maintain dust level below ACGIH-TLV.**	Other: **None**

Protective Gloves: **Conventional work gloves.**	Eye Protection: **Safety glasses**

Other Protective Clothing or Equipment: **Not required.**

Work Hygienic Practices: **Keep work area clean. Use adequate dust collection/ventilation to maintain levels of dust below ACGIH-TLV.**

SAFETY DATA SHEET

DuPont "Teflon" White Lithium Grease - Aerosol

Version 2.0
Revision Date 21.09.2005 Ref. 130000027427

This SDS adheres to the standards and regulatory requirements of Australia and may not meet the regulatory requirements in other countries.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name	:	DuPont "Teflon" White Lithium Grease - Aerosol
Use of the Substance/Preparation	:	
Company	:	Du Pont (Australia) Ltd 168 Walker Street North Sydney NSW 2060 Australia
Telephone	:	(02) 9923 6111
Telefax	:	(02) 9923 6011
Emergency telephone number	:	(02) 9963 1301 (Transport Emergency) (24 hr Medical Emergency Hotline: 1800 674 415)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components

Chemical Name	CAS-No.	Concentration
Naphtha (petroleum), hydrotreated light	64742-49-0	20 - 30%
Distillates (petroleum), hydrogen treated light; Kerosine - unspecified	64742-47-8	23 - 35%
Propane	74-98-6	5 - 10%
Butane	106-97-8	5 - 10%
Zinc oxide	1314-13-2	1 %
Polytetrafluoroethylene	9002-84-0	1 - 2%

3. HAZARDS IDENTIFICATION

Hazardous classification
Classified as dangerous goods according to the ADG Code
Classified as hazardous according to criteria of NOHSC.

Risks
Highly flammable.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Harmful: may cause lung damage if swallowed.

Safety data
Keep container in a well-ventilated place.
Keep away from sources of ignition - No smoking.
Take precautionary measures against static discharges.
In case of fire, use sand, dry chemical or alcohol-resistant foam.
This material and/or its container must be disposed of as hazardous waste.
If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

4. FIRST AID MEASURES

Inhalation	:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.
Skin contact	:	Wash off immediately with soap and plenty of water. Wash contaminated clothing before reuse.
Eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician immediately.
Ingestion	:	Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention. Never give anything by mouth to an unconscious person.

Notes to physician

Risks	:	Risk of product entering the lungs on vomiting after ingestion.
Treatment	:	Do not induce vomiting: contains petroleum distillates and/or aromatic solvents. Note: To prepare activated charcoal slurry, mix thoroughly 50 g of activated charcoal in 400 ml (about 2 cups) water.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for fire-fighters	:	Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	:	Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.
Methods for cleaning up	:	Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceus earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Handling

Advice on safe handling	:	Avoid inhalation of vapour or mist. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Keep away from fire, sparks and heated surfaces.

Storage

Requirements for storage areas and containers	:	Keep in a well-ventilated place. Keep away from direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	Values	Control parameters	Basis
Butane	TWA	(800 ppm)	ACGIH (2003)
	TWA	(1,000 ppm)	ACGIH (2004)
	TWA	1,900 mg/m3 (800 ppm)	AU OEL (2003)
Zinc oxide (Respirable fraction.)	TWA	2 mg/m3	ACGIH (2004)
Zinc oxide (Respirable fraction.)	STEL	10 mg/m3	ACGIH (2004)
Zinc oxide (Fume.)	TWA	5 mg/m3	AU OEL (2003)
Zinc oxide (Inspirable dust.)	TWA	10 mg/m3	AU OEL (2003)
Zinc oxide (Fume.)	STEL	10 mg/m3	AU OEL (2003)
Heptane	TWA	(400 ppm)	ACGIH (2004)
	STEL	(500 ppm)	ACGIH (2004)
	TWA	1,640 mg/m3 (400 ppm)	AU OEL (2003)
	STEL	2,050 mg/m3 (500 ppm)	AU OEL (2003)
Methylcyclohexane	TWA	1,610 mg/m3 (400 ppm)	AU OEL (2003)
	TWA	(400 ppm)	ACGIH (2004)

Engineering measures

Ensure adequate ventilation.

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hand protection : Material: impervious gloves

Eye protection : safety glasses tightly fitting safety goggles

Skin and body protection : apron long sleeved clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	:	viscous liquid
Colour	:	white
Odour	:	hydrocarbon-like , mild
Melting point	:	260 °C
Freezing point	:	-18 °C
Boiling point/range	:	260 °C
Flash point	:	-18 °C
Vapour pressure	:	53 hPa at 20 °C
Density	:	0.7064 g/cm3
Water solubility	:	insoluble
Relative vapour density	:	3.5

10. STABILITY AND REACTIVITY

Conditions to avoid	:	None reasonably foreseeable.
Hazardous decomposition products	:	No decomposition if stored and applied as directed.
Hazardous reactions	:	Stable under recommended storage conditions.

11. TOXICOLOGICAL INFORMATION

Human experience : Excessive exposures may affect human health, as follows:

Inhalation: *Upper respiratory tract*: dizziness, unconsciousness, fever, nausea, headache, weakness, irritation, polymer fume fever, fatality

Central nervous system: dizziness, fatality, lack of coordination, unconsciousness, severe shortness of breath, palpitation, Symptoms may be delayed.

Lungs: irritation, polymer fume fever

Skin contact: *Skin*: irritation, itching, burn, redness, swelling of tissue, rash, frostbite

Eye contact: *Eyes*: blurred vision, pain, irritation, discomfort

Ingestion: *Lungs*: shortness of breath, fever, Symptoms may be delayed.

12. ECOLOGICAL INFORMATION

Further information on ecology

Additional ecological information	:	No data is available on the product itself.

13. DISPOSAL CONSIDERATIONS

Product	:	In accordance with local and national regulations.

14. TRANSPORT INFORMATION

ADG

Proper shipping name	:	AEROSOLS
Class	:	2.1

IMDG

UN-No	:	1950
Proper shipping name	:	AEROSOLS
Class	:	2.1
Labelling No.	:	2.1
Marine pollutant	:	no

Further Information	:	Classified as dangerous goods according to the ADG Code

15. REGULATORY INFORMATION

Labelling

Symbol(s)	:	F	Highly flammable
		Xn	Harmful
R-phrase(s)	:	R11	Highly flammable.
		R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
		R65	Harmful: may cause lung damage if swallowed.
S-phrase(s)	:	S 9	Keep container in a well-ventilated place.
		S16	Keep away from sources of ignition - No smoking.
		S33	Take precautionary measures against static discharges.
		S43	In case of fire, use sand, dry chemical or alcohol-resistant foam.
		S60	This material and/or its container must be disposed of as hazardous waste.
		S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Further information : Classified as hazardous according to criteria of NOHSC.

National regulatory information:

SUSDP : Schedule 5

16. OTHER INFORMATION

Sources of key data used to compile the datasheet:

1. National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)]
2. Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1999)]
3. List of Designated Hazardous Substances [NOHSC:10005(1999)]
4. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]
5. Australian Dangerous Goods Code, No. 6 [National Road Transport Commission]
6. Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP), No. 19 [NDPSC: 2004]
7. National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]

Department:

Du Pont (Australia) Ltd
168 Walker Street
North Sydney NSW 2060
Australia

Further information:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product name: DYLON FABRIC PAINT - NOS 1 - 33

Product code: FP 1-33

Synonyms: PEINTURE POUR TEXTILES (F, B); SIERVERF VOOR TEXTIEL (NL, B); COLOR FUN PINTURA PARA TEJIDOS (ESP)

Company name: SPOTLESS PUNCH LIMITED
Suite B, Knowles House
Cromwell Road
Redhill
Surrey
RH1 1RT
UK
Tel: +44 (0)1737 742 000
Fax: +44 (0)1737 769607

2. HAZARDS IDENTIFICATION

Main hazards: No significant hazard.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous ingredients: TRIETHANOLAMINE (TEA) 1-5%
EINECS: 203-049-8 CAS: 102-71-6
[Xi] R36/38

4. FIRST AID MEASURES (SYMPTOMS)

Skin contact: There may be mild irritation at the site of contact.

Eye contact: There may be irritation and redness.

Ingestion: Nausea and stomach pain may occur.

Inhalation: No symptoms.

4. FIRST AID MEASURES (ACTION)

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes.

Ingestion: Do not induce vomiting. Wash out mouth with water. If conscious, give half a litre of water to drink immediately.

5. FIRE-FIGHTING MEASURES

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used.

Protection of fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

[cont...]

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Refer to section 8 of SDS for personal protection details. Turn leaking containers leak-side up to prevent the escape of liquid.

Environmental precautions: Do not discharge into drains or rivers.

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Wash the spillage site with large amounts of water.

7. HANDLING AND STORAGE

Handling requirements: Ensure there is sufficient ventilation of the area. Avoid direct contact with the substance.

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Respiratory protection not required.

Hand protection: Protective gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

State: Liquid

Odour: Characteristic odour

Solubility in water: Miscible in all proportions

pH: 8 - 9

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Conditions to avoid: Heat.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: DYLON FABRIC PAINT - NOS 1 - 33

ORL RAT LD50 > 2000 mg/kg

Routes of exposure: Refer to section 4 of SDS for routes of exposure and corresponding symptoms.

12. ECOLOGICAL INFORMATION

Persistence and degradability: No data available.

Bioaccumulative potential: No data available.

Other adverse effects: Negligible ecotoxicity.

13. DISPOSAL CONSIDERATIONS

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

[cont...]

14. TRANSPORT INFORMATION

ADR / RID

UN no: Not Classified.

IMDG / IMO

UN no: Not Classified.

IATA / ICAO

UN no: Not Classified.

15. REGULATORY INFORMATION

Hazard symbols: No significant hazard.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Other information: This safety data sheet is prepared in accordance with Regulation (EC) No 1907/2006.

Risk phrases used in s.3: R36/38: Irritating to eyes and skin.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

Safety Data Sheet:
Material Name: Elmer's Glue-All MAX
SDS ID: SDS-33
Issue Date: 2015-01-15
Revision: 1.0

Other Sections
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
Elmer's Glue-All MAX

Synonyms
E9406, E9415, E9416; E9411; E9428; P9418; E39418; E69406.

Chemical Family
Adhesive

Product Use
Adhesive

Manufacturer Information

Elmer's Products, Inc
460 Polaris Parkway, Suite 500
Westerville, OH 43082
USA
Phone:1-888-435-6377
Fax:1-800-741-6046
Email:comments@elmers.com

Emergency Phone Number:
Poison Control Center
1-888-516-2502

For additional product information, access our website at www.elmers.com. To place an order, call 1-800-848-9400.

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Acute Toxicity - Inhalation - Dust/Mist - Category 4
Skin Corrosion/Irritation - Category 2
Serious Eye Damage/Eye Irritation - Category 2A
Respiratory Sensitization - Category 1A
Skin Sensitization - Category 1A
Specific Target Organ Toxicity - Single Exposure - Category 3
Specific Target Organ Toxicity - Repeated Exposure - Category 1 (respiratory system)
Specific Target Organ Toxicity - Repeated Exposure - Category 2 (Organs affected)

GHS Label Elements

Symbol(s)

Signal Word
Danger

Hazard Statement(s)
Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
May cause allergic or asthmatic symptoms or breathing difficulties if inhaled
May cause allergic skin reaction
May cause respiratory irritation
Causes damage to organs through prolonged or repeated exposure
May cause damage to organs through prolonged or repeated exposure

Precautionary Statement(s)

Prevention
Avoid breathing dust/fume/gas/mist/vapours/spray
Wash thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves/protective clothing/eye protection/face protection
Wear respiratory protection

Response
IF ON SKIN: Wash with plenty of soap and water
IF INHALED: Remove person to fresh air and keep comfortable for breathing

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Call a POISON CENTER or doctor if you feel unwell
Get medical advice/attention if you feel unwell
Specific treatment (see label)
If skin irritation or rash occurs: Get medical advice/attention
If eye irritation persists: Get medical advice/attention
If experiencing respiratory symptoms: Call a POISON CENTER/doctor
Take off contaminated clothing and wash before reuse

Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester	30-50
101-68-8	4,4'-Methylenediphenyl diisocyanate	30-50
108-90-7	Chlorobenzene	<0.01

Section 4 - FIRST AID MEASURES

Description of Necessary Measures
Get medical advice/attention if you feel unwell.

Inhalation
Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Skin
Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

Eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion
Rinse mouth thoroughly with water.

Most Important Symptoms/Effects

Acute
May cause respiratory irritation, skin irritation, eye irritation. Harmful if inhaled. May cause allergic or asthmatic symptoms or breathing difficulties if inhaled. May cause allergic skin reaction.

Delayed
respiratory system damage. May cause damage to organs through prolonged or repeated exposure.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Dry chemical, foam or carbon dioxide.

Unsuitable Extinguishing Media
Do not use water.

Special Hazards Arising from the Chemical
Wear self-contained breathing apparatus and protective clothing.

Hazardous Combustion Products
cyanides, oxides of carbon, oxides of nitrogen.

Fire Fighting Measures
Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures
Avoid contact with skin and eyes. Ventilate affected area. Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Ventilate the area. Eliminate all ignition sources if safe to do so. Large spills: Dike for later disposal. Prevent entry into waterways, sewers, basements, or confined areas. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal.

Environmental Precautions
Prevent entry into waterways, sewers, basements, or confined areas.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling
Use only with adequate ventilation. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid prolonged exposure. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.

Conditions for Safe Storage, Including any Incompatibilities
Store in a well-ventilated place. Keep container tightly closed
Store locked up
Avoid contact with water or moisture. Store between 16 C and 35 C. A hazardous build-up of pressure could result due to a reaction with water producing carbon dioxide gas if contaminated containers are resealed. Do not reseal contaminated containers. Reseal uncontaminated containers that are free of moisture only after placing under a nitrogen blanket. Do not store in containers made of copper, copper alloys, or galvanized surfaces. See original container for storage recommendations. Keep separated from incompatible substances.

Incompatible Materials
Amines, alcohol, bases, acids, oxidizing materials, metals, metal salts.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

4,4'-Methylenediphenyl diisocyanate	101-68-8
ACGIH:	0.005 ppm TWA
NIOSH:	0.005 ppmTWA; 0.05 mg/m3TWA
	0.02 ppm Ceiling 10 min; 0.2 mg/m3 Ceiling 10 min
	75 mg/m3IDLH
OSHA (US):	0.02 ppmCeiling; 0.2 mg/m3Ceiling

Mexico:	0.02 ppmTWA LMPE-PPT; 0.2 mg/m3TWA LMPE-PPT; 0.005 ppmTWA LMPE-PPT as Methylene bisphenyl isocyanate; 0.051 mg/m3TWA LMPE-PPT as Methylene bisphenyl isocyanate (related to Benzene, 1,1'-methylenebis[isocyanato-)
Chlorobenzene	108-90-7
ACGIH:	10 ppm TWA
NIOSH:	1000 ppmIDLH
Europe:	47 mg/m3 TWA; 10 ppm TWA
	5 ppmTWA; 23 mg/m3TWA
	94 mg/m3 STEL; 20 ppm STEL
	15 ppm STEL; 70 mg/m3 STEL
OSHA (US):	75 ppmTWA; 350 mg/m3TWA
Mexico:	75 ppmTWA LMPE-PPT; 350 mg/m3TWA LMPE-PPT

Biological limit value

There are no biological limit values for any of this product's components.

Engineering Controls

Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear appropriate chemical resistant clothing.

Respiratory Protection

A NIOSH approved respirator with a dust, mist, and fume filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits or when symptoms have been observed that are indicative of overexposure.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Brownliquid	Physical State	Not available
Odor	musty odor	Color	brown
Odor Threshold	Not available	**pH**	Not available
Melting Point	Not available	**Boiling Point**	>300 °C (decomposes)
Freezing point	Not available	**Evaporation Rate**	Not available
Boiling Point Range	Not available	**Flammability (solid, gas)**	Not available
Autoignition	Not available	**Flash Point**	>110 °C (230 °F)
Lower Explosive Limit	Not available	**Decomposition**	Not available
Upper Explosive Limit	Not available	**Vapor Pressure**	4E-06 mmHg
Vapor Density (air=1)	8.5	**Specific Gravity (water=1)**	1.12 [@ 20 °C]
Water Solubility	Not available	**Partition coefficient: n-octanol/water**	Not available
Viscosity	2311 cP	**Solubility (Other)**	reacts, immiscible
Density	Not available	**VOC**	12 g/L

Section 10 - STABILITY AND REACTIVITY

Reactivity
May react on contact with water.

Chemical Stability
May react on contact with water.

Possibility of Hazardous Reactions
Polymerization may occur in the presence of metal compounds, alkalies, and tertiary amines at elevated temperatures.

Conditions to Avoid
Avoid flames, sparks, and other sources of ignition. Avoid contact with incompatible materials.

Incompatible Materials
Amines, alcohols, bases, acids, metal salts, metals, oxidizing materials.

Hazardous decomposition products
Water or Moisture: oxides of carbon.

Thermal decomposition products
carbon monoxide, organic compounds, hydrogen cyanide,

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation
May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Harmful if inhaled.

Skin Contact
Causes skin irritation. May cause allergic skin reaction.

Eye Contact
Causes serious eye irritation.

Ingestion
May cause gastrointestinal irritation and nausea.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50
The components of this material have been reviewed in various sources and the following selected endpoints are published:
Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)
Inhalation LC50Rat 490 mg/m3 4 h
4,4'-Methylenediphenyl diisocyanate (101-68-8)
Oral LD50Rat 31600 mg/kg
Dermal LD50Rabbit > 6200 mg/kg (related to Benzene, 1,1'-methylenebis[isocyanato-)
Inhalation LC50Rat 369 mg/m3 4 h
Chlorobenzene (108-90-7)
Oral LD50Rat 2914 mg/kg
Inhalation LC50Rat 13.5 mg/L 7 h

Immediate Effects
May cause respiratory irritation, skin irritation, eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction. Harmful if inhaled.

Delayed Effects
May cause respiratory system damage. May cause damage to organs through prolonged or repeated exposure.

Irritation/Corrosivity Data
skin irritation, eye irritation, respiratory tract irritation

Respiratory Sensitization
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Dermal Sensitization
May cause allergic skin reaction.

Component Carcinogenicity

Isocyanic acid, polymethylenepolyphenylene ester	9016-87-9
IARC:	Supplement 7 [1987]; Monograph 19 [1979](Group 3 (not classifiable))
DFG:	Category 4 (no significant contribution to human cancer)
4,4'-Methylenediphenyl diisocyanate	101-68-8
IARC:	Monograph 71 [1999]; Supplement 7 [1987]; Monograph 19 [1979](Group 3 (not classifiable))
DFG:	Category 4 (no significant contribution to human cancer)
Chlorobenzene	108-90-7
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

Germ Cell Mutagenicity
No information available for the product.

Reproductive Toxicity
No information available for the product.

Specific Target Organ Toxicity - Single Exposure
respiratory tract

Specific Target Organ Toxicity - Repeated Exposure
respiratory system

Aspiration hazard
No information available for the product.

Medical Conditions Aggravated by Exposure
No data available.

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

Chlorobenzene	108-90-7
Fish:	LC50 96 h Pimephales promelas 7 - 8.5 mg/L [flow-through]; LC50 96 h Pimephales promelas 4.5 mg/L [static]; LC50 96 h Lepomis macrochirus 6.9 - 7.9 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 4.1 - 4.9 mg/L [static]; LC50 96 h Oncorhynchus mykiss 4.1 - 5.3 mg/L [flow-through]; LC50 96 h Brachydanio rerio 91 mg/L [static]; LC50 96 h Poecilia reticulata 36.35 - 58.19 mg/L [static]
Algae:	EC50 96 h Pseudokirchneriella subcapitata 2.55 - 420 mg/L EPA; EC50 96 h Pseudokirchneriella subcapitata 12.5 mg/L [static] EPA
Invertebrate:	EC50 48 h Daphnia magna 0.59 mg/L IUCLID

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods
Dispose in accordance with all applicable regulations.

Section 14 - TRANSPORT INFORMATION

US DOT Information:
UN/NA #: Not Regulated

TDG Information:
UN#: Not Regulated

IATA Information:
UN#: Not Regulated

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Isocyanic acid, polymethylenepolyphenylene ester	9016-87-9
SARA 313:	1 % de minimis concentration
4,4'-Methylenediphenyl diisocyanate	101-68-8
SARA 313:	1 % de minimis concentration
CERCLA:	5000 lbfinal RQ; 2270 kgfinal RQ
Chlorobenzene	108-90-7
SARA 313:	1 % de minimis concentration
CERCLA:	100 lbfinal RQ; 45.4 kgfinal RQ

SARA Section 311/312 (40 CFR 370 Subparts B and C)
Acute Health: Yes **Chronic Health:** Yes **Fire:** No **Pressure:** No **Reactivity:** Yes

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Isocyanic acid, polymethylenepolyphenylene ester	9016-87-9	No	No	No	Yes	No
4,4'-Methylenediphenyl diisocyanate	101-68-8	Yes	Yes	Yes	Yes	Yes
Chlorobenzene	108-90-7	Yes	Yes	Yes	Yes	Yes

Not listed under California Proposition 65

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

4,4'-Methylenediphenyl diisocyanate	101-68-8
	0.1 %
Chlorobenzene	108-90-7
	1 %

Component Analysis - Inventory

Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX

Yes	DSL	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

4,4'-Methylenediphenyl diisocyanate (101-68-8)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Chlorobenzene (108-90-7)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 2 Fire: 1 Reactivity: 1
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

Summary of Changes

Update: 1/7/2015

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Reasonable care has been taken in the preparation of this information; however, the manufacturer makes no warranty whatsoever including the warranty of merchantability, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental, consequential, or other such damages resulting from its use or misuse.

Disclaimer:

Supplier gives no warranty whatsoever, including the warranties of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser shall determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental, consequential or any other damages arising out of the use or misuse of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.

SAFETY DATA SHEET

Issuing Date: 18-Mar-2016 **Revision Date:** 18-Mar-2016 **Version** 3.01

1. IDENTIFICATION

Product Name Febreze Fabric Refresher - Carpet Odor Eliminator

Product ID: 92129111_RET_NG

Product Type: Finished Product - Consumer (Retail) Use Only

Recommended Use Fabric Refresher.

Restrictions on Use Safe to use around dogs and cats. As with other care products, not for use around birds.

Synonyms

Febreze Fabric Refresher - Greek Seaside (92137737_RET_NG)
Febreze Fabric Refresher - Vanilla & Moonlight (92137737_A_RET_NG)
Febreze Fabric Refresher - Sleep Serenity, Quiet Jasmine (92198320_RET_NG)
Febreze Fabric Refresher - Sleep Serenity, Moonlit Lavender (92210463_RET_NG)
Febreze Fabric Refresher - Sleep Serenity, Warm Milk & Honey (92210465_RET_NG)
Febreze Fabric Refresher - Fluffy Vanilla (96225621_RET_NG)
Febreze Fabric Refresher - Ginger Verbena (96259114_RET_NG)
Febreze Fabric Refresher - Rain (96259114_A_RET_NG)
Febreze Fabric Refresher - Toasted Almond (96688848_RET_NG)
Febreze Fabric Refresher - Grapefruit Fizz (99691854_RET_NG)
Febreze Fabric Refresher - Pineapple Melon Spritzer (99691854_A_RET_NG)
Febreze Fabric Refresher - Sweet Citrus & Zest (99691854_B_RET_NG)
Febreze Fabric Refresher - Clean Auto (99764729_RET_NG)
Febreze Fabric Refresher - Extra Strength (99764732_RET_NG)
Febreze Fabric Refresher - Vanilla & Cream (99764736_RET_NG)
Febreze Fabric Refresher Lavender - Vanilla & Comfort (99764736_A_RET_NG)
Febreze Fabric Refresher - Pet Odor Eliminator (99765269_RET_NG)
Febreze Fabric Refresher - Champion Cool Breeze (99896882_RET_NG)
Febreze Fabric Refresher - Mediterranean Lavender (99901179_RET_NG)
Febreze Fabric Refresher - Morning Herbs & Mist (99985542_RET_NG)
Febreze Fabric Refresher - Turquoise Sea & Shimmer (99985542_A_RET_NG)
Febreze Fabric Refresher - Sport Victory Fresh (98780070_RET_NG)
Febreze Fabric Refresher - Gain Original Scent (99764734_RET_NG)

Febreze Fabric Refresher - Linen & Sky (96769254_RET_NG)
Febreze Fabric Refresher - Spring & Renewal (96774864_RET_NG)
Febreze Fabric Refresher - Meadows & Rain (96774843_RET_NG)
Febreze Fabric Refresher - Jasmine Fresh (96810496_RET_NG)
Febreze Fabric Refresher - Jasmine Lush (96934352_RET_NG)
Febreze Fabric Refresher - Jasmine Shimmer (96934448_RET_NG)
Febreze Fabric Refresher - Jasmine Dazzle (97232054_RET_NG)
Febreze Fabric Refresher - Jasmine Spring

Manufacturer

PROCTER & GAMBLE - Fabric and Home Care Division
Ivorydale Technical Centre
5289 Spring Grove Avenue
Cincinnati, Ohio 45217-1087 USA

Procter & Gamble Inc.

P.O. Box 355, Station A
Toronto, ON M5W 1C5
1-800-331-3774

E-mail Address pgsds.im@pg.com

Emergency Telephone Transportation (24 HR)
CHEMTREC - 1-800-424-9300
(U.S./ Canada) or 1-703-527-3887
Mexico toll free in country: 800-681-9531

2. HAZARD IDENTIFICATION

"Consumer Products", as defined by the US Consumer Product Safety Act and which are used as intended (typical consumer duration and frequency), are exempt from the OSHA Hazard Communication Standard (29 CFR 1910.1200). This SDS is being provided as a courtesy to help assist in the safe handling and proper use of the product.

This product is classifed under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:.

Not Classified.

Hazard Statements None

Hazard pictograms None

Precautionary Statements None

Precautionary Statements - Response None

Precautionary Statements - Storage None

Precautionary Statements - Disposal None

Hazards not otherwise classified (HNOC) None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

Chemical Name	Synonyms	Trade Secret	CAS-No	Weight %
Ethanol	Ethanol	No	64-17-5	1 - 5

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact Rinse with plenty of water. Get medical attention immediately if irritation persists.

Skin contact Rinse with plenty of water. Get medical attention if irritation develops and persists.

Ingestion Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if

symptoms occur.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Most important symptoms/effects, acute and delayed None under normal use conditions.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Dry chemical, CO_2, alcohol-resistant foam or water spray. Dry chemical. Alcohol-resistant foam.

Unsuitable Extinguishing Media None.

Special hazard None known.

Special protective equipment for fire-fighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Specific hazards arising from the chemical None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment. Do not get in eyes, on skin, or on clothing.

Advice for emergency responders Use personal protective equipment as required.

Environmental precautions Keep out of waterways
Do not discharge product into natural waters without pre-treatment or adequate dilution

Methods and materials for containment and cleaning up

Methods for containment Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines .

Chemical Name	CAS-No	ACGIH TLV	OSHA PEL	Mexico PEL
Ethanol	64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m³	Mexico: TWA 1000 ppm Mexico: TWA 1900 mg/m³

Chemical Name	CAS-No	Alberta	Quebec	Ontario TWAEV	British Columbia
Ethanol	64-17-5	TWA: 1000 ppm TWA: 1880 mg/m³	TWA: 1000 ppm TWA: 1880 mg/m³	STEL: 1000 ppm	STEL: 1000 ppm

No relevant exposure guidelines for other ingredients

Exposure controls

Engineering Measures

Distribution, Workplace and Household Settings:
Ensure adequate ventilation

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction

Personal Protective Equipment

Eye Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Use appropriate eye protection

Hand Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Protective gloves

Skin and Body Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Wear suitable protective clothing

Respiratory Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
In case of insufficient ventilation wear suitable respiratory equipment

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @20°C Liquid

Appearance	Clear
Odor	Perfume
Odor threshold	No information available

Property	Values	Note
pH value	6.0 - 8.4	
Melting/freezing point	No information available	
Boiling point/boiling range	100 °C / 212 °F	
Flash point	57.8 - 70.5 °C / 136 - 159 °F	Product is an aqueous solution containing <= 24% alcohol and> 50% water
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limit	No information available	
Lower Flammability Limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	1.0 - 1.4	
Water solubility	soluble	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	.
Decomposition temperature	No information available	.
Viscosity of Product	No information available	
VOC Content (%)	Products comply with US state and federal regulations for VOC content in consumer products.	

10. STABILITY AND REACTIVITY

Reactivity None under normal use conditions.

Stability Stable under normal conditions.

Hazardous polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

Conditions to Avoid None under normal processing.

Materials to avoid None in particular.

Hazardous Decomposition Products None under normal use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Inhalation	No known effect.
Skin contact	No known effect.
Ingestion	No known effect.
Eye contact	No known effect.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity	No known effect.
Skin corrosion/irritation	No known effect.
Serious eye damage/eye irritation	No known effect.
Skin sensitization	No known effect.
Respiratory sensitization	No known effect.
Germ cell mutagenicity	No known effect.
Neurological Effects	No known effect.
Reproductive toxicity	No known effect.
Developmental toxicity	No known effect.

Teratogenicity	No known effect.
STOT - single exposure	No known effect.
STOT - repeated exposure	No known effect.
Target Organ Effects	No known effect.
Aspiration hazard	No known effect.
Carcinogenicity	No known effect.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not expected to be hazardous to the environment.

Persistence and degradability	No information available.
Bioaccumulative potential	No information available.
Mobility	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste from Residues / Unused Products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.
California Hazardous Waste Codes (non-household setting)	331

14. TRANSPORT INFORMATION

DOT	Not regulated
IMDG	Not regulated
IATA	Not regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	CAS-No	Hazardous Substances RQs	Extremely Hazardous Substances RQs	CERCLA/SARA 302 TPQ
Maleic acid (C = 25 %: Xn; R22-36/37/38-4320 % = C <25	110-16-7	5000 lb	-	

%: Xi; R36/37/38-430,1 % = C < 20 %: Xi; R43)				

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

Clean Water Act
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CAS-No	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Maleic acid (C = 25 %: Xn; R22-36/37/38-4320 % = C <25 %: Xi; R36/37/38-430,1 % = C < 20 %: Xi; R43)	110-16-7	5000 lb	-	-	X

California Proposition 65
This product is not subject to warning labeling under California Proposition 65.

U.S. State Regulations (RTK)

Chemical Name	CAS-No	New Jersey
Ethanol	64-17-5	X

Chemical Name	CAS-No	Massachusetts
Ethanol	64-17-5	X

Chemical Name	CAS-No	Pennsylvania
Ethanol	64-17-5	X
2,2'-Oxybisethanol	111-46-6	X
Dipropylene glycol	25265-71-8	X
Maleic acid (C = 25 %: Xn; R22-36/37/38-4320 % = C <25 %: Xi; R36/37/38-430,1 % = C < 20 %: Xi; R43)	110-16-7	X

International Inventories

United States
All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

Canada
This product is in compliance with CEPA for import by P&G.

Legend
United States Toxic Substances Control Act Section 8(b) Inventory (TSCA)
CEPA - Canadian Environmental Protection Act

16. OTHER INFORMATION

Issuing Date: 18-Mar-2016
Revision Date: 18-Mar-2016

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

MATERIAL SAFETY DATA SHEET

Aves Studio, LLC • PO Box 344 • River Falls, WI 54022

Section 1: Chemical Product and Company Identification

Manufacturer	Emergency Telephone Numbers
AVES Studio, LLC PO Box 344 River Falls, WI 54022	AVES Studio, LLC PO Box 344 River Falls, WI 54022 715-386-9097 For 24 Hour Response Contact: Rocky Mountain Poison and Drug Center 303-739-1110

Product Category

Two part kit of modeling clay – repair compound

Product Included

FIXIT® - All Colors and Versions
Part A contains the base material, resin, and the colorant (if any). Part B contains the base material and the catalyst.
Part A and Part B mixed 50/50 by weight. Cured FIXIT® gets very hard and durable.
Finished product will accept tooling as well as all paints and finishes.

Date Issued: 02/19/2009	Supersedes: previous issue

Section 2: Information on Ingredients

Part A

A putty like material composed 60% to 100% by weight of blended silicates [CAS 1332-58-7, EG/EC Not listed, EINICS 31094-1; CAS 14807-96-6, EG/EC 2388779] and epoxy resin [CAS 025085-99-8, EG/EC Not registered].
Dry and/or liquid colorants may be suspended in the blend in the range of 0% to 30% by weight.

Part B

A putty-like material composed 60% to 100% by weight of blended silicates [CAS 14807-96-6, EG/EC 2388779] and polymer resin [CAS 68410-23-1, EG/EC Not registered].

FIXIT® Cured

A solid material created by blending equal weights of part A and part B, then allowing that blend to cure and dry.

Section 3: Hazards Identification

Emergency Overview

This set of products is designed to be safe in normal use by artistic professionals, serious crafters or hobbyists, and repair or restoration professionals. It is not intended for use by children.

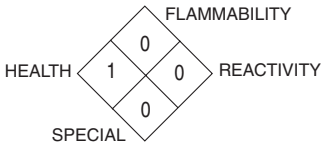
Conforms to ASTM D4236.

Improper use of large quantities of Parts A and B could lead to eye and skin exposure and possible inhalation and ingestion. Exposed eyes and skin could become red and irritated. Inhalation could produce irritation of the throat and symptoms such as coughing. Ingestion of any component could provoke gastro-intestinal irritation, evidenced by choking, vomiting, or other symptoms. Ingestion of cured FIXIT® could provoke gastro-intestinal irritation. Dust raised by sanding of cured FIXIT® could produce irritation of the throat and symptoms such as coughing.

Parts A and B are non-flammable and non-combustible. Similar compositions have been tested per DOT [49 CFR 173.124 and Appendix E] and UN Manual of Tests and Criteria [Part III, Subsections 33.2.1 and 33.3.1] and found to be non-flammable and non-combustible [non-self-heating]. Cured FIXIT® is not known to be flammable or combustible.

The outer packaging and the plastic containers could burn, releasing oxides of carbon and other irritating/toxic gases.

Section 3: Hazards Identification

HMIS Rating:	NFPA Rating:	EU Hazard class XN Harmful
Health: 1 Flammability: 0 Reactivity: 0 Protective Equipment: B [safety glasses and gloves]	4 – Extreme 3 – High 2 – Moderate 1 – Slight 0 – Insignificant	 <X>

Potential Health Effects

ACUTE

Exposure type	Risk	EU Risk/Safety Codes
EYE:	May produce redness and irritation.	R 36, S 25
SKIN:	May produce redness and irritation.	R 21, S 24
INHALATION:	May irritate the mouth and throat.	R 20, S 22
INGESTION:	Could provoke gastric irritation and nausea.	R 22

CHRONIC

Prolonged or repeated eye exposure to parts A or B could produce corneal burns. Prolonged or repeated skin exposure to Parts A or B could provoke dermatitis and/or blisters. Prolonged exposure by inhalation of dust from sanding or grinding cured FIXIT® could produce coughing, burns, breathing difficulty. Ingestion of large amounts could produce esophageal and gastric burns.

SIGNS AND SYMPTOMS

"Itchy" sore eyes or skin. Persistent sore throat.

See Section 11: Toxicological Information

Section 4: First Aid Measures

First Aid Procedures

Exposure Route	Directions	EU Risk/Safety Codes
EYE:	Flush the eyes with plenty of water for at least 15 minutes. If necessary, gently hold the eyelids open during the flush. Seek medical advice if problem persists or worsens.	S 26
SKIN:	Remove contaminated clothing. First rinse affected area with water, then wash with soap and water. If irritation or other symptoms persist, seek medical advice. Launder contaminated clothing.	S 27/28
INHALATION:	If the victim has difficulty breathing move them into fresh air and keep at rest. If problem persists or worsens seek medical attention.	S 63
INGESTION:	Do not induce vomiting unless directed to do so by medical personnel. Seek medical advice if necessary and show this container or label.	S 62

Note To Physician

None

Section 5: Fire Fighting Measures	
Fire and Explosive Properties	
Parts A and B are non-flammable and non-combustible per DOT [49 CFR 173.124 and Appendix E]. Cured FIXIT® is not known to be flammable or combustible.	
Flash Point and method	Parts A and B >200 deg F (or 93 deg C) [ASTM D93]
LEL/UEL in air	N/A
Auto-ignition temperature	N/A
Known/anticipated hazardous combustion products	Oxides of nitrogen and carbon, other toxic/irritating gases.
Extinguishing media	
Control fire with appropriate media [dry chemical, water spray, water fog, CO_2, foam, or sand/earth].	
Fire-fighting Instructions	
Due to possibility of evolution of toxic gases, fire fighters should wear NIOSH approved self-contained breathing apparatus and full protective gear. S 43	

Section 6: Accidental Release Measures		
Material	**Directions**	**EU Risk/Safety Codes**
Parts A or B, or cured FIXIT®:	Scrape, shovel or sweep up the material. Dispose of as solid waste, according to local, state, federal regulations. Clean up: Remove any residue with soap and water or Aves® Safety Solvent.	S 40

Section 7: Handling and Storage		
Topic	**Directions**	**EU Risk/Safety Codes**
Handling	Wear rubber gloves and safety glasses.	S 37/39
	Avoid breathing any dusts or mists generated.	S 22
	After handling, wash hands with soap and water.	S 28
Storage	Keep containers tightly sealed.	S 7
	May be stored in any suitable chemical storage area.	
	Store at temperatures less than 120 deg F [49 deg C]	S 47
FIXIT® Part A and B, and cured FIXIT®, are freeze-thaw stable.		

Section 8: Exposure Controls, Personal Protection

Engineering Controls

Provide sufficient natural or mechanical ventilation. S 51

Personal Protective Equipment [PPE]

Topic	Directions	EU Risk/Safety Codes
EYE/FACE	Safety goggles	S 39
SKIN:	Appropriate disposable gloves [e.g., vinyl or nitrile]	S 37
RESPIRATORY:	Dust mask when sanding or grinding cured FIXIT®.	S 36 [dust mask]

Exposure Guidelines [mg/m^3 unless otherwise indicated]

Item	OSHA PEL		ACGIH TLV	
	TWA	STEL	TWA	STEL
Part A, all colors	No data	No data	No data	No data
Part B	No data	No data	No data	No data
Cured FIXIT® [dust from grinding or sanding cured and dried material] Nuisance dust from all colors	10	No data	10	No data
Cured FIXIT® [dust from grinding or sanding cured and dried material] Possible trace amounts of crystalline silica from all colors	0.1	Not listed	0.05	Not listed

Section 9: Physical and Chemical Properties

Appearance	FIXIT® Part A is a putty-like material with the indicated color. FIXIT® Part B is a putty-like material with a grayish color. Cured FIXIT® is a hard material with the color from Part A.
Odor	Parts A and B: very faint odor reminiscent of “putty”. Cured FIXIT®: no odor.
Physical State	FIXIT® Part A or B: semi-soft, putty-like material. Fully Cured FIXIT®: solid.
pH	5% weight basis suspension: Part A: 8.0 Part B: 10.4 Cured FIXIT®: 7.9
Vapor pressure	N/A
Vapor density	N/A
Boiling point	N/A
Freezing/melting point	No form of FIXIT® Part A or Part B freezes or melts. FIXIT® Part A and Part B are FREEZE-THAW STABLE. Fully cured FIXIT® is solid at all temperatures.
Solubility in water	Part A or B: slight Cured FIXIT®: insoluble
% volatiles	Part A or B: <1% if allowed to dry without being mixed, one with the other. Cured FIXIT®: <1% after full cure.
Specific gravity	FIXIT®, Part A: 2.2 FIXIT®, Part B: 1.9 FIXIT®, Cured: 1.7 [water = 1]
VOC content	N/A

Section 10: Stability and Reactivity	
Chemical Stability	Stable [Part A or B, or Cured FIXIT®]
Hazardous polymerization	Will not occur [Part A or B, or Cured FIXIT®]
Conditions to avoid	Contact with strong acids or bases [Part A or B, or Cured FIXIT®] Temperatures > 200 deg C (392 deg F) [Part A or B, or Cured FIXIT®]
Incompatibility with other materials	Strong acids or bases [Part A or B, or Cured FIXIT®]
Hazardous decomposition products	Oxides of carbon, nitrogen, other toxic/irritating gases

Section 11: Toxicological Information		
Acute Effects [expressed as LD_{50} or other result in animal]		
EYE	Parts A or B: slight irritant. Cured FIXIT®: dust from sanding or grinding may irritate eye.	
SKIN	Parts A or B: slight irritant. May produce contact dermatitis in sensitive individuals.	
INHALATION	See Section 8 for OSHA/ACGIH exposure data.	
	Part A or B, Cured FIXIT®	No data
INGESTION	Product or Ingredient	LD50 for rat or other animal
	Part A or B, Cured FIXIT®	No data
Chronic Effects		
No other data available for Parts A or B or for cured FIXIT®.		
Carcinogenicity		
No named ingredient is listed as carcinogenic by N.T.P., IARC, or OSHA.		

Section 12: Ecological Information
Bronze and Aluminum FIXIT® were tested for extractable metals by EPA TCLP. The metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) could not be detected at 0.1 mg/L sensitivity. There are no data on the effects of Parts A or B or cured FIXIT® on aquatic or terrestrial life forms.

Section 13: Disposal Considerations
Dispose of according to local, state, or federal regulation, as directed in Section 6.

Section 14: Transportation Information
DOT [HM 181]: Not regulated.
International Transport Regulations: Not regulated.

Section 15: Regulatory Information	
U.S. Federal Regulations	
OSHA STATUS	No hazardous ingredients per 29 CFR 1910.1200
TSCA STATUS	Ingredients on TSCA Inventory
FIFRA STATUS	None listed
CERCLA REPORTABLE QUANTITY	None
SARA, TITLE III 302: EXTREMELY HAZARDOUS CHEMICALS	None
SARA, TITLE III 313: TOXIC CHEMICALS	None
RCRA STATUS	If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic.
European Regulations Not listed under EINICS	

Section 16: Other Information
Text, Warnings, or Other Health/Safety Information and EU Risk/Safety Code (if applicable)
Keep out of reach of children. .....S 2 Wear appropriate disposable gloves [e.g., vinyl or nitrile] when blending Parts A and B. .....S 37 Wear goggles and dust mask when sanding or grinding cured FIXIT®. .....S 36 Clean up with soap and water or Aves® Safety Solvent. *Conforms to ASTM D4236.*
Disclaimer
The data and recommendations presented herein are based upon research and analysis and are believed to be accurate. AVES® STUDIO, LLC does not assume any liability whatsoever for the accuracy of the information contained herein, and no warranty is expressed or implied regarding the data or the results to be obtained from the use thereof. It is the user's sole responsibility to judge the suitability of this product. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. AVES® STUDIO, LLC assumes no responsibility for the injury to any customers or third persons proximately caused by the use of the material if reasonable safety procedures are not adhered to as stipulated in the data sheets. Additionally, since actual product use by others is beyond our control, no guarantee, expressed or implied, is made by AVES® STUDIO, LLC, as to the effect of usage, the results to be obtained or the safety and toxicity of the product, nor does AVES® STUDIO, LLC assume any liability arising as a result of the use, misuse or abuse by others of the facts and data herein presented. The information provided herein is provided by AVES® STUDIO, LLC, solely for the customer's information and assistance in compliance with The Occupational Safety & Health Act of 1970 and the rules and regulations thereunder and amended thereto.

LUBRICANTS.
TECHNOLOGY.
PEOPLE.

SAFETY DATA SHEET

1. Identification

Product name RENOLIT ST 80 NLGI 2 1/2

Other means of identification No data available.

Recommended use: Lubricating grease

Restrictions on use: Industrial use only

Manufacturer/Importer/Supplier/Distributor Information

Manufacturer

Company Name:	Fuchs Lubricants Co.
Address:	17050 Lathrop Avenue Harvey, Illinois 60426
Telephone:	708-333-8900
Fax:	708-333-9180
Contact Person:	EHS Department
E-mail:	sds@fuchsus.com

Emergency telephone number: 708-333-8900 (Bus. hrs) 800-255-3924 (24 hrs)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Acute toxicity (Oral)	Category 4
Acute toxicity (Dermal)	Category 3

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement: Toxic in contact with skin.
Harmful if swallowed.

Precautionary Statements

Prevention: Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Response: IF ON SKIN: Wash with plenty of water. IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell. Rinse mouth. Call a POISON CENTER/doctor if you feel unwell. Specific measures (see this label). Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification: None.

Unknown toxicity - **Health**

Acute toxicity, oral	4.32 %
Acute toxicity, dermal	4.37 %
Acute toxicity, inhalation, vapor	99.26 %
Acute toxicity, inhalation, dust or mist	97.87 %

3. Composition/information on ingredients

Hazardous Component(s):

Chemical name	CAS-No.	Concentration
Mineral oil	Confidential	60 - 100%
Zinc compound	Confidential	1 - 5%

Specific chemical identities and/or exact percentages have been withheld as trade secrets.

4. First-aid measures

Ingestion: Call a POISON CENTER/doctor/.../if you feel unwell. Rinse mouth. Never give liquid to an unconscious person. Do not induce vomiting without advice from poison control center.

Inhalation: Move to fresh air. Call a POISON CENTER/doctor/.../if you feel unwell.

Skin Contact:	Remove contaminated/saturated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Call a POISON CENTER/doctor/.../if you feel unwell.
Eye contact:	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a POISON CENTER/doctor/.../if you feel unwell.

Most important symptoms/effects, acute and delayed

Symptoms:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards:	No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Water spray, fog, CO2, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media:	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical:	Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	No data available.
Special protective equipment for fire-fighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Evacuate area. See Section 8 of the SDS for Personal Protective Equipment. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Absorb spill with an inert material, then place in a container for safe and proper disposal. Dike far ahead of larger spill for later recovery and disposal.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling: Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container. Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. Do not taste or swallow.

Conditions for safe storage, including any incompatibilities: Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials. Store locked up.

8. Exposure controls/personal protection

Exposure Limits

Chemical name	type	Exposure Limit Values	Source
Mineral oil - Mist.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
Mineral oil - Mist.	STEL	10 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
Zinc compound - Fume.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Zinc compound - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Zinc compound - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

Protective Measures: Provide easy access to water supply and eye wash facilities. Good general ventilation should be provided. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

Eye Protection: Wear safety glasses with side shields (or goggles).

Skin and Body Protection: Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer

for specific information.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Contaminated work clothing should be laundered prior to re-use. Discard contaminated footwear that cannot be cleaned. Avoid contact with skin, eyes, and clothing.

9. Physical and chemical properties

Appearance	
Physical state:	Solid
Form:	Grease
Color:	Beige
Odor:	Mild petroleum
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	210 °C (410 °F)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	0.94
Solubility(ies)	
Solubility in water:	Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	> 22 mm2/s (40 °C, Estimated)

10. Stability and reactivity

Reactivity: Not reactive during normal use.

Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	None under normal conditions.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise. Harmful if swallowed.
Inhalation:	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	Prolonged skin contact may cause redness and irritation. Toxic in contact with skin.
Eye contact:	Eye contact is possible and should be avoided.

Symptoms related to the physical, chemical and toxicological characteristics

Ingestion:	No data available.
Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: ATEmix (): 300 - 2000 mg/kg

Dermal
Product: ATEmix (): 200 - 1000 mg/kg

Inhalation
Product: Not classified for acute toxicity based on available data.

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

Serious Eye Damage/Eye Irritation
Product: No data available.

Respiratory or Skin Sensitization
Product: No data available.

Carcinogenicity
Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):
No carcinogenic components identified

Germ Cell Mutagenicity

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity
Product: No data available.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard
Product: No data available.

Other effects: No data available.

12. Ecological information

General information: This product has not been evaluated for ecological toxicity or other environmental effects.

13. Disposal considerations

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

Contaminated Packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT
Not regulated.

IMDG
Not regulated.

IATA
Not regulated.

15. Regulatory information

US Federal Regulations

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate (Acute) Health Hazards

SARA 313 (TRI Reporting)

Chemical Identity	Reporting threshold for other users	Reporting threshold for manufacturing and processing
Zinc compound	10000 lbs	25000 lbs.

US State Regulations

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

16.Other information, including date of preparation or last revision

Issue Date:	19.10.2016
Revision Date:	19.10.2016
Version #:	1.2
Further Information:	No data available.
Disclaimer:	This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

ALLTEMP PRODUCTS COMPANY LIMITED

MATERIAL SAFETY DATA SHEET

SECTION 1 — PRODUCT IDENTIFICATION AND USE

PRODUCT IDENTIFIER: Silicone Rubber Sealant, SCS1705 12R-Crtrg (0.730 Lbs-0.331 Kg) Almond	PRODUCT IDENTIFICATION NUMBER (PIN)
PRODUCT USE: Sealant	

MANUFACTURER'S NAME: **GES Waterford Plant**		SUPPLIER'S NAME: Alltemp Products Limited	
STREET ADDRESS: **260 Hudson River Rd**		STREET ADDRESS: 827 Brock Road S.	
CITY: **Waterford**	PROVINCE: **NY , USA**	CITY: Pickering	PROVINCE: Ontario, Canada
POSTAL CODE: **12188**	EMERGENCY TELEPHONE: 1-800-424-9300	POSTAL CODE: L1W 3J2	EMERGENCY TELEPHONE NO.

SECTION 2 — HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	%	CAS NUMBER	LD_{50} OF INGREDIENT (SPECIFY SPECIES AND ROUTE)	LC_{50} OF INGREDIENT (SPECIFY SPECIES)
Methyltriacetoxysilane	1-5%	4253-34-3	N/A	N/A
Octamethylcyclotetrasiloxane	1-5%	556-67-2	N/A	N/A
SILOXANES & SILICONES,DIMETHYL-POLYMERS W/ METHYLSILSESQUIOXANES	5-10%	68554-67-6	N/A	N/A
Treated Filler	5 - 10 %	68611-44-9		
Dimethylpolysiloxane	60 - 90 %	70131-67-8		

SECTION 3 — PHYSICAL DATA

PHYSICAL STATE Solid	ODOUR AND APPEARANCE Acetic Acid odor			ODOUR THRESHOLD (ppm) Not available
VAPOUR PRESSURE (mm Hg) not applicable	VAPOUR DENSITY (AIR=1) not applicable	EVAPORATION RATE <1	BOILING POINT (ºC) N/A	FREEZING POINT (ºC) N/A
pH N/A	SPECIFIC GRAVITY 1.06	COEFF. WATER/OIL DIST. N/A		

SECTION 4 — FIRE AND EXPLOSION DATA

FLAMMABILITY

YES NO IF YES, UNDER WHICH CONDITIONS?

MEANS OF EXTINCTION

FLASHPOINT (ºC) AND METHOD	UPPER FLAMMABLE LIMIT (% BY VOLUME)	LOWER FLAMMABE LIMIT (% BY VOLUME)
AUTOIGNITION TEMPERATURE (ºC)	HAZARDOUS COMBUSTION PRODUCTS	

EXPLOSION DATA — SENSITIVITY TO IMPACT	SENSITIVITY TO STATIC DISCHARGE

SECTION 5 — REACTIVITY DATA

CHEMICAL STABILITY

YES

INCOMPATIBILITY WITH OTHER SUBSTANCES

NO IF SO, WHICH ONES?

REACTIVITY, AND UNDER WHAT CONDITIONS

Not available

HAZARDOUS DECOMPOSITION PRODUCTS

Carbon dioxide (CO_2) formaldehyde Carbon monoxide Acetic acid Silicon dioxide.

PRODUCT

IDENTIFIER Silicone Rubber Sealant, SCS1705 12R-Crtrg (0.730 Lbs-0.331 Kg) Almond

SECTION 6 — TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY

SKIN CONTACT EYE CONTACT INGESTION

EFFECTS OF ACUTE EXPOSURE TO PRODUCT

INGESTION: May be harmful if swallowed.
SKIN: May cause mild skin irritation.
INHALATION: None known.
EYES: May cause mild eye irritation.

EFFECTS OF CHRONIC EXPOSURE TO PRODUCT

This product or one of its ingredients present 0.1% or more is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA.

EXPOSURE LIMITS	IRRITANCY OF PRODUCT	SENSITIZATION TO PRODUCT	CARCINOGENICITY
Not Available	Not Available	Not Available	None known
TERATOGENICITY	**REPRODUCTIVE TOXICITY**	**MUTAGENICITY**	**SYNERGISTIC PRODUCTS**
Not Available	Not Available	Not Available	Not Available

SECTION 7 — PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT

GLOVES (SPECIFY)	RESPIRATOR (SPECIFY)	EYE (SPECIFY)
Cloth gloves	If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations	Safety glasses
FOOTWEAR (SPECIFY)	**CLOTHING (SPECIFY)**	**OTHER (SPECIFY)**
N/A	N/A	Wear suitable protective clothing and eye/face protection.

ENGINEERING CONTROLS (SPECIFY, EG. VENTILATION, ENCLOSED PROCESS.)

Eyewash stations Showers Exhaust ventilation

LEAK AND SPILL PROCEDURE

Wipe, scrape or soak up in an inert material and put in a container for disposal. Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section. Increase area ventilation.

WASTE DISPOSAL

Dispose of in accordance to federal provincial and local regulations

HANDLING PROCEDURES AND EQUIPMENT

N/A

STORAGE REQUIREMENTS

Use only in well-ventilated areas. Avoid contact with skin and eyes. Keep away from children. Remove contact lenses before using sealant. Do not handle lenses until all sealant has been cleaned from the fingertips, nails and cuticles. Residual sealant may remain on fingers for several days and transfer to lenses and cause severe eye irritation. Store away from heat, sources of ignition, and

SPECIAL SHIPPING INFORMATION

Chemical Name	Class	Subclass	Small Means of Containment	Consumer Commodities
Shipping not regulated				

SECTION 8 — FIRST AID MEASURES

SPECIFIC MEASURES

INGESTION: Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.
SKIN: To clean from skin, remove completely with a dry cloth or paper towel, before washing with detergent and water.Get medical attention if irritation persists.
INHALATION: If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If breathing is difficult give oxygen. Get medical attention.
EYES: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Silicone Rubber Sealant, SCS1705 12R-Crtrg (0.730 Lbs-0.331 Kg) Almond

SECTION 9 — PREPARATION DATE OF MSDS

PREPARED BY (GROUP, DEPARTMENT, ETC.)	PHONE NUMBER	DATE
Health and Safety Department	1-800-263-4624	09/09/2012

ALLTEMP
PRODUCTS COMPANY LIMITED

Glenmarc Industries Inc. **2001 S. Blue Island Ave Chicago IL 60608**
312-243-0800 fax 312-243-4670 email: info@glenmarc .com www.glenmarc.com

Material Safety Data Sheet

Date 7/01/2008

SECTION 1

MANUFACTURER:
Glenmarc Industries Inc.
2001 S. Blue Island Ave.
Chicago IL 60608

Emergency Phone:
800-255-3924
Chemtel
Non-emergency Phone:
800-323-5350

PRODUCT NAME:
Carbon Black Pigment

SECTION 2 COMPOSITION

	CAS#	Concentration
Polyester Resin(s)	not hazardous	87-89%
Carbon Black Pigment	1333-86-4	11-13%

SECTION 3 HAZARDS IDENTIFICATION

Appearance: Black liquid, opaque
Hazard Summary: Caution, inhalation of vapor or mist can cause:
Irritation of throat, nose and lungs
May cause eye/skin irritation
Prolonged or repeated overexposure to carbon black can cause lung effects
Primary route of entry: inhalation

Inhalation: Irritation of nose, throat and lungs
Ingestion: Possibly harmful if swallowed. Can cause gastrointestinal irritation
Skin contact: minor irritation
Eye contact: Minor transient irritation, reddening
Chronic Exposure: Prolonged or repeated overexposure to carbon black can cause lung effects.

Carbon Black Pigment	ACGIH	Not classified as human carcinogen
Carbon Black Pigment	IARC	Possible carcinogen
Carbon Black Pigment	US CA CRT	Carcinogenic
Carbon Black Pigment	NIOSH	Potentially carcinogenic

SECTION 4 FIRST AID

Inhalation: remove to fresh air
Ingestion: drink 1-2 glasses of water. Consult physician. Never give anything by mouth to an unconscious person.
Skin contact: Wash affected area with soap and water. Consult physician if irritation persists.
Eye contact: Flush eyes with water as precaution. Consult physician if irritation persists.
Notes to Physician:
Treatment should be directed at preventing absorption, administering to symptoms (if they occur) and providing supportive therapy

SECTION 5 FIRE-FIGHTING MEASURES

Flash point and method used: 232C (450F) Tag closed cup
Flammable limits/%Volume in Air lower-n/a Upper- n/a

Extinguishing Media: CO2, dry chemicals, water fog
Thermal decomposition: Combustion generates toxic fumes of the following:
Carbon oxides, sulfur oxides.
Special Fire Fighting Procedures and Precautions: Do not enter confined fire space without proper protective equipment including a NIOSH approved self-contained breathing apparatus. Cool fire exposed container with water

Unusual Fire and Explosion Hazards: none

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill or leak procedures:
Use cautious judgment when cleaning up large spills.
Large spills:
Wear protective clothing as appropriate. Shut off sources of leak if safe to do so. Dike and contain. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material. Dispose of properly. Flush area with water to remove trace residue.

Small spills: Take up with an absorbent material and dispose of properly.

Incinerate or bury in landfill according to federal, state and local guidelines.

SECTION 7 HANDLING/STORAGE

Keep container tightly closed. Store in cool, dry place.

Avoid temperature extremes during storage. Ambient temperature preferred.
Vapors can be evolved when material is heated during processing operations.
Appropriate protective equipment must be worn when handling spill of this material: See section 8. If exposed to material during clean-up operations, see Section 4.
Refer to applicable local and state and federal regulations for disposal.
Dispose empty container in a sanitary landfill or by incineration as allowed by state and local authorities.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION:

Exposure Limits:	TWA	STEL	
Carbon Black	3.0 mg/m3	6mg/m3	
	ACGIH	TWA	3.5MG/M3
	OSHA-TRANS	PEL	3.5MG/M3

Respiratory protection (NIOSH approved organic vapor respirators) only required if ventilation is inadequate. NIOSH approved respirators or self-contained breathing apparatus should be used in confined spaces. None required if the airborne concentrations are maintained below the exposure limit listed in Exposure limit information. Up to 10 times the exposure limit: wear a properly fitted NIOSH approved half mask, air purifying respirator. Up to 50 times the exposure limit: wear a properly fitted NIOSH approved full faceplate, air purifying respirators should be equipped with NIOSH approved (or equivalent) organic vapor cartridges and N95 filters. If oil mist is present, use R95 or P95 filters.
Ventilation: local mechanical exhaust
Protective gloves: impervious gloves : neoprene gloves
Eye protection: safety glasses w/ side shields (ANSI z87.1 or approved equivalent)
Other: safety shower and eye bath should be available. Use protective clothing.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: not determined Melting Point: n/a
Flash point 232C (450F) Tag closed cup
Vapor Pressure: n/a
Specific Gravity: 1.16-2.5 (H2O=1)
Solubility in Water: no
Density: 1.08
Percent Volatile: 0%
Evaporation rate: N/A
Percent solid by weight: 100%
Appearance and Odor: liquid opaque, black with characteristic odor

SECTION 10 STABILITY AND REACTIVITY
Stability: Stable
Hazardous Polymerization: May occur

Conditions and Materials to avoid:
Avoid contact with strong acids, amines, mercaptons, bases in uncontrollable amounts.

Hazardous Decomposition Products: non known

Product will not undergo polymerization

SECTION 11 TOXICOLOGICAL INFORMATION
OSHA permissible exposure limit: OSHA limits have not been established for this product

ACGIH threshold limit value: ACGIH limits have not been established for this product.

SECTION 12 ECOLOGICAL INFORMATION
No data available for this product

SECTION 13 DISPOSAL CONSIDERATIONS
Incinerate liquid and contaminated solids in accordance with local, state and federal regulations.
Waste classification: when a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity or reactivity and is not listed in 40 CFR 261.33. The toxicity characteristic (TC), however has not been evaluated by the toxicity characteristic leaching procedure (TCLP)

SECTION 14 TRANSPORT INFORMATION
Not regulated by D.O.T.
IMO/IMDG Not regulated (not dangerous for transport)

SECTION 15 REGULATORY INFORMATION
Workplace classification
This product is considered hazardous under the OSHA hazard communication standard (29 CFE 1910,1200).
This product is a "controlled product" under the Canadian workplace hazardous materials information system (WHMIS).
SARA TITLE III: Section 311/312 categorizations (40CFR372)
This product does not contain a chemical which is listed in Section 313 or above the minimum concentrations.
CERCLA Information (40CFR302.4)
Releases of this material to air, land or water are not reported to the National Response Center under the comprehensive environmental response, compensation and liability act (CERCLA) or to the state and local

emergency planning committees under the superfund amendments and reauthorization act (SARA) title III section 304.
US Toxic Substance Control Act(TSCA) All components of this product are in compliance with the inventory listing requirements of the US toxic substances control act (TSCA) chemical substances inventory.
Pennsylvania
Any material listed as “not hazardous” in the CAS REG NO. column of section 2, composition/information on ingredients, of this MSDS is a trade secret under the provisions of the Pennsylvania worker and community right to know.
California (Proposition 65)
This product contains a component or components known to the state of California to cause cancer:
Components: Carbon Black 1333-86-4

SECTION 16 OTHER INFORMATION

Hazard Rating:

HMIS	Health	1
	Fire	0
	Reactivity	0

Legend:

ACGIH	American Conference of Governmental Industrial Hygienists
BAc	Butyl acetate
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold limit value
TWA	Time weighted average
I	Bar denotes revision from prior MSDS

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.
Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk to his use of the material.

Glenmarc Industries Inc. **2001 S. Blue Island Ave Chicago IL 60608**
312-243-0800 fax 312-243-4670 email: info@glenmarc .com www.glenmarc.com

Material Safety Data Sheet

Date 03/01/2003

SECTION 1_____

MANUFACTURER:
Glenmarc Industries Inc.
2001 S. Blue Island Ave.
Chicago IL 60608

Emergency Phone:
800-255-3924
(Chem-Tel)
Non-emergency Phone:
800-323-5350

PRODUCT NAME:
Happy Hands

SECTION 2_____
Happy hands contains no hazardous components as defined by OSHA regulations, (29 CFR Section 1910.1200). This product is not a carcinogen or porential carcinogen as defined by OSHA, the NTP or IARC monographs.
Ingredients: Water-7732-18-5, Glycerine-56-81-5, Sodium Silicate-1344-09-8, sodium Tallowate-8052-48-0, Ceteareth-5-68439-49-6, Paraffin-64742-42-8, Sodium Palmcernelae-61789-89-7, Fragrance-100-52-7.

SECTION 3_____

BOILING RANGE: 59.5C
SPECIFIC GRAVITY (H20=1) 0.45
VAPOR DENSITY: N/A
EVAPORATION RATE: UNKNOWN
VAPOR PRESSURE(mm/Hg): Abt.20 Mbar.
MELTING POINT: 130C
SOLUBILITY IN WATER: Water Soluble
APPEARANCE AND ODOR: White Cream, light fragrance

SECTION 4_____

FLASH POINT: 190C
METHOD USED: N/A
FLAMMABLE LIMITS : 370C
EXTINGUISHINGMEDIA: All standard extinguishing methods

SPECIAL FIRFIGHTING PROCEDURES:
None

UNUSUAL FIRE AND EXPLOSIVE HAZARDS: NONE

SECTION 5_____

STABILITY: STABLE

INCOMPATIBILILTY(MATERIAL TO AVOID)
Water
HAZARDOUS POLYMERIZATIONS: WILL NOT OCCUR

SECTION 6_____

INGESTION: Drink lots of water.
Eye contact: flush with water. Contact Physician

SECTION 7_____

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Normal clean up with water

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Store in cool place. Avoid direct sunlight to avoid melting. Keep container closed to avoid drying out.

OTHER PRECAUTIONS
None

SECTION 8_____

RESPIRATORY PROTECTION
N/A
VENTILATION
N/A

PROTECTIVE GLOVES
None needed

OTHER PROTECTIVE CLOTHING OR EQUIPMENT
N/A

SECTION 9 DISCLAIMER_____

The data, statements and recommendations (shown for information only) are based on tests which are believed to be reliable. Since we have no control over the end use of our product, we cannot guarantee the end results. We suggest the user determine whether the product is suitable for his own production conditions.

GLENMARC INDUSTRIES INC.
www.glenmarc.com

Safety Data Sheet

GHS Safety Data Sheet (SDS)

Section 1- Product and Company Identification

Product: ROCKETPOXY PART B CURING AGENT
Manufacturer/Supplier:
Glenmarc Industries Inc
2001 S Blue Island Ave
Chicago IL 60608
Phone: 312-243-0800
web: www.glenmarc.com
Information Phone Number: 312-243-0800
Emergency Phone Number: Chemtel: 800-255-3924 (US & Canada)
Product Use: Adhesive
Restriction on Use: None known
SDS Date of Preparation: May 2016

Product Type: Modified Amine Mixture
Product Use: Industrial curing agent supplied exclusively for workplace use.
Signal word: Danger
Hazard label(s):

Corrosive Irritant Environment



Hazard statement(s):
H318: Causes serious eye damage. (Eye Dam. 1)
H302+H332: Harmful if swallowed or inhaled. (Acute Tox. 4 Oral + Inhalation)
H317: May cause an allergic skin reaction. (Skin Sens. 1)
H361: Suspected of damaging fertility or the unborn child. (Bisphenol ! –Repr. 2)
H401: Toxic to aquatic life. (Bisphenol A – Aquatic Acute 2)

Precautionary statement(s):
P202: Do not handle until all safety precautions have been read and understood
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P270: Do not eat, drink or smoke when using this product.
P281: Use personal protective equipment as required.
P285: In case of inadequate ventilation wear respiratory protection.
P271: Avoid release to the environment.

Section 2: Hazard(s) Identification

No.	CANCER	REPRO-TOX	TARGET ORGANS	ACGIH/TLV	OSHA/PEL
P	NO	NO	UNKNOWN	N.A.mg/M3	N.A.mg/M3
2	NO	NO	Eyes, Skin	5mg/M3	5 mg/M3

Note: CONTAINS MATERIAL(S) REGULATED AS DUST HAZARDS, DISPERSED IN A NON-HAZARDOUS FORM. IF DUST IS RECREATED, APPROPIATE RESPIRATORY AND/OR EXPLOSION PRECAUTIONS MUST STILL BE USED.

Section 3: Composition / Information On Ingredients

UNDER GHS-OSHA §4.11 THE PRECISE COMPOSITION OF THIS PRODUCT IS WITHHELD AS CONFIDENTIAL BUSINESS INFORMATION (CBI). A MORE COMPLETE DISCLOSURE CAN BE PROVIDED TO A HEALTH, OR SAFETY PROFESSIONAL WHEN NECESSARY.

Substance/Mixture: Mixture

NO. COMPONENT	CAS. NO.	PERCENT
P Modified Amine MIXTURE	N.A.	< 100%
2 Bisphenol A	80-05-7	< 2%

Section 4: First-Aid Measures

Emergency and first aid procedures:

Eyes: Immediately flush eyes with large amounts of water for 15 minutes. Get medical attention

SKIN: Wash affected area immediately with large amounts of soap and water. Remove and wash contaminated clothing before reuse. Contact a physician if irritation occurs.

INHALATION: Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

Ingestion: Do not induce vomiting. Give large quantites of water. Call a physician immediately. Never give anything mouth to an unconscious person.

Section 5: Fire-Fighting Measures

Flash Point: ≥ 275°F (For product or lowest flash point ingredient)

Flammability classification: Combustible class (IIIB) Extinguishing Media: Water fog, dry chemical, carbon dioxide, or foam.

Note: Either atmosphere-supply or air-purifying respirators should be available for fire fighters (20 DFR 1910.134).

Section 6: Accidental Release Measures

If Material is spilled: Avoid contact with material. Persona not wearing proper protective equipment (see below) should be excluded from the area until clean up is complete. Dike area to prevent spill spreading and scoop up excess to recovery containers. Absorbs remnant on noncombustible material such as clay and shovel into containers for disposal.

Waste disposal Method: Dispose of any waste(s) generated above in accordance with federal, state, and local regulations.

Section 7: Handling and Storage

Avoid skin and eye contact.

Avoid breathing vapor, mist or fumes.

Ensure that all containers are properly labeled to prevent accidental ingestion or improper disposal

Reseal partly used containers.

Wash with soap and water before eating, drinking or using toilet facilities.

Store under cool, dry conditions and away from open flames and high temperatures.

Observe conditions of good industrial hygiene and safe working practice.

Section 8: Exposure Controls/Personal Protection

Respiratory Protection: Not normally necessary unless the material is being used in such a way as to produce dust, mist, vapor, fumes, or smoke, in which case niosh approved respiratory protection should be used.

Ventilation: Should be sufficient to control any dust, mist, vapor or fumes produced by processing or handling method. Breathing or vapor must be avoided.

Hand Protection: Impervious gloves, neoprene or nilrile rubber gloves.

Eye Protection: Splash proof goggles or safety glasses with side shields.

Other Protective Equipment: Clean, body covering clothing and footwear.

Section 9: Physical And Chemical Properties

Physical State: Paste

Odor: Ammonia Like

Color: Tan

pH: Alkaline

SP. GR: 1.55

Density: 12.9 lbs./gal.

Vapor Pressure: Negligible

Note: Other properties are either no available, or do not apply.

Section 10: Stability and Reactivity

Stability: stable under normal storage conditions. Unstable at elevated temperatures. Slowly corrodes copper, Aluminum, Zinc and Galvanized surfaces.

Incompatibility: Strong oxidizing agents, strong lewis or mineral acids, Nitrous Acid, Sodium Hypochlorite, and Peroxides.

Hazardous Decomposition products: Oxides of Carbon and Nitrogen, Nitric Acid, Nitrosoamine, and other unknown organic compounds.

Section 11: Toxicological Information

Effects of Overexposure:

Acute:

Eyes: Causes severe conjunctival irritation, corneal injury and iritis.

Skin: May Cause irritation, burns, ulceration, or skin senitization.

Inhalation: Vapors are irritating and may cause tears, burning of nose and throat, coughing, wheezing, Nausea, and vomiting.

Ingestion: moderately toxic, may cause mouth and throat burns, abdominal pain, nausea, vomiting, Weakness, thrist, and coma.

Chronic:

Amine vapors may cause liver and kidney injury, eye, skin or lung disorders may develop or be aggravated by amines.

Section 12: Ecological Information

Ecotoxicity effects:

Aquatic Toxicity: No data is available on the product itself.

Toxicity to other organisms: No data available.

Persistance and degradability:

Mobility: No data is available on the product itself.

Bioaccumulation: No data is available on the product itself.

Section 13: Disposal Considerations

Waste Disposal Method: Dispose of waste in Accordance with all federal, state, and local regulations.

Container Disposal: Since emptied containers retain product residue, all labeled hazard precautions must be observed consult with federal, state and local authorities for definitions of “Empty” and proper disposal practices.

Section 14: Transport Information

U.S. Department of Transportation Ground (49 CFR)

Un Number: Un1760

Proper Shipping Name: Corrosive liquid, N.O.S.

Contains: Modified amine mixture

Hazards class: 8

Packaging Group: III

International Air Transportation (ICAO.TATA)

UN NUMBER: Un 1760.

Proper shipping name: corrosive liquid, N.O.S.

Contains: Modified amine mixture

Hazard class: 8

Packaging group: III

Water Transportation (IMO/IMDG)

Un number: Un 1760

Proper shipping name: Corrosive liquid, N.O.S.

Contains: Modified amine mixture

Hazard class: 8

Packaging group: III

Marine pollutant: No

Section 15: Regulatory Information

A. CAL SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT OF 1986

No	Chemical Name	Cas. No.	Cancer/Repro. Tox		quantity
2	Bisphenol A	80-05-7	No	Pending	< 2%

This product may contain traces of prop. 65 listed chemicals as impurities. However, any used as ingredients are listed above.

B. CERCLA- §40 CFR 302.4

Releases exceeding the reportable quantity (RQ) Must be reported to the national response center (800)424-8802

RQ = 100 lbs. (Unlisted hazardous waste – characteristic of corrosivity)

C.. RCRA - §40 CFR 261.33

RQ = 1000 lbs. (unlisted corrosive content > 10%)

D SARA Title III --§52 CFR 13378, - §52 CFR 21152

No.	RQ(lbs.) (•1)	TPQ(lbs.) (•2)	SEC.313 (•3)	313 CAT. (•4)	311/312 (•5)
1	None	Not listed	Not listed	None	H1, H2
2	None	Not Listed	Yes	None	H1, H2

•1 = Reportable quantity of extremely hazardous substance, SEC 302
•2 = Threshhold planning quantity, extremely hazardous substance, SEC 302
•3 = Toxic chemical SEC 313 (individual chemical listed)
•4 = Toxic release inventory form category SEC, 313 (40 CFR 372.65 C)
•5 = Hazard category for sara SEC 311/312 reporting
H1 = Immed, (Acute) health hazard H2 = Delayed (Chronic) health hazard
P3 = Fire hazard P4= Sudden pressure release hazard P5= Reactive Haz.

E. Voc – SCAQMD Rules

No	Chemical	Quantity	VP mm Hg	gms./l. @ 20oC
	NIL			

Note: This product does not contain solvents, but may contain ingredients with vp's low enough to be emitted if heated alone. When 2 part resins and hardeners are properly mixed together These ingredients react together and are consumed without significant atmospheric emissions.

F. International Chemical Inventory Status:

EINECS-EU	Listed, exempted, Polymer substance, or as no longer polymer.
AICS-AUSTRALIA	All components are listed or exempted.
ENCS-JAPAN	Not determined.
ISHL-japan	Not determined.
KECI/ECL-KOREA	All components are listed or exempted.
IECSC/SEPA-CHINA	All components are listed or exempted.
PICCS-PHILIPPINES	All components are listed or exempted.
DSL-CANADA	All components are listed or exempted.
TSCA-USA	All components are listed or exempted.

G WHMIS (CANADA);

WHMIS: D28 Materials causing other toxic effects – toxic material
WHMIS: E – Corrosive Material

Section 16: Other Information

Revision Summary: New format to comply with OSHA Hazcom 2012
The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.
Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk to his use of the material.

GLENMARC INDUSTRIES INC.
www.glenmarc.com

Safety Data Sheet

Section 1- Product and Company Identification

Product: ROCKETPOXY PART A
Manufacturer/Supplier:
Glenmarc Industries Inc
2001 S Blue Island Ave
Chicago IL 60608
Phone: 312-243-0800
web: www.glenmarc.com
Information Phone Number: 312-243-0800
Emergency Phone Number: Chemtel: 800-255-3924 (US & Canada)
Product Use: Adhesive
Restriction on Use: None known
SDS Date of Preparation: May 2017

Product Type: Epoxy resin
Product Use: Industrial resin supplied exclusively for workplace use.
Signal word: Warning
Hazard label(s):

Hazard statement(s):
H320: Causes eye irritation
H303: May be harmful if swallowed
H315: Causes skin irritation
H317: May cause allergic skin reaction
H335: May cause respiratory irritation

Precautionary statement(s):
P202: Do not handle until all safety precautions have been read and understood
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P270: Do not eat, drink or smoke when using this product.
P281: Use personal protective equipment as required.
P285: In case of inadequate ventilation wear respiratory protection.
P273: Avoid release to the environment.

Section 2: Hazard(s) Identification

No.	CANCER	REPRO-TOX	TARGET ORGANS	ACGIH/TLV	OSHA/PEL
P	NO	NO	UNKNOWN	N.A.mg/M3	N.A.mg/M3
2	NO	NO	Eyes, Skin	N.A.mg/M3	N.A.mg/M3

Note: CONTAINS MATERIAL(S) REGULATED AS DUST HAZARDS, DISPERSED IN A NON-HAZARDOUS FORM. IF DUST IS RECREATED, APPROPIATE RESPIRATORY AND/OR EXPLOSION PRECAUTIONS MUST STILL BE USED.

Section 3: Composition / Information On Ingredients

UNDER GHS-OSHA §4.11 THE PRECISE COMPOSITION OF THIS PRODUCT IS WITHHELD AS CONFIDENTIAL BUSINESS INFORMATION (CBI). A MORE COMPLETE DISCLOSURE CAN BE PROVIDED TO A HEALTH, OR SAFETY PROFESSIONAL WHEN NECESSARY.

Substance/Mixture: Mixture

NO. COMPONENT	CAS. NO.	PERCENT
P epoxy resin mixture	N.A.	< 100%
2 triphenyl phosphate	101-02-0	< 15%

Section 4: First-Aid Measures

Emergency and first aid procedures:

Eyes: Immediately flush eyes with large amounts of water for 15 minutes. Get medical attention

SKIN: Wash affected area immediately with large amounts of soap and water. Remove and wash contaminated clothing before reuse. Contact a physician if irritation occurs.

INHALATION: Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

Ingestion: Do not induce vomiting. Give large quantites of water. Call a physician immediately. Never give anything mouth to an unconscious person.

Section 5: Fire-Fighting Measures

Flash Point: ≥ 275°F (For product or lowest flash point ingredient)

Flammability classification: Combustible class (IIIB) Extinguishing Media: Water fog, dry chemical, carbon dioxide, or foam.

Note: Either atmosphere-supply or air-purifying respirators should be available for fire fighters (20 DFR 1910.134).

Section 6: Accidental Release Measures

If Material is spilled: Avoid contact with material. Persona not wearing proper protective equipment (see below) should be excluded from the area until clean up is complete. Dike area to prevent spill spreading and scoop up excess to recovery containers. Absorbs remnant on noncombustible material such as clay and shovel into containers for disposal.

Waste disposal Method: Dispose of any waste(s) generated above in accordance with federal, state, and local regulations.

Section 7: Handling and Storage

Avoid skin and eye contact.

Avoid breathing vapor, mist or fumes.

Ensure that all containers are properly labeled to prevent accidental ingestion or improper disposal

Reseal partly used containers.

Wash with soap and water before eating, drinking or using toilet facilities.

Store under cool, dry conditions and away from open flames and high temperatures.

Observe conditions of good industrial hygiene and safe working practice.

Section 8: Exposure Controls/Personal Protection

Respiratory Protection: Not normally necessary unless the material is being used in such a way as to produce dust, mist, vapor, fumes, or smoke, in which case niosh approved respiratory protection should be used.

Ventilation: Should be sufficient to control any dust, mist, vapor or fumes produced by processing or handling method. Breathing or vapor must be avoided.

Hand Protection: Impervious gloves, neoprene or nilrile rubber gloves.

Eye Protection: Splash proof goggles or safety glasses with side shields.

Other Protective Equipment: Clean, body covering clothing and footwear.

Section 9: Physical And Chemical Properties

Physical State: Paste

Odor: bland

Color: white

pH: neutral

SP. GR: 1.57

Density: 12.9 lbs./gal.

Vapor Pressure: Negligible

Note: Other properties are either no available, or do not apply.

Section 10: Stability and Reactivity

Stability: stable under normal storage conditions. Unstable at elevated temperatures. Slowly corrodes copper, Aluminum, Zinc and Galvanized surfaces.

Incompatibility: Strong oxidizing agents, strong lewis or mineral acids, Nitrous Acid, Sodium Hypochlorite, and Peroxides.

Hazardous Decomposition products: Oxides of Carbon and Nitrogen, Nitric Acid, Nitrosoamine, and other unknown organic compounds.

Section 11: Toxicological Information

Effects of Overexposure:

Acute:

Eyes: moderately irritating to eyes.

Skin: moderately irritating to skin.

Inhalation: not likely to be inhalation hazard

Ingestion: low oral toxicity

Chronic:

No specific hazards.

Section 12: Ecological Information

Ecotoxicity effects:

Aquatic Toxicity: No data is available on the product itself.

Toxicity to other organisms: No data available.

Persistance and degradability:

Mobility: No data is available on the product itself.

Bioaccumulation: No data is available on the product itself.

Section 13: Disposal Considerations

Waste Disposal Method: Dispose of waste in Accordance with all federal, state, and local regulations.

Container Disposal: Since emptied containers retain product residue, all labeled hazard precautions must be observed consult with federal, state and local authorities for definitions of “Empty” and proper disposal practices.

Section 14: Transport Information

US IDOT (49 CFR)

Un Number: NONE

Proper Shipping Name: plastic material liquid

Contains: not regulated

Hazards class: n/a

Packaging Group: n/a

International Air Transportation (ICAO.TATA)

Un Number: NONE

Proper Shipping Name: plastic material liquid

Contains: not regulated

Hazards class: n/a

Packaging Group: n/a

Water Transportation (IMO/IMDG)

Un Number: NONE

Proper Shipping Name: plastic material liquid

Contains: not regulated

Hazards class: n/a

Packaging Group: n/a

Section 15: Regulatory Information

A. CAL SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT OF 1986

No	Chemical Name	Cas. No.	Cancer/Repro. Tox	quantity

n/a

This product may contain traces of prop. 65 listed chemicals as impurities. However, any used as ingredients are listed above.

B. CERCLA- §40 CFR 302.4

Releases exceeding the reportable quantity (RQ) Must be reported to the national response center (800)424-8802

RQ = 100 lbs. (Unlisted hazardous waste – characteristic of corrosivity)

C.. RCRA - §40 CFR 261.33

RQ = 1000 lbs. (unlisted corrosive content > 10%)

D SARA Title III --§52 CFR 13378, - §52 CFR 21152

No.	RQ(lbs.)	TPQ(lbs.)	SEC.313	313 CAT. 311/312
	(•1)	(•2)	(•3)	(•4)	(•5)
1	None	Not listed	Not listed	None	H1, H2
2	None	Not Listed	Not listed	None	H1, H2

•1 = Reportable quantity of extremely hazardous substance, SEC 302
•2 = Threshhold planning quantity, extremely hazardous substance, SEC 302
•3 = Toxic chemical SEC 313 (individual chemical listed)
•4 = Toxic release inventory form category SEC, 313 (40 CFR 372.65 C)
•5 = Hazard category for sara SEC 311/312 reporting
H1 = Immed, (Acute) health hazard H2 = Delayed (Chronic) health hazard
P3 = Fire hazard P4= Sudden pressure release hazard P5= Reactive Haz.

E. Voc – SCAQMD Rules

No	Chemical	Quantity	VP mm Hg	gms./l. @ 20oC

NIL

Note: This product does not contain solvents, but may contain ingredients with vp's low enough to be emitted if heated alone. When 2 part resins and hardeners are properly mixed together These ingredients react together and are consumed without significant atmospheric emissions.

F. International Chemical Inventory Status:

EINECS-EU	Listed, exempted, Polymer substance, or as no longer polymer.
AICS-AUSTRALIA	All components are listed or exempted.
ENCS-JAPAN	Not determined.
ISHL-japan	Not determined.
KECI/ECL-KOREA	All components are listed or exempted.
IECSC/SEPA-CHINA	All components are listed or exempted.
PICCS-PHILIPPINES	All components are listed or exempted.
DSL-CANADA	All components are listed or exempted.
TSCA-USA	All components are listed or exempted.

G WHMIS (CANADA);

WHMIS: D28 Materials causing other toxic effects – toxic material

Section 16: Other Information

HMIS
Health 2, Flammability 1, Reactivity, 1

Revision Summary: New format to comply with OSHA Hazcom 2012

SAFETY DATA SHEET

Issuing Date 16-Oct-2014 **Revision Date** 15-Oct-2014 **Revision Number** 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product SDS Name **Epoxy Putty Stick - Steel**

J-B Weld FG SKU Part Numbers Covered

8267S, 8217, 8267A, 8267H, 8267SF, 8267HF, 7267S

J-B Weld Product Names Covered

SteelStik™ (all sizes)
AutoWeld™

J-B Weld Product Type

Epoxy Putty Stick

Recommended use of the chemical and restrictions on use

Recommended Use Adhesive & Repair / Automotive / Household & Plumbing Repairs

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Name J-B WELD COMPANY, LLC
Supplier Address 1130 COMO ST
SULPHUR SPRINGS, TX 75482
USA

Emergency Telephone Numbers Transportation Emergencies: Chemtrec (24 hour transportation emergency response info): 800-424-9300 or 703-527-3887

Poison/Medical Emergencies: Poison Control Centers (24 hour emergency poison / medical response info): 800-222-1222

Supplier Email info@jbweld.com

Supplier Phone Number 903-885-7696

2. HAZARDS IDENTIFICATION

OSHA/HCS status

This material is considered hazardous by the OSHA Hazard Communication Standard (29-CFR 1910.1200).

Classification of the substance or mixture

SKIN CORROSION / IRRITATION – Category 2
SERIOUS EYE DAMAGE / EYE IRRITATION – Category 2B
SKIN SENSITIZATION – Category 1

GHS label elements

Hazard pictograms

Signal word

Warning!

Hazard statements

Causes skin and eye irritation.
May cause an allergic skin reaction.

Precautionary statements

General

Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention

Wear protective gloves. Wear eye or face protection. Avoid breathing dust. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response

IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

Not applicable.

Disposal

Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture Mixture

Ingredient name	% by weight	CAS number
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	10-20	25068-38-6
crystalline silica non-respirable	0.1-1	14808-60-7

Canada

Name	CAS number	%
Talc, not containing asbestiform fibres	14807-96-6	30-60
Ferrosilicon	8049-17-0	10-30
glass, oxide, chemicals	65997-17-3	10-30
reaction product: bishenol-A-(epichlorhydrin); epoxy resin	25068-38-6	10-20

Nepheline syenite	37244-96-5	1-5
crystalline silica non-respirable	14808-60-7	0.1-1

Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES

Description of necessary first aid measure

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is regular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Ingestion	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Inhalation	No known significant effects or critical hazards.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation
Ingestion	Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Inhalation	No specific data.
Skin contact	Adverse symptoms may include the following: irritation redness

Eye contact	Adverse symptoms may include the following: pain or irritation watering redness
Ingestion	No specific data

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	No specific treatment.

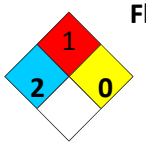
See toxicological information (Section 11)

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	No specific fire or explosion hazard.

National Fire Protection Associationg (U.S.A.)



Hazardous thermal decomposition products	Decomposition products may include the following materials: Carbon dioxide Carbon monoxide Sulfur oxides Halogenated compounds Metal oxide/oxides
Special protective actions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in a positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in “For non-emergency personnel”.
Environmental Precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Small Spill	Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Large Spill	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweet. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. HANDLING AND STORAGE

Conditions for safe storage, including any incompatibilities	Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Precautions for safe handling

Protective measure	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measure.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits

Ingredient name	CAS #	Exposure limits
crystalline silica non-respirable	14808-60-7	**OSHA PEL Z3 (United States, 9/2005). Notes: 250/(%SiO2+5)** TWA: 250 MPPCF / (%SiO2+5) 8 hours. Form: Respirable **OSHA PEL Z3 (United States, 9/2005). Notes: 10/(SiO2+2)** TWA: 10 MG/M3 / (%SiO2+2) 8 hours. Form: Respirable **ACGIH TLV (United States, 3/2012).** TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction **NIOSH REL (United States, 1/2013).** TWA: 0.05 mg/m³ 10 hours. Form: respirable dust **OSHA PEL Z3 (United States, 9/2005). Notes: 30/(%SiO2+2)** TWA: 30 MG/M3 / (%SiO2+2) 8 hours. Form: Total dust.

Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	**List name**	**ppm**	**mg/m³**	**Other**	**ppm**	**mg/m³**	**Other**	**ppm**	**mg/m³**	**Other**	**Notations**
Talc , not containing asbestiform fibres	AB 4/2009	-	2	-	-	-	-	-	-	-	[a]
	BC 4/2012	-	2	-	-	-	-	-	-	-	[b]
		-	-	0.1 f/cc	-	-	-	-	-	-	
	ON 1/2013	-	2	-	-	-	-	-	-	-	[c]
		-	2	-	-	-	-	-	-	-	[d]
		-	-	2 f/cc	-	-	-	-	-	-	
	QC 12/2012	-	3	-	-	-	-	-	-	-	[e]
glass, oxide, chemicals	US ACGIH 3/2012	-	5	-	-	-	-	-	-	-	[f]
	US ACGIH 3/2012	-	-	1 f/cc	-	-	-	-	-	-	[g]
	AB 4/2009	-	5	1 f/cc	-	-	-	-	-	-	[h]
		-	5	-	-	-	-	-	-	-	[i]
	BC 4/2012	-	5	-	-	-	-	-	-	-	[j]
		-	-	1 f/cc	-	-	-	-	-	-	
	ON 1/2013	-	10	-	-	-	-	-	-	-	[k]
		-	5	-	-	-	-	-	-	-	[l]
		-	-	1 f/cc	-	-	-	-	-	-	[m]
	QC 12/2012	-	-	1 f/cc	-	-	-	-	-	-	[n]
		-	10	-	-	-	-	-	-	-	[o]
crystalline silica non-respirable	US ACGIH 3/2012	-	0.025	-	-	-	-	-	-	-	[p]
	BC 4/2012	-	0.025	-	-	-	-	-	-	-	[b]
	ON 1/2013	-	0.1	-	-	-	-	-	-	-	[c]
	QC 12/2012	-	0.1	-	-	-	-	-	-	-	[e]
Nepheline syenite	ON 1/2013	-	10	-	-	-	-	-	-	-	[q]

Form: [a]Respirable particulate [b]Respirable [c]Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size- selective device that, (a) meets the ACGIH particle size–selective sampling criteria for airborne

particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency. [d]The value is for particulate matter containing no asbestos and < 1 per cent crystalline silica. [e]Respirable dust. [f]Inhalable fraction [g]Respirable fibers: length greater than 5 uM; aspect ratio equal to or greater than 3:1 as determined by the membrane filter method at 400-450X magnification (4-mm objective) phase contrast illumination. [h]Fibres [i]Fibres, total particulate [j]Inhalable [k]Fiber [l]Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency. [m]Respirable fibres: length > 5µm; aspect ratio ≥3:1, as determined by the membrane filter method at 400-450 times magnification (4-mm objective), using phase-contrast illumination. [n]RESPIRABLE FIBRES (other than respirable asbestos fibres) : Objects, other than respirable asbestos fibres, longer than 5 µm, having a diameter of less than 3 µm and a ratio of length to diameter of more than 3 :1. [o]Total dust. [p]Respirable fraction [q]Total dust

Appropriate engineering controls

No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Skin Protection

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State	Solid		
Appearance	Dark gray	**Odor**	Pungent. Sulfurous.
Color	Dark Gray / Black	**Odor Threshold**	Not available.

Property	**Values**	**Remarks/ Method**
pH	No data available	None known
Melting / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	Closed cup: .93.3°C (>199.9°F) [Setaflash.] [Product does not sustain combustion.]	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.	None known
Flammability Limit in Air		
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	2.247	None known
Water Solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient:		None known
n-octanol/water	No data available	None known
Auto-ignition temperature	No data available	None known
Decomposition temperature	>200° C (>392°F)	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	
Explosive properties	No data available	
Oxidizing Properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	0
Particle Size	No data available
Particle Size Distribution	

10. STABILITY AND REACTIVITY

Reactivity No specific test data related to reactivity available for this product or its ingredients.

Chemical stability The product is stable.

Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid No specific data.

Incompatible materials No specific data.

Hazardous decomposition products Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity No specific data.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	Eyes – Mild irritant	Rabbit	-	100 milligrams	-
	Skin – Moderate irritant	Rabbit	-	24 hours 500 microliters	-
	Skin – Severe irritant	Rabbit	-	24 hours 2 milligrams	-

Sensitization No specific data.
Mutagenicity No specific data.
Carcinogenicity No specific data.

Classification

Product/ingredient name	OSHA	IARC	NTP
Crystalline silica non-respirable	-	1	Known to be a human carcinogen.

Reproductive toxicity No specific data
Teratogenicity No specific data.
Specific target organ toxicity (single exposure) No specific data.
Specific target organ toxicity (repeated exposure) No specific data.
Aspiration hazard No specific data.
Information on the likely routes of exposure Not available

Potential acute health effects

Eye contact Causes serious eye irritation.
Inhalation No known significant effects or critical hazards.
Skin contact Causes skin irritation. May cause an allergic skin reaction.
Ingestion Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact Adverse symptoms may include the following:
pain and irritation
watering
redness

Inhalation	No specific data.
Skin contact	Adverse symptoms may include the following: irritation redness
Ingestion	No specific data

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	Not available
Potential delayed effects	Not available

Long term exposure

Potential immediate effects	Not available
Potential delayed effects	Not available

Potential chronic health effects	No specific data.
General	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates	No specific data.

12. ECOLOGICAL INFORMATION

Toxicity	No specific data.
Persistence and degradability	No specific data.

Bioaccumulative potential

Product / Ingredient name	$LogP_{ow}$	BCF	Potential
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	2.64 to 3.78	31	low

Mobility in soil

Soil/water partition coefficient (K_{OC})	Not available
Other adverse effects	No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of material and runoff and contact with soil, waterways, drains and sewers.

RCRA classification.

Not available.

14. TRANSPORT INFORMATION

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN Number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	-	-	-	-	-

Special precautions for user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

15. REGULATORY INFORMATION

United States

U.S. Federal regulations

TSCA 8(a) PAIR: Siloxanes and Silicones, di-Me, reaction products with silica
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) Not listed

Clean Air Act Section 602 Class I Substances Not listed

Clean Air Act Section 602 Class II Substances Not listed

SARA 302/304

Composition/information on ingredients No products were found

SARA 304 RQ Not applicable

SARA 311/312

Classification Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin crystalline silica non-respirable	10-30 0.1-1	No. No.	No. No.	No. No.	Yes. No.	No. Yes

State regulations

Massachusetts The following components are listed: SOAPSTONE; MINERAL WOOL FIBER

New York None of the components are listed.

New Jersey The following components are listed: SOAPSTONE, SILICA, QUARTZ; QUARTZ (SiO2); FERROSILICON; FERROCERIUM

Pennsylvania The following components are listed: SOAPSTONE DUST, QUARTZ (SiO2)

Minnesota Hazardous Substances None of the components are listed.

California Prop. 65 **WARNING:** This product contains a chemical known to the State of California to cause cancer

Ingredient Name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Talc, not containing asbestiform fibres	Yes.	No.	No.	No.
Crystalline silica non-respirable	Yes.	No.	No.	No.
Carbon black non-respirable	Yes.	No.	No	No

Canada

WHMIS (Canada) Class D-1B: Material causing immediate and serious toxic effects (Toxic).
Class D-2A: Material causing other toxic effects (Very toxic).

Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists

Canadian NPRI None of the components are listed.

CEPA Toxic substances None of the components are listed.

Canada inventory All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

International lists
Australia inventory (AICS): All components are listed or exempted.
China inventory (IECSC): Not determined.
Japan inventory: Not determined.
Korea inventory: All components are listed or exempted.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
Taiwan inventory (CSNN): Not determined.

Substances of very high concern None of the components are listed.

16. OTHER INFORMATION

Key to abbreviations
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Notice to reader

NON-WARRANTY: The information presented in this publication is based upon the research and experience of J-B Weld Company. No representation or warranty is made, however, concerning the accuracy or completeness of the information presented in this publication. J-B Weld Company makes no warranty or representation of any kind, express or implied, including without limitation any warranty of merchantability or fitness for any particular purpose, and no warranty or representation shall be implied by law or otherwise. Any products sold by J-B Weld Company are not warranted as suitable for any particular purpose to the buyer. The suitability of any products for any purpose particular to the buyers is for the buyer to determine. J-B Weld Company assumed no responsibility for the selection of products suitable to the particular purposes of any particular buyer. J-B Weld Company shall in no event be liable for any special, incidental, or consequential damages.

End of Safety Data Sheet

MSDS

SECTION 1 – Chemical Product and Company Identification

J-B Weld Co.
P.O. Box 483
1130 Como St.
Sulphur Springs, Texas 75482
PH 903-885-7696 - FAX 903-885-5911

For Chemical Emergency:
CHEMTREC: 1-800-424-9300
CANUTEC: 1-613-996-6666
(For Canada call collect)

PRODUCT NAME: **JB Weld Wood Restore Liquid Hardener**
PRODUCT CODE: **40001**
SCHEDULE B NUMBER: **3208.20.0000**

SECTION 2 – Hazard Identification

OVEREXPOSURE EFFECTS:
ACUTE EFFECTS:
EYES: Contact with eyes can cause irritation, redness, tearing, blurred vision, and/or swelling.
SKIN: Contact with skin can cause irritation, (minor itching, burning and/or redness), dermatitis, defatting may be readily absorbed through the skin.
INHALATION: Inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and/or asphyxiation. Aspiration of material into lungs may result in chemical pneumonitis which can be fatal. May be toxic.
INGESTION: Ingestion can cause gastrointestinal irritation, nausea, vomiting, diarrhea.

PRIMARY ROUTES OF EXPOSURE: Inhalation, skin, eyes

SECTION 3 – Composition, Information or Ingredients

INGREDIENTS	WGT%	CAS #
Acetone	70-80%	67-64-1
Proprietary Resins	20-30%	Supplier Trade Secret

SECTION 4 – First Aid Measures

INHALATION: If inhaled, remove victim from exposure to a well-ventilated area. Make them comfortably warm, but not hot. Use oxygen or artificial respiration as required. Consult a physician.
SKIN: For skin contact, wash promptly with soap and excess water.
EYES: For eye contact, flush promptly with excess water for at least fifteen minutes. Consult a physician.
INGESTION: If ingested, do not induce vomiting. Give victim a glass of water. Call a physician immediately.

SECTION 5 – Fire-Fighting Measures

FIRE EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam
SPECIAL FIRE FIGHTING PROCEDURES: Fight like a fuel oil fire. Cool fire exposed containers with water spray. Firefighter should wear OSHA/NIOSH approved self-contained breathing apparatus.
UNUSUAL FIRE AND EXPLOSION HAZARD: Closed containers exposed to high temperatures, such as fire conditions may rupture.

MSDS

SECTION 6 – Accidental Release Measures

SPILLS, LEAK OR RELEASE: Ventilate area. Remove all possible sources of ignition. Avoid prolonged breathing of vapor. Contain spill with inert absorbent.

SECTION 7 – Handling and Storage

STORAGE AND HANDLING: Use with adequate ventilation. Harmful or fatal if swallowed. Avoid contact with eyes and skin. Avoid breathing vapors. Do not store the product above 100°F/38°C. Do not flame, cut, braze weld or melt empty containers. Keep the product away from heat, open flame, and other sources of ignition. Avoid contact with strong acids, alkalis, and oxidizers.

SECTION 8 – Exposure Controls and Personal Protection

INGREDIENTS	CAS #	TLV/PEL
Acetone	67-64-1	TLV: 500 ppm, PEL: 1000 ppm
Proprietary Resins	Supplier Trade Secret	N/E

RESPIRATORY PROTECTION: If component exposure limits are exceeded, use NIOSH/MSHA approved air purifying or fresh air supplied respirator to remove vapors. Use an air-supplied respirator if necessary.
VENTILATION: Use adequate ventilation in volume and pattern to keep TLV/PEL below recommended levels. Explosion-proof ventilation may be necessary.
PROTECTIVE GLOVES: To prevent prolonged exposure use rubber gloves; solvents may be absorbed through the skin.
EYE PROTECTION: Safety Glasses or goggles with splash guards or side shields.
OTHER PROTECTIVE EQUIPMENT: Wear protective clothing as required to prevent skin contact.

SECTION 9 – Physical and Chemical Properties

FLASH POINT: 0°F/-17°C Seta Flash Closed cup
LOWER FLAMMABLE LIMIT %: N/E
UPPER FLAMMABLE LIMIT %: N/E
APPEARANCE: Clear to amber liquid, solvent odor
SPECIFIC GRAVITY: 0.87
VAPOR PRESSURE (mmHG): N/E
BOILING POINT: N/E
VAPOR DENSITY: Heavier than air
EVAPORATION RATE (Ethyl Ether = 1): Slower than Ethyl Ether
VOLATILES BY WEIGHT: Approximately 75%
SOLUBILITY IN WATER: Soluble
VOC (less water & exempts): Nil

SECTION 10 – Stability and Reactivity

STABILITY: Stable
CONDITIONS TO AVOID: Open flames, sparks, heat, electrical and static discharge.
INCOMPATIBILITY MATERIALS TO AVOID: Strong acids, alkalis, oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Dioxide, Carbon Monoxide, and Carbon.
HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 – Toxicological Information

MSDS

CHRONIC EFFECTS:
Overexposure to this material has apparently been known to cause the following effects in lab animals: Anemia, liver abnormalities, kidney, eye, and central nervous system damage.

CARCINOGEN: YES __ NO X
TERATOGEN: YES __ NO X
MUTAGEN: YES __ NO X

SECTION 12 – Ecological Information

N/E

SECTION 13 – Disposal Considerations

WASTE DISPOSAL: Dispose of in accordance with local, state, and federal regulations.

SECTION 14 – Transport Information

For Ground Transport: In USA
Consumer Commodity ORM-D in cases with inner containers 1 gallon or less.

For Air Transport:
Must be re-boxed to UN specified packaging.
UN1263, Paint, 3, PG II
Packing Instruction 305, 307

For Ocean Transport:
With inner containers of 5L or less:
UN1263, Paint, 3, PG II, F/P -17C
EMS # F-E, S-E
In limited quantity

SECTION 15 – Regulatory Information

CALIFORNIA PROPOSITION 65:
This product does not contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

SECTION 313 SUPPLIER NOTIFICATION:
This product contains the following toxic chemicals subject to the reporting requirements of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372:

CHEMICAL NAME	CAS	% BY WGT

N/Ap

This information must be included in all MSDS that are copied and distributed for this chemical.

DO NOT FLAME CUT, WELD OR MELT EMPTY CONTAINERS.

MSDS

SECTION 16 – Other Information

HMIS RATING:	Health	2	4 = Extreme
	Fire	3	3 = High
	Reactivity	1	2 = Moderate
			1 = Slight
			0 = Insignificant

Personal Protection - See Section VIII

ABBREVIATIONS

IARC	= International Agency for Research on Cancer
ACGIH	= American Conference of Governmental Industrial Hygienists
NIOSH	= National Institute of Occupational Safety and Health
TLV	= Threshold Limit Value
PEL	= Permissible Emission Level
DOT	= Department of Transportation
NTP	= National Toxicology Program
N/AV	= Not Available
N/AP	= Not Applicable
N/E	= Not Established
N/D	= Not Determined

PREPARED BY:

J-B Weld Co.
P.O. Box 483
1130 Como St.
Sulphur Springs, Texas 75482

TELEPHONE NBR: 903-885-7696
FAX NBR: 903-885-5911

DATE REVIEWED:	May 5, 2010
DATE REVISED:	n/a
REVISION:	TEST

The information in the Material Safety Data Sheet has been compiled from our experience and from data presented in various technical publications. It is the user's responsibility to determine the suitability of this information for the adoption of the safety precautions as may be necessary. We reserve the right to revise Material Safety Data Sheets from time to time as new technical information becomes available. The user has the responsibility to contact the Company to make sure that the MSDS is the latest one issued.

Masterchem Industries LLC

SECTION 1 : IDENTIFICATION

Product Name:	**KILZ® Odorless Aerosol**
Product Code:	1044, 10444C
SDS Manufacturer Number:	1044, 10444C
Manufacturer Name:	Masterchem Industries LLC
Address:	3135 Old Highway M Imperial, MO 63052-2834
General Phone Number:	(636) 942-2510
General Fax Number:	(636) 942-3663
Customer Service Phone Number:	(800) 325-3552
CHEMTREC:	For emergencies in the US, call CHEMTREC: 800-424-9300
Canutec:	In Canada, call CANUTEC: (613) 996-6666 (call collect)
SDS Creation Date:	June 26, 2006
SDS Revision Date:	December 23, 2015

SECTION 2 : HAZARD(S) IDENTIFICATION

GHS Pictograms:

Signal Word: Danger.

GHS Class:
Flammable Aerosol
Compressed gases under pressure
Aspiration Hazard, Category 1.
Eye Irritant, Category 2B.
Specific Target Organ Toxicity, Single Exposure, Category 3.
Acute Inhalation Toxicity, Category 4

Hazard Statements:
Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
May be fatal if swallowed and enters airways.
Causes serious eye irritation.
Harmful if inhaled.
May cause respiratory irritation, drowsiness or dizziness.

Precautionary Statements:
DO NOT use this product unless you can achieve cross-ventilation by opening windows and doors during application and drying or use the product outdoors.
Do not spray on an open flame or other ignition source.
Extinguish all flames and pilot lights and turn off stoves, heaters, electric motors, high intensity lights and other sources of ignition during use and until all vapors are gone.
Pressurized container: Do not pierce or burn, even after use.
Wear protective clothing, gloves, eye, and face protection.
Do not breathe vapors or spray mist.
Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.
Take off contaminated clothing and wash it before reuse.
Do not expose to temperatures exceeding 50°C/122°F.
Store locked up in a cool, well-ventilated place, protected from sunlight.
Dispose of unused contents, container, and other contaminated wastes in accordance with local, state, federal, and provincial regulations.
If in eyes: Rinse cautiously with water for several minutes and remove contacts if present and easy to do. Continue rinsing and get medical attention if eye irritation persists.
If on skin or hair: Wash with plenty of soap and water. Wear protective gloves and eye protection.
If inhaled: Leave the area if you experience headaches, drowsiness or dizziness to obtain fresh air and keep at rest in a position comfortable for breathing. If difficulty continues, get medical attention immediately.
If swallowed: Do not induce vomiting and get medical attention immediately.

Limestone

Emergency Overview: DANGER! Flammable. Harmful if swallowed. Aspiration may occur during swallowing or vomiting, resulting in lung damage. Harmful if inhaled. Inhalation of vapors may cause drowsiness and dizziness. Irritant.

Route of Exposure: Eyes. Skin. Inhalation. Ingestion.

Potential Health Effects:

- Eye: Causes severe eye irritation and possible injury.
- Skin: Causes skin irritation.
- Inhalation: Harmful if inhaled. Inhalation of vapors may cause drowsiness and dizziness. Prolonged or excessive inhalation may cause respiratory tract irritation.
- Ingestion: Harmful if swallowed. Ingestion can cause nausea, vomiting, diarrhea and gastrointestinal irritation.

	Aspiration of petroleum distillates into the lungs can cause severe chemical pneumonitis that can be fatal.
Chronic Health Effects:	Prolonged or repeated contact can result in defatting and drying of the skin, which may result in skin irritation and dermatitis (rash). Repeated or prolonged inhalation may cause toxic effects.
Signs/Symptoms:	Overexposure can cause headaches, dizziness, nausea, and vomiting.
Target Organs:	Eyes. Skin. Respiratory system. Digestive system. Central nervous system. Kidney.
Aggravation of Pre-Existing Conditions:	May aggravate pre-existing respiratory disorders, allergy, eczema, or skin conditions.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent	EC Num.
Octane	111-65-9	1 - 5 by weight	
Nonane	111-84-2	1 - 5 by weight	
Limestone	1317-15-3	10 - 30 by weight	
Trimethyl-1, 3-pentanediol, diisobutyrate	6846-50-0	1 - 5 by weight	
Vinyl acrylate terpolymer	118922-88-6	1 - 5 by weight	
Titanium dioxide	13463-67-7	5 - 10 by weight	
Naphtha (petroleum), light alkylate	64741-66-8	10 - 30 by weight	
Isobutane	75-28-5	1 - 5 by weight	
Propane	74-98-6	10 - 30 by weight	
n-butane	106-97-8	5 - 10 by weight	

SECTION 4 : FIRST AID MEASURES

Eye Contact:	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Remove contacts if present and easy to do. Continue rinsing. Get medical attention, if irritation or symptoms of overexposure persists.
Skin Contact:	Immediately wash skin with soap and plenty of water. Get medical attention if irritation develops or persists.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
Ingestion:	If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.
Other First Aid:	Due to possible aspiration into the lungs, DO NOT induce vomiting if ingested. Provide a glass of water to dilute the material in the stomach. If vomiting occurs naturally, have the person lean forward to reduce the risk of aspiration.

SECTION 5 : FIRE FIGHTING MEASURES

Flammable Properties:	Flammable liquid.
Flash Point:	-156°F (-104°C)
Flash Point Method:	None.
Auto Ignition Temperature:	Not applicable.
Lower Flammable/Explosive Limit:	0.8% by volume
Upper Flammable/Explosive Limit:	12.8% by volume
Fire Fighting Instructions:	Flammable. Cool fire-exposed containers using water spray.
Extinguishing Media:	Use dry chemical, carbon dioxide to extinguish small fires. Use water for large fires.
Protective Equipment:	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
Unusual Fire Hazards:	Flammable liquid. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to a distant ignition source and flash back.

NFPA Ratings:

NFPA Health:	1
NFPA Flammability:	4
NFPA Reactivity:	0

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Use proper personal protective equipment as listed in Section 8.
Environmental Precautions:	Avoid runoff into storm sewers, ditches, and waterways.
Methods for containment:	Place leaking cans in a container such as an open pail or plastic bag if safe to do so and let the the gas and pressure dissipate. Contain spills with an inert absorbent material such as soil or sand. Prevent from spreading by covering, diking or other means. Provide ventilation. Eliminate all ignition sources including those beyond the immediate spill area if safe to do so.
Methods for cleanup:	Clean up spills immediately observing precautions in the protective equipment section. Collect spill with a non-sparking tool. Place into a suitable container for disposal. Take precautionary measures against static discharges. After removal, flush spill area with soap and water to remove trace residue.

SECTION 7 : HANDLING and STORAGE

Handling:	**DO NOT** use this product unless you can achieve cross-ventilation by opening windows and doors during application and drying or use the product outdoors. Avoid breathing vapor and contact with eyes, skin and clothing. Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures.
Storage:	Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, and incompatible substances. Keep container tightly closed when not in use.
Work Practices:	To reduce potential for static discharge, bond and ground containers when transferring material.
Special Handling Procedures:	Do not reuse containers without proper cleaning or reconditioning.
Hygiene Practices:	Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:	Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.
Eye/Face Protection:	Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.
Skin Protection Description:	Chemical-resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing.
Respiratory Protection:	A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Other Protective:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
PPE Pictograms:	

Octane :

Guideline ACGIH:	TLV-TWA: 300 ppm
Guideline OSHA:	PEL-TWA: 500 ppm

Nonane :

Guideline ACGIH:	TLV-STEL: () TLV-TWA: 200 ppm

Titanium dioxide :

Guideline ACGIH:	TLV-TWA: 10 mg/m3
Guideline OSHA:	OSHA-TWA: 15 mg/m3

Isobutane :

Guideline ACGIH:	TLV-TWA: 1000 ppm

Propane :

Guideline ACGIH:	TLV-TWA: 1000 ppm
Guideline OSHA:	PEL-TWA: 1000 ppm

n-butane :

Guideline ACGIH:	TLV-TWA: 1000 ppm

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

Physical State:	Aerosol.
Color:	White
Odor:	Solvent.
Odor Threshold:	Not applicable.
Boiling Point:	>99°F (>37°C)
Melting Point:	Not applicable.
Density:	7.0 - 8.0
Solubility:	Not applicable.

Vapor Density:	Not applicable.
Vapor Pressure:	Not applicable.
Evaporation Rate:	Not applicable.
pH:	Not applicable.
Viscosity:	Not applicable.
Coefficient of Water/Oil Distribution:	Not applicable.
Flammability:	Water thin
Flash Point:	-156°F (-104°C)
Flash Point Method:	None.
Auto Ignition Temperature:	Not applicable.
VOC Content:	MIR < 1.2

SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:	Stable under normal temperatures and pressures.
Hazardous Polymerization:	Not reported.
Conditions to Avoid:	Heat, flames, ignition sources, and sparks. Incompatible materials. Freezing or temperatures below 0°C (32°F).
Incompatible Materials:	Oxidizing agents. Strong acids and alkalis.

SECTION 11 : TOXICOLOGICAL INFORMATION

Octane :

Inhalation:	Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 118 gm/m3/4H [Details of toxic effects not reported other than lethal dose value] Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 25260 ppm/4H [Details of toxic effects not reported other than lethal dose value] (RTECS)

Nonane :

Inhalation:	Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 3200 ppm/4H [Details of toxic effects not reported other than lethal dose value] Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 17000 mg/m3/4H [Details of toxic effects not reported other than lethal dose value] (RTECS)

Titanium dioxide :

Skin:	Skin - Rabbit; Standard Draize test. : 300 ug/3D; (Intermittent) mild. (RTECS)
Ingestion:	Ingestion - Rat TDLo: 60 gm/kg; Gastrointestinal - Hypermotility, diarrhea Gastrointestinal - Other changes. (RTECS)
Chronic Effects:	Causes damage to organs through prolonged or repeated exposure to particulates or powder. Normal application procedures for this product pose no hazard as to the release of respirable titanium dioxide dust.
Carcinogenicity:	IARC: Group 2B: Possibly carcinogenic to humans. Based on Inhalation studies in rats exposed to fine or ultrafine particles (dust) of titanium dioxide.

Isobutane :

Inhalation:	Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 57 pph/15M [Behavioral - Tremor Behavioral - Convulsions or effect on seizure threshold Lungs, Thorax, or Respiration - Respiratory depression] Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 658000 mg/m3/4H [Details of toxic effects not reported other than lethal dose value] Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 570000 ppm/15M [Behavioral - General anesthetic Behavioral - Ataxia Lungs, Thorax, or Respiration - Respiratory depression] (RTECS)

Propane :

Inhalation:	Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: >800000 ppm/15M [Behavioral - General anesthetic Behavioral - Ataxia Lungs, Thorax, or Respiration - Respiratory depression] (RTECS)

n-butane :

Inhalation:	Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 658000 mg/m3/4H [Details of toxic effects not reported other than lethal dose value] (RTECS)

SECTION 12 : ECOLOGICAL INFORMATION

Limestone :

Ecotoxicity:	No ecotoxicity data was found for the product.
Environmental Fate:	No environmental information found for this product.

SECTION 13 : DISPOSAL CONSIDERATIONS

Limestone :

Waste Disposal:	Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name:	Aerosols, flammable.
DOT UN Number:	1950
DOT Hazard Class:	2.1
DOT Packing Group:	Not applicable.
DOT Exemption:	Not applicable.
IATA Shipping Name:	Aerosol. Flammable.
IATA UN Number:	1950
IATA Hazard Class:	2.1
IATA Packing Group:	Not applicable.
Canadian Shipping Name:	Aerosol.
Canadian UN Number:	1950
Canadian Hazard Class:	2.1
Canadian Packing Group:	Not applicable.
IMDG UN Number :	1950
IMDG Shipping Name :	Aerosol.
IMDG Hazard Class :	2.1
IMDG Packing Group :	Not applicable.
Marine Pollutant:	Not applicable.
ADR UN Number:	1950
ADR Shipping Name :	Aerosol.
ADR Hazard Class:	2
ADR Packing Group :	Not applicable.

SECTION 15 : REGULATORY INFORMATION

Octane :

TSCA Inventory Status:	Listed
Canada DSL:	Listed

Nonane :

TSCA Inventory Status:	Listed
Canada DSL:	Listed

Trimethyl-1, 3-pentanediol, diisobutyrate :

TSCA Inventory Status:	Listed
Canada DSL:	Listed

Vinyl acrylate terpolymer :

TSCA Inventory Status:	Listed
Canada DSL:	Listed

Titanium dioxide :

TSCA Inventory Status:	Listed
State Regulations:	Listed in the New Jersey State Right to Know List. Listed in the Pennsylvania State Hazardous Substances List.
Canada DSL:	Listed

Naphtha (petroleum), light alkylate :

TSCA Inventory Status:	Listed
Canada DSL:	Listed

Isobutane :

TSCA Inventory Status:	Listed
State Regulations:	Listed in the Pennsylvania State Hazardous Substances List. Listed in the New Jersey State Right to Know List..
Canada DSL:	Listed

Propane :

TSCA Inventory Status:	Listed
State Regulations:	Listed in the Pennsylvania State Hazardous Substances List. Listed in the New Jersey State Right to Know List.
Canada DSL:	Listed

n-butane :

TSCA Inventory Status:	Listed
State Regulations:	Listed in the Pennsylvania State Hazardous Substances List. Listed in the New Jersey State Right to Know List.
Canada DSL:	Listed

SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard:	1
HMIS Fire Hazard:	3
HMIS Reactivity:	1
HMIS Personal Protection:	X

SDS Creation Date:	June 26, 2006
SDS Revision Date:	December 23, 2015
SDS Revision Notes:	GHS Pictogram Update
SDS Author:	Actio Corporation

Disclaimer:

This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury or damage which may result from its use. We shall ensure, so far as is reasonably practicable, that any revision of this Data Sheet is sent to all customers to whom we have directly supplied this substance, but must point out that it is the responsibility of any intermediate supplier to ensure that such revision is passed to the ultimate user. The information given in the Data Sheet is designed only as a guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment. Should further information be required, this can be obtained through the sales office whose address is at the top of this data sheet.

Trademark:

Revision Number: 008.1

Issue date: 11/07/2016

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **LOCTITE 242 MS TL known as LOC 6ML 242BLUE TLOCKER H 12PG**

IDH number: 209728

Product type: Anaerobic Sealant

Item number: 24200

Restriction of Use: None identified

Region: United States

Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

Contact information:
Telephone: (860) 571-5100
MEDICAL EMERGENCY Phone: Poison Control Center
1-877-671-4608 (toll free) or 1-303-592-1711
TRANSPORT EMERGENCY Phone: CHEMTREC
1-800-424-9300 (toll free) or 1-703-527-3887
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
WARNING:	CAUSES SKIN AND EYE IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2B
SKIN SENSITIZATION	1

PICTOGRAM(S)

Precautionary Statements

Prevention: Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.

Response: IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.

Storage: Not prescribed

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*

Polyglycol dimethacrylate	25852-47-5	60 - 70
Oleic acid 5.5EO	9004-96-0	20 - 30
Saccharin	81-07-2	1 - 5
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
Cumene hydroperoxide	80-15-9	1 - 5
Propane-1,2-diol	57-55-6	1 - 5
Cumene	98-82-8	0.1 - 1
Titanium dioxide	13463-67-7	0.1 - 1

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Skin contact: Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Ingestion: DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Symptoms: See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.

Special firefighting procedures: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.

Unusual fire or explosion hazards: Uncontrolled polymerization may occur at high temperatures resulting in explosions or rupture of storage containers.

Hazardous combustion products: Oxides of carbon. Oxides of sulfur. Oxides of nitrogen. Irritating organic vapours.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Do not allow product to enter sewer or waterways.

Clean-up methods: Remove all sources of ignition. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a partly filled, closed container until disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

Handling: Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep container closed. Refer to Section 8.

Storage: For safe storage, store between 0 °C (32°F) and 32 °C (89.6 °F)
Keep in a cool, well ventilated area away from heat, sparks and open flame.
Keep container tightly closed until ready for use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Polyglycol dimethacrylate	None	None	None	None
Oleic acid 5.5EO	None	None	None	None
Saccharin	None	None	None	None
Silica, amorphous, fumed, crystal-free	10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction.	20 MPPCF TWA 0.8 mg/m3 TWA	None	None
Cumene hydroperoxide	None	None	1 ppm (6 mg/m3) TWA (SKIN)	None
Propane-1,2-diol	None	None	10 mg/m3 TWA Aerosol.	None
Cumene	50 ppm TWA	50 ppm (245 mg/m3) PEL (SKIN)	None	None
Titanium dioxide	10 mg/m3 TWA	15 mg/m3 PEL Total dust.	None	None

Engineering controls: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection: Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye/face protection: Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.

Skin protection: Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact. Neoprene gloves. Butyl rubber gloves. Natural rubber gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid
Color: Blue
Odor: Mild
Odor threshold: Not available.
pH: Not applicable
Vapor pressure: < 5 mm hg (27 °C (80.6 °F))
Boiling point/range: > 149 °C (> 300.2 °F)
Melting point/ range: Not available.
Specific gravity: 1.1 at 23.9 °C (75.02 °F)
Vapor density: Not available.
Flash point: > 93.3 °C (> 199.94 °F) Tagliabue closed cup
Flame projection: Not applicable
Flammable/Explosive limits - lower: 2.6 % (propylene glycol)

Flammable/Explosive limits - upper:	12.5 % (propylene glycol)
Autoignition temperature:	Not determined
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Slight
Partition coefficient (n-octanol/water):	Not available.
VOC content:	0.56 %; 6.17 g/l (California SCAQMD Method 316B) (Estimated)
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	None under normal processing. Polymerization may occur at elevated temperature or in the presence of incompatible materials.
Hazardous decomposition products:	Oxides of carbon. Oxides of sulfur. Oxides of nitrogen. Irritating organic vapours.
Incompatible materials:	Strong oxidizing agents. Free radical initiators. Strong reducing agents. Alkalis. Oxygen scavengers. Other polymerization initiators. Copper. Iron. Zinc. Aluminum. Rust.
Reactivity:	Not available.
Conditions to avoid:	Elevated temperatures. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects/Symptoms

Inhalation: Inhalation of vapors or mists of the product may be irritating to the respiratory system.
Skin contact: Causes skin irritation. May cause allergic skin reaction.
Eye contact: Causes eye irritation.
Ingestion: May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Polyglycol dimethacrylate	None	Allergen, Irritant
Oleic acid 5.5EO	None	Irritant
Saccharin	Oral LD50 (Mouse) = 17 g/kg	No Target Organs
Silica, amorphous, fumed, crystal-free	None	Nuisance dust
Cumene hydroperoxide	Inhalation LC50 (Mouse, 4 h) = 200 mg/l	Allergen, Central nervous system, Corrosive, Irritant, Mutagen
Propane-1,2-diol	Oral LD50 (Rabbit) = 18 g/kg Oral LD50 (Mouse) = 23.9 g/kg Oral LD50 (Rat) = 30 g/kg	Irritant
Cumene	Oral LD50 (Rat) = 2.91 g/kg Oral LD50 (Rat) = 1,400 mg/kg Inhalation LC50 (Rat, 4 h) = 8000 ppm	Central nervous system, Irritant, Lung
Titanium dioxide	None	Irritant, Respiratory, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Polyglycol dimethacrylate	No	No	No
Oleic acid 5.5EO	No	No	No
Saccharin	No	No	No
Silica, amorphous, fumed, crystal-free	No	No	No
Cumene hydroperoxide	No	No	No
Propane-1,2-diol	No	No	No
Cumene	Reasonably Anticipated to be a Human Carcinogen.	Group 2B	No
Titanium dioxide	No	Group 2B	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)
Proper shipping name: RQ, Environmentally hazardous substance, liquid, n.o.s.
Hazard class or division: 9
Identification number: UN 3082
Packing group: III
DOT Hazardous Substance(s): alpha,alpha-Dimethylbenzylhydroperoxide

International Air Transportation (ICAO/IATA)

Proper shipping name:	RQ, Environmentally hazardous substance, liquid, n.o.s.
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III

Water Transportation (IMO/IMDG)

Proper shipping name:	RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification:	None above reporting de minimis
CERCLA/SARA Section 302 EHS:	None above reporting de minimis.
CERCLA/SARA Section 311/312:	Immediate Health, Delayed Health
CERCLA/SARA Section 313:	This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Saccharin (CAS# 81-07-2). Cumene hydroperoxide (CAS# 80-15-9).
CERCLA Reportable quantity:	Cumene hydroperoxide (CAS# 80-15-9) 10 lbs. (4.54 kg)
California Proposition 65:	This product contains a chemical known in the State of California to cause cancer.

Canada Regulatory Information

CEPA DSL/NDSL Status:	Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: Reviewed SDS. Reissued with new date.

Prepared by: Sheila Gines, Regulatory Affairs Specialist

Issue date: 11/07/2016

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

Revision Number: 009.3

Issue date: 04/26/2017

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **LOCTITE 271 HS TL known as LOC 6ML 271RED TLOCKER H 12PG**

IDH number: 209741

Product type: Anaerobic Sealant

Item number: 27100

Restriction of Use: None identified

Region: United States

Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

Contact information:
Telephone: (860) 571-5100
MEDICAL EMERGENCY Phone: Poison Control Center
1-877-671-4608 (toll free) or 1-303-592-1711
TRANSPORT EMERGENCY Phone: CHEMTREC
1-800-424-9300 (toll free) or 1-703-527-3887
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
WARNING:	CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1

PICTOGRAM(S)

Precautionary Statements

Prevention: Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection.

Response: IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.

Storage: Not prescribed

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Polyglycol dimethacrylate	25852-47-5	60 - 70
Saccharin	81-07-2	1 - 5
Cumene hydroperoxide	80-15-9	1 - 5
Cumene	98-82-8	0.1 - 1

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Skin contact: Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Ingestion: DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Symptoms: See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.

Special firefighting procedures: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.

Unusual fire or explosion hazards: Uncontrolled polymerization may occur at high temperatures resulting in explosions or rupture of storage containers.

Hazardous combustion products: Oxides of carbon. Oxides of sulfur. Oxides of nitrogen. Irritating organic vapours.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Do not allow product to enter sewer or waterways.

Clean-up methods: Remove all sources of ignition. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a partly filled, closed container until disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

Handling: Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep container closed. Refer to Section 8.

Storage: For safe storage, store at or below 38 °C (100.4 °F)
Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Polyglycol dimethacrylate	None	None	None	None
Saccharin	None	None	None	None
Cumene hydroperoxide	None	None	1 ppm (6 mg/m3) TWA (SKIN)	None
Cumene	50 ppm TWA	50 ppm (245 mg/m3) PEL (SKIN)	None	None

Engineering controls: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection: Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye/face protection: Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.

Skin protection: Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact. Butyl rubber gloves. Natural rubber gloves. Neoprene gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid
Color: Red
Odor: Mild
Odor threshold: Not available.
pH: Not applicable
Vapor pressure: < 5 mm hg (26.7 °C (80.1 °F))
Boiling point/range: > 148.9 °C (> 300°F)
Melting point/ range: Not available.
Specific gravity: 1.1
Vapor density: Not available.
Flash point: > 93.3 °C (> 199.94 °F) Tagliabue closed cup
Flammable/Explosive limits - lower: Not available.
Flammable/Explosive limits - upper: Not available.
Autoignition temperature: Not available.
Flammability: Not applicable
Evaporation rate: Not available.
Solubility in water: Slight
Partition coefficient (n-octanol/water): Not available.
VOC content: 0.82 %; 7.81 g/l
Viscosity: Not available.
Decomposition temperature: Not available.

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and use.

Hazardous reactions: None under normal processing. Polymerization may occur at elevated temperature or in the presence of incompatible materials.

Hazardous decomposition products: Phenolics. Oxides of sulfur. Oxides of carbon. Oxides of nitrogen. Irritating organic vapours.

Incompatible materials: Strong oxidizing agents. Strong acids. Copper. Iron. Strong reducing agents. Rust.

Reactivity: Not available.

Conditions to avoid: Elevated temperatures. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects/Symptoms

Inhalation: Inhalation of vapors or mists of the product may be irritating to the respiratory system.
Skin contact: Causes skin irritation. May cause allergic skin reaction.
Eye contact: Causes serious eye irritation.
Ingestion: May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Polyglycol dimethacrylate	None	Allergen, Irritant
Saccharin	Oral LD50 (Mouse) = 17 g/kg	No Target Organs
Cumene hydroperoxide	Inhalation LC50 (Mouse, 4 h) = 200 mg/l	Allergen, Central nervous system, Corrosive, Irritant, Mutagen
Cumene	Oral LD50 (Rat) = 2.91 g/kg Oral LD50 (Rat) = 1,400 mg/kg Inhalation LC50 (Rat, 4 h) = 8000 ppm	Central nervous system, Irritant, Lung

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Polyglycol dimethacrylate	No	No	No
Saccharin	No	No	No
Cumene hydroperoxide	No	No	No
Cumene	Reasonably Anticipated to be a Human Carcinogen.	Group 2B	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: RQ, Environmentally hazardous substance, liquid, n.o.s.
Hazard class or division: 9
Identification number: UN 3082
Packing group: III
DOT Hazardous Substance(s): alpha,alpha-Dimethylbenzylhydroperoxide

International Air Transportation (ICAO/IATA)

Proper shipping name: RQ, Environmentally hazardous substance, liquid, n.o.s.
Hazard class or division: 9
Identification number: UN 3082
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard class or division: 9
Identification number: UN 3082
Packing group: III

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: None above reporting de minimis.
None above reporting de minimis.
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Saccharin (CAS# 81-07-2). Cumene hydroperoxide (CAS# 80-15-9).
CERCLA Reportable quantity: Cumene hydroperoxide (CAS# 80-15-9) 10 lbs. (4.54 kg)

California Proposition 65: This product contains a chemical known in the State of California to cause cancer.

Canada Regulatory Information

CEPA DSL/NDSL Status: Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: Reviewed SDS. Reissued with new date. 3

Prepared by: Sheila Gines, Regulatory Affairs Specialist

Issue date: 04/26/2017

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

Revision Number: 001.4

Issue date: 03/20/2017

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **Loctite Epoxy Heavy Duty Resin**
Product type: 2-Component epoxy adhesive
Restriction of Use: None identified
Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

IDH number: 1071248

Region: United States
Contact information:
Telephone: +1 (800) 624-7767
MEDICAL EMERGENCY Phone: Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711 TRANSPORT EMERGENCY Phone: CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
WARNING:	CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1

PICTOGRAM(S)

Precautionary Statements

Prevention: Avoid breathing vapors, mist, or spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear eye and face protection. Wear protective gloves.

Response: IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.

Storage: Not prescribed

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*

Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	> 90

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If symptoms develop and persist, get medical attention.

Skin contact: Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothes. If symptoms develop and persist, get medical attention.

Eye contact: In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.

Ingestion: DO NOT induce vomiting unless directed to do so by medical personnel. If symptoms develop and persist, get medical attention.

Symptoms: See Section 11.

Notes to physician: Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Extinguishing media: Water Spray

Special firefighting procedures: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Unusual fire or explosion hazards: In case of fire, keep containers cool with water spray. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.

Hazardous combustion products: Oxides of carbon. Irritating organic fragments.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Wear appropriate protective equipment and clothing during clean-up. Prevent further leakage or spillage if safe to do so. Do not allow product to enter sewer or waterways.

Clean-up methods: Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of according to Federal, State and local governmental regulations.

7. HANDLING AND STORAGE

Handling: Do not breathe gas/fumes/vapor/spray. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container closed.

Storage: Store in original container until ready to use. Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None

Engineering controls: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection: Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists.

Eye/face protection: Safety goggles or safety glasses with side shields.

Skin protection: Chemical resistant, impermeable gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid
Color: Translucent, Clear
Odor: None
Odor threshold: Not available.
pH: Not available.
Vapor pressure: 0.03 mm hg
Boiling point/range: > 260.2 °C (> 500.4 °F)
Melting point/ range: Not available.
Specific gravity: 1.17
Vapor density: Not available.
Flash point: > 249 °C (> 480.2 °F) Pensky Martens closed cup
Flammable/Explosive limits - lower: Not available.
Flammable/Explosive limits - upper: Not available.
Autoignition temperature: Not available.
Flammability: Not applicable
Evaporation rate: Not available.
Solubility in water: Slight
Partition coefficient (n-octanol/water): Not available.
VOC content: < 1.0 %; < 10 g/l (value for resin and hardener together) (estimated)
Viscosity: Not available.
Decomposition temperature: Not available.

10. STABILITY AND REACTIVITY

Stability: Stable

Hazardous reactions: Will not occur.

Hazardous decomposition products: Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Incompatible materials: Strong oxidizing agents. Strong bases. Strong acids. Amines.

Reactivity: Not available.

Conditions to avoid: Excessive heat. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects/Symptoms

Inhalation: Mild respiratory tract irritation.
Skin contact: Allergic skin reaction. Moderate skin irritation. Itching. Redness.
Eye contact: Moderate eye irritation. Redness.
Ingestion: Not expected under normal conditions of use.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	Allergen, Irritant

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Harmful to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)
Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA)
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Bisphenol-A Epichlorhydrin resin)
Hazard class or division: 9
Identification number: UN 3082
Packing group: III

Water Transportation (IMO/IMDG)
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-A Epichlorhydrin resin)
Hazard class or division: 9
Identification number: UN 3082
Packing group: III
Marine pollutant: Bisphenol-A Epichlorhydrin resin

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: None above reporting de minimis.
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA Section 313: None above reporting de minimis.

California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: This Safety Data Sheet contains changes from the previous version in Section(s): 9

Prepared by: Donna Houston, Regulatory Affairs Specialist

Issue date: 03/20/2017

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

Revision Number: 003.1 **Issue date:** 10/13/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **LOCTITE HEAVY DUTY EPOXY HARDENER**
Product type: Epoxy Hardener
Restriction of Use: None identified
Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

IDH number: 1440606
Item number: 1395310_1295955
Region: United States
Contact information:
Telephone: (860) 571-5100
MEDICAL EMERGENCY Phone: Poison Control Center
1-877-671-4608 (toll free) or 1-303-592-1711
TRANSPORT EMERGENCY Phone: CHEMTREC
1-800-424-9300 (toll free) or 1-703-527-3887
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
DANGER:	CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. MAY CAUSE AN ALLERGIC SKIN REACTION.

HAZARD CLASS	HAZARD CATEGORY
SKIN CORROSION	1B
SERIOUS EYE DAMAGE	1
SKIN SENSITIZATION	1

PICTOGRAM(S)

Precautionary Statements

Prevention: Do not breathe vapors, mist, or spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection.

Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. Immediately call a poison control center or physician. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Polymercaptan hardener	Proprietary	60 - 100
m-Phenylenebis(methylamine)	1477-55-0	10 - 30
Substituted aminophenol	Proprietary	5 - 10
Phenol	108-95-2	1 - 5
Reactive Silane	Proprietary	0.1 - 1
Substituted aminophenol	Proprietary	0.1 - 1

* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If not breathing, give artificial respiration. Get medical attention.

Skin contact: Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Get medical attention.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Ingestion: DO NOT induce vomiting unless directed to do so by medical personnel. Get medical attention.

Symptoms: See Section 11.

Notes to physician: Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.

Special firefighting procedures: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Unusual fire or explosion hazards: In case of fire, keep containers cool with water spray. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.

Hazardous combustion products: Oxides of carbon. Oxides of nitrogen. Irritating organic fragments.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Do not allow product to enter sewer or waterways. Remove all sources of ignition. Ventilate area. Wear appropriate protective equipment and clothing during clean-up. Prevent further leakage or spillage if safe to do so.

Clean-up methods: Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of according to Federal, State and local governmental regulations.

7. HANDLING AND STORAGE

Handling: Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep container closed. Refer to Section 8.

Storage: Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Store away from heat, sparks, flames, or other sources of ignition.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Polymercaptan hardener	None	None	None	None
m-Phenylenebis(methylamine)	0.1 mg/m3 Ceiling (SKIN)	None	None	None
Substituted aminophenol	None	None	None	None
Phenol	5 ppm TWA (SKIN)	5 ppm (19 mg/m3) PEL (SKIN)	None	None
Reactive Silane	None	None	None	None
Substituted aminophenol	None	None	None	None

Engineering controls: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection: Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists.

Eye/face protection: Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.

Skin protection: Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid
Color: Amber, Translucent
Odor: Amine, Mercaptan
Odor threshold: Not available.
pH: Not available.
Vapor pressure: Not available.
Boiling point/range: Not available.
Melting point/ range: Not available.
Specific gravity: 1.04
Vapor density: Not available.
Flash point: > 93 °C (> 199.4 °F) Tagliabue closed cup
Flammable/Explosive limits - lower: Not available.
Flammable/Explosive limits - upper: Not available.
Autoignition temperature: Not available.
Evaporation rate: Not available.
Solubility in water: Insoluble
Partition coefficient (n-octanol/water): Not available.
VOC content: 3.77 %; 0.38 g/l EPA Method 24
Viscosity: Not available.
Decomposition temperature: Not available.

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and use.

Hazardous reactions: None under normal processing.

Hazardous decomposition products: Oxides of carbon. Oxides of nitrogen. Irritating organic fragments.

Incompatible materials: Strong acids and strong bases. Strong oxidizing agents.

Reactivity: Not available.

Conditions to avoid: Elevated temperatures. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects/Symptoms

Inhalation: Toxic by inhalation. Respiratory tract burns. May cause irritation to nose and throat.
Skin contact: Corrosive to skin. Causes skin burns. May cause allergic skin reaction.
Eye contact: Causes serious eye damage. Burns.
Ingestion: Irritation and corrosive action can occur in the mouth, stomach tissue and digestive tract if swallowed. May cause burns of mouth and throat if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Polymercaptan hardener	None	No Records
m-Phenylenebis(methylamine)	None	Irritant, Liver, Kidney, Corrosive
Substituted aminophenol	None	Irritant, Allergen
Phenol	Oral LD50 (RAT) = 317 mg/kg Oral LD50 (RAT) = 530 mg/kg Dermal LD50 (RAT) = 669 mg/kg Dermal LD50 (RABBIT) = 850 mg/kg	Blood, Cardiac, Corrosive, Developmental, Eyes, Irritant, Kidney, Liver, Mutagen, Nervous System, Skin, Vascular
Reactive Silane	None	Irritant, Allergen
Substituted aminophenol	None	No Records

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Polymercaptan hardener	No	No	No
m-Phenylenebis(methylamine)	No	No	No
Substituted aminophenol	No	No	No
Phenol	No	No	No
Reactive Silane	No	No	No
Substituted aminophenol	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Amines, liquid, corrosive, n.o.s. (m-Xylylenediamine)
Hazard class or division: 8
Identification number: UN 2735
Packing group: II
DOT Hazardous Substance(s): Phenol

International Air Transportation (ICAO/IATA)

Proper shipping name: Amines, liquid, corrosive, n.o.s. (m-Xylylenediamine)
Hazard class or division: 8
Identification number: UN 2735
Packing group: II

Water Transportation (IMO/IMDG)

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (m-Xylylenediamine)
Hazard class or division: 8
Identification number: UN 2735
Packing group: II

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: Phenol (CAS# 108-95-2).
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Phenol (CAS# 108-95-2).
CERCLA Reportable quantity: Phenol (CAS# 108-95-2) 1,000 lbs. (454 kg)

California Proposition 65: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

Prepared by: Sheila Gines, Regulatory Affairs Specialist

Issue date: 10/13/2014

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

Revision Number: 001.1

Issue date: 10/12/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **Loctite® Super Glue All Purpose**
Product type: Cyanoacrylate
Restriction of Use: None identified
Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

IDH number: 1399967

Region: United States
Contact information:
Telephone: +1 (800) 624-7767
MEDICAL EMERGENCY Phone: Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711 TRANSPORT EMERGENCY Phone: CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING:
BONDS SKIN IN SECONDS.
COMBUSTIBLE LIQUID.
CAUSES EYE IRRITATION.
MAY CAUSE RESPIRATORY IRRITATION.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	4
EYE IRRITATION	2B
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3

PICTOGRAM(S)

Precautionary Statements

Prevention: Keep away from heat, sparks, open flames, hot surfaces - no smoking. Avoid breathing vapors, mist, or spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves, eye protection, and face protection.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison control center or physician if you feel unwell. If eye irritation persists: Get medical attention. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Ethyl 2-cyanoacrylate	7085-85-0	60 - 100
Thickener	Proprietary	10 - 30

* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Skin contact: Do not pull bonded skin apart. Soak in warm soapy water. Gently peel apart using a blunt instrument. If skin is burned due to the rapid generation of heat by a large drop, seek medical attention. If lips are bonded, apply warm water to the lips and encourage wetting and pressure from saliva in mouth. Peel or roll lips apart. Do not pull lips apart with direct opposing force.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. Get medical attention. If eyelids are bonded closed, release eyelashes with warm water by covering with a wet pad. Do not force eye open. Cyanoacrylate will bond to eye protein and will cause a lachrymatory effect which will help to debond the adhesive. Keep eye covered until debonding is complete, usually within 1-3 days. Medical attention should be sought in case solid particles of polymerized cyanoacrylate trapped behind the eyelid caused abrasive damage.

Ingestion: Ensure breathing passages are not obstructed. The product will polymerize rapidly and bond to the mouth making it almost impossible to swallow. Saliva will separate any solidified product in several hours. Prevent the patient from swallowing any separated mass.

Symptoms: See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.

Special firefighting procedures: Wear a self-contained breathing apparatus with a full face piece operated in pressure-demand or other positive pressure mode.

Unusual fire or explosion hazards: None

Hazardous combustion products: Trace amounts of toxic and/or irritating fumes may be released and the use of breathing apparatus is recommended.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Ventilate area. Do not allow product to enter sewer or waterways.

Clean-up methods: Do not use cloths for mopping up. Flood with water to complete polymerization and scrape off the floor. Cured material can be disposed of as non-hazardous waste. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

Handling: Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Avoid contact with fabric or paper goods. Contact with these materials may cause rapid polymerization which can generate smoke and strong irritating vapors, and cause thermal burns.

Storage: For safe storage, store between -20 °C (-4°F) and 50 °C (122°F)
Keep in a cool, well ventilated area away from heat, sparks and open flame.
Keep container tightly closed until ready for use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Ethyl 2-cyanoacrylate	0.2 ppm TWA	None	None	None
Thickener	None	None	None	None

Engineering controls: Use positive down-draft exhaust ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.

Respiratory protection: Use a NIOSH approved air-purifying respirator with an organic vapor cartridge.

Eye/face protection: Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists.

Skin protection: Use nitrile gloves and aprons as necessary to prevent contact. Do not use PVC, nylon or cotton.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid, transparent
Color: Colorless, Straw
Odor: Irritating
Odor threshold: Not available.
pH: Not available.
Vapor pressure: Not available.
Boiling point/range: Not available.
Melting point/ range: Not available.
Vapor density: Not available.
Flash point: 80 °C (176°F)
Flammable/Explosive limits - lower: Not available.
Flammable/Explosive limits - upper: Not available.
Autoignition temperature: Not available.
Evaporation rate: Not available.
Solubility in water: Not available.
Partition coefficient (n-octanol/water): Not available.
VOC content: < 2 %; < 20 g/l (California SCAQMD Method 316B) (Estimated)
Viscosity: Not available.
Decomposition temperature: Not available.

10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Hazardous reactions: Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.

Hazardous decomposition products: None

Incompatible materials: Water, amines, alkalis and alcohols.

Reactivity: Not available.

Conditions to avoid: Spontaneous polymerization.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects/Symptoms

Inhalation: May cause respiratory tract irritation. Exposure to vapors above the established exposure limit results in respiratory irritation, which may lead to difficulty in breathing and tightness in the chest.

Skin contact: May cause skin irritation. Bonds skin in seconds. Cyanoacrylates generate heat on solidification. In rare circumstances a large drop will burn the skin. Cured adhesive does not present a health hazard even if bonded to the skin. Cyanoacrylates have been reported to cause allergic reaction but due to rapid polymerization at the skin surface, an allergic response is rare.

Eye contact: Irritating to eyes. Causes excessive tearing. Eyelids may bond.

Ingestion: Not expected to be harmful by ingestion. Rapidly polymerizes (solidifies) and bonds in mouth. It is almost impossible to swallow.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Ethyl 2-cyanoacrylate	None	Irritant, Allergen, Respiratory
Thickener	None	Irritant

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Ethyl 2-cyanoacrylate	No	No	No
Thickener	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Combustible liquid, n.o.s. (Cyanoacrylate ester)
Hazard class or division: Combustible Liquid
Identification number: NA 1993
Packing group: III

International Air Transportation (ICAO/IATA)

Proper shipping name: Aviation regulated liquid, n.o.s. (Cyanoacrylate ester)
Hazard class or division: 9
Identification number: UN 3334
Packing group: III
Exceptions: Primary packs containing less than 500ml are unregulated by this mode of transport and may be shipped unrestricted.

Water Transportation (IMO/IMDG)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: None above reporting de minimis
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health, Fire, Reactive
CERCLA/SARA Section 313: None above reporting de minimis

California Proposition 65: No California Proposition 65 listed chemicals are known to be present.

Canada Regulatory Information

CEPA DSL/NDSL Status: Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

Prepared by: Catherine Bimler, Regulatory Affairs Specialist

Issue date: 10/12/2015

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

MATERIAL SAFETY DATA SHEET

210B
21 00

DATE OF PREPARATION
Apr 14, 2017

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER
210B
PRODUCT NAME
MINWAX® WOOD FINISH®, Golden Oak
MANUFACTURER'S NAME
MINWAX Company
10 Mountainview Road
Upper Saddle River, NJ 07458

Telephone Numbers and Websites

Product Information	(800) 523-9299 www.minwax.com
Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
**for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)*	

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
58	**64742-88-7**	**Med. Aliphatic Hydrocarbon Solvent**		
		ACGIH TLV	100 PPM	1.27 mm
		OSHA PEL	100 PPM	
1	**64742-47-8**	**Aliphatic Solvent**		
		ACGIH TLV	Not Available	0.1 mm
		OSHA PEL	Not Available	
18	**64742-52-5**	**Heavy Naphthenic Petroleum Oil**		
		ACGIH TLV	5 mg/m3 as Mist	
		OSHA PEL	5 mg/m3 as Mist	

SECTION 3 — HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE
INHALATION of vapor or spray mist.
EYE or SKIN contact with the product, vapor or spray mist.
EFFECTS OF OVEREXPOSURE
EYES: Irritation.
SKIN: Prolonged or repeated exposure may cause irritation.
INHALATION: Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.
SIGNS AND SYMPTOMS OF OVEREXPOSURE
Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.
Redness and itching or burning sensation may indicate eye or excessive skin exposure.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
None generally recognized.
CANCER INFORMATION
For complete discussion of toxicology data refer to Section 11.

HMIS Codes

Health	2
Flammability	2
Reactivity	0

SECTION 4 — FIRST AID MEASURES

EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
SKIN: Wash affected area thoroughly with soap and water.
Remove contaminated clothing and launder before re-use.
INHALATION: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
INGESTION: Do not induce vomiting. Get medical attention immediately.

SECTION 5 — FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL	FLAMMABILITY CLASSIFICATION
105 °F PMCC	1.0	8.8	Combustible, Flash above 99 and below 200 °F

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode when exposed to extreme heat.
Application to hot surfaces requires special precautions.
During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.
Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area.
Remove with inert absorbent.

SECTION 7 — HANDLING AND STORAGE

STORAGE CATEGORY

DOL Storage Class II

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Contents are COMBUSTIBLE. Keep away from heat and open flame.
Consult NFPA Code. Use approved Bonding and Grounding procedures.
Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.
To minimize the possibility of spontaneous combustion: control the accumulation of overspray; soak wiping rags and waste immediately after use in a water-filled, closed metal container; air dry filters outside, far from any combustible material and separated by bricks or other non-combustible spacers; dispose of all contaminated materials and waste properly. Consult OSHA 29 CFR 1910.107(b)(5) and NFPA 33, Chapter 8 (8-9) for the proper procedures.

SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.
Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.
Wash hands after using.
This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m3 (total dust), 3 mg/m3 (respirable fraction), OSHA PEL 15 mg/m3 (total dust), 5 mg/m3 (respirable fraction).
Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.
When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES
Wear gloves which are recommended by glove supplier for protection against materials in Section 2.
EYE PROTECTION
Wear safety spectacles with unperforated sideshields.
OTHER PRECAUTIONS
Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	7.05 lb/gal	844 g/l
SPECIFIC GRAVITY	0.85	
BOILING POINT	300 - 495 °F	148 - 257 °C
MELTING POINT	Not Available	
VOLATILE VOLUME	65%	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	Not Available	

VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)

4.22 lb/gal	506 g/l	Less Water and Federally Exempt Solvents
4.22 lb/gal	506 g/l	Emitted VOC

SECTION 10 — STABILITY AND REACTIVITY

STABILITY — Stable
CONDITIONS TO AVOID
None known.
INCOMPATIBILITY
None known.
HAZARDOUS DECOMPOSITION PRODUCTS
By fire: Carbon Dioxide, Carbon Monoxide
HAZARDOUS POLYMERIZATION
Will not occur

SECTION 11 — TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS
No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.
Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.
TOXICOLOGY DATA

CAS No.	Ingredient Name			
64742-88-7	**Med. Aliphatic Hydrocarbon Solvent**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		>5000 mg/kg
64742-47-8	**Aliphatic Solvent**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
64742-52-5	**Heavy Naphthenic Petroleum Oil**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available

SECTION 12 — ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION
No data available.

SECTION 13 — DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD
Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.
Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.
Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

SECTION 14 — TRANSPORT INFORMATION

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

US Ground (DOT)

May be Classed as a Combustible Liquid for U.S. Ground.
UN1263, PAINT, 3, PG III, (ERG#128)

Bulk Containers may be Shipped as:

UN1263, PAINT, 3, PG III, (ERG#128)

Canada (TDG)

May be Classed as a Combustible Liquid for Canadian Ground.
UN1263, PAINT, 3, PG III, (ERG#128)

IMO

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.
UN1263, PAINT, 3, PG III (41 C c.c.), EmS F-E, S-E

IMO

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.
UN1263, PAINT, 3, PG III (41 C c.c.), MARINE POLLUTANT (MED.
ALIPHATIC HYDROCARBON SOLVENT), EmS F-E, S-E

IATA/ICAO

UN1263, PAINT, 3, PG III

SECTION 15 — REGULATORY INFORMATION

SARA 313 *(40 CFR 372.65C)* SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element

No ingredients in this product are subject to SARA 313 (40 CFR 372.65C) Supplier Notification.

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

SAFETY DATA SHEET

260

Section 1. Identification

Product name : MINWAX® WOOD FINISH®
Pickled Oak

Product code : 260

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Manufacturer : MINWAX Company
10 Mountainview Road
Upper Saddle River, NJ 07458

Emergency telephone number of the company : (216) 566-2917

Product Information Telephone Number : (800) 523-9299

Regulatory Information Telephone Number : (216) 566-2902

Transportation Emergency Telephone Number : (800) 424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 60.4%

GHS label elements

Hazard pictograms :

Signal word : Danger

Section 2. Hazards identification

Hazard statements : Flammable liquid and vapor.
Causes serious eye irritation.
Causes skin irritation.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling.

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations. DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Med. Aliphatic Hydrocarbon Solvent	55.42	64742-88-7
Heavy Naphthenic Petroleum Oil	16.38	64742-52-5
Titanium Dioxide	4.94	13463-67-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Section 4. First aid measures

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Med. Aliphatic Hydrocarbon Solvent	**OSHA PEL (United States, 2/2013).** TWA: 100 ppm 8 hours. TWA: 400 mg/m³ 8 hours.
Heavy Naphthenic Petroleum Oil	**ACGIH TLV (United States, 3/2015).** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **NIOSH REL (United States, 10/2013).** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist **OSHA PEL (United States, 2/2013).** TWA: 5 mg/m³ 8 hours.
Titanium Dioxide	**ACGIH TLV (United States, 3/2015).** TWA: 10 mg/m³ 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 15 mg/m³ 8 hours. Form: Total dust

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
Med. Aliphatic Hydrocarbon Solvent	**CA Quebec Provincial (Canada, 1/2014).** TWAEV: 400 ppm 8 hours. TWAEV: 1590 mg/m³ 8 hours.
Heavy Naphthenic Petroleum Oil	**CA Alberta Provincial (Canada, 4/2009).** 8 hrs OEL: 5 mg/m³ 8 hours. Form: Mist 15 min OEL: 10 mg/m³ 15 minutes. Form: Mist **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 5 mg/m³ 8 hours. Form: mist STEV: 10 mg/m³ 15 minutes. Form: mist

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : 148°C (298.4°F)

Flash point : Closed cup: 40°C (104°F) [Pensky-Martens Closed Cup]

Evaporation rate : 0.13 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 1%
Upper: 6%

Vapor pressure : 0.023 kPa (0.169 mm Hg) [at 20°C]

Vapor density : 5 [Air = 1]

Relative density : 0.88

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (room temperature): <0.205 cm^2/s (<20.5 cSt)
Kinematic (40°C (104°F)): <0.205 cm^2/s (<20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Heat of combustion : 28.62 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Heavy Naphthenic Petroleum Oil	LD50 Oral	Rat	>5000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Heavy Naphthenic Petroleum Oil	Skin - Severe irritant	Rabbit	-	500 milligrams	-
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Titanium Dioxide	-	2B	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Med. Aliphatic Hydrocarbon Solvent	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Med. Aliphatic Hydrocarbon Solvent	Category 2	Not determined	Not determined

Aspiration hazard

Name	Result
Med. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium Dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3 	3 	3 	3 	3 
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.
Additional information	This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials. **ERG No.** 128	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2. 18-2.19 (Class 3). **ERG No.** 128	- **ERG No.** 128	-	**Emergency schedules (EmS)** F-E, S-E

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.

Ship type : Not available.

Pollution category : Not available.

Section 15. Regulatory information

SARA 313

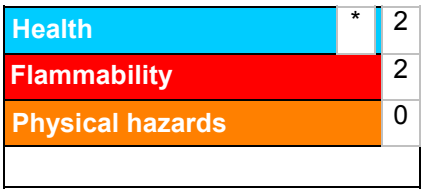
SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

Date of printing : 7/15/2016

Date of issue/Date of revision : 7/15/2016

Date of previous issue : 6/4/2016

Version : 3.01

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Notice to reader

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

MATERIAL SAFETY DATA SHEET

3220
14 00

DATE OF PREPARATION
Sep 3, 2017

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER
3220

PRODUCT NAME
MINWAX® Indoor/Outdoor HELMSMAN® Spar Urethane (350 V.O.C. Compliant), Clear Satin

MANUFACTURER'S NAME
MINWAX Company
10 Mountainview Road
Upper Saddle River, NJ 07458

Telephone Numbers and Websites

Product Information	(800) 523-9299 www.minwax.com
Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
**for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)*	

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
11	**64742-88-7**	**Mineral Spirits**		
		ACGIH TLV	100 PPM	1.27 mm
		OSHA PEL	100 PPM	
18	**64741-65-7**	**Mineral Spirits (Odorless)**		
		ACGIH TLV	100 PPM	1 mm
		OSHA PEL	100 PPM	
11	**98-56-6**	**p-Chlorobenzotrifluoride**		
		ACGIH TLV	Not Available	5.3 mm
		OSHA PEL	Not Available	
0.2	**61789-51-3**	**Cobalt Naphthenate**		
		ACGIH TLV	Not Available	
		OSHA PEL	Not Available	
2	**112926-00-8**	**Amorphous Precipitated Silica**		
		ACGIH TLV	10 mg/m3 as Dust	
		OSHA PEL	6 mg/m3 as Dust	

SECTION 3 — HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE
INHALATION of vapor or spray mist.
EYE or SKIN contact with the product, vapor or spray mist.

HMIS Codes

Health	2*
Flammability	2
Reactivity	0

EFFECTS OF OVEREXPOSURE
EYES: Irritation.
SKIN: Prolonged or repeated exposure may cause irritation.
INHALATION: Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.
Prolonged overexposure to hazardous ingredients in Section 2 may cause adverse chronic effects to the following organs or systems:
- the liver
- the urinary system

SIGNS AND SYMPTOMS OF OVEREXPOSURE
Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.
Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
None generally recognized.

CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

SECTION 4 — FIRST AID MEASURES

EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
SKIN: Wash affected area thoroughly with soap and water.
Remove contaminated clothing and launder before re-use.
INHALATION: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
INGESTION: Do not induce vomiting. Get medical attention immediately.

SECTION 5 — FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL	FLAMMABILITY CLASSIFICATION
101 °F TCC	0.9	10.5	Combustible, Flash above 99 and below 200 °F

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode when exposed to extreme heat.
Application to hot surfaces requires special precautions.
During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.
Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area.
Remove with inert absorbent.

SECTION 7 — HANDLING AND STORAGE

STORAGE CATEGORY

DOL Storage Class II

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Contents are COMBUSTIBLE. Keep away from heat and open flame.
Consult NFPA Code. Use approved Bonding and Grounding procedures.
Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.
Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.
Wash hands after using.
This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m3 (total dust), 3 mg/m3 (respirable fraction), OSHA PEL 15 mg/m3 (total dust), 5 mg/m3 (respirable fraction).
Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.
When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

EYE PROTECTION
Wear safety spectacles with unperforated sideshields.
OTHER PRECAUTIONS
Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	8.17 lb/gal	978 g/l
SPECIFIC GRAVITY	0.98	
BOILING POINT	282 - 412 °F	138 - 211 °C
MELTING POINT	Not Available	
VOLATILE VOLUME	47%	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	Not Available	

VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)

2.77 lb/gal	332 g/l	Less Water and Federally Exempt Solvents
2.54 lb/gal	305 g/l	Emitted VOC

SECTION 10 — STABILITY AND REACTIVITY

STABILITY — Stable
CONDITIONS TO AVOID
None known.
INCOMPATIBILITY
None known.
HAZARDOUS DECOMPOSITION PRODUCTS
By fire: Carbon Dioxide, Carbon Monoxide
HAZARDOUS POLYMERIZATION
Will not occur

SECTION 11 — TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS
Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.
Cobalt and cobalt compounds are classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is inadequate evidence in humans for its carcinogenicity.
TOXICOLOGY DATA

CAS No.	Ingredient Name			
64742-88-7	**Mineral Spirits**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
64741-65-7	**Mineral Spirits (Odorless)**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
98-56-6	**p-Chlorobenzotrifluoride**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
61789-51-3	**Cobalt Naphthenate**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
112926-00-8	**Amorphous Precipitated Silica**			
		LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available

SECTION 12 — ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION
No data available.

SECTION 13 — DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD
Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.
Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

SECTION 14 — TRANSPORT INFORMATION

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

US Ground (DOT)

May be Classed as a Combustible Liquid for U.S. Ground.
UN1263, PAINT, 3, PG III, (ERG#128)

Bulk Containers may be Shipped as:

UN1263, PAINT, 3, PG III, (ERG#128)

Canada (TDG)

May be Classed as a Combustible Liquid for Canadian Ground.
UN1263, PAINT, 3, PG III, (ERG#128)

IMO

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.
UN1263, PAINT, 3, PG III (38 C c.c.), EmS F-E, S-E

IMO

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.
UN1263, PAINT, 3, PG III (38 C c.c.), EmS F-E, S-E

IATA/ICAO

UN1263, PAINT, 3, PG III

SECTION 15 — REGULATORY INFORMATION

SARA 313 *(40 CFR 372.65C)* SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
	Cobalt Compound	0.2	0.01

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

SAFETY DATA SHEET

MOLYKOTE(R) 316 SILICONE RELEASE SPRAY

Version	Revision Date:	SDS Number:	Date of last issue: 11/14/2016
4.2	03/21/2017	1147811-00006	Date of first issue: 02/03/2015

SECTION 1. IDENTIFICATION

Product name : MOLYKOTE(R) 316 SILICONE RELEASE SPRAY

Product code : 000000000001895371

Manufacturer or supplier's details

Company name of supplier : Dow Corning Corporation

Address : South Saginaw Road
Midland Michigan 48686

Telephone : (989) 496-6000

Emergency telephone : 24 Hour Emergency Telephone : (989) 496-5900
CHEMTREC : (800) 424-9300

Recommended use of the chemical and restrictions on use

Recommended use : Anti-set off and adhesive agents

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Flammable aerosols : Category 1

Gases under pressure : Dissolved gas

Skin irritation : Category 2

Specific target organ systemic toxicity - single exposure : Category 3

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements : H222 Extremely flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.

Precautionary Statements :

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.
P261 Avoid breathing spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

P405 Store locked up.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Hydrocarbon aerosol propellant

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
Naphtha, Petroleum, Light Alkylate	64741-66-8	>= 43 - <= 59
Propane	74-98-6	>= 18 - <= 28
Butane	106-97-8	>= 13 - <= 19

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact	:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
In case of eye contact	:	Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.
If swallowed	:	If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	:	Causes skin irritation. May cause drowsiness or dizziness.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.
Notes to physician	:	Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	None known.
Specific hazards during fire fighting	:	Flash back possible over considerable distance. Vapors may form explosive mixtures with air. Exposure to combustion products may be a hazard to health. If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.
Hazardous combustion products	:	Carbon oxides Silicon oxides Formaldehyde
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Special protective equipment for fire-fighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Remove all sources of ignition. Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.
Environmental precautions	:	Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	:	Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapors/mists with a water spray jet. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures	:	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	:	Use with local exhaust ventilation. Use only in an area equipped with explosion proof exhaust ventilation.
Advice on safe handling	:	Do not get on skin or clothing. Do not breathe vapors or spray mist. Do not swallow. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment.

Do not spray on an open flame or other ignition source.

Conditions for safe storage : Store locked up.
Keep in a cool, well-ventilated place.
Store in accordance with the particular national regulations.
Do not pierce or burn, even after use.
Keep cool. Protect from sunlight.

Materials to avoid : Do not store with the following product types:
Self-reactive substances and mixtures
Organic peroxides
Oxidizing agents
Flammable solids
Pyrophoric liquids
Pyrophoric solids
Self-heating substances and mixtures
Substances and mixtures which in contact with water emit flammable gases
Explosives

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parame-ters / Permissible concentration	Basis
Naphtha, Petroleum, Light Alkylate	64741-66-8	TWA	500 ppm 2,000 mg/m³	OSHA Z-1
Propane	74-98-6	TWA	1,000 ppm 1,800 mg/m³	NIOSH REL
		TWA	1,000 ppm 1,800 mg/m³	OSHA Z-1
Butane	106-97-8	TWA	800 ppm 1,900 mg/m³	NIOSH REL
		STEL	1,000 ppm	ACGIH

Engineering measures : Processing may form hazardous compounds (see section 10).
Minimize workplace exposure concentrations.
Use only in an area equipped with explosion proof exhaust ventilation.
Use with local exhaust ventilation.

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and

use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection
Material : Chemical-resistant gloves

Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Take note that the product is flammable, which may impact the selection of hand protection. Wash hands before breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment:
Safety glasses

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Wear the following personal protective equipment:
Flame retardant antistatic protective clothing.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.
For further information regarding the use of silicones / organic oils in consumer aerosol applications, please refer to the guidance document regarding the use of these type of materials in consumer aerosol applications that has been developed by the silicone industry (www.SEHSC.com) or contact the Dow Corning customer service group.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Aerosol containing a dissolved gas

Color : colorless

Odor : solvent

Odor Threshold : No data available

pH	:	Not applicable
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	Not applicable
Flash point	:	-91 °C Method: Tag closed cup
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Extremely flammable aerosol.
Self-ignition	:	The substance or mixture is not classified as pyrophoric. The substance or mixture is not classified as self heating.
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Relative density	:	1.1
Solubility(ies)		
Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	Not applicable
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Molecular weight	:	No data available
Particle size	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Extremely flammable aerosol. Vapors may form explosive mixture with air. Use at elevated temperatures may form highly hazardous compounds. If the temperature rises there is danger of the vessels bursting due to the high vapor pressure. Can react with strong oxidizing agents. Hazardous decomposition products will be formed at elevated temperatures.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Oxidizing agents

Hazardous decomposition products

Thermal decomposition	:	Formaldehyde

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute dermal toxicity	:	Acute toxicity estimate: 4,902 mg/kg Method: Calculation method

Ingredients:

Naphtha, Petroleum, Light Alkylate:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 7.6 mg/l Exposure time: 4 h Test atmosphere: vapor Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	LD50 (Rabbit): > 2,200 - 2,500 mg/kg Remarks: Based on data from similar materials

Propane:

Acute inhalation toxicity : LC50 (Rat): > 800000 ppm
Exposure time: 15 min
Test atmosphere: gas

Butane:

Acute inhalation toxicity : LC50 (Rat): 658 mg/l
Exposure time: 4 h
Test atmosphere: vapor

Skin corrosion/irritation

Causes skin irritation.

Ingredients:

Naphtha, Petroleum, Light Alkylate:

Species: Rabbit
Method: OECD Test Guideline 404
Result: Skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Ingredients:

Naphtha, Petroleum, Light Alkylate:

Species: Rabbit
Result: No eye irritation

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Ingredients:

Naphtha, Petroleum, Light Alkylate:

Test Type: Buehler Test
Routes of exposure: Skin contact
Species: Guinea pig
Result: negative

Germ cell mutagenicity

Not classified based on available information.

Ingredients:

Naphtha, Petroleum, Light Alkylate:

Genotoxicity in vitro : Test Type: Saccharomyces cerevisiae, gene mutation assay (in vitro)

Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Rat
Application Route: Inhalation
Result: negative

Propane:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Rat
Application Route: inhalation (gas)
Method: OECD Test Guideline 474
Result: negative

Butane:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Rat
Application Route: inhalation (gas)
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Carcinogenicity

Not classified based on available information.

Ingredients:

Naphtha, Petroleum, Light Alkylate:

Species: Mouse
Application Route: Skin contact
Exposure time: 102 weeks
Result: negative

IARC	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Ingredients:

Naphtha, Petroleum, Light Alkylate:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Inhalation
Result: negative

Propane:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: inhalation (gas)
Method: OECD Test Guideline 422
Result: negative

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: inhalation (gas)
Method: OECD Test Guideline 422
Result: negative

Butane:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: inhalation (gas)
Method: OECD Test Guideline 422
Result: negative

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Application Route: inhalation (gas)
Method: OECD Test Guideline 422
Result: negative

STOT-single exposure

May cause drowsiness or dizziness.

Ingredients:

Naphtha, Petroleum, Light Alkylate:

Assessment: May cause drowsiness or dizziness.

Propane:

Assessment: May cause drowsiness or dizziness.

Butane:

Assessment: May cause drowsiness or dizziness.

STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity

Ingredients:

Naphtha, Petroleum, Light Alkylate:

Species: Rat
NOAEL: 10 mg/l
Application Route: inhalation (vapor)
Exposure time: 13 Weeks
Method: OPPTS 870.3465

Propane:

Species: Rat
NOAEL: 7.214 mg/l
Application Route: inhalation (gas)
Exposure time: 6 Weeks
Method: OECD Test Guideline 422

Butane:

Species: Rat
NOAEL: 9000 ppm
Application Route: inhalation (gas)
Exposure time: 6 Weeks
Method: OECD Test Guideline 422

Aspiration toxicity

Not classified based on available information.

Ingredients:

Naphtha, Petroleum, Light Alkylate:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:

Naphtha, Petroleum, Light Alkylate:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 8.2 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 4.5 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 3.1 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 2.6 mg/l Exposure time: 21 d Method: OECD Test Guideline 211

Persistence and degradability

Ingredients:

Naphtha, Petroleum, Light Alkylate:

Biodegradability	:	Result: Readily biodegradable. Biodegradation: 77 % Exposure time: 28 d Method: OECD Test Guideline 301F

Propane:

Biodegradability	:	Result: Readily biodegradable. Biodegradation: 100 % Exposure time: 385.5 h Remarks: Based on data from similar materials

Butane:

Biodegradability	:	Result: Readily biodegradable. Biodegradation: 100 % Exposure time: 385.5 h Remarks: Based on data from similar materials

Bioaccumulative potential

Ingredients:

Naphtha, Petroleum, Light Alkylate:

Partition coefficient: n-octanol/water	:	log Pow: > 4 Remarks: Based on data from similar materials

Butane:

Partition coefficient: n-octanol/water	:	log Pow: 2.31

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Resource Conservation and Recovery Act (RCRA)	:	When a decision is made to discard this material as supplied, it is classified as a RCRA hazardous waste.
Waste Code	:	D001: Ignitability
Waste from residues	:	Dispose of in accordance with local regulations.
Contaminated packaging	:	Empty containers should be taken to an approved waste handling site for recycling or disposal. Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death. If not otherwise specified: Dispose of as unused product. Please ensure aerosol cans are sprayed completely empty (including propellant)

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 1950
Proper shipping name	:	AEROSOLS
Class	:	2.1
Packing group	:	Not assigned by regulation
Labels	:	2.1

IATA-DGR

UN/ID No.	:	UN 1950
Proper shipping name	:	Aerosols, flammable
Class	:	2.1
Packing group	:	Not assigned by regulation
Labels	:	Flammable Gas
Packing instruction (cargo aircraft)	:	203
Packing instruction (passenger aircraft)	:	203

IMDG-Code

UN number	:	UN 1950
Proper shipping name	:	AEROSOLS (Naphtha, Petroleum, Light Alkylate)

Class	:	2.1
Packing group	:	Not assigned by regulation
Labels	:	2.1
EmS Code	:	F-D, S-U
Marine pollutant	:	yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 1950
Proper shipping name	:	Aerosols
Class	:	2.1
Packing group	:	Not assigned by regulation
Labels	:	FLAMMABLE GAS
ERG Code	:	126
Marine pollutant	:	yes(Naphtha, Petroleum, Light Alkylate)

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Fire Hazard
Sudden Release of Pressure Hazard
Acute Health Hazard

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Pennsylvania Right To Know

Naphtha, Petroleum, Light Alkylate	64741-66-8
Propane	74-98-6
Butane	106-97-8
Dimethyl siloxane, trimethylsiloxy-terminated	63148-62-9

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

California List of Hazardous Substances

Butane	106-97-8

California Permissible Exposure Limits for Chemical Contaminants

Propane	74-98-6
Butane	106-97-8

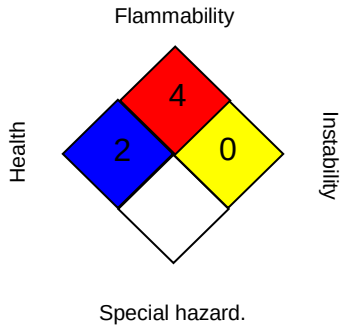
The ingredients of this product are reported in the following inventories:

NZIoC	:	All ingredients listed or exempt.
PICCS	:	All ingredients listed or exempt.
TSCA	:	All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.
AICS	:	All ingredients listed or exempt.
IECSC	:	All ingredients listed or exempt.
KECI	:	All ingredients listed, exempt or notified.
DSL	:	All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL).
TCSI	:	All ingredients listed or exempt.

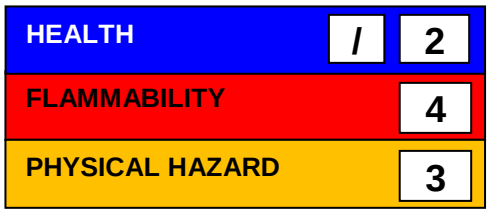
SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)

NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / STEL	:	Short-term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA Z-1 / TWA	:	8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Sources of key data used to compile the Material Safety Data Sheet	:	Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/

Revision Date : 03/21/2017

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and

shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

US / Z8

SAFETY DATA SHEET

1. Identification

Product identifier **Oatey All Purpose Clear Cement**

Other means of identification

Product code 1403E

Synonyms Part Numbers: 30818(TV), 30821(TV), 30834 (TV), 30847, 30847L, 30848, 31650, 31651, 32208, 32209

Recommended use Joining PVC, CPVC, or ABS Pipe

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Oatey Co.

Address 4700 West 160th St.
Cleveland, OH 44135

Telephone 216-267-7100

E-mail info@oatey.com

Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)

Emergency First Aid 1-877-740-5015

Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Highly flammable liquid and vapor. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.
Storage	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May form explosive peroxides. Contains a chemical classified by the US EPA as a suspected possible carcinogen.

Supplemental information

Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Furan, Tetrahydro-	109-99-9	30-45
Acetone	67-64-1	10-20
Cyclohexanone	108-94-1	10-20
Methyl ethyl ketone	78-93-3	8-18
Polyvinyl chloride	9002-86-2	10.98
Ethene, chloro-homopolymer, chlorinated	68648-82-8	3-7
Silica, amorphous, fumed	112945-52-5	1-5

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.
Most important symptoms/effects, acute and delayed	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Polyvinyl chloride (CAS 9002-86-2)	STEL	5 ppm
	TWA	1 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Acetone (CAS 67-64-1)	PEL	2400 mg/m3 1000 ppm	
Cyclohexanone (CAS 108-94-1)	PEL	200 mg/m3 50 ppm	
Furan, Tetrahydro- (CAS 109-99-9)	PEL	590 mg/m3	

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
		200 ppm	
Methyl ethyl ketone (CAS 78-93-3)	PEL	590 mg/m3	
		200 ppm	
Polyvinyl chloride (CAS 9002-86-2)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	0.8 mg/m3
		20 mppcf

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Cyclohexanone (CAS 108-94-1)	STEL	50 ppm	
	TWA	20 ppm	
Furan, Tetrahydro- (CAS 109-99-9)	STEL	100 ppm	
	TWA	50 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	300 ppm	
	TWA	200 ppm	
Polyvinyl chloride (CAS 9002-86-2)	TWA	1 mg/m3	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m3
		250 ppm
Cyclohexanone (CAS 108-94-1)	TWA	100 mg/m3
		25 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	735 mg/m3
		250 ppm
	TWA	590 mg/m3
		200 ppm
Methyl ethyl ketone (CAS 78-93-3)	STEL	885 mg/m3
		300 ppm
	TWA	590 mg/m3
		200 ppm
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	6 mg/m3

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	*

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Cyclohexanone (CAS 108-94-1)	80 mg/l	1,2-Cyclohexanediol, with hydrolysis	Urine	*
	8 mg/l	Cyclohexanol, with hydrolysis	Urine	*
Furan, Tetrahydro- (CAS 109-99-9)	2 mg/l	Tetrahydrofuran	Urine	*
Methyl ethyl ketone (CAS 78-93-3)	2 mg/l	MEK	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Cyclohexanone (CAS 108-94-1) Skin designation applies.

US - Tennessee OELs: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.
Furan, Tetrahydro- (CAS 109-99-9) Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

Appropriate engineering controls Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid.

Color Clear. Milky.

Odor Solvent.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range 151 °F (66.11 °C)

Flash point 14.0 - 23.0 °F (-10.0 - -5.0 °C)

Evaporation rate 5.5 - 8

Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1.8
Flammability limit - upper (%)	11.8
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	145 mm Hg @ 20 C
Vapor density	2.5
Relative density	0.94 +/- 0.02
Solubility(ies)	
Solubility (water)	Negligible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Bulk density	7.8 lb/gal
VOC (Weight %)	380 g/l SCAQMD 1168/M316A

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May be fatal if swallowed and enters airways. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	May be fatal if swallowed and enters airways. Harmful if swallowed. Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rabbit	20 ml/kg

Components	Species	Test Results
Inhalation		
LC50	Rat	50 mg/l, 8 Hours
Oral		
LD50	Rat	5800 mg/kg
Cyclohexanone (CAS 108-94-1)		
Acute		
Dermal		
LD50	Rabbit	948 mg/kg
Inhalation		
LC50	Rat	8000 ppm, 4 hours
Oral		
LD50	Rat	1540 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is "suggestive evidence of carcinogenic potential" following exposure to THF by all routes of exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

Cyclohexanone (CAS 108-94-1)	3 Not classifiable as to carcinogenicity to humans.
Polyvinyl chloride (CAS 9002-86-2)	3 Not classifiable as to carcinogenicity to humans.
Silica, amorphous, fumed (CAS 112945-52-5)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Polyvinyl chloride (CAS 9002-86-2)	Cancer

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Narcotic effects. May cause drowsiness and dizziness. Respiratory tract irritation.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard May be fatal if swallowed and enters airways.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Acetone (CAS 67-64-1)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours

Components		Species	Test Results
Cyclohexanone (CAS 108-94-1)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	481 - 578 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

Acetone (CAS 67-64-1)	-0.24
Cyclohexanone (CAS 108-94-1)	0.81
Furan, Tetrahydro- (CAS 109-99-9)	0.46
Methyl ethyl ketone (CAS 78-93-3)	0.29

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number UN1133
UN proper shipping name Adhesives
Transport hazard class(es)
Class 3
Subsidiary risk -
Label(s) 3
Packing group II
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions 149, B52, IB2, T4, TP1, TP8
Packaging exceptions 150
Packaging non bulk 173
Packaging bulk 242

IATA

UN number UN1133
UN proper shipping name Adhesives
Transport hazard class(es)
Class 3
Subsidiary risk -
Packing group II
Environmental hazards No.
ERG Code 3L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number UN1133
UN proper shipping name ADHESIVES

Transport hazard class(es)

Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-D
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not available.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Polyvinyl chloride (CAS 9002-86-2)	Cancer Central nervous system Liver Blood Flammability

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)	LISTED
Cyclohexanone (CAS 108-94-1)	LISTED
Furan, Tetrahydro- (CAS 109-99-9)	LISTED
Methyl ethyl ketone (CAS 78-93-3)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1)	6532
Methyl ethyl ketone (CAS 78-93-3)	6714

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1)	35 %WV
Methyl ethyl ketone (CAS 78-93-3)	35 %WV

DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1)	6532

Methyl ethyl ketone (CAS 78-93-3) 6714

US state regulations

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)
Silica, amorphous, fumed (CAS 112945-52-5)

US. New Jersey Worker and Community Right-to-Know Act

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)
Polyvinyl chloride (CAS 9002-86-2)

US. Pennsylvania Worker and Community Right-to-Know Law

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)
Silica, amorphous, fumed (CAS 112945-52-5)

US. Rhode Island RTK

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 05-27-2015

Revision date -

Version # 01

HMIS® ratings
Health: 2
Flammability: 3
Physical hazard: 0

NFPA ratings

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available. Oatey Co. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

Material Safety Data Sheet

1. MATERIAL AND COMPANY IDENTIFICATION

Material Name : **Pennzoil SAE 5W-20 Motor Oil**
Product Code : 001D7516
Uses : Engine oil.

Manufacturer/Supplier : **Shell Oil Products US**
P.O. Box 4427
Houston TX 77210-4427
USA
SDS Request : (+1) 877-276-7285

Emergency Telephone Number
Spill Information : 877-242-7400
Health Information : 877-504-9351

2. COMPOSITION/INFORMATION ON INGREDIENTS

Highly refined mineral oils and additives.
The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance and Odour : Amber. Liquid at room temperature. Slight hydrocarbon.

Health Hazards : Not classified as dangerous for supply or conveyance.
Safety Hazards : Not classified as flammable but will burn.
Environmental Hazards : Not classified as dangerous for the environment.

Health Hazards : Not expected to be a health hazard when used under normal conditions.

Health Hazards
Inhalation : Under normal conditions of use, this is not expected to be a primary route of exposure.
Skin Contact : Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.
Eye Contact : May cause slight irritation to eyes.
Ingestion : Low toxicity if swallowed.
Other Information : Used oil may contain harmful impurities.
Signs and Symptoms : Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.
Aggravated Medical Conditions : Pre-existing medical conditions of the following organ(s) or organ system(s) may be aggravated by exposure to this material: Skin.

Environmental Hazards	:	Not classified as dangerous for the environment.
Additional Information	:	Under normal conditions of use or in a foreseeable emergency, this product does not meet the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

4. FIRST-AID MEASURES

General Information	:	Not expected to be a health hazard when used under normal conditions.
Inhalation	:	No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.
Skin Contact	:	Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
Eye Contact	:	Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
Ingestion	:	In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.
Advice to Physician	:	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Flash point	:	Typical 229 °C / 444 °F (COC)
Upper / lower Flammability or Explosion limits	:	Typical 1 - 10 %(V)(based on mineral oil)
Auto ignition temperature	:	> 320 °C / 608 °F
Specific Hazards	:	Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide may be evolved if incomplete combustion occurs. Unidentified organic and inorganic compounds.
Suitable Extinguishing Media	:	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable Extinguishing Media	:	Do not use water in a jet.
Protective Equipment for Firefighters	:	Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe the relevant local and international regulations.

Protective measures	:	Avoid contact with skin and eyes. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or

other appropriate barriers.

Clean Up Methods : Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

Additional Advice : Local authorities should be advised if significant spillages cannot be contained.

7. HANDLING AND STORAGE

General Precautions : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

Handling : Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.

Storage : Keep container tightly closed and in a cool, well-ventilated place. Use properly labelled and closeable containers. Store at ambient temperature.

Product Transfer : This material has the potential to be a static accumulator. Proper grounding and bonding procedures should be used during all bulk transfer operations.

Recommended Materials : For containers or container linings, use mild steel or high density polyethylene.

Unsuitable Materials : PVC.

Additional Information : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Material	Source	Type	ppm	mg/m3	Notation
Oil mist, mineral	ACGIH	TWA(Inhalable fraction.)		5 mg/m3	
Oil mist, mineral	OSHA Z1	PEL(Mist.)		5 mg/m3	

Biological Exposure Index (BEI)
No biological limit allocated.

Exposure Controls	:	The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated. Define procedures for safe handling and maintenance of controls. Educate and train workers in the hazards and control measures relevant to normal activities associated with this product. Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation. Drain down system prior to equipment break-in or maintenance. Retain drain downs in sealed storage pending disposal or for subsequent recycle. Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.
Personal Protective Equipment	:	Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.
Respiratory Protection	:	No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours [boiling point >65°C(149 °F)].
Hand Protection	:	Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For

short-term/splash protection we recommend the same, but recognise that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time may be acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

Eye Protection : Wear safety glasses or full face shield if splashes are likely to occur.

Protective Clothing : Skin protection not ordinarily required beyond standard issue work clothes.

Monitoring Methods : Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory. Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods http://www.cdc.gov/niosh/
Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/
Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances
http://www.hse.gov.uk/
Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany.
http://www.dguv.de/inhalt/index.jsp
L'Institut National de Recherche et de Securité, (INRS), France
http://www.inrs.fr/accueil

Environmental Exposure Controls : Take appropriate measures to fulfil the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before discharge to surface water. Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Amber. Liquid at room temperature.
Odour	: Slight hydrocarbon.
pH	: Not applicable.

Initial Boiling Point and Boiling Range	:	> 280 °C / 536 °F estimated value(s)
Pour point	:	Typical -42 °C / -44 °F
Flash point	:	Typical 229 °C / 444 °F (COC)
Upper / lower Flammability or Explosion limits	:	Typical 1 - 10 %(V) (based on mineral oil)
Auto-ignition temperature	:	> 320 °C / 608 °F
Vapour pressure	:	< 0.5 Pa at 20 °C / 68 °F (estimated value(s))
Specific gravity	:	Typical 0.88 at 15 °C / 59 °F
Density	:	Typical 880 kg/m3 at 15 °C / 59 °F
Water solubility	:	Negligible.
n-octanol/water partition coefficient (log Pow)	:	> 6 (based on information on similar products)
Kinematic viscosity	:	Typical 49.6 mm2/s at 40 °C / 104 °F
Vapour density (air=1)	:	> 1 (estimated value(s))
Electrical conductivity	:	This material is not expected to be a static accumulator.
Evaporation rate (nBuAc=1)	:	Data not available

10. STABILITY AND REACTIVITY

Stability	:	Stable.
Conditions to Avoid	:	Extremes of temperature and direct sunlight.
Materials to Avoid	:	Strong oxidising agents.
Hazardous Decomposition Products	:	Hazardous decomposition products are not expected to form during normal storage.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment	:	Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).
Acute Oral Toxicity	:	Expected to be of low toxicity: LD50 > 5000 mg/kg , Rat
Acute Dermal Toxicity	:	Expected to be of low toxicity: LD50 > 5000 mg/kg , Rabbit
Acute Inhalation Toxicity	:	Not considered to be an inhalation hazard under normal conditions of use.
Skin Irritation	:	Expected to be slightly irritating. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.
Eye Irritation	:	Expected to be slightly irritating.
Respiratory Irritation	:	Inhalation of vapours or mists may cause irritation.
Sensitisation	:	Not expected to be a skin sensitiser.
Repeated Dose Toxicity	:	Not expected to be a hazard.
Mutagenicity	:	Not considered a mutagenic hazard.
Carcinogenicity	:	Not expected to be carcinogenic. Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies. Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

Material	:	Carcinogenicity Classification
Highly refined mineral oil (IP346 <3%)	:	ACGIH Group A4: Not classifiable as a human carcinogen.
Highly refined mineral oil (IP346 <3%)	:	IARC 3: Not classifiable as to carcinogenicity to humans.
Highly refined mineral oil (IP346 <3%)	:	GHS / CLP: No carcinogenicity classification

Reproductive and Developmental Toxicity : Not expected to be a hazard.

Additional Information : Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal. ALL used oil should be handled with caution and skin contact avoided as far as possible. Continuous contact with used engine oils has caused skin cancer in animal tests.

12. ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

Acute Toxicity : Poorly soluble mixture. May cause physical fouling of aquatic organisms. Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l (to aquatic organisms) LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract. Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.

Mobility : Liquid under most environmental conditions. If it enters soil, it will adsorb to soil particles and will not be mobile. Floats on water.

Persistence/degradability : Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.

Bioaccumulation : Contains components with the potential to bioaccumulate.

Other Adverse Effects : Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

13. DISPOSAL CONSIDERATIONS

Material Disposal : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical

properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses.

Container Disposal : Dispose in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.

Local Legislation : Disposal should be in accordance with applicable regional, national, and local laws and regulations.

14. TRANSPORT INFORMATION

US Department of Transportation Classification (49CFR)
This material is not subject to DOT regulations under 49 CFR Parts 171-180.

IMDG
This material is not classified as dangerous under IMDG regulations.

IATA (Country variations may apply)
This material is either not classified as dangerous under IATA regulations or needs to follow country specific requirements.

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Federal Regulatory Status

Notification Status

EINECS	All components listed or polymer exempt.
TSCA	All components listed.
DSL	All components listed.

Comprehensive Environmental Release, Compensation & Liability Act (CERCLA)

Zinc alkyl dithiophosphate (68649-42-3)

Shell classifies this material as an "oil" under the CERCLA Petroleum Exclusion, therefore releases to the environment are not reportable under CERCLA.

SARA Toxic Release Inventory (TRI) (313)

Zinc alkyl dithiophosphate (68649-42-3)	0.90%

State Regulatory Status

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

This material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

New Jersey Right-To-Know Chemical List

Zinc alkyl dithiophosphate (68649-42-3)	0.90%	Listed.

16. OTHER INFORMATION

NFPA Rating (Health, Fire, Reactivity)	:	0, 1, 0
SDS Version Number	:	1.3
SDS Effective Date	:	02/05/2014
SDS Revisions	:	A vertical bar (|) in the left margin indicates an amendment from the previous version.
SDS Regulation	:	The content and format of this MSDS is in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
SDS Distribution	:	The information in this document should be made available to all who may handle the product.
Disclaimer	:	The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty or guarantee is expressed or implied regarding the accuracy of these data or the results to be obtained from the use of the product.

First edition: 05.12.14
Actual Version: **5.0**
Date: 02.11.2015

Performix
PLASTI DIP SPRAY

1 IDENTIFICATION OF THE MIXTURE AND THE COMPANY

1.1 Product Identifier: **Performix PLASTI DIP SPRAY**
Trade Name **Multi-Purpose Rubber Coating (all colours)**
Article Nr: ---
Preparation Nr: ---
Registration Nr: CPID 516766-54

1.2 Relevant identified uses of the mixture① and uses advised against②:
Product for the general public as well as for commercial and industrial uses.
① Multi-purpose rubber coating for cars.
② N.d.a..

1.3 Details of the supplier of the safety data sheet:

1.3.1a **(EU) Address of the Company / Importer / Supplier:**
PRODIP GmbH chez Tax & Consult SARL
62, Rue Jacques Mugnier
FR-68200 Mulhouse
Phone: +41 (0)55 536 4019
Fax: ---
E-Mail: info@prodip.eu

1.3.1b **(CH) Address of the Manufacturer / Importer:**
PRODIP GmbH
Gutenbrunnen 39
CH-8852 Altendorf
Phone: +41 (0)55 536 4019
Fax: ---
E-Mail: info@prodip.ch

1.3.2 **Responsible for the data sheet:**
Rolf Schmidhäusler
Phone: +41 (0)55 460 1212
E-Mail: rolf@rsg-europe.com

1.4 Emergency telephone numbers:

1.4.1 **Manufacturer / Importer:**
Monday – Friday: 08:00 – 17:00
Phone: +41 (0)55 536 4019

1.4.2 **Toxicological Information Center:**
(CH) Toxikologisches Zentrum, 8028 Zürich (Service 24h)
Phone: **145** (within Switzerland)
+41 44 251 5151 (from abroad)
Languages : English, German, French, Italian

1.4.3 **Other specialised Information Centres in Symptoms of poisoning:**

	Phone:	Spoken languages:
(AT) Vergiftungsinformationszentrale, 1090 Wien	+43 (1) 406 4343	German, English
(BE) Centre Antipoisons, 1120 Brüssel	+32 (70) 245 245	French, Flamish, English
(CZ) Poison Information Centre, 1280 Prag	+42 (02) 249 192 93	Czech, German, English
(DE) Beratungsstelle für Vergiftungserscheinungen, Berlin	+49 761 19240	German, English
(DK) Giftinformationen, 2400 Copenhagen	+45 (35) 316 060	Danish, English
(ES) Servicio Nacional de Información Tosicológica, Madrid	+34 (91) 562 84 69	Spanish, English
(FR) Centre Anti-Poisons, 67091 Strasbourg	+33 (3) 883 737 37	French, German, English
(FI) Poison Information Centre, 00290 Helsinki	+358 (9) 471 977	Finnish, Swedish, English
(GB) National Poison Inform. Centre, London SE14 5ER	+44 (171) 635 9191	English
(GR) Poison Information Centre, 11527 Athen	+30 (1) 799 3777	Greek, English
(HR) Poison Control Centre, 10000 Zagreb	+385 (1) 222 302	Croatian
(IT) Centro Antiveleni, 00161 Roma	+39 (6) 490 663	Italien, French, English
(LT) Poison Centre, 2043 Vilnius	+370 (2) 269 583	Lituanian, Russian, German, English
(NL) Nationaal Vergiftingen Informatie Centrum, Bilthoven	+31 (30) 274 88 88	Dutch, German, English
(NO) Giftinformasjonssentralen, 0034 Oslo	+47 (22) 591 300	Norwegian, English
(PL) National Poison Information Centre, 90950 Lótz	+48 (42) 657 99 0	Polish, German, English
(PT) Centro de Informacao Antivenenos, 1749075 Lisboa	+351 (1) 795 01 43	Portuguese, French, English
(RU) Toxicology Information & Advisory Centre, Moskau	+7 (95) 928 1647	Russian (English)
(SE) Giftinformationscentralen, 17176 Stockholm	+46 (8) 736 0384	Swedish, English
(SK) Poison Information Centre, 83101 Bratislava	+00421 (17) 547 741 66	Slovak, German, English
(SL) Poison Control Center, 1000 Ljublijana	+386 (61) 302 457	English (German, French)
(TR) National Poison Control Center, 06100 Ankara	+90 312 433 7001	Turkish, (English)
(HU) Departement of Clinical Toxicology, Budapest VII	+36 (1) 215 215	Hungarian, German, English

2 HAZARDS IDENTIFICATION

2.1 Classification of the mixture:

Classification and labelling according to Directive 1272/2008/EC:
Flam. Aerosol 1, H222 - H229,
EUH066

2.2 Label elements:

Hazard pictogram(s):

2.2.1 **Classification according to 1272/2008/EC:**
Yes.

Applicable exemptions:
No.

Signal word(s): DANGER

Component(s): Aliphatic Hydrocarbons (see section 3)

H - Phrases:

H222	Extremely flammable aerosol.
H229	Pressurized container: may burst if heated.

P - Phrases:

P102	Keep out of reach of children.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe mist, vapours, spray.
P262	Do not get in eyes, on skin, or on clothing.
P304+340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P314	Get medical advice/attention if you feel unwell.
P410+412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P501	Dispose of contents / container in accordance to regional / national regulation.

Specific labelling:
EUH066: Repeated exposure may cause skin dryness or cracking.
Pressurised container: May burst if heated. Protect from sunlight. Do no expose to temperatures exceeding 50°C/122°F. Do not pierce or burn, even after use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. In use, may form flammable/explosive vapour-air mixture.
The above mentioned labelling is valid for distribution to private consumer.

Additional markings:
Repeated exposure may cause skin dryness or cracking. Pressurised container: May burst if heated. Protect from sunlight. Do no expose to temperatures exceeding 50°C/122°F. Do not pierce or burn, even after use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. In use, may form flammable/explosive vapour-air mixture. The above mentioned labelling is valid for distribution to private consumer.

2.3 Other hazards:

This mixture contains no substances which are assessed to be PBT or vPvB.

3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Chemical characterisation:

Mixture - Aerosol.

3.2 Dangerous ingredients:

CAS-No.:	EC-No.:	Substance name / material Index-No.: / REACH-No.:	m%-range:	Symbols:	H-phrases:	§
74-98-6	200-827-9	PROPAN 601-003-00-5 / 01-2119486944-21	20 - 30	GHS02, 04	H220	§
64742-89-8	265-192-2	SOLVENT NAPHTA (Erdöl), Leicht, aliphatisch 649-267-00-0 / 01-2119471306-40	20 - 30	GHS08	H304 EUH066	
106-97-8	203-448-7	BUTAN 601-004-00-0 / 01-2119474691-32	1 - 10	GHS02, 04	H220	§
1330-20-7	215-535-7	XYLOL (o.m.p.) 601-022-00-9 / 01-2119488216-32	1 - 10	GHS02 GHS07	H226 H312, 315, 332	§
78-93-3	201-159-0	BUTANON 606-002-00-3 / 01-2119457290-43	1 - 5	GHS02 GHS07	H225 H319, 336, EUH066	§

110-43-0	203-767-1	2-HEPTANON 606-024-00-3 / 01-2119902391-49	1 - 5	GHS02 GHS07	H226 H302, 322	§
100-41-4	202-849-4	ETHYLBENZOL 601-023-00-4 / 01-2119489370-35	1 - 5	GHS02 GHS07	H225 H332	§

3.3 Allergenic component according to 2001/15/EC:

CAS-Nr.:	EG-Nr.:	Substance name:	m%-range	Symbols:	R / H-Phrases:
---	---	None.	---	--- ---	--- ---

§ Components / substances with an exposure limit:
Text of R-/H-phrases: see section 16.

4 FIRST AID MEASURES

4.1 Description of first aid measures:

4.1.1 **Inhalation:**
Move out of dangerous area. Move to fresh air. If symptoms persist, call a physician.

4.1.2 **Skin contact:**
Wash of immediately with soap and plenty of water. If skin irritation persists, call a physician.

4.1.3 **Eye contact:**
Remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.

4.1.4 **Ingestion:**
N.a. - unlikely.

4.2 Most important symptoms and effects, both acute and delyed:

Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

4.6 Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

5 FIREFIGHTING MEASURES

5.1 Extinguishing media:

5.1.1 **Suitable Extinguishing Media**
Use dry chemical, CO_2, water spray or 'alcohol'-foam.

5.1.2 **Extinguishing media to avoid:**
Water as yet.

5.2 Special hazards arising from the mixture:

In the event of fire the following can be released: Carbon oxides.

5.3 Advice for fire-fighters:

5.3.1 **Special protective Equipment:**
Wear positive pressure self-contained breathing apparatus. Wear full protective clothing.

5.3.2 **Additional information:**
Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6 ACCIDENTIAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

See section 8.2.2
Ensure adequate ventilation. Keep away from heat and source of ignition.

6.2 Environmental precautions:

Do not flush into surface water or sanitary sewer system.

6.3 Methods and material for containment and cleaning up:

Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

6.4 Reference to other sections:
None.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling:

7.1.1 **Precautions for safe handling:**
Do not inhale aerosol. Avoid contact with the skin and the eyes. When using, do not eat, drink or smoke. Take of all contaminated clothing immediately. Wash hands before breaks and at the end of workday.

7.1.2 **Precautions in Case of Fire and Explosion:**
Vapours may form explosive mixture with air. Keep away from sources of ignition - No smoking! Take measures to prevent the build up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities:

7.2.1 **Storage instructions:**
Pressurised container: May burst if heated. Protect from sunlight. Do no expose to temperatures exceeding 50°C/122°F. Do not pierce or burn, even after use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ensure adequate ventilation.

7.2.2 **Store away from:**
Do not store together with food, beverages, strong oxidizing agents.

7.2.3 **Further information on Storage Conditions:**
Avoid extremes of temperatures and direct sunlight.

7.3 Specific end use(s):
N.d.a.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

Material / substance(s):	**Limit value:** AGW :	TWA :
200-827-9 Propan	1000 ppm / 1800 mg/m^3	---
203-448-7 Butan	1000 ppm / 2400 mg/m^3	---
215-535-7 Xylol	100 ppm / 440 mg/m^3	50 ppm / 221 mg/m^3
201-159-0 Butanon	200 ppm / 600 mg/m^3	200 ppm / 600 mg/m^3
203-767-1 2-Heptanon	238 ppm / ---	50 ppm / 238 mg/m^3
202-849-4 Ethylbenzol	100 ppm / 440 mg/m^3	100 ppm / 442 mg/m^3

8.2 Exposure controls:

8.2.1 **Appropriate engineering controls:**
Provide appropriate exhaust ventilation at machinery / work-place.

8.3 Individual protection measures:

8.3.1 **Respiratory Protection:** In case of mist, spray or aerosol exposure, wear suitable personal respiratory protection and protective suit.

8.3.2 **Hand protection:** Solvent-resistant gloves: rubber gloves. Break through time> 8h Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

8.3.3 **Eye protection:** Safety glasses.

8.3.4 **Skin Protection** Long sleeved clothing.

8.3.5 **Further information:** Observe wearing time limits.

8.4 Environmental exposure limits:
N.d.a.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties of the mixture:

9.1.1 **Form:** Aerosol.

9.1.2	**Colour:**	Various colours.				**Colour-Index:**	N.a.
9.1.3	**Odour:**	Solvents.					
9.1.4	**pH-value:**		**100 %:**	N.a.	**10 %:** N.a.	**1 %:**	N.a.
9.1.5	**Boiling point / -range:**		-17 - +140	°C	**Melting point / -range:**	N.d.a.	°C
9.1.6	**Flash point:**		-31	°C	(closed cup)		
9.1.7	**Flammability (EG A10/A13):**		N.d.a.				
9.1.8	**Ignition temperature:**		N.d.a.	°C			
9.1.9	**Auto-flammability (EEC A16):**		N.a.				
9.1.10	**Oxidising properties:**		None				
9.1.11	**Explosion hazard:**		In use, may form flammable / explosive vapour-air mixture.				
9.1.12	**Explosion limits (Vol-%): lower:**		0,9	**upper:**	11,5.		
9.1.13	**Vapour pressure (at 20° C):**		N.d.a.	hPa	Vapours are heavier than air.		
9.1.14	**Density (at 20° C) :**		0,675	g/cm^3			
9.1.15	**Solubility in water:**		Unsoluble.				
9.1.16	**Partition coefficient, n-Oktanol/H2O**		N.d.a.	Log P(o/w)			
9.1.17	**Viscosity:**		N.d.a.	mPa*s			
9.1.18	**Solvent content:**		70 - 100.				
9.1.19a	**V.O.C-content - EU:**		87,296	%			
9.1.19b	**V.O.C-content - CH:**		87,296	%			

9.2 Other information:

9.2.1	**Thermal decomposition:**	N.d.a.	°C	
9.2.2	**Vapour density (air = 1):**	N.d.a.		
9.2.3	**Evaporation rate:**	N.d.a.		
9.2.4	**Surface tension:**	N.v.	mN/m (2500ms)	SITA Tensiometer
9.2.5	**Heat of combustion:**	>=30	kJ/g	

10 STABILITY AND REACTIVITY

10.1 Reactivity:
None.

10.2 Chemical Stability:
Stable under normal conditions.

10.3 Possibility of hazardous reactions:
None, under normal conditions and use of the product.

10.4 Conditions to avoid:
Heat, flames and sparks. Take measurements to prevent the build up of electrostatic charge. Vapours may form explosive mixture with air.

10.5 Incompatible materials:
Oxidizing agents, strong acids and bases.

10.6 Hazardous decomposition products:
No decomposition if stored and applied as directed. To avoid thermal decomposition, do not overheat.

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

11.1.1 **Acute Toxicity:**

Inhalation,	LC_{50} Rat, (mg / l 4h):	N.d.a.
Ingestion,	LD_{50} Rat, (mg / kg):	N.d.a.
Skin contact,	LD_{50} Rat, (mg / kg):	N.d.a.
Irritation / corrosion to eyes:		Slight.
Irritation / corrosion to skin:		Slight.
Sensitisation:		None.

11.1.2 **Sub-acute / chronic Toxicity:**

Carcinogenicity:	None.
Mutagenicity:	None.

Teratogenicity: None.
Narcotic Effects: Inhalation of high vapour concentrations can cause narcosis.

11.2 Practical Experiences:

11.2.1 **Observations relevant for classification:**
Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergenic contact dermatitis and absorption through the skin.

11.2.2 **Further observations:**
None.

11.3 General Information:
Classification of the preparation / mixture has been done by calculation in accordance with EEC directives.

12 ECOLOGICAL INFORMATION

12.1 Toxicity:

EC50 / 48h	Fish	N.d.a.
IC50 / 72h	Daphnis	N.d.a.
LC50 / 96h	Algae's	N.d.a.

We have no quantitative data concerning the ecological effects of this product. ecological injuries are not known or expected under normal use.

12.2 Persistence and degradability:
No data is available on the product itself.

12.3 Mobility:
No data is available on the product itself.

12.4 Bio-accumulative potential:
No data is available for the product itself.

12.5 Results of PBT and vPvB assessment:
This mixture contains no substances which are assessed to be PBT or vPvB.

12.6 Other adverse effects:

12.6.1	COD-value	N.d.a.	mg/g
12.6.2	BOD5-value	N.d.a.	mg/g
12.6.3	AOX-Remarks	This mixture does not contain halogenated substances.	
12.6.4	Significant components:	Hydrocarbons.	

12.7 Other adverse effects:
None.

13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

13.1.1 **recommendation:** D 10 / R2 **Waste-code-No.:** 16 05 05
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
In addition comply with the regional authorities.

13.1.2 **Safe handling:** See sections 7 and 15

13.2 Contaminated packaging:

13.2.1 **Recommendation:** Container under pressure. Do not pierce, burn, even after use.
Dispose of in accordance to local regulation for special waste.

Safe handling: Same as for the product - see also sections: 5 and 7.

14 TRANSPORT INFORMATION

ADR

IMDG

IATA

prodip GmbH
Gutenbrunnen 39
CH-8852 Altendorf
Tel.: +41 (0)55 536 4019
Mail: info@prodip.ch

chez Tax & Consulting Sàrl.
62, Rue Jacques Mugnier
FR-68200 Mulhouse
Tel.: 0033 389 620 003
Mail: info@prodip.eu

Performix BRAND

14.1	**UN-Number:**		
	1950	1950	1950
14.1	**UN proper shipping name:**		
	Aerosols	Aerosols	Aerosols
14.1	**Transport hazard class(es):**		
	2	2	2.1
14.1	**Packing group:**		
	---	---	---
14.1	**Environmental hazards:**		
	---	No.	---
14.1	**Specific precautions for user:**		
	Transport category: 2 Classification Code: 5F Hazard - No.: -- LQ: 1 L	EMS-Number: F-D, S-U	Packing instructions Passenger 203 Packing instructions Cargo 203
14.1	**Transport in bulk according to Annexe II of MARPOL 73/78 and the IBC-Code:**		
	---	None.	---

15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations / legislation specific for the mixture:

15.1.1 **National Regulations (UK):**
D.n.a. --

15.1.2 **National Regulations (CH):**
VOC: 87,296 %
Water pollution (SR 814.20 / 814.201)

CPID 516766-54
Class 1

15.1.3 **National Regulations (DE):**

Beschäftigungsbeschränkung nach MuSchG / JArbSchG beachten:		Ja.	
Aufbewahrungspflicht nach § 8 (6) GefStoffV beachten:		Ja.	
Störfallverordnung beachten:		Ja.	
Technische Anleitung Luft:	Klasse:	Ziffer	Anteil in %:
	---	5.2.5	70 - 90
Wassergefährdungsklasse:		WGK 2 (Selbsteinstufung nach VwVwS)	
Lagerklasse		2B	
Regelungsbereich der TRGS 510 beachten:		Ja.	
Regelungsbereich der TRG 300 beachten:		Ja.	
Regelungsbereich der WRMG beachten:		Nein.	
Anmeldepflichtig nach: § 16e ChemG:		VOC: 87,296 %	

15.2 Other regulations to be respected:
None.

15.3 Chemical safety assessment:
A chemical safety assessment has not been carried out.

16 OTHER INFORMATION

16.1 Label classification and hazard pictograms from section 2:

GHS02 Flammable | GHS05 Corrosive | GHS06 Toxic | GHS07 Irritant | GHS08 Health hazard | GHS09 Environmentally damaging | no symbol

16.2 H-phrases from section 3:

EUH066	Repeated exposure may cause skin dryness or cracking.
H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.

prodip GmbH
Gutenbrunnen 39
CH-8852 Altendorf
Tel.: +41 (0)55 536 4019
Mail: info@prodip.ch

chez Tax & Consulting Sàrl.
62, Rue Jacques Mugnier
FR-68200 Mulhouse
Tel.: 0033 389 620 003
Mail: info@prodip.eu

Performix BRAND

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.

16.3 Abbreviations mentioned in this Safety Data Sheet:

N.a.	Not applicable.
N.d.a.	No data available.
PBT	Persistent,Bio-accumulative, Toxic.
UN	United Nations.
VOC	Volatile Organic Compounds.
vPvB	Very persistent, very bio-accumulative.

16.4 Information on this safety Data Sheet

This datasheet has been compiled in accordance with EU regulation 453/201.
The statements in this Material Safety Data Sheet were made to the best of our knowledge and are as accurate as possible. They are given for information only. They do not constitute a contractual guarantee of a product's properties. They must neither be altered nor transferred to other products.

Prepared by: Rolf Schmidhäusler Phone: +41 55 460 1212

Changes to a previous version are marked by a (red) bar on the right.

SAFETY DATA SHEET – POWER CARE – SAE30- ENGINE OIL

1. IDENTIFICATION

1.1. PRODUCT IDENTIFIER USED ON LABEL:

Item	LABEL DESCRIPTION	BRAND
LM3008PC	POWER CARE PREMIUM 4-CYCLE ENGINE OIL SAE30	POWERCARE
LM3020PC	POWER CARE PREMIUM 4-CYCLE ENGINE OIL SAE30	POWERCARE
LM3018PC	PREMIUM SMALL ENGINE OIL SAE30	POWERCARE

1.2. **OTHER MEANS OF IDENTIFICATION:**

1.2.1. SAE30 ENGINE OIL

1.3. **RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE;**

1.3.1. PETROLEUM LUBRICATING OIL

1.3.2. NO OTHER USES RECOMMENDED

1.4. **NAME, ADDRESS, AND TELEPHONE NUMBER OF THE CHEMICAL MANUFACTURE R, IMPORTER, OR OTHER RESPONSIBLE PARTY:**

1.4.1.

Spectrum Lubricants Corporation

500 Industrial Park Drive
Selmer, TN 38375-3276
United States of America

Product Information

MSDS Requests: (800) 264-6457 or +17316454972
Technical Information: (800) 264-6457 or +17316454972
General Information: vswedley@spectrumcorporation.com

1.5. **EMERGENCY PHONE NUMBER:**

1.5.1.

Emergency Response
North America: CHEMTREC (800) 424-9300 after 5:00pm CST Or +17035273887
Health Emergency
USA: (800) 264-6457 or +17316454972

2. HAZARD(S) IDENTIFICATION

2.1. **CLASSIFICATION OF THE CHEMICAL IN ACCORDANCE WITH PARAGRAPH (d) of §1910.1200:**

2.1.1. Acute Inhalation Category 4

2.2. **Signal Word:**

2.2.1. Warning

2.3. **Symbol:**

2.4. **Hazard Statements:**

2.4.1. Harmful if Inhaled

2.5. **Precautionary Statements:**

2.5.1. Prevention:

2.5.1.1. Avoid breathing dust/fume/gas/mist/vapors/spray.

2.5.1.2. Use only outdoors or in a well-ventilated area.

2.5.2. Response:

2.5.2.1. If inhaled: Remove person to fresh air and keep comfortable for breathing.

2.5.2.2. Call a poison center/doctor if you feel unwell.

3. Composition/ information on ingredients

3.1. **The chemical name and concentration (exact percentage) or concentration ranges of all ingredients which are classified as health hazards in accordance with paragraph (d) of §1910.1200**

3.1.1.

COMPONENTS	CAS Number	EU Number	Concentration (%)
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	265-157-1	90-100

4. FIRST AID MEASURES

4.1.

Skin:	Wash skin with soap and warm water. Wash clothing before re-use.
Eye:	If splashed into eyes flush eyes with clear water for five (5) minutes.
Inhalation:	Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell
Ingestion:	If ingested, do not induce vomiting. Call a physician.

5. FIRE FIGHTING MEASURES

5.1. **Flash Point:** 405°F (207°C)

5.2. **Protective Equipment/Fire Fighting Instructions:**

5.2.1. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

5.3. **Extinguishing Media:**

5.3.1. Use water fog, foam, dry chemical or carbon dioxide (CO_2) to extinguish flames.

5.4. **Special Firefighting Procedures:**

5.4.1. Cool exposed containers with water spray.

5.5. **Unusual Fire and Explosion Hazards:**

5.5.1. Pressure increase in over heated closed containers. Cool containers with water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1. **Spill Procedures:**

6.1.1. Remove ignition sources. Recover Liquid. Add absorbent to spill area. Ventilate confined spaces. Advise authorities if product enters sewers, etc.

6.2. **Waste Disposal:**

6.2.1. Assure conformity with applicable disposal regulations. Dispose of absorbed material at approved waste site

6.3. **Precautionary Measures:**

6.3.1. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Wash thoroughly after handling.

6.3.2. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

7. HANDLING AND STORAGE

7.1. **HANDLING**

7.1.1. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum re-conditioner or disposed of properly.

7.2. **STORAGE**

7.2.1. Keep container closed when not in use. Do not store with strong oxidizing agents. Do not store at elevated temperatures.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1. **Component Exposure Limits:**

8.1.1. Distillates (petroleum), hydrotreated heavy paraffinic

8.1.1.1. ACGIH TLV: 5mg/m³ (oil mist) TWA

8.1.1.2. OSHA PEL: 5mg/m³ (oil mist) TWA

8.2. **Engineering Controls:**

8.2.1. Ventilate as needed to comply with exposure limit

8.3. **Eye Protection:**

8.3.1. Use goggles/face shield to avoid eye contact

8.4. **Glove Protection:**

8.4.1. Use impervious gloves to avoid repeated/prolonged skin contact.

8.5. **Work/Hygienic Practices:**

8.5.1. If clothing becomes contaminated, change to fresh clean clothing. Do not wear until thoroughly laundered.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. **Appearance/Odor:**	Dark brown liquid with mild hydrocarbon odor.	9.2. **Odor Threshold:**	No data available
9.3. **pH:**	No data available	9.4. **Boiling Point:**	Wide range
9.5. **Melting Point:**	No data available	9.6. **Solubility (H_20):**	Negligible
9.7. **Specific Gravity:**	0.888 @ 15.6°C	9.8. **Density:**	7.4 lbs/gal
9.9. **Octanol/H_20 Coeff.:**	No data available	9.10. **Evaporation Rate (BUAC=1):**	<1
9.11. **Molecular Weight:**	No data available	9.12. **Decompostion Temp:**	No data available
9.13. **Auto Ignition:**	No data available	9.14. **Lower Flammability Limit:**	No data available
9.15. **Flash Point:**	425°F (218°C)	9.16. **Upper Flammability Limit:**	No data available
9.17. **Vapor Density (Air=1):**	>1	9.18. **Vapor Pressure:**	<1mmHg @ 20°C
9.19. **VOC:**	Nill	9.20. **Flammability Class:**	Not classified

9.21. **Viscosity @ 40°C** 81cSt (81 mm^2/s) 9.22. **Viscosity @ 100°C** 10.5cSt (10.5 mm^2/s)

10.STABILITY AND REACTIVITY

10.1. **Reactivity**:
10.1.1. Material does not pose a significant reactivity hazard.
10.2. **Chemical Stability:**
10.2.1. Stable
10.3. **Incompatibility/Conditions to avoid:**
10.3.1. Avoid strong oxidants
10.4. **Possibility of Hazardous Reactions:**
10.4.1. Will not undergo hazardous polymerization.
10.5. **Hazardous Decomposition Products:**
10.5.1. Partial burning produces fumes, smoke and carbon monoxide

11. TOXICOLOGY INFORMATION

11.1. **Likely Routes of Exposure:**
11.1.1. Ingestion, Inhalation, Eye contact, Skin contact.
11.2. **Acute Effects:**
11.2.1. Inhalation: Harmful if inhaled. May cause respiratory irritation.
11.2.2. Eye Contact: Expected to be minimal/no eye irritation.
11.2.3. Skin Contact: Expected to be minimal/no skin irritation.
11.2.4. Ingestion: Expected to be low ingestion hazard.
11.3. **Component Data/ Analysis**
11.3.1. Distillates (petroleum), hydrotreated heavy paraffinic
11.3.1.1. Oral (LD50) (Rat): Acute: >5000 mg/kg
11.3.1.2. Inhalation (LC50) (Rat): Acute: 2.18 mg/l (4hr)
11.3.1.3. Dermal (LD50) (Rabbit): >5000 mg/kg
11.4. **Sensitization:**
11.4.1. Based on best current information, there are no known human effects.
11.5. **Carcinogenicity:**
11.5.1. There is no known information on carcinogenic components.
11.6. **Mutagenicity:**
11.6.1. Not expected to be mutagenicic.
11.7. **Reproductive Toxicity:**
11.7.1. Based on best current information, there are no known human effects.
11.8. **Teratogenicity:**
11.8.1. Based on best current information, there are no known human effects.

12.ECOLOGICAL INFORMATION

12.1. **Ecotoxicity**

12.1.1. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

12.2. **Environmental Fate**

12.2.1. Analysis for ecological effects has not been conducted on this product. However, if spilled, this product and any contaminated soil or water may be harmful to human, animal, and aquatic life. Also, the coating action associated with petroleum and petroleum products can be harmful or fatal to aquatic life and waterfowl.

13. DISPOSAL CONSIDERATIONS

13.1. **Waste Disposal**:

13.1.1. Assure conformity with applicable disposal regulations. Dispose of absorbed material at approved waste site.

14.TRANSPORTATION INFORMATION

The shipping description below may not represent requirements for all modes of transportation, shipping methods or locations outside of the United States.

14.1. **ROAD AND RAIL**

14.1.1. DOT: NOT REGULATED

14.2. **VESSEL**

14.2.1. IMDG: NOT REGULATED

14.3. **AIR**

14.3.1. IATA: NOT REGULATED

15.REGULATORY INFORMATION

15.1. **TSCA Inventory**

15.1.1. This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.

15.2. **SARA 302/304 Emergency Planning and Notification**

15.2.1. No components were identified.

15.3. **SARA 311/312 Hazard Identification**

15.3.1. Acute (Immediate) Health Hazard

15.4. **SARA 313 Toxic Chemical Notification and Release Reporting**

15.4.1. : No components were identified.

15.5. **CERCLA**

15.5.1. No components were identified.

15.6. **Clean Water Act (CWA)**

15.6.1. This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their

adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

15.7. **California Proposition 65:**

15.7.1. The product does not contain chemicals known to the state of California to cause cancer, birth defects, or any other reproductive harm.

15.8. **New Jersey Right-to-Know Label**

15.8.1. Petroleum Oil

16.OTHER INFORMATION

16.1.

HAZARD RANKINGS			
HMIS		NFPA	
HEALTH HAZARD	1	HEALTH HAZARD	1
FIRE HAZARD	1	FIRE HAZARD	1
PHYSICAL HAZARD	0	INSTABILITY/REACTIVITY	0
Personal Protection	B		

16.2. **Date of preparation:** 12/9/2013

16.3. **MANUFACTURER DISCLAIMER:**

16.3.1. ***The data presented herein is based upon tests and information, which we believe to be reliable. However, users should make their own investigations to determine the suitability of the information for their particular purpose***

SECTION 1. IDENTIFICATION

Product name : Quaker State Advanced Durability SAE 5W-20 Motor Oil

Product code : 001D7553

Manufacturer or supplier's details

Manufacturer/Supplier : **Shell Oil Products US**
P.O. Box 4427
Houston TX 77210-4427
USA

SDS Request : (+1) 877-276-7285

Customer Service :

Emergency telephone number

Spill Information : 877-504-9351

Health Information : 877-242-7400

Recommended use of the chemical and restrictions on use

Recommended use : Engine oil.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture.

GHS Label element

Hazard pictograms : No Hazard Symbol required

Signal word : No signal word

Hazard statements : PHYSICAL HAZARDS:
Not classified as a physical hazard under GHS criteria.
HEALTH HAZARDS:
Not classified as a health hazard under GHS criteria.
ENVIRONMENTAL HAZARDS:
Not classified as an environmental hazard under GHS criteria.

Precautionary statements : **Prevention:**
No precautionary phrases.
Response:
No precautionary phrases.
Storage:
No precautionary phrases.
Disposal:
No precautionary phrases.

Other hazards which do not result in classification

Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Used oil may contain harmful impurities.
Not classified as flammable but will burn.

The classification of this material is based on OSHA HCS 2012 criteria.

Under normal conditions of use or in a foreseeable emergency, this product does not meet the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Highly refined mineral oils and additives.
The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

* contains one or more of the following CAS-numbers: 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-65-0, 68037-01-4, 72623-86-0, 72623-87-1, 8042-47-5, 848301-69-9.

Hazardous components

Chemical Name	Synonyms	CAS-No.	Concentration (%)
Interchangeable low viscosity base oil (<20,5 cSt @40°C) *		Not Assigned	0 - 90

No hazardous ingredients

SECTION 4. FIRST-AID MEASURES

General advice : Not expected to be a health hazard when used under normal conditions.

If inhaled : No treatment necessary under normal conditions of use.
If symptoms persist, obtain medical advice.

In case of skin contact : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.
If persistent irritation occurs, obtain medical attention.

In case of eye contact : Flush eye with copious quantities of water.
If persistent irritation occurs, obtain medical attention.

If swallowed : In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.

Most important symptoms and effects, both acute and delayed : Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas.
Ingestion may result in nausea, vomiting and/or diarrhoea.

Protection of first-aiders : When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.

Immediate medical attention, special treatment	:	Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	:	Do not use water in a jet.
Specific hazards during fire-fighting	:	Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide may be evolved if incomplete combustion occurs. Unidentified organic and inorganic compounds.
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special protective equipment for firefighters	:	Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Avoid contact with skin and eyes.
Environmental precautions	:	Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	:	Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.
Additional advice	:	For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of

this Safety Data Sheet.

SECTION 7. HANDLING AND STORAGE

Technical measures : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols.
Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

Precautions for safe handling : Avoid prolonged or repeated contact with skin.
Avoid inhaling vapour and/or mists.
When handling product in drums, safety footwear should be worn and proper handling equipment should be used.
Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.

Avoidance of contact : Strong oxidising agents.

Product Transfer : This material has the potential to be a static accumulator.
Proper grounding and bonding procedures should be used during all bulk transfer operations.

Storage

Other data : Keep container tightly closed and in a cool, well-ventilated place.
Use properly labeled and closable containers.

Store at ambient temperature.

Packaging material : Suitable material: For containers or container linings, use mild steel or high density polyethylene.
Unsuitable material: PVC.

Container Advice : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Oil mist, mineral	Not Assigned	TWA ((inhalable fraction))	5 mg/m3	US. ACGIH Threshold Limit Values
		(Mist)	5 mg/m3	OSHA_TRANS

Contains no substances with occupational exposure limit values.

Biological occupational exposure limits

No biological limit allocated.

Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.
Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.
Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.
National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods http://www.cdc.gov/niosh/
Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/
Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances http://www.hse.gov.uk/
Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA) , Germany http://www.dguv.de/inhalt/index.jsp
L'Institut National de Recherche et de Securité, (INRS), France http://www.inrs.fr/accueil

Engineering measures : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:
Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

General Information:
Define procedures for safe handling and maintenance of controls.
Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.
Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.
Drain down system prior to equipment break-in or maintenance.
Retain drain downs in sealed storage pending disposal or subsequent recycle.
Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.
Practice good housekeeping.

Personal protective equipment

Respiratory protection : No respiratory protection is ordinarily required under normal conditions of use.
In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material.
If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health,

select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation.
Check with respiratory protective equipment suppliers.
Where air-filtering respirators are suitable, select an appropriate combination of mask and filter.
Select a filter suitable for the combination of organic gases and vapours [Type A/Type P boiling point >65°C (149°F)].

Hand protection
Remarks : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced.
Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.
For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

Eye protection : If material is handled such that it could be splashed into eyes, protective eyewear is recommended.

Skin and body protection : Skin protection is not ordinarily required beyond standard work clothes.
It is good practice to wear chemical resistant gloves.

Protective measures : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Environmental exposure controls

General advice : Take appropriate measures to fulfill the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before discharge to surface water.
Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Liquid at room temperature.
Colour	:	amber
Odour	:	Slight hydrocarbon
Odour Threshold	:	Data not available
pH	:	Not applicable
pour point	:	-36 °C / -33 °FMethod: ASTM D97
Initial boiling point and boiling range	:	> 280 °C / 536 °Festimated value(s)
Flash point	:	229 °C / 444 °F Method: ASTM D93 (PMCC)
Evaporation rate	:	Data not available
Flammability (solid, gas)	:	Data not available
Upper explosion limit	:	Typical 10 %(V)
Lower explosion limit	:	Typical 1 %(V)
Vapour pressure	:	< 0.5 Pa (20 °C / 68 °F) estimated value(s)
Relative vapour density	:	> 1estimated value(s)
Relative density	:	0.886 (15 °C / 59 °F)
Density	:	886 kg/m3 (15.0 °C / 59.0 °F) Method: Unspecified
Solubility(ies)		
Water solubility	:	negligible
Solubility in other solvents	:	Data not available
Partition coefficient: n-octanol/water	:	Pow: > 6(based on information on similar products)
Auto-ignition temperature	:	> 320 °C / 608 °F
Viscosity		
Viscosity, dynamic	:	Data not available

Viscosity, kinematic	:	47.7 mm2/s (40.0 °C / 104.0 °F) Method: ASTM D445 8.2 mm2/s (100 °C / 212 °F) Method: ASTM D445
Conductivity	:	This material is not expected to be a static accumulator.
Decomposition temperature	:	Data not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.
Chemical stability	:	Stable.
Possibility of hazardous reactions	:	Reacts with strong oxidising agents.
Conditions to avoid	:	Extremes of temperature and direct sunlight.
Incompatible materials	:	Strong oxidising agents.
Hazardous decomposition products	:	Hazardous decomposition products are not expected to form during normal storage.

SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment	:	Information given is based on data on the components and the toxicology of similar products.Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

Information on likely routes of exposure
Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

Acute toxicity

Product:

Acute oral toxicity	:	LD50 (rat): > 5,000 mg/kg Remarks: Expected to be of low toxicity:
Acute inhalation toxicity	:	Remarks: Not considered to be an inhalation hazard under normal conditions of use.
Acute dermal toxicity	:	LD50 (Rabbit): > 5,000 mg/kg Remarks: Expected to be of low toxicity:

Skin corrosion/irritation

Product:

Remarks: Expected to be slightly irritating., Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Serious eye damage/eye irritation

Product:

Remarks: Expected to be slightly irritating.

Respiratory or skin sensitisation

Product:

Remarks: Not expected to be a skin sensitiser.

Germ cell mutagenicity

Product:

: Remarks: Not considered a mutagenic hazard.

Carcinogenicity

Product:

Remarks: Not expected to be carcinogenic.

Remarks: Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies., Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Product:

: Remarks: Not expected to impair fertility., Not expected to be

a developmental toxicant.

STOT - single exposure

Product:
Remarks: Not expected to be a hazard.

STOT - repeated exposure

Product:
Remarks: Not expected to be a hazard.

Aspiration toxicity

Product:
Not considered an aspiration hazard.

Further information

Product:
Remarks: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal., ALL used oil should be handled with caution and skin contact avoided as far as possible.

Remarks: Continuous contact with used engine oils has caused skin cancer in animal tests.

Remarks: Slightly irritating to respiratory system.

SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment	:	Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).(LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test extract).

Ecotoxicity

Product:

Toxicity to fish (Acute toxicity)	:	Remarks: Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l
Toxicity to daphnia and other aquatic invertebrates (Acute toxicity)	:	Remarks: Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l
Toxicity to algae (Acute toxicity)	:	Remarks: Expected to be practically non toxic:

LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic toxicity)	:	Remarks: Data not available
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	Remarks: Data not available
Toxicity to bacteria (Acute toxicity)	:	Remarks: Data not available

Persistence and degradability

Product:

Biodegradability	:	Remarks: Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but contains components that may persist in the environment.

Bioaccumulative potential

Product:

Bioaccumulation	:	Remarks: Contains components with the potential to bioaccumulate.

Mobility in soil

Product:

Mobility	:	Remarks: Liquid under most environmental conditions. If it enters soil, it will adsorb to soil particles and will not be mobile. Remarks: Floats on water.

Other adverse effects

no data available

Product:

Additional ecological information	:	Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential. Poorly soluble mixture. May cause physical fouling of aquatic organisms. Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment.
Waste, spills or used product is dangerous waste.

Disposal should be in accordance with applicable regional, national, and local laws and regulations.
Local regulations may be more stringent than regional or national requirements and must be complied with.

Contaminated packaging : Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand.
Disposal should be in accordance with applicable regional, national, and local laws and regulations.

SECTION 14. TRANSPORT INFORMATION

National Regulations

US Department of Transportation Classification (49 CFR Parts 171-180)

Not regulated as a dangerous good

International Regulation

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Pollution category : Not applicable
Ship type : Not applicable
Product name : Not applicable
Special precautions : Not applicable

Special precautions for user

Remarks : Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

Additional Information **:** MARPOL Annex 1 rules apply for bulk shipments by sea.

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : No OSHA Hazards

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ., Shell classifies this material as an "oil" under the CERCLA Petroleum Exclusion, therefore releases to the environment are not reportable under CERCLA.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Zinc alkyl dithiophosphate	68649-42-3	0.9563 %
Zinc dialkyl dithiophosphate	68649-42-3	0.0954 %

Clean Water Act

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

California Prop 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

EINECS : All components listed or polymer exempt.

TSCA : All components listed.

DSL : All components listed.

SECTION 16. OTHER INFORMATION

Further information

NFPA Rating (Health, Fire, Reactivity) 0, 1, 0

A vertical bar (|) in the left margin indicates an amendment from the previous version.

Abbreviations and Acronyms : The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.

ACGIH = American Conference of Governmental Industrial Hygienists
ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road

AICS = Australian Inventory of Chemical Substances
ASTM = American Society for Testing and Materials
BEL = Biological exposure limits
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes
CAS = Chemical Abstracts Service
CEFIC = European Chemical Industry Council
CLP = Classification Packaging and Labelling
COC = Cleveland Open-Cup
DIN = Deutsches Institut fur Normung
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
DSL = Canada Domestic Substance List
EC = European Commission
EC50 = Effective Concentration fifty
ECETOC = European Center on Ecotoxicology and Toxicology Of Chemicals
ECHA = European Chemicals Agency
EINECS = The European Inventory of Existing Commercial Chemical Substances
EL50 = Effective Loading fifty
ENCS = Japanese Existing and New Chemical Substances Inventory
EWC = European Waste Code
GHS = Globally Harmonised System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer
IATA = International Air Transport Association
IC50 = Inhibitory Concentration fifty
IL50 = Inhibitory Level fifty
IMDG = International Maritime Dangerous Goods
INV = Chinese Chemicals Inventory
IP346 = Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables
KECI = Korea Existing Chemicals Inventory
LC50 = Lethal Concentration fifty
LD50 = Lethal Dose fifty per cent.
LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading
LL50 = Lethal Loading fifty
MARPOL = International Convention for the Prevention of Pollution From Ships
NOEC/NOEL = No Observed Effect Concentration / No Observed Effect Level
OE_HPV = Occupational Exposure - High Production Volume
PBT = Persistent, Bioaccumulative and Toxic
PICCS = Philippine Inventory of Chemicals and Chemical Substances
PNEC = Predicted No Effect Concentration
REACH = Registration Evaluation And Authorisation Of Chemicals
RID = Regulations Relating to International Carriage of Dangerous Goods by Rail
SKIN_DES = Skin Designation
STEL = Short term exposure limit
TRA = Targeted Risk Assessment
TSCA = US Toxic Substances Control Act
TWA = Time-Weighted Average

vPvB = very Persistent and very Bioaccumulative

Revision Date : 10/06/2015

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name: AUTORF QT 4PK ACETONE

Product Identifier: 248667

Product Use/Class: Paint Thinner/Solvent

Supplier: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Manufacturer: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Preparer: Regulatory Department

Emergency Telephone: 24 Hour Hotline: 847-367-7700

Revision Date: 8/7/2015

Supercedes Date: 7/31/2015

2. Hazard Identification

Classification

Symbol(s) of Product

Signal Word
Danger

GHS HAZARD STATEMENTS

Flammable Liquid, category 2	H225	Highly flammable liquid and vapour.
Eye Irritation, category 2	H319	Causes serious eye irritation.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.

GHS LABEL PRECAUTIONARY STATEMENTS

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust, fumes, gases, mists, vapors, or spray.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

GHS SDS PRECAUTIONARY STATEMENTS

P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.

3. Composition/Information On Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.% Range	GHS Symbols	GHS Statements
Acetone	67-64-1	75-100	GHS02-GHS07	H225-319-336

4. First-aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR!Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate all ignition sources; use explosion-proof equipment. Place material in a container and dispose of according to local, provincial, state and federal regulations. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of NFPA Class II combustible liquids. Keep away from heat, sparks, flame and sources of ignition. Keep container closed when not in use. Avoid excess heat. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials.

8. Exposure Controls/Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Acetone	67-64-1	100.0	500 ppm	750 ppm	1000 ppm	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications. Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

9. Physical and Chemical Properties

Appearance:	Liquid	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Relative Density:	0.789	**pH:**	N.D.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Miscible	**Partition Coefficient, n-octanol/ water:**	N.D.
Decompostion Temp., °C:	N.D.		
Boiling Range, °C:	56 - 56	**Explosive Limits, vol%:**	2.6 - 12.8
Flammability:	Supports Combustion	**Flash Point, °C:**	-20
Evaporation Rate:	Slower than Ether	**Auto-ignition Temp., °C:**	N.D.
Vapor Density:	Heavier than Air	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid contact with strong acid and strong bases. Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Prolonged or repeated skin contact may cause irritation. May cause skin irritation. Allergic reactions are possible. Causes skin irritation. Allergic reactions are possible.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. May cause headaches and dizziness. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed. Aspiration hazard if swallowed; can enter lungs and cause damage.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES
The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
67-64-1	Acetone	N.I.	N.I.	50.1 mg/L Rat

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components. Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	1090	1090	1090	1090
Proper Shipping Name:	Acetone	Acetone	Acetone	Acetone
Hazard Class:	3	3	3	3
Packing Group:	II	II	II	II
Limited Quantity:	Yes	Yes	No	Yes

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

No Sara 313 components exist in this product.

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

HMIS RATINGS

Health:	2	**Flammability:**	4	**Physical Hazard:**	0	**Personal Protection:**	X

NFPA RATINGS

Health:	2	**Flammability:**	4	**Instability**	0

VOLATILE ORGANIC COMPOUNDS, g/L: 0

SDS REVISION DATE: 8/7/2015

REASON FOR REVISION: Substance and/or Product Properties Changed in Section(s):
01 - Identification
14 - Transport Information

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name: AUTORF +SSPR 6PK 2IN1 FILLR SNDBL PRMR

Revision Date: 5/12/2017

Product Identifier: 260510

Supercedes Date: 4/4/2017

Product Use/Class: Primer/Aerosol

Supplier: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Manufacturer: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Preparer: Regulatory Department

Emergency Telephone: 24 Hour Hotline: 847-367-7700

2. Hazard Identification

Classification

Symbol(s) of Product

Signal Word
Danger

Possible Hazards
44% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

Carcinogenicity, category 2	H351	Suspected of causing cancer.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
STOT, repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C/ 122°F.
P501	Dispose of contents/container in accordance with local, regional and national regulations.

3. Composition/Information On Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.% Range	GHS Symbols	GHS Statements
Acetone	67-64-1	10-25	GHS02-GHS07	H225-319-332-336
Propane	74-98-6	10-25	GHS04	H280
Talc (Hydrous Magnesium Silicate)	14807-96-6	10-25	Not Available	Not Available
n-Butyl Acetate	123-86-4	10-25	GHS02-GHS07	H226-336
n-Butane	106-97-8	2.5-10	GHS04	H280
Xylenes (o-, m-, p- isomers)	1330-20-7	2.5-10	GHS02-GHS07	H226-315-319-332
Titanium Dioxide	13463-67-7	2.5-10	Not Available	Not Available
Nanoscale Titanium Dioxide	1317-80-2	1.0-2.5	Not Available	Not Available
Ethylbenzene	100-41-4	1.0-2.5	GHS02-GHS07-GHS08	H225-304-332-351-373

4. First-aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR!Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only in a well-ventilated area. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Keep away from heat, sparks, flame and sources of ignition. Contents under pressure. Do not expose to heat or store above 120 ° F. Avoid excess heat. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials.

8. Exposure Controls/Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Acetone	67-64-1	25.0	250 ppm	500 ppm	1000 ppm	N.E.
Propane	74-98-6	20.0	N.E.	N.E.	1000 ppm	N.E.
Talc (Hydrous Magnesium Silicate)	14807-96-6	20.0	2 mg/m3	N.E.	N.E.	N.E.
n-Butyl Acetate	123-86-4	15.0	50 ppm	150 ppm	150 ppm	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Xylenes (o-, m-, p- isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
Titanium Dioxide	13463-67-7	5.0	10 mg/m3	N.E.	15 mg/m3	N.E.
Nanoscale Titanium Dioxide	1317-80-2	5.0	N.E.	N.E.	N.E.	N.E.
Ethylbenzene	100-41-4	5.0	20 ppm	N.E.	100 ppm	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications. Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

9. Physical and Chemical Properties

Appearance:	Aerosolized Mist	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Relative Density:	0.852	**pH:**	N.A.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Slight	**Partition Coefficient, n-octanol/ water:**	N.D.
Decompostion Temp., °C:	N.D.		
Boiling Range, °C:	-37 - 1,649	**Explosive Limits, vol%:**	1.0 - 13.0
Flammability:	Supports Combustion	**Flash Point, °C:**	-96
Evaporation Rate:	Faster than Ether	**Auto-ignition Temp., °C:**	N.D.
Vapor Density:	Heavier than Air	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid contact with strong acid and strong bases. Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance may cause slight skin irritation. May cause skin irritation. Allergic reactions are possible. Prolonged or repeated contact may cause skin irritation.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed. Aspiration hazard if swallowed; can enter lungs and cause damage.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). Contains Titanium Dioxide. Titanium Dioxide is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC. No significant exposure to Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of Titanium Dioxide in the formula. (Ref: IARC Monograph, Vol. 93, 2010)

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
74-98-6	Propane	N.I.	N.I.	658 mg/L Rat
14807-96-6	Talc (Hydrous Magnesium Silicate)	6000	N.I.	30
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
106-97-8	n-Butane	N.I.	N.I.	658 mg/L Rat
1330-20-7	Xylenes (o-, m-, p- isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	2500 mg/kg	N.I.
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components. Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.
Xylenes (o-, m-, p- isomers)	1330-20-7
Ethylbenzene	100-41-4

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

HMIS RATINGS

Health:	2*	**Flammability:**	4	**Physical Hazard:**	0	**Personal Protection:**	X

NFPA RATINGS

Health:	2	**Flammability:**	4	**Instability**	0

VOLATILE ORGANIC COMPOUNDS, g/L: 521

SDS REVISION DATE: 5/12/2017

REASON FOR REVISION: Substance and/or Product Properties Changed in Section(s):
01 - Identification
Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name: PRO +LSPR 6PK FLAT BLACK

Revision Date: 5/11/2017

Product Identifier: 7578838

Supercedes Date: 4/18/2017

Product Use/Class: Topcoat/Aerosols

Supplier: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Manufacturer: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Preparer: Regulatory Department

Emergency Telephone: 24 Hour Hotline: 847-367-7700

2. Hazard Identification

Classification

Symbol(s) of Product

Signal Word
Danger

Possible Hazards
38% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

Carcinogenicity, category 2	H351	Suspected of causing cancer.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.

P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C/ 122°F.
P501	Dispose of contents/container in accordance with local, regional and national regulations.

3. Composition/Information On Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.% Range	GHS Symbols	GHS Statements
Acetone	67-64-1	25-50	GHS02-GHS07	H225-319-332-336
Propane	74-98-6	10-25	GHS04	H280
Talc (Hydrous Magnesium Silicate)	14807-96-6	10-25	Not Available	Not Available
n-Butyl Acetate	123-86-4	2.5-10	GHS02-GHS07	H226-336
n-Butane	106-97-8	2.5-10	GHS04	H280
Solvent Naphtha, Light Aromatic	64742-95-6	2.5-10	GHS07-GHS08	H304-332
Hydrotreated Light Distillate	64742-47-8	2.5-10	GHS08	H304
Dimethyl Carbonate	616-38-6	1.0-2.5	GHS02	H225
Carbon Black	1333-86-4	0.1-1.0	Not Available	Not Available
Ethylbenzene	100-41-4	0.1-1.0	GHS02-GHS07-GHS08	H225-304-332-351-373

4. First-aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR!Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials.

8. Exposure Controls/Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Acetone	67-64-1	30.0	250 ppm	500 ppm	1000 ppm	N.E.
Propane	74-98-6	20.0	N.E.	N.E.	1000 ppm	N.E.
Talc (Hydrous Magnesium Silicate)	14807-96-6	15.0	2 mg/m3	N.E.	N.E.	N.E.
n-Butyl Acetate	123-86-4	10.0	50 ppm	150 ppm	150 ppm	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Solvent Naphtha, Light Aromatic	64742-95-6	10.0	N.E.	N.E.	N.E.	N.E.
Hydrotreated Light Distillate	64742-47-8	5.0	N.E.	N.E.	N.E.	N.E.
Dimethyl Carbonate	616-38-6	5.0	N.E.	N.E.	N.E.	N.E.
Carbon Black	1333-86-4	1.0	3 mg/m3	N.E.	3.5 mg/m3	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

9. Physical and Chemical Properties

Appearance:	Aerosolized Mist	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Relative Density:	0.824	**pH:**	N.A.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Slight	**Partition Coefficient, n-octanol/ water:**	N.D.
Decompostion Temp., °C:	N.D.		
Boiling Range, °C:	-37 - 537	**Explosive Limits, vol%:**	1.0 - 13.0
Flammability:	Supports Combustion	**Flash Point, °C:**	-96
Evaporation Rate:	Faster than Ether	**Auto-ignition Temp., °C:**	N.D.
Vapor Density:	Heavier than Air	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid contact with strong acid and strong bases. Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May cause skin irritation. Allergic reactions are possible.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Contains carbon black. Chronic inflammation, lung fibrosis, and lung tumors have been observed in some rats experimentally exposed for long periods of time to excessive concentrations of carbon black and several insoluble fine dust particles. Tumors have not been observed in other animal species (i.e., mouse and hamster) under similar circumstances and study conditions. Epidemiological studies of North American workers show no evidence of clinically significant adverse health effects due to occupational exposure to carbon black.

Carbon black is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC and is proposed to be listed as A4- "not classified as a human carcinogen" by the American Conference of Governmental Industrial Hygienists. Significant exposure is not anticipated during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of carbon black in the formula. IARC lists Ethylbenzene as a possible human carcinogen (group 2B).

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
74-98-6	Propane	N.I.	N.I.	658 mg/L Rat
14807-96-6	Talc (Hydrous Magnesium Silicate)	6000	N.I.	30
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
106-97-8	n-Butane	N.I.	N.I.	658 mg/L Rat
64742-95-6	Solvent Naphtha, Light Aromatic	8400 mg/kg Rat	>2000 mg/kg Rabbit	N.I.
64742-47-8	Hydrotreated Light Distillate	>5000 mg/kg Rat	>2000 mg/kg Rabbit	>5000 mg/L Rat
616-38-6	Dimethyl Carbonate	13000 mg/kg Rat	>5000 mg/kg Rabbit	140 mg/L Rat
1333-86-4	Carbon Black	>15400 mg/kg Rat	N.I.	N.I.

100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.
Dimethyl Carbonate	616-38-6
Ethylbenzene	100-41-4

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

HMIS RATINGS

Health:	2*	**Flammability:**	4	**Physical Hazard:**	0	**Personal Protection:**	X

NFPA RATINGS

Health:	2	**Flammability:**	4	**Instability**	0

VOLATILE ORGANIC COMPOUNDS, g/L: 513

SDS REVISION DATE: 5/11/2017

REASON FOR REVISION: Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name: PTOUCH 2X +SSPR 6PK FLAT BLK PRIMER
Revision Date: 5/17/2017

Product Identifier: 249846
Supercedes Date: 12/7/2016

Product Use/Class: Primer/Aerosols

Supplier:
Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Manufacturer:
Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Preparer: Regulatory Department

Emergency Telephone: 24 Hour Hotline: 847-367-7700

2. Hazard Identification

Classification

Symbol(s) of Product

Signal Word
Danger

Possible Hazards
31% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

Carcinogenicity, category 2	H351	Suspected of causing cancer.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C/ 122°F.
P501	Dispose of contents/container in accordance with local, regional and national regulations.

3. Composition/Information On Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.% Range	GHS Symbols	GHS Statements
Acetone	67-64-1	25-50	GHS02-GHS07	H225-319-332-336
Propane	74-98-6	10-25	GHS04	H280
Dimethyl Carbonate	616-38-6	10-25	GHS02	H225
n-Butane	106-97-8	2.5-10	GHS04	H280
Hydrotreated Light Distillate	64742-47-8	2.5-10	GHS08	H304
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	2.5-10	GHS08	H304
Xylenes (o-, m-, p- isomers)	1330-20-7	2.5-10	GHS02-GHS07	H226-315-319-332
Talc (Hydrous Magnesium Silicate)	14807-96-6	2.5-10	Not Available	Not Available
n-Butyl Acetate	123-86-4	2.5-10	GHS02-GHS07	H226-336
Carbon Black	1333-86-4	1.0-2.5	Not Available	Not Available
Ethylbenzene	100-41-4	0.1-1.0	GHS02-GHS07-GHS08	H225-304-332-351-373

4. First-aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR!Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only in a well-ventilated area. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Keep away from heat, sparks, flame and sources of ignition. Contents under pressure. Do not expose to heat or store above 120 ° F. Avoid excess heat. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials.

8. Exposure Controls/Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Acetone	67-64-1	30.0	250 ppm	500 ppm	1000 ppm	N.E.
Propane	74-98-6	20.0	N.E.	N.E.	1000 ppm	N.E.
Dimethyl Carbonate	616-38-6	15.0	N.E.	N.E.	N.E.	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Hydrotreated Light Distillate	64742-47-8	10.0	N.E.	N.E.	N.E.	N.E.
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	5.0	N.E.	N.E.	N.E.	N.E.
Xylenes (o-, m-, p- isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
Talc (Hydrous Magnesium Silicate)	14807-96-6	5.0	2 mg/m3	N.E.	N.E.	N.E.
n-Butyl Acetate	123-86-4	5.0	50 ppm	150 ppm	150 ppm	N.E.
Carbon Black	1333-86-4	5.0	3 mg/m3	N.E.	3.5 mg/m3	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications. Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

9. Physical and Chemical Properties

Appearance:	Aerosolized Mist	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Relative Density:	0.777	**pH:**	N.A.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Slight	**Partition Coefficient, n-octanol/water:**	N.D.
Decompostion Temp., °C:	N.D.		
Boiling Range, °C:	-37 - 3,000	**Explosive Limits, vol%:**	0.9 - 13.0
Flammability:	Supports Combustion	**Flash Point, °C:**	-96
Evaporation Rate:	Faster than Ether	**Auto-ignition Temp., °C:**	N.D.
Vapor Density:	Heavier than Air	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid contact with strong acid and strong bases. Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance may cause slight skin irritation. May cause skin irritation. Allergic reactions are possible. Prolonged or repeated contact may cause skin irritation.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed. Aspiration hazard if swallowed; can enter lungs and cause damage.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. Contains carbon black. Chronic inflammation, lung fibrosis, and lung tumors have been observed in some rats experimentally exposed for long periods of time to excessive concentrations of carbon black and several insoluble fine dust particles. Tumors have not been observed in other animal species (i.e., mouse and hamster) under similar circumstances and study conditions. Epidemiological studies of North American workers show no evidence of clinically significant adverse health effects due to occupational exposure to carbon black.

Carbon black is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC and is proposed to be listed as A4- "not classified as a human carcinogen" by the American Conference of Governmental Industrial Hygienists. Significant exposure is not anticipated during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of carbon black in the formula. IARC lists Ethylbenzene as a possible human carcinogen (group 2B).

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
74-98-6	Propane	N.I.	N.I.	658 mg/L Rat
616-38-6	Dimethyl Carbonate	13000 mg/kg Rat	>5000 mg/kg Rabbit	140 mg/L Rat

106-97-8	n-Butane	N.I.	N.I.	658 mg/L Rat
64742-47-8	Hydrotreated Light Distillate	>5000 mg/kg Rat	>2000 mg/kg Rabbit	>5000 mg/L Rat
64742-49-0	Naphtha, Petroleum, Hydrotreated Light	>5000 mg/kg Rat	>3160 mg/kg Rabbit	>4951 mg/L Rat
1330-20-7	Xylenes (o-, m-, p- isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
14807-96-6	Talc (Hydrous Magnesium Silicate)	6000	N.I.	30
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
1333-86-4	Carbon Black	>15400 mg/kg Rat	N.I.	N.I.
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components. Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.
Dimethyl Carbonate	616-38-6
Xylenes (o-, m-, p- isomers)	1330-20-7
Ethylbenzene	100-41-4

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

HMIS RATINGS

Health:	2*	**Flammability:**	4	**Physical Hazard:**	0	**Personal Protection:**	X

NFPA RATINGS

Health:	2	**Flammability:**	4	**Instability**	0

VOLATILE ORGANIC COMPOUNDS, g/L: 595

SDS REVISION DATE: 5/17/2017

REASON FOR REVISION: Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
16 - Other Information
Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name: PRO +LSPR 6PK GLOSS BLACK

Revision Date: 5/12/2017

Product Identifier: 7579838

Supercedes Date: 5/3/2017

Product Use/Class: Topcoat/Aerosols

Supplier:
Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Manufacturer:
Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Preparer: Regulatory Department

Emergency Telephone: 24 Hour Hotline: 847-367-7700

2. Hazard Identification

Classification

Symbol(s) of Product

Signal Word
Danger

Possible Hazards
33% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

Carcinogenicity, category 2	H351	Suspected of causing cancer.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
STOT, repeated exposure, category 1	H372	Causes damage to organs through prolonged or repeated exposure.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.

P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P321	For specific treatment see label
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C/ 122°F.
P501	Dispose of contents/container in accordance with local, regional and national regulations.

GHS SDS PRECAUTIONARY STATEMENTS

P270	Do not eat, drink or smoke when using this product.
P363	Wash contaminated clothing before reuse.

3. Composition/Information On Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.% Range	GHS Symbols	GHS Statements
Acetone	67-64-1	25-50	GHS02-GHS07	H225-319-332-336
Propane	74-98-6	10-25	GHS04	H280
n-Butyl Acetate	123-86-4	10-25	GHS02-GHS07	H226-336
n-Butane	106-97-8	2.5-10	GHS04	H280
Xylenes (o-, m-, p- isomers)	1330-20-7	2.5-10	GHS02-GHS07	H226-315-319-332
Barium Sulfate	7727-43-7	2.5-10	Not Available	Not Available
Propylene Glycol Monobutyl Ether	5131-66-8	2.5-10	GHS07	H302-315-319
Stoddard Solvent	8052-41-3	1.0-2.5	GHS08	H304-372
Ethylbenzene	100-41-4	0.1-1.0	GHS02-GHS07-GHS08	H225-304-332-351-373
Carbon Black	1333-86-4	0.1-1.0	Not Available	Not Available
Methyl Ethyl Ketoxime	96-29-7	0.1-1.0	GHS05-GHS06	H302-312-317-318-331
Solvent Naphtha, Light Aromatic	64742-95-6	0.1-1.0	GHS07-GHS08	H304-332

4. First-aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR!Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials.

8. Exposure Controls/Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Acetone	67-64-1	30.0	250 ppm	500 ppm	1000 ppm	N.E.
Propane	74-98-6	20.0	N.E.	N.E.	1000 ppm	N.E.
n-Butyl Acetate	123-86-4	20.0	50 ppm	150 ppm	150 ppm	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Xylenes (o-, m-, p- isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
Barium Sulfate	7727-43-7	5.0	5 mg/m3	N.E.	15 mg/m3	N.E.
Propylene Glycol Monobutyl Ether	5131-66-8	5.0	N.E.	N.E.	N.E.	N.E.
Stoddard Solvent	8052-41-3	5.0	100 ppm	N.E.	500 ppm	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	N.E.
Carbon Black	1333-86-4	1.0	3 mg/m3	N.E.	3.5 mg/m3	N.E.
Methyl Ethyl Ketoxime	96-29-7	1.0	10 ppm	N.E.	N.E.	N.E.
Solvent Naphtha, Light Aromatic	64742-95-6	1.0	N.E.	N.E.	N.E.	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

9. Physical and Chemical Properties

Appearance:	Aerosolized Mist	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Relative Density:	0.779	**pH:**	N.A.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Slight	**Partition Coefficient, n-octanol/ water:**	N.D.
Decompostion Temp., °C:	N.D.		
Boiling Range, °C:	-37 - 175	**Explosive Limits, vol%:**	1.0 - 13.0
Flammability:	Supports Combustion	**Flash Point, °C:**	-96
Evaporation Rate:	Faster than Ether	**Auto-ignition Temp., °C:**	N.D.
Vapor Density:	Heavier than Air	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid contact with strong acid and strong bases. Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May cause skin irritation. Allergic reactions are possible.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. Contains carbon black. Chronic inflammation, lung fibrosis, and lung tumors have been observed in some rats experimentally exposed for long periods of time to excessive concentrations of carbon black and several insoluble fine dust particles. Tumors have not been observed in other animal species (i.e., mouse and hamster) under similar circumstances and study conditions. Epidemiological studies of North American workers show no evidence of clinically significant adverse health effects due to occupational exposure to carbon black.

Carbon black is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC and is proposed to be listed as A4- "not classified as a human carcinogen" by the American Conference of Governmental Industrial Hygienists. Significant exposure is not anticipated during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of carbon black in the formula. IARC lists Ethylbenzene as a possible human carcinogen (group 2B).

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat

74-98-6	Propane	N.I.	N.I.	658 mg/L Rat
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
106-97-8	n-Butane	N.I.	N.I.	658 mg/L Rat
1330-20-7	Xylenes (o-, m-, p- isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
5131-66-8	Propylene Glycol Monobutyl Ether	1900 mg/kg Rat	N.I.	N.I.
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat
1333-86-4	Carbon Black	>15400 mg/kg Rat	N.I.	N.I.
96-29-7	Methyl Ethyl Ketoxime	930 mg/kg Rat	1100 mg/kg Rabbit	>4.8 mg/L Rat
64742-95-6	Solvent Naphtha, Light Aromatic	8400 mg/kg Rat	>2000 mg/kg Rabbit	N.I.

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.
Xylenes (o-, m-, p- isomers)	1330-20-7
Ethylbenzene	100-41-4

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

HMIS RATINGS

Health:	2*	**Flammability:**	4	**Physical Hazard:**	0	**Personal Protection:**	X

NFPA RATINGS

Health:	2	**Flammability:**	4	**Instability**	0

VOLATILE ORGANIC COMPOUNDS, g/L: 541

SDS REVISION DATE: 5/12/2017

REASON FOR REVISION:

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name: STRUST +SSPR 6PK GLOSS CRYSTAL CLEAR

Revision Date: 4/5/2017

Product Identifier: 7701830

Supercedes Date: 5/25/2016

Product Use/Class: Topcoat/Aerosols

Supplier: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Manufacturer: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Preparer: Regulatory Department

Emergency Telephone: 24 Hour Hotline: 847-367-7700

2. Hazard Identification

Classification

Symbol(s) of Product

Signal Word
Danger

Possible Hazards
25% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.
Eye Irritation, category 2	H319	Causes serious eye irritation.

GHS LABEL PRECAUTIONARY STATEMENTS

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C/ 122°F.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, regional and national regulations.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.

P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P264	Wash hands thoroughly after handling.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.

3. Composition/Information On Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.% Range	GHS Symbols	GHS Statements
Acetone	67-64-1	25-50	GHS02-GHS07	H225-319-332-336
n-Butyl Acetate	123-86-4	10-25	GHS02-GHS07	H226-336
Propane	74-98-6	10-25	GHS04	H280
n-Butane	106-97-8	2.5-10	GHS04	H280
1-Methoxy-2-Propyl Acetate	108-65-6	2.5-10	GHS02	H226
Xylenes (o-, m-, p- isomers)	1330-20-7	1.0-2.5	GHS02-GHS07	H226-315-319-332
Ethylbenzene	100-41-4	0.1-1.0	GHS02-GHS07-GHS08	H225-304-332-351-373

4. First-aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR!Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. No unusual fire or explosion hazards noted. Keep containers tightly closed.

SPECIAL FIREFIGHTING PROCEDURES: Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials. Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat.

8. Exposure Controls/Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Acetone	67-64-1	35.0	250 ppm	500 ppm	1000 ppm	N.E.
n-Butyl Acetate	123-86-4	25.0	50 ppm	150 ppm	150 ppm	N.E.
Propane	74-98-6	20.0	N.E.	N.E.	1000 ppm	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
1-Methoxy-2-Propyl Acetate	108-65-6	10.0	N.E.	N.E.	N.E.	N.E.
Xylenes (o-, m-, p- isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

9. Physical and Chemical Properties

Appearance:	Aerosolized Mist	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Relative Density:	0.749	**pH:**	N.A.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Slight	**Partition Coefficient, n-octanol/ water:**	N.D.
Decompostion Temp., °C:	N.D.		
Boiling Range, °C:	-37 - 375	**Explosive Limits, vol%:**	1.0 - 13.0
Flammability:	Supports Combustion	**Flash Point, °C:**	-96
Evaporation Rate:	Faster than Ether	**Auto-ignition Temp., °C:**	N.D.
Vapor Density:	Heavier than Air	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid all possible sources of ignition. Avoid contact with strong acid and strong bases.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May cause skin irritation. Allergic reactions are possible.

EFFECTS OF OVEREXPOSURE - INHALATION: High gas, vapor, mist or dust concentrations may be harmful if inhaled. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage.

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
74-98-6	Propane	N.I.	N.I.	658 mg/L Rat
106-97-8	n-Butane	N.I.	N.I.	658 mg/L Rat
108-65-6	1-Methoxy-2-Propyl Acetate	8532 mg/kg Rat	>5000 mg/kg Rabbit	N.I.
1330-20-7	Xylenes (o-, m-, p- isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.
Xylenes (o-, m-, p- isomers)	1330-20-7
Ethylbenzene	100-41-4

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

HMIS RATINGS

Health:	2*	**Flammability:**	4	**Physical Hazard:**	0	**Personal Protection:**	X

NFPA RATINGS

Health:	2	**Flammability:**	4	**Instability**	0

VOLATILE ORGANIC COMPOUNDS, g/L: 606

SDS REVISION DATE: 4/5/2017

REASON FOR REVISION:
Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
02 - Hazard Identification
05 - Fire-fighting Measures
09 - Physical & Chemical Properties
16 - Other Information
Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name: PRO +LSPR 6PK GLOSS STAINLESS STEEL

Revision Date: 11/18/2015

Product Identifier: 7519838

Supercedes Date: 5/15/2015

Product Use/Class: Professional Gloss/ Aerosol

Supplier: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Manufacturer: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Preparer: Regulatory Department

Emergency Telephone: 24 Hour Hotline: 847-367-7700

2. Hazard Identification

Classification

Symbol(s) of Product

Signal Word
Danger

GHS HAZARD STATEMENTS

Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Skin Irritation, category 2	H315	Causes skin irritation.
Eye Irritation, category 2	H319	Causes serious eye irritation.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.
Germ Cell Mutagenicity, category 1B	H340	May cause genetic defects.
Carcinogenicity, category 1B	H350	May cause cancer.
Reproductive Toxicity, category 2	H361	Suspected of damaging fertility or the unborn child.
STOT, repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. NO SMOKING.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe dust, fumes, gases, mists, vapors, or spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.

3. Composition/Information On Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.% Range	GHS Symbols	GHS Statements
Acetone	67-64-1	25-50	GHS02-GHS07	H225-319-332-336
Toluene	108-88-3	25-50	GHS02-GHS07-GHS08	H225-304-315-332-336-361-373
Propane	74-98-6	10-25	GHS04	H280
n-Butane	106-97-8	2.5-10	GHS04	H280
Xylene (mixed isomers)	1330-20-7	2.5-10	GHS02-GHS07	H226-315-319-332
Aluminum Flake	7429-90-5	1.0-2.5	GHS02	H228-261
1-Methoxy-2-propyl acetate	108-65-6	1.0-2.5	GHS02	H226
Ethylbenzene	100-41-4	1.0-2.5	GHS02-GHS07-GHS08	H225-304-332-373
Solvent Naphtha, Light Aromatic	64742-95-6	0.1-1.0	GHS07-GHS08	H304-332-340-350
Stoddard Solvent	8052-41-3	0.1-1.0	GHS08	H304-372
Carbon Black	1333-86-4	0.1-1.0	Not Available	Not Available

4. First-aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR!Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only in a well-ventilated area. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of NFPA Class I flammable liquids. Keep away from heat, sparks, flame and sources of ignition. Contents under pressure. Do not expose to heat or store above 120 ° F. Avoid excess heat. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials.

8. Exposure Controls/Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Acetone	67-64-1	30.0	250 ppm	500 ppm	1000 ppm	N.E.
Toluene	108-88-3	30.0	20 ppm	N.E.	200 ppm	300 ppm
Propane	74-98-6	25.0	N.E.	N.E.	1000 ppm	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Xylene (mixed isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
Aluminum Flake	7429-90-5	5.0	1 mg/m3	N.E.	15 mg/m3	N.E.
1-Methoxy-2-propyl acetate	108-65-6	5.0	N.E.	N.E.	N.E.	N.E.
Ethylbenzene	100-41-4	5.0	20 ppm	N.E.	100 ppm	N.E.
Solvent Naphtha, Light Aromatic	64742-95-6	1.0	N.E.	N.E.	N.E.	N.E.
Stoddard Solvent	8052-41-3	1.0	100 ppm	N.E.	500 ppm	N.E.
Carbon Black	1333-86-4	1.0	3 mg/m3	N.E.	3.5 mg/m3	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications. Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

9. Physical and Chemical Properties

Appearance:	Aerosolized Mist	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Relative Density:	0.732	**pH:**	N.A.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Slight	**Partition Coefficient, n-octanol/ water:**	N.D.
Decompostion Temp., °C:	N.D.		
Boiling Range, °C:	-37 - 200	**Explosive Limits, vol%:**	1.0 - 13.0
Flammability:	Supports Combustion	**Flash Point, °C:**	-96
Evaporation Rate:	Faster than Ether	**Auto-ignition Temp., °C:**	N.D.
Vapor Density:	Heavier than Air	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid contact with strong acid and strong bases. Avoid all possible sources of ignition. Flammable hydrogen gas will evolve when product comes in contact with water or damp air. Heat will be generated. The amount of heat generated will depend upon the volume of material in contact.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance may cause slight skin irritation. May be absorbed through the skin in harmful amounts. May cause skin irritation. Allergic reactions are possible. Prolonged or repeated contact may cause skin irritation.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed. Aspiration hazard if swallowed; can enter lungs and cause damage.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. Contains carbon black. Chronic inflammation, lung fibrosis, and lung tumors have been observed in some rats experimentally exposed for long periods of time to excessive concentrations of carbon black and several insoluble fine dust particles. Tumors have not been observed in other animal species (i.e., mouse and hamster) under similar circumstances and study conditions. Epidemiological studies of North American workers show no evidence of clinically significant adverse health effects due to occupational exposure to carbon black.

Carbon black is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC and is proposed to be listed as A4- "not classified as a human carcinogen" by the American Conference of Governmental Industrial Hygienists. Significant exposure is not anticipated during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of carbon black in the formula. IARC lists Ethylbenzene as a possible human carcinogen (group 2B).

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
67-64-1	Acetone	5800 mg/kg Rat	N.I.	50.1 mg/L Rat
108-88-3	Toluene	2600 mg/kg Rat	12000 mg/kg Rabbit	12.5 mg/L Rat
74-98-6	Propane	N.I.	N.I.	658 mg/L Rat

106-97-8	n-Butane	N.I.	N.I.	658 mg/L Rat
1330-20-7	Xylene (mixed isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
108-65-6	1-Methoxy-2-propyl acetate	8532 mg/kg Rat	>5000 mg/kg Rabbit	N.I.
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.2 mg/L Rat
64742-95-6	Solvent Naphtha, Light Aromatic	8400 mg/kg Rat	>2000 mg/kg Rabbit	N.I.
1333-86-4	Carbon Black	>15400 mg/kg Rat	N.I.	N.I.

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components. Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.
Toluene	108-88-3
Xylene (mixed isomers)	1330-20-7
Aluminum Flake	7429-90-5
Ethylbenzene	100-41-4

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

HMIS RATINGS

Health:	2*	**Flammability:**	4	**Physical Hazard:**	0	**Personal Protection:**	X

NFPA RATINGS

Health:	2	**Flammability:**	4	**Instability**	0

VOLATILE ORGANIC COMPOUNDS, g/L: 613

SDS REVISION DATE: 11/18/2015

REASON FOR REVISION: Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
01 - Identification
02 - Hazard Identification
05 - Fire-fighting Measures
09 - Physical & Chemical Properties
15 - Regulatory Information
16 - Other Information
Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name: PRO +LSPR 6PK SEMIGLOSS BLACK

Revision Date: 5/12/2017

Product Identifier: 239107

Supercedes Date: 11/15/2016

Product Use/Class: Topcoat/Aerosols

Supplier:
Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Manufacturer:
Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Preparer: Regulatory Department

Emergency Telephone: 24 Hour Hotline: 847-367-7700

2. Hazard Identification

Classification

Symbol(s) of Product

Signal Word
Danger

Possible Hazards
29% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

Carcinogenicity, category 2	H351	Suspected of causing cancer.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Flammable Liquid, category 1	H224	Extremely flammable liquid and vapour.
STOT, repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P321	For specific treatment see label
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use alcohol film forming foam, carbon dioxide, dry chemical, dry sand to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, regional and national regulations.

GHS SDS PRECAUTIONARY STATEMENTS

P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P363	Wash contaminated clothing before reuse.

3. Composition/Information On Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.% Range	GHS Symbols	GHS Statements
Acetone	67-64-1	25-50	GHS02-GHS07	H225-319-332-336
n-Butyl Acetate	123-86-4	10-25	GHS02-GHS07	H226-336
Propane	74-98-6	10-25	GHS04	H280
n-Butane	106-97-8	2.5-10	GHS04	H280
Xylenes (o-, m-, p- isomers)	1330-20-7	2.5-10	GHS02-GHS07	H226-315-319-332
Talc (Hydrous Magnesium Silicate)	14807-96-6	1.0-2.5	Not Available	Not Available
Barium Sulfate	7727-43-7	1.0-2.5	Not Available	Not Available
Carbon Black	1333-86-4	1.0-2.5	Not Available	Not Available
Ethylbenzene	100-41-4	1.0-2.5	GHS02-GHS07-GHS08	H225-304-332-351-373
Methyl Ethyl Ketoxime	96-29-7	0.1-1.0	GHS05-GHS06	H302-312-317-318-331
Solvent Naphtha, Light Aromatic	64742-95-6	0.1-1.0	GHS07-GHS08	H304-332

4. First-aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR!Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only in a well-ventilated area. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Keep away from heat, sparks, flame and sources of ignition. Contents under pressure. Do not expose to heat or store above 120 ° F. Avoid excess heat. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials.

8. Exposure Controls/Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Acetone	67-64-1	30.0	250 ppm	500 ppm	1000 ppm	N.E.
n-Butyl Acetate	123-86-4	20.0	50 ppm	150 ppm	150 ppm	N.E.
Propane	74-98-6	20.0	N.E.	N.E.	1000 ppm	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Xylenes (o-, m-, p- isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
Talc (Hydrous Magnesium Silicate)	14807-96-6	5.0	2 mg/m3	N.E.	N.E.	N.E.
Barium Sulfate	7727-43-7	5.0	5 mg/m3	N.E.	15 mg/m3	N.E.
Carbon Black	1333-86-4	5.0	3 mg/m3	N.E.	3.5 mg/m3	N.E.
Ethylbenzene	100-41-4	5.0	20 ppm	N.E.	100 ppm	N.E.
Methyl Ethyl Ketoxime	96-29-7	1.0	10 ppm	N.E.	N.E.	N.E.
Solvent Naphtha, Light Aromatic	64742-95-6	1.0	N.E.	N.E.	N.E.	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications. Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

9. Physical and Chemical Properties

Appearance:	Liquid	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Relative Density:	0.777	**pH:**	N.E.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	No Information	**Partition Coefficient, n-octanol/ water:**	N.D.
Decompostion Temp., °C:	N.D.		
Boiling Range, °C:	-37 - 3,000	**Explosive Limits, vol%:**	1.0 - 13.0
Flammability:	Supports Combustion	**Flash Point, °C:**	-96
Evaporation Rate:	Faster than Ether	**Auto-ignition Temp., °C:**	N.D.
Vapor Density:	No Information	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid contact with strong acid and strong bases. Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance may cause slight skin irritation. May cause skin irritation. Allergic reactions are possible. Prolonged or repeated contact may cause skin irritation.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed. Aspiration hazard if swallowed; can enter lungs and cause damage.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. Contains carbon black. Chronic inflammation, lung fibrosis, and lung tumors have been observed in some rats experimentally exposed for long periods of time to excessive concentrations of carbon black and several insoluble fine dust particles. Tumors have not been observed in other animal species (i.e., mouse and hamster) under similar circumstances and study conditions. Epidemiological studies of North American workers show no evidence of clinically significant adverse health effects due to occupational exposure to carbon black.

Carbon black is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC and is proposed to be listed as A4- "not classified as a human carcinogen" by the American Conference of Governmental Industrial Hygienists. Significant exposure is not anticipated during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of carbon black in the formula. IARC lists Ethylbenzene as a possible human carcinogen (group 2B).

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
74-98-6	Propane	N.I.	N.I.	658 mg/L Rat
106-97-8	n-Butane	N.I.	N.I.	658 mg/L Rat
1330-20-7	Xylenes (o-, m-, p- isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
14807-96-6	Talc (Hydrous Magnesium Silicate)	6000	N.I.	30
1333-86-4	Carbon Black	>15400 mg/kg Rat	N.I.	N.I.
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat
96-29-7	Methyl Ethyl Ketoxime	930 mg/kg Rat	1100 mg/kg Rabbit	>4.8 mg/L Rat
64742-95-6	Solvent Naphtha, Light Aromatic	8400 mg/kg Rat	>2000 mg/kg Rabbit	N.I.

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components. Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.
Xylenes (o-, m-, p- isomers)	1330-20-7
Ethylbenzene	100-41-4

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

HMIS RATINGS

Health:	2*	**Flammability:**	4	**Physical Hazard:**	0	**Personal Protection:**	X

NFPA RATINGS

Health:	2	**Flammability:**	4	**Instability**	0

VOLATILE ORGANIC COMPOUNDS, g/L: 556

SDS REVISION DATE: 5/12/2017

REASON FOR REVISION:
Substance CAS Number Changed
Substance Chemical Name Changed
Substance and/or Product Properties Changed in Section(s):
01 - Identification
03 - Composition/Information on Ingredients
Product Composition Changed
Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name: STRUST +SSPR 6PK MATTE CLEAR

Revision Date: 5/10/2017

Product Identifier: 285093

Supercedes Date: 2/15/2017

Product Use/Class: Topcoat/Aerosols

Supplier: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Manufacturer: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Preparer: Regulatory Department

Emergency Telephone: 24 Hour Hotline: 847-367-7700

2. Hazard Identification

Classification

Symbol(s) of Product

Signal Word
Danger

Possible Hazards
24% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

Carcinogenicity, category 2	H351	Suspected of causing cancer.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C/ 122°F.
P501	Dispose of contents/container in accordance with local, regional and national regulations.

3. Composition/Information On Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.% Range	GHS Symbols	GHS Statements
Acetone	67-64-1	25-50	GHS02-GHS07	H225-319-332-336
Propane	74-98-6	10-25	GHS04	H280
Dimethyl Carbonate	616-38-6	10-25	GHS02	H225
n-Butyl Acetate	123-86-4	2.5-10	GHS02-GHS07	H226-336
n-Butane	106-97-8	2.5-10	GHS04	H280
1-Methoxy-2-Propyl Acetate	108-65-6	2.5-10	GHS02	H226
Xylenes (o-, m-, p- isomers)	1330-20-7	2.5-10	GHS02-GHS07	H226-315-319-332
Propylene Glycol Monobutyl Ether	5131-66-8	1.0-2.5	GHS07	H302-315-319
Ethylbenzene	100-41-4	0.1-1.0	GHS02-GHS07-GHS08	H225-304-332-351-373

4. First-aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR!Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials.

8. Exposure Controls/Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Acetone	67-64-1	40.0	250 ppm	500 ppm	1000 ppm	N.E.
Propane	74-98-6	15.0	N.E.	N.E.	1000 ppm	N.E.
Dimethyl Carbonate	616-38-6	15.0	N.E.	N.E.	N.E.	N.E.
n-Butyl Acetate	123-86-4	10.0	50 ppm	150 ppm	150 ppm	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
1-Methoxy-2-Propyl Acetate	108-65-6	10.0	N.E.	N.E.	N.E.	N.E.
Xylenes (o-, m-, p- isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
Propylene Glycol Monobutyl Ether	5131-66-8	5.0	N.E.	N.E.	N.E.	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

9. Physical and Chemical Properties

Appearance:	Aerosolized Mist	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Relative Density:	0.766	**pH:**	N.A.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Slight	**Partition Coefficient, n-octanol/water:**	N.D.
Decompostion Temp., °C:	N.D.		
Boiling Range, °C:	-37 - 175	**Explosive Limits, vol%:**	1.0 - 13.0
Flammability:	Supports Combustion	**Flash Point, °C:**	-96
Evaporation Rate:	Faster than Ether	**Auto-ignition Temp., °C:**	N.D.
Vapor Density:	Heavier than Air	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid contact with strong acid and strong bases. Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May cause skin irritation. Allergic reactions are possible.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B).

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
74-98-6	Propane	N.I.	N.I.	658 mg/L Rat
616-38-6	Dimethyl Carbonate	13000 mg/kg Rat	>5000 mg/kg Rabbit	140 mg/L Rat
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
106-97-8	n-Butane	N.I.	N.I.	658 mg/L Rat
108-65-6	1-Methoxy-2-Propyl Acetate	8532 mg/kg Rat	>5000 mg/kg Rabbit	N.I.
1330-20-7	Xylenes (o-, m-, p- isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
5131-66-8	Propylene Glycol Monobutyl Ether	1900 mg/kg Rat	N.I.	N.I.
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.
Dimethyl Carbonate	616-38-6
Xylenes (o-, m-, p- isomers)	1330-20-7
Ethylbenzene	100-41-4

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

HMIS RATINGS

Health:	2*	**Flammability:**	4	**Physical Hazard:**	0	**Personal Protection:**	X

NFPA RATINGS

Health:	2	**Flammability:**	4	**Instability**	0

VOLATILE ORGANIC COMPOUNDS, g/L: 625

SDS REVISION DATE: 5/10/2017

REASON FOR REVISION: Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name: R-O QT 2PK ULTIMATE WOOD STAIN KONA

Revision Date: 10/30/2015

Product Identifier: 260154

Supercedes Date: New SDS

Product Use/Class: Wood Stain/Rust-Oleum Ultimate

Supplier: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Manufacturer: Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, IL 60061
USA

Preparer: Regulatory Department

Emergency Telephone: 24 Hour Hotline: 847-367-7700

2. Hazard Identification

Classification

Symbol(s) of Product

Signal Word
Danger

GHS HAZARD STATEMENTS

Flammable Liquid, category 3	H226	Flammable liquid and vapor.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Germ Cell Mutagenicity, category 1B	H340	May cause genetic defects.
Carcinogenicity, category 1B	H350	May cause cancer. Classified as carcinogenic Category 1 on the basis of epidemiological and/or animal data.
STOT, repeated exposure, category 1	H372	Causes damage to organs.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust, fumes, gases, mists, vapors, or spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

GHS SDS PRECAUTIONARY STATEMENTS

P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P270	Do not eat, drink or smoke when using this product.
P363	Wash contaminated clothing before reuse.

3. Composition/Information On Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.% Range	GHS Symbols	GHS Statements
Stoddard Solvent	8052-41-3	25-50	GHS08	H304-372
Solvent Naphtha, Light Aromatic	64742-95-6	2.5-10	GHS07-GHS08	H304-332-340-350
Carbon Black	1333-86-4	1.0-2.5	No Information	No Information
Methyl Ethyl Ketoxime	96-29-7	0.1-1.0	GHS05-GHS06-GHS08	H302-312-317-318-331-351
Ethylbenzene	100-41-4	0.1-1.0	GHS02-GHS07-GHS08	H225-304-332-373

4. First-aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: If swallowed, get medical attention.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers may explode when exposed to extreme heat due to buildup of steam. Keep containers tightly closed. Combustible liquid and vapor. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of NFPA Class II combustible liquids. Avoid excess heat.

8. Exposure Controls/Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Stoddard Solvent	8052-41-3	50.0	100 ppm	N.E.	500 ppm	N.E.
Solvent Naphtha, Light Aromatic	64742-95-6	5.0	N.E.	N.E.	N.E.	N.E.
Carbon Black	1333-86-4	5.0	3 mg/m3	N.E.	3.5 mg/m3	N.E.
Methyl Ethyl Ketoxime	96-29-7	1.0	10 ppm	N.E.	N.E.	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

9. Physical and Chemical Properties

Appearance:	Liquid	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Relative Density:	0.971	**pH:**	N.A.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Negligible	**Partition Coefficient, n-octanol/water:**	N.D.
Decompostion Temp., °C:	N.D.		
Boiling Range, °C:	-18 - 537	**Explosive Limits, vol%:**	1.0 - 7.0
Flammability:	Supports Combustion	**Flash Point, °C:**	41
Evaporation Rate:	Slower than Ether	**Auto-ignition Temp., °C:**	N.D.
Vapor Density:	Heavier than Air	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid contact with strong acid and strong bases.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION: When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Substance causes moderate eye irritation.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance may cause slight skin irritation.

EFFECTS OF OVEREXPOSURE - INHALATION: High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Irritating to the nose, throat and respiratory tract. Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Contains carbon black. Chronic inflammation, lung

fibrosis, and lung tumors have been observed in some rats experimentally exposed for long periods of time to excessive concentrations of carbon black and several insoluble fine dust particles. Tumors have not been observed in other animal species (i.e., mouse and hamster) under similar circumstances and study conditions. Epidemiological studies of North American workers show no evidence of clinically significant adverse health effects due to occupational exposure to carbon black.

Carbon black is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC and is proposed to be listed as A4- "not classified as a human carcinogen" by the American Conference of Governmental Industrial Hygienists. Significant exposure is not anticipated during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of carbon black in the formula. IARC lists Ethylbenzene as a possible human carcinogen (group 2B).

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES
The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
64742-95-6	Solvent Naphtha, Light Aromatic	8400 mg/kg Rat	>2000 mg/kg Rabbit	N.I.
1333-86-4	Carbon Black	>15400 mg/kg Rat	N.I.	N.I.
96-29-7	Methyl Ethyl Ketoxime	930 mg/kg Rat	1100 mg/kg Rabbit	>4.8 mg/L Rat
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.2 mg/L Rat

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	N.A.	1263	1263	N.A.
Proper Shipping Name:	Not Regulated	Paint	Paint	Not Regulated
Hazard Class:	N.A.	3	3	N.A.
Packing Group:	N.A.	III	III	N.A.
Limited Quantity:	No	Yes, >5L No	Yes, >5L No	No

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.
Ethylbenzene	100-41-4

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

HMIS RATINGS

Health:	2*	**Flammability:**	2	**Physical Hazard:**	0	**Personal Protection:**	X

NFPA RATINGS

Health:	2	**Flammability:**	2	**Instability**	0

VOLATILE ORGANIC COMPOUNDS, g/L: 524

SDS REVISION DATE: 10/30/2015

REASON FOR REVISION:

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

MATERIAL SAFETY DATA SHEET

Printed: 4/18/11

LUPEROX DDM-9

PRODUCT IDENTIFICATION AND USE

MANUFACTURER:	ARKEMA CANADA INC. 1100 BURLOAK DRIVE BURLINGTON, ONT. L7L 6B2
EMERGENCY PHONE NUMBER:	(800) 567-5726 (ARKEMA) (613) 996-6666 (CANUTEC)
PRODUCT IDENTIFIER:	LUPEROX DDM-9
PRODUCT CODE:	LU010
PRODUCT USE:	CURING AGENT FOR POLYESTER RESIN AND VINYL ESTER RESINS.
WHMIS CLASSIFICATION:	C - OXIDIZING MATERIAL. D1B - TOXIC MATERIAL CAUSING IMMEDIATE AND SERIOUS TOXIC EFFECTS. D2B - TOXIC MATERIAL CAUSING OTHER TOXIC EFFECTS.

HAZARDOUS INGREDIENTS

	% W/W	CAS #	TLV
METHYL ETHYL KETONE PEROXIDE(S) LD50: 484 MG/KG (ORAL-RAT) LD50: 4,000 MG/KG (DERMAL-RABBIT) LC50: 17-50 MG/ML (4-HR – INHALATION-RAT)	15-40	1338-23-4	ACGIH CEILING = 0.2 PPM
HEXYLENE GLYCOL LD50: 2,800-4,700 MG/KG (ORAL-RATS) LD50: >1,840 – 12,300 MG/KG (DERMAL-RABBIT) LC0: >160 PPM (8HR-INHALATION-RAT)	5-10	107-41-5	ACGIH CEILING = 25 PPM
METHYL ETHYL KETONE LD50: 2,700-5,600 MG/KG (ORAL-RAT) LD50: 5,000-13,000 MG/KG (DERMAL-RABBIT) LC50: 11,700 PPM (4-HR – INHALATION-RAT)	0.1-1	78-93-3	ACGIH TWA = 200 PPM ACGIH STEL = 300 PPM
HYDROGEN PEROXIDE LD50: 75 MG/KG (ORAL-RAT)* LD50: >6500 MG/KG (DERMAL-RABBIT)* LC50: 2 MG/L (4HR –INHALATION RAT)	0.1-1	7722-84-1	ACGIH TWA = 1 PPM

* 70 % SOLUTION

ADDITIONAL INGREDIENT INFORMATION (WHMIS NOT CONTROLLED):

2,2,4-TRIMETHYL -1,3-PENTANEDIOL DIISOBUTYRATE	NE

PHYSICAL DATA

PHYSICAL STATE:	LIQUID
ODOUR AND APPEARANCE:	CLEAR OILY LIQUID; SWEET ODOUR.
ODOUR THRESHOLD:	NE
SPECIFIC GRAVITY/DENSITY (G/ML):	1.0088 @ 20℃
VAPOUR PRESSURE:	5.2 TORR @ 19℃
VAPOUR DENSITY (AIR=1):	NE
VOLATILITY/VOL(%):	NE
SOLUBILITY IN H20:	SLIGHT

NA - NOT APPLICABLE

NE - NOT ESTABLISHED

MATERIAL SAFETY DATA SHEET

Printed: 4/18/11

LUPEROX DDM-9

EVAPORATION RATE:	NE
BOILING POINT:	NE
FREEZING POINT:	NE
PH:	NA
LOG KOW:	NE

SHIPPING INFORMATION

UN 3105, 5.2, II, ORGANIC PEROXIDE TYPE D, LIQUID. [METHYL ETHYL KETONE PEROXIDE(S), <=45%].

FIRE AND EXPLOSION HAZARD

FLAMMABILITY:	NOT FLAMMABLE
CONDITIONS:	WILL BURN ABOVE FLASH POINT.
MEANS OF EXTINCTION:	WATER SPRAY, FOAM OR DRY CHEMICAL
FLASHPOINT:	95℃ (SETA CC)
UPPER EXPLOSION LIMIT (% V):	NE
LOWER EXPLOSION LIMIT (%V):	NE
AUTO-IGNITION TEMPERATURE:	75℃ / 169℉ (45 LB CTN) (SELF ACCELERATING DECOMPOSITION TEMPERATURE).
HAZARDOUS COMBUSTION PRODUCTS:	NE
EXPLOSION DATA:	CONTAMINATION, TEMPERATURE – CAN DECOMPOSE WITH FORCE IF CONFINED DURING EXPOSURE TO FIRE.
SENSITIVITY TO IMPACT:	NO
SENSITIVITY TO STATIC DISCHARGE:	NO

REACTIVITY

CHEMICAL STABILITY:	UNSTABLE
INCOMPATIBLE MATERIALS:	STRONG ACIDS, ALKALIS, OXIDIZERS, TRANSITION METAL SALTS, PROMOTERS / ACCELERATORS, REDUCING AGENTS, COPPER, BRASS, RUST, ACETONE.
CONDITIONS OF REACTIVITY:	NE
HAZARDOUS DECOMPOSITION PRODUCTS:	DECOMPOSITION PRODUCTS ARE FLAMMABLE.

HEALTH HAZARD INFORMATION

ROUTE OF ENTRY

SKIN CONTACT:	MAY CAUSE SKIN IRRITATION.
SKIN ABSORPTION:	MAY BE ABSORBED.
EYE:	MAY CAUSE SEVERE IRRITATION OR BLINDNESS
INGESTION:	MAY BE HARMFUL
INHALATION:	VAPOURS MAY CAUSE SEVERE IRRITATION OF THE RESPIRATORY TRACT.
ACUTE OVER EXPOSURE EFFECTS:	NE
CHRONIC OVER EXPOSURE EFFECTS:	NE
SENSITIZATION:	DOES NOT MEET WHMIS CRITERIA.
CARCINOGENICITY:	HYDROGEN PEROXIDE IS CLASSIFIED BY ACGIH AS A3 – ANIMAL CARCINOGEN. CAUSES CANCER IN ANIMALS UNDER UNCOMMON CONDITIONS THAT MAY NOT BE RELEVANT TO WORKER EXPOSURE.
TERATOGENICITY:	DOES NOT MEET WHMIS CRITERIA.
MUTAGENICITY:	DOES NOT MEET WHMIS CRITERIA.
REPRODUCTIVE TOXICITY:	DOES NOT MEET WHMIS CRITERIA.

MATERIAL SAFETY DATA SHEET

Printed: 4/18/11

LUPEROX DDM-9

PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:	WEAR GOGGLES, FACE SHIELD, PROTECTIVE CLOTHING AND USE IMPERVIOUS GLOVES. WEAR A NIOSH APPROVED RESPIRATOR EQUIPPED WITH AN ORGANIC VAPOUR CARTRIDGE.
SPECIFIC ENGINEERING CONTROLS:	LOCAL EXHAUST IS RECOMMENDED.
LEAK AND SPILL PROCEDURES:	USE NON-COMBUSTIBLE ABSORBENT MATERIAL. SWEEP OR SCOOP AND PLACE IN A CLOSED CONTAINER. WET DOWN WITH WATER AND DISPOSE OF IMMEDIATELY.
WASTE DISPOSAL:	HAZARDOUS WASTE. DO NOT ALLOW PRODUCT TO ENTER THE ENVIRONMENT. CONSULT FEDERAL OR LOCAL AUTHORITIES FOR APPROVED DISPOSAL METHODS.
HANDLING PROCEDURES AND EQUIPMENT:	KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAMES. WASH BEFORE EATING, DRINKING, USING TOBACCO PRODUCTS OR REST ROOMS.
STORAGE REQUIREMENTS:	KEEP IN A CLOSED, LABELED CONTAINER IN A VENTILATED AREA. STORE BELOW 38℃/100℉.

FIRST AID MEASURES

EYE	FLUSH EYES WITH LARGE AMOUNT OF WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION.
SKIN	WASH SKIN WITH WATER AND SOAP. SEEK MEDICAL ATTENTION IF IRRITATION OCCURS OR PERSISTS.
INGESTION	DO NOT GIVE LIQUIDS IF PERSON IS UNCONSCIOUS OR VERY DROWSY. DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ATTENTION.
INHALATION	REMOVE PERSON TO FRESH AIR IMMEDIATELY. IF BREATHING HAS STOPPED, APPLY ARTIFICIAL RESPIRATION AND ADMINISTER OXYGEN IF NECESSARY. SEEK MEDICAL ATTENTION.

PREPARATION DATE

PREPARED BY:	TECHNICAL DEPARTMENT.
PHONE NUMBER OF PREPARER:	(800) 567-5726
DATE PREPARED (MM/DD/YY):	01/24/97
DATE REVISED (MM/DD/YY):	04/18/11

MINIMUM CONTACT WITH THIS AND ALL CHEMICALS IS RECOMMENDED AS A GOOD GENERAL POLICY TO FOLLOW.

☑ GHS Compliant

Safety Data Sheet

SDS No. 25A

Section 1 - Identification

1.1 Product identifier: Part A for: EA-40; EpoxAcast® 650, 655, 690; EpoxAcoat® Red and Grey; EpoxAmite® 100; MetalSet® A4; MT-13®; PC-3® Series; Sonite® EG-2; Super Instant®; Tarbender®; XTC-3D®

1.2 General Use: Formulated Epoxy Resin

1.3 Manufacturer: Smooth-On, Inc.,
5600 Lower Macungie Rd., Macungie, PA 18062
Phone (610) 252-5800, FAX (610) 252-6200
SDS@Smooth-On.com

1.4 Emergency Contact: Chem-Tel
Domestic: 800-255-3924 International: 813-248-0585

Section 2 - Hazards Identification

2.1 Classification of the substance or mixture
Acute toxicity, dermal – Category 5, H313

2.2 GHS Label elements, including precautionary statements

Hazard Pictogram(s):

Signal word: Warning

Health Hazard:	H313	May be harmful in contact with skin
General Precautions:	P101	If medical advice is needed, have product container or label at hand.
	P102	Keep out of reach of children.
	P103	Read label before use.
Prevention Precautions:	P264	Wash with soap and water thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	P272	Contaminated work clothing should not be allowed out of the workplace.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
Response Precautions:	P302 + P352	IF ON SKIN: Wash with plenty of soap and water
	P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Hazards not otherwise classified (HNOC) or not covered by GHS - none

Section 3 - Composition / Information on Ingredients

3.1 Substances

The following ingredients are hazardous according to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR 1910.1200:

CAS	Component	Concentration
25085-99-8	Oxirane, 2,2'-((1-methylethylidene)bis(4,1-phenyleneoxymethylene))bis-, homopolymer	25% - 100%

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation: Remove source(s) of contamination and move victim to fresh air. If breathing has stopped, give artificial respiration, then oxygen if needed. Contact physician immediately.

Eye Contact: Flush eyes with plenty of water. If irritation persists, seek medical attention.

Skin Contact: In case of skin contact, wash thoroughly with soap and water.

Ingestion: Do not induce vomiting unless instructed by a physician. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed: None known.

4.3 After first aid, get appropriate in-plant, paramedic, or community medical support.

Section 5 - Fire-Fighting Measures

5.1 Extinguishing Media: Water Fog, Dry Chemical, and Carbon Dioxide Foam

5.2 Special hazards arising from the substance or mixture: None known.

5.3 Advice for firefighters: Use water spray to cool fire-exposed surfaces and to protect personnel. Shut off “fuel” to fire. If a leak or spill has not ignited, use water spray to disperse the vapors. Either allow fire to burn under controlled conditions or extinguish with foam or dry chemical. Try to cover liquid spills with foam. Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure demand or positive-pressure mode.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures: Only properly protected personnel should remain in the spill area; dike and contain spill. Stop or reduce discharge if it can be done safely**.**

6.2 Environmental precautions: No special environmental precautions required.

6.3 Methods and material for containment and cleaning up: absorb or scrape up excess into suitable container for disposal; wash area with dilute ammonia solution

6.4 Reference to other sections: if appropriate Sections 8 and 13 shall be referred to.

Section 7 - Handling and Storage

7.1 Precautions for safe handling: Use good general housekeeping procedures. Wash hands after use.

7.2 Conditions for safe storage, including any incompatibilities: Keep container(s) tightly closed and properly labeled. Store in cool, dry, well ventilated place away from heat, direct sunlight, strong oxidizers and any incompatibles. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty containers retain residue and may be dangerous.

7.3 Specific end use(s): These precautions are for room temperature handling. Other uses including elevated temperatures or aerosol/spray applications may require added precautions.

Section 8 - Exposure Controls / Personal Protection

8.1 Control parameters: none defined

8.2 Exposure controls:

Respiratory Protection: Should a respirator be needed, follow OSHA respirator regulations 29 CFR 1910.134 and European Standards EN 141, 143 and 371; wear an MSHA/NIOSH or European Standards EN 141, 143 and 371 approved respirators equipped with organic vapor cartridges.

Hand Protection: Wear any liquid-tight gloves such as butyl rubber, neoprene or PVC.

Eye Protection: Safety glasses with side shields per OSHA eye- and face-protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Other Protective Clothing/Equipment: Additional protective clothing or equipment is not normally required. Provide eye bath and safety shower.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. Wash thoroughly after handling.

Section 9 - Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:

Appearance : viscous liquid
Odor/Threshold: Mild odor
pH: N.A. (non-aqueous)
Melting Point/Freezing Point: N.A.
Low/High Boiling Point: N.A.
Flash Point: >300 °F
Evaporation Rate: Not available
Flammability: f.p. at or above 200 °F
UEL/LEL: Not available

Vapor Pressure: None (Polymeric Resin)
Vapor Density (Air=1): None
Specific Gravity (H_2O=1, at 4 °C): 1.0-1.2
Water Solubility: Insoluble
Partition coefficient: Not available
Auto-ignition temperature: Not available
Decomposition temperature: Not available
Viscosity: 5,000 – 20,000 centipoise
% Volatile: Nil

Section 10 - Stability and Reactivity

10.1 Reactivity: No hazardous reactions if stored and handled as prescribed/indicated., No corrosive effect on metal. Not fire propagating.

10.2 Chemical stability: These products are stable at room temperature in closed containers under normal storage and handling conditions.

10.3 Possibility of hazardous reactions: Hazardous polymerization cannot occur.

10.4 Conditions to avoid: none known

10.5 Incompatible materials: strong bases and acids

10.6 Hazardous decomposition products: Thermal oxidative decomposition can produce carbon oxides, gasses/vapors, and traces of incompletely burned carbon compounds.

Section 11- Toxicological Information

11.1 Information on toxicological effects:

Skin Corrosion/Irritation: no data

Serious Eye Damage/Irritation: no data

Respiratory/Skin Sensitization: no data

Germ Cell Mutagenicity: no data

Carcinogenicity: No component of this product at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC, NTP, or OSHA.

Reproductive Toxicity: no data

Specific Target Organ Toxicity – Single Exposure: no data

Specific Target Organ Toxicity – Repeated Exposure: no data

Aspiration Hazard: no data

Acute Toxicity: no data

Chronic Exposure: no data

Potential Health Effects – Miscellaneous: no data

Section 12 - Ecological Information

12.1 Toxicity: no data

12.2 Persistence and Degradability: no data

12.3 Bioaccumulative Potential: no data

12.4 Mobility in Soil: no data

12.5 Results of PBT and vPvB assessment: no data

12.6 Other Adverse Effects: no data

Section 13 - Disposal Considerations

13.1 Waste treatment methods: Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore to not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

Section 14 - Transport Information

Not classified by DOT, IATA or IMDG

14.1 UN number: none

14.2 UN proper shipping name: none

14.3 Transport hazard class(es): not applicable

14.4 Packing group: not applicable

14.5 Environmental hazards: none known

14.6 Special precautions for user: none known

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: not applicable

Section 15 - Regulatory Information

15.1 Safety health and environmental regulations/legislation specific for the substance or mixture:

In the United States (EPA Regulations):

TSCA Inventory Status (40 CFR710): All components of this formulation are listed in the TSCA Inventory.

SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

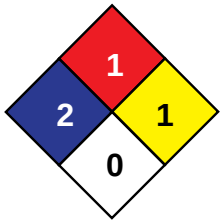
SARA 313 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313.
SARA 311/312 Hazards: none

California Proposition 65**:** This product does not intentionally contain any chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

15.2 Chemical safety assessment: No chemical safety assessment has been carried out for this substance/mixture by the supplier.

16 - Other Information

HMIS	
H	2
F	1
R	1



NFPA

Revision: 2
Date Prepared: October 29, 2015

Glossary: ACGIH-American Conference of Governmental Industrial Hygienists; ANSI-American National Standards Institute; Canadian TDG-Canadian Transportation of Dangerous Goods; CAS-Chemical Abstract Service; Chemtrec-Chemical Transportation Emergency Center (US); CHIP-Chemical Hazard Information and Packaging; DSL-Domestic Substances List; EC-Equivalent Concentration; EH40 (UK)-HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA-Emergency Planning and Community Right-To-Know Act; ESL-Effects screening levels; GHS-Globally Harmonized System of Classification and Labelling of Chemicals; HMIS-Hazardous Material Information Service; IATA-International Air Transport Association; IMDG-International Maritime Dangerous Goods Code; LC-Lethal Concentration; LD-Lethal Dose; LEL-Lower Explosion Level; NFPA-National Fire Protection Association; OEL-Occupational Exposure Limit; OSHA-Occupational Safety and Health Administration, US Dept. of Labor; PEL-Permissible Exposure Limit; SARA (Title III)-Superfund Amendments and Reauthorization Act; SARA 313-Superfund Amendments and Reauthorization Act, Section 313; SCBA-Self-Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ-Texas Commission on Environmental Quality; TLV-Threshold Limit Value; TSCA-Toxic Substances Control Act Public Law 94-469; TWA-Time Weighted Value; UEL-Upper Explosion Level; US DOT-US Department of Transportation; WHMIS-Workplace Hazardous Materials Information System.

Disclaimer: The information contained in this Safety Data Sheet (SDS) is considered accurate as of the version date. However, no warranty is expressed or implied regarding the accuracy of the data. Since the use of this product is not within the control of Smooth-On Inc., it is the user's obligation to determine the suitability of the product for its intended application and assumes all risk and liability for its safe use.
This SDS is prepared to comply with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) as prescribed by the United States (US) Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and European Union Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 (REACH).
Classifications of the chemical in accordance with 29 CFR 1910.1200, signal word, hazard and precautionary statement(s), symbol(s) and other information are based on listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), WHMIS and EC No 1907/2006 and are considered trade secrets under US Federal Law (29 CFR and 40 CFR), Canadian Law (Health Canada Legislation), and European Union Directives.

☑ GHS Compliant

Safety Data Sheet

SDS No. 1123B

Section 1 - Identification

1.1 Product Identifier: XTC-3D® Epoxy Coating Part B
1.2 General Use: Curing Agent, Epoxy Coating
1.3 Manufacturer: Smooth-On, Inc.,
5600 Lower Macungie Rd., Macungie, PA 18062
Phone (610) 252-5800, FAX (610) 252-6200
SDS@Smooth-On.com
1.4 Emergency Contact: Chem-Tel
Domestic: 800-255-3924 International: 813-248-0585

Section 2 - Hazards Identification

2.1 Classification of the substance or mixture:
Acute toxicity, oral – Category 4, H302
Skin corrosion – Category 1B, H314
Serious eye damage – Category 1, H314
Reproductive toxicity – Category 2, H361
Specific target organ toxicity – single exposure – Category 3, H335

2.2 GHS Label elements, including precautionary statements

Hazard Pictogram(s):

Signal Word: Danger

Health Hazards:

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H335	May cause respiratory irritation
H361	Suspected of damaging fertility or the unborn child.

General Precautions:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.

Prevention Precautions:

P201	Obtain special instructions before use.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash with soap and water thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.

Response Precautions:

P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.

Storage Precautions:

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

Disposal Precautions:

P501	Dispose of contents/container according to local, state and federal laws.

Hazards not otherwise classified (HNOC) or not covered by GHS – none known

Section 3 - Composition / Information on Ingredients

3.1 Substances

The following ingredients are hazardous according to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR 1910.1200:

CAS	Component	Concentration
98-54-4	Parateriarybutylphenol	<50%
25620-58-0	trimethylhexamethylenediamine	25% - 35%
1477-55-0	1,3-benzenemethaneamine	10% - 30%
84852-15-3	para-nonylphenol	0.1% - 5%

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation: Remove source(s) of contamination and move victim to fresh air. If breathing has stopped, give artificial respiration, then oxygen if needed. Contact physician immediately.

Eye Contact: Flush eyes with plenty of water. If irritation persists, seek medical attention.

Skin Contact: In case of skin contact, wash thoroughly with soap and water.

Ingestion: Do not induce vomiting unless instructed by a physician. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed: None known.

4.3 After first aid, get appropriate in-plant, paramedic, or community medical support.

Section 5 - Fire-Fighting Measures

5.1 Extinguishing Media: Water Fog, Dry Chemical, and Carbon Dioxide Foam

5.2 Special hazards arising from the substance or mixture: None known.

5.3 Advice for firefighters: Use water spray to cool fire-exposed surfaces and to protect personnel. Shut off "fuel" to fire. If a leak or spill has not ignited, use water spray to disperse the vapors. Either allow fire to burn under controlled conditions or extinguish with foam or dry chemical. Try to cover liquid spills with foam. Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure demand or positive-pressure mode.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures: Only properly protected personnel should remain in the spill area; dike and contain spill. Stop or reduce discharge if it can be done safely**.**

6.2 Environmental precautions: No special environmental precautions required.

6.3 Methods and material for containment and cleaning up: absorb or scrape up excess into suitable container for disposal; wash area with dilute ammonia solution

6.4 Reference to other sections: see Sections 8 for exposure controls.

Section 7 - Handling and Storage

7.1 Precautions for safe handling: Use good general housekeeping procedures. Wash hands after use.

7.2 Conditions for safe storage, including any incompatibilities: Keep container(s) tightly closed and properly labeled. Store in cool, dry, well ventilated place away from heat, direct sunlight, strong oxidizers and any incompatibles. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty containers retain residue and may be dangerous. Avoid water contamination.

7.3 Specific end use(s): These precautions are for room temperature handling. Other uses including elevated temperatures or aerosol/spray applications may require added precautions.

Section 8 - Exposure Controls / Personal Protection

8.1 Control parameters:

Benzene-1,3-dimethaneamine	CLV: ACGIH	0.1 mg/m^3
CAS: 1477-55-0	CLV: NIOSH	0.1 mg/m^3
	CLV: OSHA Z1A	0.1 mg/m^3
	CLV: US CA OEL	0.1 mg/m^3
	CLV: TN OEL	0.1 mg/m^3

8.2 Exposure controls:

Respiratory Protection: Respiratory protection is not normally required when using this product with adequate ventilation. Should a respirator be needed, follow OSHA respirator regulations 29 CFR 1910.134 and European Standards EN 141, 143 and 371; wear an MSHA/NIOSH or European Standards EN 141, 143 and 371 approved respirators equipped with organic vapor cartridges.

Hand Protection: Wear any liquid-tight gloves such as butyl rubber, neoprene or PVC.

Eye Protection: Safety glasses with side shields per OSHA eye- and face-protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Other Protective Clothing/Equipment: Additional protective clothing or equipment is not normally required. Provide eye bath and safety shower.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. Wash thoroughly after handling.

Section 9 - Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:

Appearance : amber liquid
Odor/Threshold: Mild fishy odor
pH: N.A. (non-aqueous)
Melting Point/Freezing Point: N.A.
Low/High Boiling Point: 500 °F
Flash Point: >300 °F
Evaporation Rate: Not available
Flammability: f.p. at or above 200 °F
UEL/LEL: Not available

Vapor Pressure: <10.3 mmHg @ 70 °F
Vapor Density (Air=1): >1
Specific Gravity (H_2O=1, at 4 °C): 0.98
Water Solubility: < 0.1 g/l
Partition coefficient: Not available
Auto-ignition temperature: Not available
Decomposition temperature: Not available
Viscosity: 10 centipoise
% Volatile: Nil

Section 10 - Stability and Reactivity

10.1 Reactivity: No hazardous reactions if stored and handled as prescribed/indicated.
10.2 Chemical stability: These products are stable at room temperature in closed containers under normal storage and handling conditions.
10.3 Possibility of hazardous reactions: No data available.
10.4 Conditions to avoid: none known
10.5 Incompatible materials: reactive metals (e.g. sodium, calcium, zinc etc.), materials reactive with hydroxyl compounds, strong bases and acids, sodium hypochlorite, peroxides, oxidizing agents. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.
10.6 Hazardous decomposition products: Thermal oxidative decomposition can produce nitric acid, ammonia, nitrogen oxides (NOx), carbon oxides, aldehydes, ntrosamine, gasses/vapors, and traces of incompletely burned carbon compounds.

Section 11- Toxicological Information

11.1 Information on toxicological effects:
Skin Corrosion/Irritation: Corrosive to skin, causes burns
Serious Eye Damage/Irritation: Corrosive to eyes, causes burns. Corneal edema may give rise to a perception of “blue haze” or “fog” around lights. The effect is temporary and has no know residual effect.
Respiratory/Skin Sensitization: Harmful if inhaled and may cause delayed lung injury. Can cause respiratory tract burns. Risk of serious damage to the lungs (by inhalation). May cause nose, throat, and lung irritation.
Germ Cell Mutagenicity: The product or a component may be mutagenic, the data is inconclusive.
Carcinogenicity: No component of this product at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA.
Reproductive Toxicity: no data
Specific Target Organ Toxicity – Single Exposure: no data
Specific Target Organ Toxicity – Repeated Exposure: no data
Aspiration Hazard: no data
Acute Toxicity:
Oral LD50 (rat): 1,750 mg/kg
Dermal LD50 (rabbit): >2,000 mg/kg (rabbit, estimated)
Inhalation: No data available
Chronic Exposure: no data
Potential Health Effects – Miscellaneous: May cause central nervous system effects such as headache, nausea, dizziness, confusion, breathing difficulties.

Section 12 - Ecological Information

12.1 Toxicity: no data is available on the product itself.

Toxicity to fish – Components

nonyl phenol	LC50 (96 h): 0.128 mg/l	fathead minnow (*Pimephales promelas*)
trimethylhexamethylenediamine	LC50 (48 h): 172 mg/l	golden orfe (*Leuciscus idus*)

Toxicity to Daphnia – Components

nonyl phenol	EC50 (48 h): 0.0848 mg/l	Daphnia
nonyl phenol	EC50 (48 h): 0.19 mg/l	Daphnia
trimethylhexamethylenediamine	EC50 (24 h): 31.5 mg/l	Daphnia magna

Toxicity to algae – components

1,3-benzenemethanamine	EC50 (72 h): 12 mg/l	*Scenedesmus subspicatus*
trimethylhexamethylenediamine	EC50 (72 h): 29.5 mg/l	*Desmodesmus subspicatus*

12.2 Persistence and Degradability: no data
12.3 Bioaccumulative Potential: no data
12.4 Mobility in Soil: no data
12.5 Results of PBT and vPvB assessment: no data
12.6 Other Adverse Effects: no data

Section 13 - Disposal Considerations

13.1 Waste treatment methods: Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore to not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

Section 14 - Transport Information

Classified by DOT, IATA or IMDG
14.1 UN number: 2735
14.2 UN proper shipping name: Amines, liquid, corrosive n.o.s. (1,3-benzenemethaneamine, trimethylhexamethylenediamine)
14.3 Transport hazard class(es): 8
14.4 Packing group: II
14.5 Environmental hazards: classified marine pollutant by IATA and IMDG
14.6 Special precautions for user: none known
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: not applicable

Section 15 - Regulatory Information

15.1 Safety health and environmental regulations/legislation specific for the substance or mixture:

In the United States (EPA Regulations):

TSCA Inventory Status (40 CFR710): All components of this formulation are listed in the TSCA Inventory.

SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

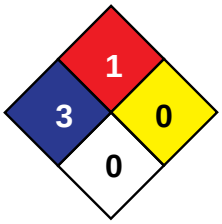
SARA 313 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313.
SARA 311/312 Hazards: none

California Proposition 65**:** This product does not intentionally contain any chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

15.2 Chemical safety assessment: No chemical safety assessment has been carried out for this substance/mixture by the supplier.

16 - Other Information

HMIS	
H	3
F	1
R	0



NFPA

Revision: 5
Date Prepared: November 6, 2015
Glossary: ACGIH-American Conference of Governmental Industrial Hygienists; ANSI-American National Standards Institute; Canadian TDG-Canadian Transportation of Dangerous Goods; CAS-Chemical Abstract Service; Chemtrec-Chemical Transportation Emergency Center (US); CHIP-Chemical Hazard Information and Packaging; DSL-Domestic Substances List; EC-Equivalent Concentration; EH40 (UK)-HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA-Emergency Planning and Community Right-To-Know Act; ESL-Effects screening levels; GHS-Globally Harmonized System of Classification and Labelling of Chemicals; HMIS-Hazardous Material Information Service; IATA-International Air Transport Association; IMDG-International Maritime Dangerous Goods Code; LC-Lethal Concentration; LD-Lethal Dose; LEL-Lower Explosion Level; NFPA-National Fire Protection Association; OEL-Occupational Exposure Limit; OSHA-Occupational Safety and Health Administration, US Dept. of Labor; PEL-Permissible Exposure Limit; SARA (Title III)-Superfund Amendments and Reauthorization Act; SARA 313-Superfund Amendments and Reauthorization Act, Section 313; SCBA-Self-Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ-Texas Commission on Environmental Quality; TLV-Threshold Limit Value; TSCA-Toxic Substances Control Act Public Law 94-469; TWA-Time Weighted Value; UEL-Upper Explosion Level; US DOT-US Department of Transportation; WHMIS-Workplace Hazardous Materials Information System.

Disclaimer: The information contained in this Safety Data Sheet (SDS) is considered accurate as of the version date. However, no warranty is expressed or implied regarding the accuracy of the data. Since the use of this product is not within the control of Smooth-On Inc., it is the user's obligation to determine the suitability of the product for its intended application and assumes all risk and liability for its safe use.
This SDS is prepared to comply with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) as prescribed by the United States (US) Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and European Union Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 (REACH).
Classifications of the chemical in accordance with 29 CFR 1910.1200, signal word, hazard and precautionary statement(s), symbol(s) and other information are based on listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), WHMIS and EC No 1907/2006 and are considered trade secrets under US Federal Law (29 CFR and 40 CFR), Canadian Law (Health Canada Legislation), and European Union Directives.

Safety Data Sheet
according to (EU) 2015 / 830 and OSHA GHS

Revision: December 6, 2016

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

· **1.1 Product identifier**

· **Trade name: Super Lube® Multi-Purpose Synthetic Grease with Syncolon® (PTFE)**

· **Article number:** No other identifiers

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

· **Application of the substance / the mixture** Lubricant

· **1.3 Details of the supplier of the Safety Data Sheet**

· **Manufacturer/Supplier:**
Synco Chemical Corporation
24 DaVinci Dr., P.O. Box 405
Bohemia, NY 11716
Telephone: 631-567-5300
Email: info@super-lube.com

· **1.4 Emergency telephone number:**
CHEMTREC
1-800-424-9300 (US/Canada)
+01 703-527-3887 (International)

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EU) No 2015/830**
The product is not classified as hazardous according to OSHA GHS regulations within the United States.
The product is not classified as hazardous according to the CLP regulation.

· **Information concerning particular hazards for human and environment:**
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

· **Additional information:**
0 percent of the mixture consists of component(s) of unknown toxicity
There are no other hazards not otherwise classified that have been identified.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**
The product is not classified as hazardous according to OSHA GHS regulations within the United States.
This product does not have a classification according to the CLP regulation.

· **Hazard pictograms** Not Regulated

· **Signal word** Not Regulated

(Contd. on page 2)

Safety Data Sheet
according to (EU) 2015 / 830 and OSHA GHS

Revision: December 6, 2016

Trade name: Super Lube® Multi-Purpose Synthetic Grease with Syncolon® (PTFE)

(Contd. of page 1)

· **Hazard-determining components of labelling:** None.

· **Hazard statements** Not Regulated

· **Precautionary statements** Not Regulated

· **Hazard description:**

· **NFPA ratings (scale 0 - 4)**

Health = 0
Fire = 1
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = 0
Fire = 1
Reactivity = 0

· **HMIS Long Term Health Hazard Substances**
None of the ingredients are listed.

· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**
· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:** None in reportable quantities.
· **Additional information:**
For the wording of the listed risk phrases refer to section 16.
For the listed ingredients, the identity and exact percentages are being withheld as a trade secret.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **General information:** No special measures required.
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation is experienced, consult a doctor.
· **After eye contact:**
Rinse opened eye for several minutes under running water.
Remove contact lenses if worn.

(Contd. on page 3)

Safety Data Sheet
according to (EU) 2015 / 830 and OSHA GHS

Revision: December 6, 2016

Trade name: Super Lube® Multi-Purpose Synthetic Grease with Syncolon® (PTFE)

(Contd. of page 2)

Seek medical treatment in case of complaints.
· **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
· **4.2 Most important symptoms and effects, both acute and delayed**
May cause gastro-intestinal irritation if ingested.
Acne
· **Hazards** No further relevant information available.
· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
· **5.3 Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
· **Additional information** No further relevant information available.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Particular danger of slipping on leaked/spilled product.
· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Pick up mechanically.
Dispose contaminated material as waste according to item 13.
· **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** Store away from oxidising agents.
· **Information about fire - and explosion protection:** No special measures required.

(Contd. on page 4)

Safety Data Sheet
according to (EU) 2015 / 830 and OSHA GHS

Revision: December 6, 2016

Trade name: Super Lube® Multi-Purpose Synthetic Grease with Syncolon® (PTFE)

(Contd. of page 3)

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Avoid storage near extreme heat, ignition sources or open flame.
· **Information about storage in one common storage facility:**
Do not store together with oxidising and acidic materials.
· **Further information about storage conditions:** None.

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**
· **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **DNELs** No further relevant information available.
· **PNECs** No further relevant information available.
· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Avoid contact with the eyes and skin.

· **Respiratory protection:** Not required under normal conditions of use.

· **Protection of hands:**
Gloves not required under normal conditions of use.
Wear protective gloves to handle contents of damaged or leaking units.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:**


Safety glasses

(Contd. on page 5)

Safety Data Sheet
according to (EU) 2015 / 830 and OSHA GHS

Revision: December 6, 2016

Trade name: Super Lube® Multi-Purpose Synthetic Grease with Syncolon® (PTFE)

(Contd. of page 4)

· **Body protection:** Not required under normal conditions of use.
· **Limitation and supervision of exposure into the environment** No special requirements.
· **Risk management measures** No special requirements.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Semi-solid
Colour:	Translucent
· **Odour:**	Mild
· **Odour threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Change in condition**	
Melting point/Melting range:	Not Determined.
Boiling point/Boiling range:	Undetermined.
· **Flash point:**	>220 °C (>428 °F)
· **Flammability (solid, gaseous):**	Not applicable.
· **Auto/Self-ignition temperature:**	Not determined.
· **Decomposition temperature:**	Not determined.
· **Oxidizing properties:**	Non-oxidizing.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapour pressure:**	Not determined.
· **Density at 20 °C (68 °F):**	0,89 g/cm³ (7,427 lbs/gal)
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with water:**	Not miscible or difficult to mix.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.

(Contd. on page 6)

Safety Data Sheet
according to (EU) 2015 / 830 and OSHA GHS

Revision: December 6, 2016

Trade name: Super Lube® Multi-Purpose Synthetic Grease with Syncolon® (PTFE)

(Contd. of page 5)

· **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity**
· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
· **10.3 Possibility of hazardous reactions** Reacts with strong acids and oxidising agents.
· **10.4 Conditions to avoid**
Avoid acids.
Excessive heat.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity:** No further relevant information available.
· **LD/LC50 values relevant for classification:** None.
· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** No irritating effect.
· **Sensitisation:** No sensitising effects known.
· **Subacute to chronic toxicity:** No further relevant information available.
· **Additional toxicological information:**
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
May cause acne.
· **Repeated dose toxicity:** No further relevant information available.
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):** See Section 15.

SECTION 12: Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **12.2 Persistence and degradability** The product is partially biodegradable. Significant residuals remain.
· **12.3 Bioaccumulative potential** No further relevant information available.
· **12.4 Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

(Contd. on page 7)

Safety Data Sheet
according to (EU) 2015 / 830 and OSHA GHS

Revision: December 6, 2016

Trade name: Super Lube® Multi-Purpose Synthetic Grease with Syncolon® (PTFE)

(Contd. of page 6)

Avoid transfer into the environment.

· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation**
Smaller quantities can be disposed of with household waste.
Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· **14.1 UN-Number**	
· **DOT, ADR, ADN, IMDG, IATA**	Not Regulated
· **14.2 UN proper shipping name**	
· **DOT, ADR, ADN, IMDG, IATA**	Not Regulated
· **14.3 Transport hazard class(es)**	
· **DOT, ADR, ADN, IMDG, IATA**	
· **Class**	Not Regulated
· **14.4 Packing group**	
· **DOT, ADR, IMDG, IATA**	Not Regulated
· **14.5 Environmental hazards:**	
· **Marine pollutant:**	No
· **14.6 Special precautions for user**	Not applicable.
· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **UN "Model Regulation":**	-

(Contd. on page 8)

Safety Data Sheet
according to (EU) 2015 / 830 and OSHA GHS

Revision: December 6, 2016

Trade name: Super Lube® Multi-Purpose Synthetic Grease with Syncolon® (PTFE)

(Contd. of page 7)

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **United States (USA)**
· **SARA**

· **Section 355 (extremely hazardous substances):**
None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**
None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**
All ingredients are listed.

· **Proposition 65 (California):**

· **Chemicals known to cause cancer:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients are listed.

· **Carcinogenic Categories**

· **EPA (Environmental Protection Agency)**
None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer)**

9002-84-0	Polytetrafluoroethylene	3

· **TLV (Threshold Limit Value established by ACGIH)**
None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients are listed.

· **Other regulations, limitations and prohibitive regulations**
This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

(Contd. on page 9)

Safety Data Sheet
according to (EU) 2015 / 830 and OSHA GHS

Revision: December 6, 2016

Trade name: Super Lube® Multi-Purpose Synthetic Grease with Syncolon® (PTFE)

(Contd. of page 8)

· **Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients are listed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

· **Sources**
SDS Prepared by:
ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com

MATERIAL SAFETY DATA SHEET

Trade Name: Super Tech Lubricant 8 oz
MSDS NO. WM452
Revision Date:
Date Printed 07/18/2006

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Super Tech Lubricant 8 oz
Chemical Family: Petroleum Oil Blend
Synonyms: None
Emergency Telephone (24 hr.): 24-Hour Emergency Information: CHEMTREC (800) 424-9300

Supplier: Walmart, Bentonville, AR, 72716

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient/CAS No.	wt. %	OSHA PEL TWA	OSHA PEL Ceiling Limits	ACGIH TLV TWA	ACGIH TLW STEL
Hydrotreated light distillates 64742-47-8	85-100	None Established	None Established	None Established	None Established
Oleic Acid 11-28-01	0-5				
Carbon Dioxide 124-38-9	0-5	5000 ppm (exposures <10,000 ppm to be cited de minimus)	Not Known	5000 ppm	30,000 ppm

3. HAZARDS IDENTIFICATION

Emergency Overview: Keep away from heat, sparks and flame. This material is a skin irritant. Content under pressure.

HMIS Classification: Health: 1 Flammability: 2 Physical Hazard: 2
NFPA Rating: Health: 1 Flammability: 2 Reactivity: 0

4. FIRST AID MEASURES

Eye Contact: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.
Ingestion: Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration. If swallowed, do NOT induce vomiting. Call a physician immediately. Never give anything by mouth to an unconscious person.
Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.
Skin Contact: Remove contaminated clothing and shoes, and launder before reuse. If irritation persists or signs of toxicity occur, seek medical attention. Wash with soap and water for 15 minutes.

5. FIRE FIGHTING MEASURES

Flammable Properties
Flash Point °F(°C): >100F
Flash Point Method: TAG Closed Cup
Flammable Limits in Air - Lower (%): .9%
Flammable Limits in Air - Upper (%): Not Determined
Autoignition Temperature °F(°C): Not Determined
Extinguishing Media: Carbon dioxide. Foam. Use water spray to keep containers cool that are exposed to heat or flames.
Protection Of Fire-Fighters:
Special Fire-Fighting Procedures: Wear approved positive-pressure self-contained breathing apparatus and protective clothing.
Hazardous Combustion Products: Carbon Dioxide. Carbon Monoxide.
Aerosol Comments: NFPA Level 3 Aerosol

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective clothing and equipment to prevent skin and eye contact.
Spill Procedures: Contain any liquid from leaking containers. Avoid all sources of ignition; heat, sparks and open flames. Wear proper protective equipment as specified in the protective equipment section. Remove sources of ignition. Leaking containers should be removed to an isolated, well-ventilated area and transferred to other suitable containers. Do not puncture or incinerate container. Contents under pressure. Wipe, scrape, or soak up in an inert material and put in a container intended for flammable materials for disposal.
Environmental Precautions: Do not allow to enter sanitary drains, sewer or surface and subsurface waters. Keep out of lakes, ponds or streams.

7. HANDLING AND STORAGE

Handling and Storage: Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Avoid contact with skin and eyes. Use only in a well ventilated area. Caution: Contents under pressure. Keep away from heat and open flame. Do not puncture, incinerate or store above 120 F. Exposure to high temperatures may cuase bursting. DO NOT store in the passenger compartment of an automobile.

MATERIAL SAFETY DATA SHEET

Trade Name: Super Tech Lubricant 8 oz
MSDS NO. WM452
Revision Date:
Date Printed 07/18/2006

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Use in a well ventilated area.
Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.
Skin Protection: Avoid skin contact. Wear protective clothing and gloves.
Respiratory Protection: Use in a well ventilated area. Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure. Do not breath mist or vapor.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless to pale yellow liquid
Odor: HYDROCARBON ODOR
pH Value: Not Determined
Vapor Pressure: Not Determined
Vapor Density (Air=1): Not Determined
Boiling Point (°F): >300F (liquid)
Melting/Freezing Point: Not determined.
Solubility in Water: MODERATE
Bulk Density at 20°C: Not Determined
Molecular Weight: Mixture
Specific Gravity (H20=1): .76 @ 60 F (liquid)
Viscosity: Not Determined.
Evaporation Rate: Not Determined
VOC Content(%): 1.97%
Decomposition Temperature: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of handling, use and transportation.
Conditions to Avoid: Keep away from heat,sparks and flame. Avoid any source of ignition. Do not expose to heat or store at temperatures above 120 F.
Materials to Avoid: Strong oxidizing agents.
Hazardous Decomposition Products: Carbon monoxide. Carbon dioxide. Oxides of carbon and nitrogen, AVOID extreme heat
Hazardous Polymerization: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

Toxicological Data:

Ingredient/CAS No.	wt. %	Route	Species	Dose
Hydrotreated light distillates 64742-47-8	85-100	Inhalation	Rats	Not known.
Oleic Acid 11-28-01	0-5	Inhalation	Rats	Not known.
Carbon Dioxide 124-38-9	0-5	NA	NA	Not known.

Carcinogenicity:

Ingredient/CAS No.	wt. %	IARC	NTP	OSHA
Hydrotreated light distillates 64742-47-8	85-100	Not Listed	Not Listed	Not Listed
Oleic Acid 11-28-01	0-5	Not Listed	Not Listed	Not Listed
Carbon Dioxide 124-38-9	0-5	Not Listed	Not Listed	Not Listed

12. ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product.

13. DISPOSAL CONSIDERATION

MATERIAL SAFETY DATA SHEET

Trade Name: Super Tech Lubricant 8 oz
MSDS NO. WM452
Revision Date:
Date Printed 07/18/2006

Waste Classification: Residues and spilled material are hazardous waste due to ignitability.

Waste Management: Not determined.

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. DOT:
Proper Shipping Name: ORM-D CONSUMER COMMODITY
Hazard Class: ORM-D
UN/NA Number: not applicable
DOT Packing Group: Not Applicable

IMDG:
Proper Shipping Name: Aeroslols (Limited Quantity)
Hazard Class: 2
Hazard Subclass: Not determined.
UN No.: UN1950
Packing Group: NA
Marine Pollutant: No

15. REGULATORY INFORMATION

US Federal Regulations:

Ingredient/CAS No.	wt. %	SARA 313	SARA 302	RQ	TPQ
Hydrotreated light distillates 64742-47-8	85-100	Not Listed	Not Listed	NA	NA
Oleic Acid 11-28-01	0-5				
Carbon Dioxide 124-38-9	0-5	Not Listed	Not Listed	NA	NA

Hazardous per OSHA 29 CFR 1910.1200

SARA 311/312 Hazard Catagories: Not Determined.

State Regulations:

Ingredient/CAS No.	wt. %	California Prop. 65 Cancer list	California Prop. 65 Developmental Toxicity	California Prop. 65 Reproductive Female	California Prop. 65 Reproductive Male
Hydrotreated light distillates 64742-47-8	85-100	Not Listed	Not Listed	Not Listed	Not Listed
Oleic Acid 11-28-01	0-5	Not Listed	Not Listed	Not Listed	Not Listed
Carbon Dioxide 124-38-9	0-5	Not Listed	Not Listed	Not Listed	Not Listed

U.S. TSCA: The components of this product are listed on the TSCA Inventory.

16. OTHER INFORMATION

General Notes: Do not allow undiluted material or large quantities to reach groundwater, bodies of water or sewer system.
Disclaimer:
The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty

Trade Name:	Super Tech Lubricant 8 oz
MSDS NO.	WM452
Revision Date:	
Date Printed	07/18/2006

against infringement of any patent, copyright or trademark is made or implied.

Franklin International
MATERIAL SAFETY DATA SHEET

MSDS Name: Titebond Original Wood Glue
MSDS Number: 5063
Revision Date: 6/14/04

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION
Product Name: Titebond Original Wood Glue
CAS Number: none
HMIS Hazard Rating: Health: 1 Fire: 1 Reactivity: 0

Company Identification: Franklin International
2020 Bruck Street
Columbus OH 43207

Contact: Franklin Technical Services
Telephone/Fax: (800) 877-4583 (614) 445-1493
Emergency Phone (24 Hour): Franklin Security
(614) 445-1300
Chemtrec (24 Hour): (800) 424-9300
Chemtrec International: (703) 527-3887

Product Class Aliphatic resin emulsion
Product Use: wood glue
Product Code: 2213

Division: Construction Adhesives & Sealants

SECTION 2 - COMPOSITION AND INFORMATION ON INGREDIENTS
Hazardous Ingredients CAS Number Percent
Product contains no hazardous ingredients or they are below reportable levels.

OSHA PELs & ACGIH TLVs are listed in Section 8 where applicable.

SECTION 3 - HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:
Yellow colored water-based adhesive. Slippery in the wet state.

ROUTES OF ENTRY:
Ingestion: Yes
Inhalation: Yes
Skin: Yes
Eye: Yes
INHALATION:
Vapors and/or aerosols which may be formed at elevated temperature may be irritating to eyes and respiratory tract.
No reported incidents of adverse health affects resulting from

inhalation of vapors at room temperature.
INGESTION:
No hazard expected in normal industrial use. Ingestion is not a likely route of exposure.
SKIN:
Prolonged or repeated skin contact can cause irritation.
EYE:
Substance may cause moderate eye irritation.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
None identified.
CARCINOGENICITY:
IARC: No
NTP: No
OSHA: No
REPRODUCTIVE TOXICITY:
This product has not been evaluated for reproductive toxicity.

SECTION 4 - FIRST AID MEASURES

INHALATION:
Remove patient to fresh air,if discomfort persists seek medical attention.
INGESTION:
Call poison control center immediately. Follow their specific instructions. Do not induce vomiting.
SKIN:
Wash with soap and water. Contact a physician if irritation develops or persists.
EYE:
Hold eyelids apart and flush with plenty of water for at least 15 minutes. Seek medical attention.

SECTION 5 - FIRE-FIGHTING MEASURES

Flammability Class (OSHA) IIIB
Flash Point: Not Applicable
Explosive Range: Not Applicable

EXTINGUISHING MEDIA:
Use alcohol foam, carbon dioxide, water spray, or ABC dry chemical when fighting fires involving this product.
HAZARDOUS COMBUSTION PRODUCTS:
Oxides of carbon.
FIRE FIGHTING PROCEDURES:
Wear a NIOSH approved self-contained breathing apparatus.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

CONTAINMENT TECHNIQUES:
Use inert absorbent to dike the spill. Keep away from drains.

CLEAN-UP:
If possible pump liquid into an approved container or spread absorbent over spill and shovel product/absorbent mixture into an approved container. If product has dried scrape up and place in an approved container.

SECTION 7 - HANDLING AND STORAGE

HANDLING:
Empty drums should be completely drained, properly bunged and promptly returned to a reconditoner, or properly disposed of.
Use only in well ventilated area.
STORAGE:
Keep from freezing.
Store at temperatures between 50 F and 90 F.
PRECAUTIONARY STATEMENT:
Keep out of the reach of children.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION
Occupational Exposure Limits

	ACGIH TLV	ACGIH TLV-C	ACGIH STEL	OSHA STEL	OSHA PEL

ENGINEERING CONTROLS:
Use local exhaust as needed to maintain occupational exposure limits.
OTHER:
Facilities storing or utilizing any chemical should be equipped with an eyewash facility and a safety shower.
RESPIRATORY PROTECTION:
Where exposure limits may be exceeded select a NIOSH approved respirator with appropriate Protection Factor and cartridge for the specific contaminents. Follow requirements for respiratory protection in OSHA 1910.134.
EYE PROTECTION:
Chemical splash goggles (ANSI Z87.1 or approved equivalent).
SKIN PROTECTION:
Where skin contact can occur, wear impervious gloves.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES
Form: Liquid
Appearance/Color: Yellow
Odor: Mild
Solubility (in water): Dispersible in water
pH Value: 4.8
Boiling Range/Point: 210.øF
Evaporation Rate: Slower than n-Butyl Acetate

% Volatile: 54.1%
Specific Gravity: 1.10
VOC: 10.7 g/l

SECTION 10 - STABILITY AND REACTIVITY
Stability: This product is stable
Hazardous Polymerization: Hazardous polymerization will not occur

CONDITIONS TO AVOID:
None.
INCOMPATIBLITY:
Strong acids and bases.
HAZARDOUS DECOMPOSITION PRODUCTS:
Oxides of carbon may be released during combustion.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute and chronic health effects are not expected as long as good industrial hygeine and safety precautions are followed.

SECTION 12 - ECOLOGICAL INFORMATION

This formulation has not been tested for environmental effects.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:
Disposal of this product must comply with all applicable federal, state and local regulations.
CONTAINER DISPOSAL:
Disposal of this container should comply with all applicable federal, state and local regulations.

SECTION 14 - TRANSPORT INFORMATION

UN Number	none
UN Pack Group	N/A
UN Class	Nonhaz
ICAO/IATA Class	Nonhazardous
IMDG Class	Nonhazardous
Shipping Name	Nonhazardous

Packaging may not be approved for shipping by air. Please contact Franklin International for further information.

SECTION 15 - REGULATORY INFORMATION

TSCA (Toxic Substances Control Act Inventory):
All components of this product are listed on the TSCA inventory except as exempted.
PENNSYLVANIA:
Non-hazardous components required to be listed at 3% or more:
polyvinyl acetate emulsion 9003-20-7; polyvinyl alcohol 25213-24-5

NEW JERSEY:
polyvinyl acetate emulsion 9003-20-7; water 7732-18-5; polyvinyl alcolhol 25213-24-5; petroleum hydrocarbon 64741-89-5; trade secret 80100233-5015p

SECTION 16 - OTHER INFORMATION

DISCLAIMER:
While the information and recommendations set forth herein are believed to be accurate as of the data hereof, Franklin International makes no warranty, express or implied, with respect thereto and disclaims all liability from reliance thereon.

SAFETY DATA SHEET

Revision date 24-May-2016 **Version** 5 **Supersedes Date:** 15-Mar-2016

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code 407.0084216.076

Product Name PP FLT WHITE 12OZ 6UC

Other means of identification

No information available

Recommended use of the chemical and restrictions on use

Aerosol, Paint

Details of the supplier of the safety data sheet

See section 16 for more information

The Valspar Corporation
PO Box 1461
Minneapolis, MN 55440

E-mail address msds@valspar.com

Emergency telephone number

United States of America 1-888-345-5732

American Samoa, Guam, Northern Mariana Islands, Puerto Rico, U.S. Virgin Islands 1-800-255-3924

Section 2: HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable aerosols	Category 2
Gases under pressure	Liquefied gas

Label elements

Signal word **WARNING**

HAZARD STATEMENTS
Flammable aerosol
Contains gas under pressure; may explode if heated
Causes serious eye irritation
May cause drowsiness or dizziness
Suspected of causing cancer

PREVENTION
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wash face, hands and any exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

RESPONSE
IF exposed or concerned: Get medical advice/attention.

Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin
Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion
Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

STORAGE
Store locked up. Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Store in a well-ventilated place. Do not expose to temperatures exceeding 122 °F (50 °C).

DISPOSAL
Dispose of contents/containers in accordance with local regulations.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)
Propellant is classified as a simple asphyxiant if released in large quantities: May displace oxygen and cause rapid suffocation.

OTHER HAZARDS
Not applicable.

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	weight-%
Acetone	67-64-1	25 - 50
Isobutyl acetate	110-19-0	10 - 25
Titanium dioxide	13463-67-7	5 - 10
Petroleum distillates, hydrotreated light	64742-47-8	3 - 5
n-Butyl acetate	123-86-4	1 - 3

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

First Aid Measures

General advice
IF exposed or concerned: Get medical advice/attention.

Eye contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact
Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion
Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media
Dry chemical, CO2, water spray or alcohol-resistant foam.

Not to be used for safety reasons: Strong water jet

Specific hazards arising from the chemical
Burning produces heavy smoke. Fire may produce irritating and/or toxic gases. In the event of fire and/or explosion do not breathe fumes.

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus and protective suit. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Avoid breathing vapors or mists. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

For emergency responders
Use personal protection recommended in Section 8.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Dispose of waste product or used containers according to local regulations. Clean with detergents. Avoid solvent cleaners. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Use personal protection recommended in Section 8. Never use pressure to empty container. Comply with the health and safety at work laws. Prevent product from entering drains. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Use only with adequate ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

General Hygiene Considerations
When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep/store only in original container. Store in accordance with local regulations. Keep unauthorized personnel away. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep container tightly closed in a dry and well-ventilated place. Protect from sunlight. Store in a well-ventilated place.

Incompatible materials
Strong bases. Strong oxidizing agents. Strong acids.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits
If S* appears in the OEL table, it indicates this chemical contains a skin notation.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetone 67-64-1	STEL: 500 ppm TWA: 250 ppm	TWA: 1000 ppm TWA: 2400 mg/m³	IDLH: 2500 ppm TWA: 250 ppm TWA: 590 mg/m³
Isobutyl acetate 110-19-0	TWA: 150 ppm	TWA: 150 ppm TWA: 700 mg/m³	IDLH: 1300 ppm TWA: 150 ppm TWA: 700 mg/m³
Titanium dioxide 13463-67-7	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust	IDLH: 5000 mg/m³
n-Butyl acetate 123-86-4	STEL: 200 ppm TWA: 150 ppm	TWA: 150 ppm TWA: 710 mg/m³	IDLH: 1700 ppm TWA: 150 ppm TWA: 710 mg/m³ STEL: 200 ppm STEL: 950 mg/m³

Appropriate engineering controls

Engineering Controls
Ensure adequate ventilation, especially in confined areas. Provide local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin and body protection
Wear suitable protective clothing. Personnel should wear anti-static clothing made of natural fiber or of high temperature resistant synthetic fiber.

Hand Protection
There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical / chemical damage and poor maintenance. Wear protective gloves.

Respiratory protection
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal Protection
No information available

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Aerosol
Appearance	No information available
Odor	Solvent
Color	white
Odor Threshold	No information available
pH value	No information available
Melting point/freezing point	No information available
Boiling point / boiling range	No information available °C / °F
flash point	-35 °C / -31 °F
evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor Pressure	No information available
vapor density	No information available
Density (lbs per US gallon)	6.44
specific gravity	No information available
Solubility(ies)	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available

Other information

Section 10: STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong bases. Strong oxidizing agents. Strong acids.

Hazardous Decomposition Products Carbon monoxide. Carbon dioxide (CO2).

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Causes serious eye irritation
Skin Contact
Not applicable
Ingestion
Not applicable
Inhalation
May cause drowsiness or dizziness

Numerical measures of toxicity - Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetone 67-64-1	= 5800 mg/kg (Rat)	-	= 50100 mg/m³ (Rat) 8 h
Isobutyl acetate 110-19-0	= 15400 mg/kg (Rat)	> 17400 mg/kg (Rabbit)	-
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
Petroleum distillates, hydrotreated light 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
n-Butyl acetate 123-86-4	= 10768 mg/kg (Rat)	> 17600 mg/kg (Rabbit)	= 390 ppm (Rat) 4 h

Numerical measures of toxicity - Product Information

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chemical Name	ACGIH	IARC	NTP	OSHA
Titanium dioxide 13463-67-7		Group 2B		X

IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans.
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present.

Skin corrosion/irritation Not applicable
Serious eye damage/eye irritation Causes serious eye irritation
Skin sensitization Not applicable
Respiratory sensitization Not applicable
Germ cell mutagenicity Not applicable
Carcinogenicity Suspected of causing cancer
Reproductive Toxicity Not applicable
Specific target organ toxicity (single exposure) May cause drowsiness or dizziness
Specific target organ toxicity (repeated exposure) Not applicable
Aspiration hazard Not applicable

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity
Environmental precautions Prevent product from entering drains.

Persistence and degradability
No information available

Bioaccumulation
No information available

Mobility
No information available

Other adverse effects No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Improper disposal or reuse of this container may be dangerous and illegal. Empty containers must be scrapped or reconditioned.

Section 14: TRANSPORT INFORMATION

	DOT	IMDG	IATA
14.1 UN/ID no	ORM-D	UN1950	UN1950
14.2 Proper shipping name	CONSUMER COMMODITY	Aerosols, flammable	Aerosols, flammable
14.3 Hazard Class		2.1	2.1
14.4 Packing Group			

14.5 Environmental hazard Not applicable

14.6 Special Provisions

Emergency Response Guide Number	EmS-No
126	F-D, S-U

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

The supplier may apply one of the following exceptions: Combustible Liquid (49 CFR 173.150(f)); Consumer Commodity (49 CFR 173.150(c), ICAO/IATA SP A112); Limited Quantity (49 CFR 173.150(b), ICAO Part 3 Chapter 4, IATA 2.7, IMDG Chapter 3.4); Viscous Liquid (49 CFR 173.121(b), IMDG 2.3.2.2, IATA 3.3.3.1.1, ICAO 3.2.2, ADR 2.2.3.1.5); Does Not Sustain Combustion (49 CFR 173.120(a), IATA 3.3.1.3, ICAO 3.1.3, IMDG 2.3.1.3, ADR 2.2.3.1.1 Note 1); or others as allowed under hazardous materials/dangerous goods regulations.

Section 15: REGULATORY INFORMATION

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory — All components are listed or exempt from listing.

DSL - Canadian Domestic Substances List — Not all components are listed or exempt from listing

US Federal Regulations

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	Yes
Reactive Hazard	No

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances

Isobutyl acetate 110-19-0				X
n-Butyl acetate 123-86-4	5000 lb			X

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Acetone 67-64-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Isobutyl acetate 110-19-0	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
n-Butyl acetate 123-86-4	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

Rule 66 status of product
Not photochemically reactive.

California Proposition 65
WARNING! This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

U.S. EPA Label information
EPA Pesticide registration number Not applicable

U.S. State Right-to-Know Regulations

Chemical Name
Acetone 67-64-1
Propane 74-98-6
Isobutyl acetate 110-19-0
Butane 106-97-8
Titanium dioxide 13463-67-7
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Petroleum distillates, hydrotreated light 64742-47-8
n-Butyl acetate 123-86-4

Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal
Repeated or prolonged overexposure to solvents may cause permanent damage to the nervous system

Section 16: OTHER INFORMATION

HMIS
Health hazards 2*
** = Chronic Health Hazard*
Flammability 4
Physical hazards 0
Personal Protection X

Supplier Address
Valspar Consumer Headquarters
8725 W. Higgins Rd. Suite 1000
Chicago, IL 60631
773-628-5500

The Valspar Corporation
4999 36th St.
Grand Rapids, MI 49512
800-253-3957

Valspar Plasti-Kote
1636 Shawsone Dr.
Mississauga, Ontario L4W 1N7
905-671-8333

Prepared By	Product Stewardship
Revision date	24-May-2016
Revision Note	No information available

Disclaimer

The information on this Safety Data Sheet (SDS) is based on the present state of our knowledge, current national legislation and guidelines. As the specific conditions of use of the product are outside the supplier's knowledge and control the user is responsible for ensuring that the requirements of relevant legislation are complied with. This SDS should not be construed as any guarantee of the technical performance or suitability for particular applications. UNLESS SUPPLIER AGREES OTHERWISE IN WRITING, SUPPLIER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. SUPPLIER WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

End of Safety Data Sheet

SAFETY DATA SHEET

Revision date 08-Dec-2016 **Version** 8 **Supersedes Date:** 14-Sep-2016

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code 407.0084239.076

Product Name PP PRIMER GRAY 12OZ 6UC

Other means of identification

No information available

Recommended use of the chemical and restrictions on use

Aerosol, Paint

Details of the supplier of the safety data sheet

See section 16 for more information

The Valspar Corporation
PO Box 1461
Minneapolis, MN 55440

E-mail address msds@valspar.com

Emergency telephone number

United States of America 1-888-345-5732

American Samoa, Guam, Northern Mariana Islands, Puerto Rico, U.S. Virgin Islands 1-800-255-3924

Section 2: HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1A
Carcinogenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable aerosols	Category 2
Gases under pressure	Liquefied gas

Label elements

Signal word **WARNING**

HAZARD STATEMENTS
Flammable aerosol
Contains gas under pressure; may explode if heated
Causes serious eye irritation
May cause an allergic skin reaction
Suspected of causing cancer
Suspected of damaging fertility or the unborn child
May cause drowsiness or dizziness

PREVENTION
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wash face, hands and any exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Use only outdoors or in a well-ventilated area. P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

RESPONSE
IF exposed or concerned: Get medical advice/attention.

Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin
IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion
Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

STORAGE
Store locked up. Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Protect from sunlight.

DISPOSAL
Dispose of contents/containers in accordance with local regulations.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)
Propellant is classified as a simple asphyxiant if released in large quantities: May displace oxygen and cause rapid suffocation.

OTHER HAZARDS
Not applicable.

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	weight-%
Acetone	67-64-1	25 - 50
Propane	74-98-6	10 - 25
Isobutyl acetate	110-19-0	10 - 25
Titanium dioxide	13463-67-7	3 - 5
Petroleum distillates, hydrotreated light	64742-47-8	3 - 5

n-Butyl acetate	123-86-4	1 - 3
Hexanoic acid, 2-ethyl-, cobalt(2+) salt (2:1)	136-52-7	0.1 - 0.3

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

First Aid Measures

General advice
IF exposed or concerned: Get medical advice/attention.

Eye contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact
IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion
Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media
Dry chemical, CO2, water spray or alcohol-resistant foam.

Not to be used for safety reasons: Strong water jet

Specific hazards arising from the chemical
Burning produces heavy smoke. Fire may produce irritating and/or toxic gases. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by skin contact.

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus and protective suit. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Avoid breathing vapors or mists. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

For emergency responders
Use personal protection recommended in Section 8.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Dispose of waste product or used containers according to local regulations. Clean with detergents. Avoid solvent cleaners. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. Take up mechanically, placing in appropriate containers for disposal.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Use personal protection recommended in Section 8. Never use pressure to empty container. Comply with the health and safety at work laws. Prevent product from entering drains. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Use only with adequate ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

General Hygiene Considerations
When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep/store only in original container. Store in accordance with local regulations. Keep unauthorized personnel away. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep container tightly closed in a dry and well-ventilated place. Protect from sunlight. Store in a well-ventilated place.

Incompatible materials
Strong bases. Strong oxidizing agents. Strong acids. Acids.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits
If S* appears in the OEL table, it indicates this chemical contains a skin notation.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetone 67-64-1	STEL: 500 ppm TWA: 250 ppm	TWA: 1000 ppm TWA: 2400 mg/m³	IDLH: 2500 ppm TWA: 250 ppm TWA: 590 mg/m³
Propane 74-98-6	TWA: 1000 ppm See Appendix F: Minimal Oxygen Content	TWA: 1000 ppm TWA: 1800 mg/m³	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m³
Isobutyl acetate 110-19-0	TWA: 150 ppm	TWA: 150 ppm TWA: 700 mg/m³	IDLH: 1300 ppm TWA: 150 ppm TWA: 700 mg/m³
Titanium dioxide 13463-67-7	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust	IDLH: 5000 mg/m³
n-Butyl acetate 123-86-4	STEL: 200 ppm TWA: 150 ppm	TWA: 150 ppm TWA: 710 mg/m³	IDLH: 1700 ppm TWA: 150 ppm TWA: 710 mg/m³ STEL: 200 ppm STEL: 950 mg/m³

Appropriate engineering controls

Engineering Controls
Ensure adequate ventilation, especially in confined areas. Provide local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection
Tight sealing safety goggles.

Skin and body protection
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear suitable protective clothing. Personnel should wear anti-static clothing made of natural fiber or of high temperature resistant synthetic fiber.

Hand Protection
There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical / chemical damage and poor maintenance. Wear protective gloves.

Respiratory protection
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal Protection
No information available

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Aerosol
Appearance	No information available
Odor	Solvent
Color	grey
Odor Threshold	No information available
pH value	No information available
Melting point/freezing point	No information available
Boiling point / boiling range	No information available °C / °F
flash point	-35 °C / -31 °F
evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor Pressure	No information available
vapor density	No information available
Density (lbs per US gallon)	6.56
specific gravity	No information available
Solubility(ies)	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available

Other information

Section 10: STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization None under normal processing.

Conditions to avoid Heat, flames and sparks.

Incompatible materials Strong bases. Strong oxidizing agents. Strong acids. Acids.

Hazardous Decomposition Products Carbon monoxide. Carbon dioxide (CO2).

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Causes serious eye irritation
Skin Contact
May cause an allergic skin reaction
Ingestion
Not applicable
Inhalation
May cause drowsiness or dizziness

Numerical measures of toxicity - Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetone 67-64-1	= 5800 mg/kg (Rat)	-	= 50100 mg/m³ (Rat) 8 h
Propane 74-98-6	-	-	= 658 mg/L (Rat) 4 h
Isobutyl acetate 110-19-0	= 15400 mg/kg (Rat)	> 17400 mg/kg (Rabbit)	-
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
Petroleum distillates, hydrotreated light 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
n-Butyl acetate 123-86-4	= 10768 mg/kg (Rat)	> 17600 mg/kg (Rabbit)	= 390 ppm (Rat) 4 h
Hexanoic acid, 2-ethyl-, cobalt(2+) salt (2:1) 136-52-7	-	-	-

Numerical measures of toxicity - Product Information

ATEmix (oral) 23940
ATEmix (dermal) 16947
ATEmix (inhalation-dust/mist) 14.9
ATEmix (inhalation-vapor) 138

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chemical Name	ACGIH	IARC	NTP	OSHA
Titanium dioxide 13463-67-7		Group 2B		X
Hexanoic acid, 2-ethyl-, cobalt(2+) salt (2:1) 136-52-7		Group 2B		X

IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans.
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present.

Skin corrosion/irritation	Not applicable
Serious eye damage/eye irritation	Causes serious eye irritation
Skin sensitization	May cause an allergic skin reaction
Respiratory sensitization	Not applicable
Germ cell mutagenicity	Not applicable
Carcinogenicity	Suspected of causing cancer
Reproductive Toxicity	Suspected of damaging fertility or the unborn child
Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness
Specific target organ toxicity (repeated exposure)	Not applicable
Aspiration hazard	Not applicable

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity
Environmental precautions — Prevent product from entering drains.

Persistence and degradability
No information available

Bioaccumulation
No information available

Mobility
No information available

Other adverse effects — No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes — Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging — Improper disposal or reuse of this container may be dangerous and illegal. Empty containers must be scrapped or reconditioned.

Section 14: TRANSPORT INFORMATION

	DOT	IMDG	IATA
14.1 UN/ID no	ORM-D	UN1950	UN1950
14.2 Proper shipping name	CONSUMER COMMODITY	Aerosols, flammable	Aerosols, flammable
14.3 Hazard Class		2.1	2.1
14.4 Packing Group			

14.5 Environmental hazard Not applicable

14.6 Special Provisions

Emergency Response Guide Number	EmS-No
126	F-D, S-U

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code — No information available

The supplier may apply one of the following exceptions: Combustible Liquid (49 CFR 173.150(f)); Consumer Commodity (49 CFR 173.150(c), ICAO/IATA SP A112); Limited Quantity (49 CFR 173.150(b), ICAO Part 3 Chapter 4, IATA 2.7, IMDG Chapter 3.4); Viscous Liquid (49 CFR 173.121(b), IMDG 2.3.2.2, IATA 3.3.3.1.1, ICAO 3.2.2, ADR 2.2.3.1.5); Does Not Sustain Combustion (49 CFR 173.120(a), IATA 3.3.1.3, ICAO 3.1.3, IMDG 2.3.1.3, ADR 2.2.3.1.1 Note 1); or others as allowed under hazardous materials/dangerous goods regulations.

Section 15: REGULATORY INFORMATION

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory — All components are listed or exempt from listing.

DSL - Canadian Domestic Substances List — All components are listed or exempt from listing

US Federal Regulations

Chemical Name	SARA 313 - Threshold Values %	Hazardous air pollutants (HAPs) content
Hexanoic acid, 2-ethyl-, cobalt(2+) salt (2:1) 136-52-7 0.1 - 0.3	1	Present

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	Yes
Reactive Hazard	No

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Isobutyl acetate 110-19-0				X
n-Butyl acetate 123-86-4	5000 lb			X

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Acetone 67-64-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Isobutyl acetate 110-19-0	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
n-Butyl acetate 123-86-4	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

Rule 66 status of product

Not photochemically reactive.

California Proposition 65

WARNING! This product contains a chemical known in the State of California to cause cancer.

U.S. EPA Label information

EPA Pesticide registration number Not applicable

U.S. State Right-to-Know Regulations

Chemical Name
Acetone 67-64-1
Propane 74-98-6
Isobutyl acetate 110-19-0
Butane 106-97-8
Limestone 1317-65-3

Proprietary Non-Hazardous Ingredient - Proprietary CAS
Titanium dioxide 13463-67-7
Petroleum distillates, hydrotreated light 64742-47-8
n-Butyl acetate 123-86-4
Hexanoic acid, 2-ethyl-, cobalt(2+) salt (2:1) 136-52-7

Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal
Repeated or prolonged overexposure to solvents may cause permanent damage to the nervous system

Section 16: OTHER INFORMATION

HMIS

Health hazards	2*
* = *Chronic Health Hazard*	
Flammability	4
Physical hazards	0
Personal Protection	X

Supplier Address

Valspar Consumer Headquarters 8725 W. Higgins Rd. Suite 1000 Chicago, IL 60631 773-628-5500	The Valspar Corporation 4999 36th St. Grand Rapids, MI 49512 800-253-3957	Valspar Plasti-Kote 1636 Shawsone Dr. Mississauga, Ontario L4W 1N7 905-671-8333

Prepared By Product Stewardship

Revision date 08-Dec-2016
Revision Note No information available

Disclaimer

The information on this Safety Data Sheet (SDS) is based on the present state of our knowledge, current national legislation and guidelines. As the specific conditions of use of the product are outside the supplier's knowledge and control the user is responsible for ensuring that the requirements of relevant legislation are complied with. This SDS should not be construed as any guarantee of the technical performance or suitability for particular applications. UNLESS SUPPLIER AGREES OTHERWISE IN WRITING, SUPPLIER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. SUPPLIER WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

End of Safety Data Sheet

SAFETY DATA SHEET

Revision date 12-Dec-2016 **Version** 4 **Supersedes Date:** 04-Mar-2016

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code 410.0085048.076

Product Name VAL85048 PREM GLOSS BLACK 6UC

Other means of identification

No information available

Recommended use of the chemical and restrictions on use

Aerosol, Paint

Details of the supplier of the safety data sheet

See section 16 for more information

The Valspar Corporation
PO Box 1461
Minneapolis, MN 55440

E-mail address msds@valspar.com

Emergency telephone number

United States of America 1-888-345-5732

American Samoa, Guam, Northern Mariana Islands, Puerto Rico, U.S. Virgin Islands 1-800-255-3924

Section 2: HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable aerosols	Category 2
Gases under pressure	Liquefied gas

Label elements

Signal word **WARNING**

HAZARD STATEMENTS
Flammable aerosol
Contains gas under pressure; may explode if heated
Causes serious eye irritation
May cause an allergic skin reaction
Suspected of damaging fertility or the unborn child
May cause drowsiness or dizziness

PREVENTION
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wash face, hands and any exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Use only outdoors or in a well-ventilated area. P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

RESPONSE
IF exposed or concerned: Get medical advice/attention.

Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin
IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion
Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

STORAGE
Store locked up. Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Protect from sunlight.

DISPOSAL
Dispose of contents/containers in accordance with local regulations.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)
Propellant is classified as a simple asphyxiant if released in large quantities: May displace oxygen and cause rapid suffocation.

OTHER HAZARDS
Not applicable.

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	weight-%
Acetone	67-64-1	25 - 50
Propane	74-98-6	10 - 25
n-Butyl acetate	123-86-4	5 - 10
Ethylene glycol monopropyl ether	2807-30-9	3 - 5
Isobutyl acetate	110-19-0	1 - 3
Carbon black	1333-86-4	0.3 - 1

Hexanoic acid, 2-ethyl-, zinc salt (2:1)	136-53-8	0.1 - 0.3
Zirconium ethyl hexoate	22464-99-9	0.1 - 0.3

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

First Aid Measures

General advice
IF exposed or concerned: Get medical advice/attention.

Eye contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact
IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion
Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media
Dry chemical, CO2, water spray or alcohol-resistant foam.

Not to be used for safety reasons: Strong water jet

Specific hazards arising from the chemical
Burning produces heavy smoke. Fire may produce irritating and/or toxic gases. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by skin contact.

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus and protective suit. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Avoid breathing vapors or mists. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

For emergency responders
Use personal protection recommended in Section 8.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Dispose of waste product or used containers according to local regulations. Clean with detergents. Avoid solvent cleaners. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal. Pick up and transfer to properly labeled containers.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Use personal protection recommended in Section 8. Never use pressure to empty container. Comply with the health and safety at work laws. Prevent product from entering drains. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

General Hygiene Considerations
Avoid contact with skin, eyes or clothing. When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep/store only in original container. Store in accordance with local regulations. Keep unauthorized personnel away. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Protect from sunlight. Store in a well-ventilated place.

Incompatible materials
Strong oxidizing agents.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits
If S* appears in the OEL table, it indicates this chemical contains a skin notation.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetone 67-64-1	STEL: 500 ppm TWA: 250 ppm	TWA: 1000 ppm TWA: 2400 mg/m³	IDLH: 2500 ppm TWA: 250 ppm TWA: 590 mg/m³
Propane 74-98-6	TWA: 1000 ppm See Appendix F: Minimal Oxygen Content	TWA: 1000 ppm TWA: 1800 mg/m³	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m³
n-Butyl acetate 123-86-4	STEL: 200 ppm TWA: 150 ppm	TWA: 150 ppm TWA: 710 mg/m³	IDLH: 1700 ppm TWA: 150 ppm TWA: 710 mg/m³ STEL: 200 ppm STEL: 950 mg/m³
Isobutyl acetate 110-19-0	TWA: 150 ppm	TWA: 150 ppm TWA: 700 mg/m³	IDLH: 1300 ppm TWA: 150 ppm TWA: 700 mg/m³
Carbon black 1333-86-4	TWA: 3 mg/m³ inhalable fraction	TWA: 3.5 mg/m³	IDLH: 1750 mg/m³ TWA: 3.5 mg/m³ TWA: 0.1 mg/m³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH

Zirconium ethyl hexoate 22464-99-9	STEL: 10 mg/m³ Zr TWA: 5 mg/m³ Zr	TWA: 5 mg/m³ Zr	IDLH: 25 mg/m³ Zr TWA: 5 mg/m³ except Zirconium tetrachloride Zr STEL: 10 mg/m³ Zr

Appropriate engineering controls

Engineering Controls
Ensure adequate ventilation, especially in confined areas. Provide local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection
Tight sealing safety goggles.

Skin and body protection
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear suitable protective clothing. Personnel should wear anti-static clothing made of natural fiber or of high temperature resistant synthetic fiber.

Hand Protection
There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical / chemical damage and poor maintenance. Wear protective gloves.

Respiratory protection
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal Protection
No information available

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Aerosol
Appearance	No information available
Odor	Solvent
Color	black
Odor Threshold	No information available
pH value	No information available
Melting point/freezing point	No information available
Boiling point / boiling range	No information available °C / °F
flash point	-35 °C / -31 °F
evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor Pressure	No information available
vapor density	No information available
Density (lbs per US gallon)	6.27
specific gravity	.75
Solubility(ies)	Not Determined
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available

Other information

Section 10: STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization None under normal processing.

Conditions to avoid Heat, flames and sparks.

Incompatible materials Strong oxidizing agents.

Hazardous Decomposition Products Carbon monoxide. Carbon dioxide (CO2). Chlorine gas.

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Causes serious eye irritation
Skin Contact
May cause an allergic skin reaction
Ingestion
Not applicable
Inhalation
May cause drowsiness or dizziness

Numerical measures of toxicity - Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetone 67-64-1	= 5800 mg/kg (Rat)	-	= 50100 mg/m³ (Rat) 8 h
Propane 74-98-6	-	-	= 658 mg/L (Rat) 4 h
n-Butyl acetate 123-86-4	= 10768 mg/kg (Rat)	> 17600 mg/kg (Rabbit)	= 390 ppm (Rat) 4 h
Ethylene glycol monopropyl ether 2807-30-9	= 3089 mg/kg (Rat)	= 870 mg/kg (Rabbit) = 960 µL/kg (Rabbit)	= 1530 ppm (Rat) 7 h
Isobutyl acetate 110-19-0	= 15400 mg/kg (Rat)	> 17400 mg/kg (Rabbit)	-
Carbon black 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-
Hexanoic acid, 2-ethyl-, zinc salt (2:1) 136-53-8	-	-	-
Zirconium ethyl hexoate 22464-99-9	-	-	-

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (dermal) 29349 Mg/kg

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity

According to IARC, Volume 93, no significant exposure to primary particles of carbon black is thought to occur from use in paints since the pigment is bound to other materials.

Chemical Name	ACGIH	IARC	NTP	OSHA
Carbon black 1333-86-4	A3	Group 2B		X

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen.
IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans.
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present.

Skin corrosion/irritation	Not applicable
Serious eye damage/eye irritation	Causes serious eye irritation
Skin sensitization	May cause an allergic skin reaction
Respiratory sensitization	Not applicable
Germ cell mutagenicity	Not applicable
Carcinogenicity	Not applicable
Reproductive Toxicity	Suspected of damaging fertility or the unborn child
Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness
Specific target organ toxicity (repeated exposure)	Not applicable
Aspiration hazard	Not applicable

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Environmental precautions — Prevent product from entering drains.

Persistence and degradability

No information available

Bioaccumulation

No information available

Mobility

No information available

Other adverse effects — No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes — Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging — Improper disposal or reuse of this container may be dangerous and illegal. Empty containers must be scrapped or reconditioned.

Section 14: TRANSPORT INFORMATION

	DOT	IMDG	IATA
14.1 UN/ID no	ORM-D	UN1950	UN1950
14.2 Proper shipping name	CONSUMER COMMODITY	Aerosols, flammable	Aerosols, flammable
14.3 Hazard Class		2.1	2.1
14.4 Packing Group			

14.5 Environmental hazard Not applicable

14.6 Special Provisions

Emergency Response Guide Number	EmS-No
126	F-D, S-U

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

The supplier may apply one of the following exceptions: Combustible Liquid (49 CFR 173.150(f)); Consumer Commodity (49 CFR 173.150(c), ICAO/IATA SP A112); Limited Quantity (49 CFR 173.150(b), ICAO Part 3 Chapter 4, IATA 2.7, IMDG Chapter 3.4); Viscous Liquid (49 CFR 173.121(b), IMDG 2.3.2.2, IATA 3.3.3.1.1, ICAO 3.2.2, ADR 2.2.3.1.5); Does Not Sustain Combustion (49 CFR 173.120(a), IATA 3.3.1.3, ICAO 3.1.3, IMDG 2.3.1.3, ADR 2.2.3.1.1 Note 1); or others as allowed under hazardous materials/dangerous goods regulations.

Section 15: REGULATORY INFORMATION

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory — All components are listed or exempt from listing.

DSL - Canadian Domestic Substances List — All components are listed or exempt from listing

US Federal Regulations

Chemical Name	SARA 313 - Threshold Values %	Hazardous air pollutants (HAPs) content
Ethylene glycol monopropyl ether 2807-30-9 3 - 5	1	Present

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	Yes
Reactive Hazard	No

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
n-Butyl acetate 123-86-4	5000 lb			X
Isobutyl acetate 110-19-0				X
Hexanoic acid, 2-ethyl-, zinc salt (2:1) 136-53-8		X		

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Acetone 67-64-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
n-Butyl acetate 123-86-4	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Isobutyl acetate 110-19-0	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

Rule 66 status of product
Not photochemically reactive.

California Proposition 65
WARNING! This product contains a chemical known in the State of California to cause cancer.

U.S. EPA Label information
EPA Pesticide registration number Not applicable

U.S. State Right-to-Know Regulations

Chemical Name
Acetone 67-64-1
Propane 74-98-6
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Butane 106-97-8
n-Butyl acetate 123-86-4
Ethylene glycol monopropyl ether 2807-30-9
Isobutyl acetate 110-19-0
Zirconium ethyl hexoate 22464-99-9

Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal
Repeated or prolonged overexposure to solvents may cause permanent damage to the nervous system

Section 16: OTHER INFORMATION

HMIS

Health hazards	2*
** = Chronic Health Hazard*	
Flammability	4
Physical hazards	0
Personal Protection	X

Supplier Address

Valspar Consumer Headquarters
8725 W. Higgins Rd. Suite 1000
Chicago, IL 60631
773-628-5500

The Valspar Corporation
4999 36th St.
Grand Rapids, MI 49512
800-253-3957

Valspar Plasti-Kote
1636 Shawsone Dr.
Mississauga, Ontario L4W 1N7
905-671-8333

Prepared By Product Stewardship

Revision date 12-Dec-2016
Revision Note No information available

Disclaimer

The information on this Safety Data Sheet (SDS) is based on the present state of our knowledge, current national legislation and guidelines. As the specific conditions of use of the product are outside the supplier's knowledge and control the user is responsible for ensuring that the requirements of relevant legislation are complied with. This SDS should not be construed as any guarantee of the technical performance or suitability for particular applications. UNLESS SUPPLIER AGREES OTHERWISE IN WRITING, SUPPLIER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. SUPPLIER WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

End of Safety Data Sheet

SAFETY DATA SHEET

Revision date 15-Jan-2017 **Version** 6 **Supersedes Date:** 12-Dec-2016

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code 410.0085014.076

Product Name VAL85014 PREM GLOSS CLASSIC RED 6UC

Other means of identification

No information available

Recommended use of the chemical and restrictions on use

Aerosol, Paint

Details of the supplier of the safety data sheet

See section 16 for more information

The Valspar Corporation
PO Box 1461
Minneapolis, MN 55440

E-mail address msds@valspar.com

Emergency telephone number

United States of America 1-888-345-5732

American Samoa, Guam, Northern Mariana Islands, Puerto Rico, U.S. Virgin Islands 1-800-255-3924

Section 2: HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Carcinogenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable aerosols	Category 2
Gases under pressure	Liquefied gas

Label elements

Signal word **WARNING**

HAZARD STATEMENTS
Flammable aerosol
Contains gas under pressure; may explode if heated
Causes serious eye irritation
May cause an allergic skin reaction
Suspected of causing cancer
Suspected of damaging fertility or the unborn child
May cause drowsiness or dizziness

PREVENTION
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wash face, hands and any exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Use only outdoors or in a well-ventilated area. P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

RESPONSE
IF exposed or concerned: Get medical advice/attention.

Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin
IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion
Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

STORAGE
Store locked up. Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Protect from sunlight.

DISPOSAL
Dispose of contents/containers in accordance with local regulations.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)
Propellant is classified as a simple asphyxiant if released in large quantities: May displace oxygen and cause rapid suffocation.

OTHER HAZARDS
Not applicable.

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	weight-%
Acetone	67-64-1	25 - 50
Propane	74-98-6	10 - 25
n-Butyl acetate	123-86-4	5 - 10
Ethylene glycol monopropyl ether	2807-30-9	3 - 5
Isobutyl acetate	110-19-0	1 - 3

Titanium dioxide	13463-67-7	0.3 - 1
Hexanoic acid, 2-ethyl-, zinc salt (2:1)	136-53-8	0.1 - 0.3
Ethylbenzene	100-41-4	0.1 - 0.3
Zirconium ethyl hexoate	22464-99-9	0.1 - 0.3

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

First Aid Measures

General advice
IF exposed or concerned: Get medical advice/attention.

Eye contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact
IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion
Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media
Dry chemical, CO2, water spray or alcohol-resistant foam.

Not to be used for safety reasons: Strong water jet

Specific hazards arising from the chemical
Burning produces heavy smoke. Fire may produce irritating and/or toxic gases. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by skin contact.

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus and protective suit. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Avoid breathing vapors or mists. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

For emergency responders
Use personal protection recommended in Section 8.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Dispose of waste product or used containers according to local regulations. Clean with detergents. Avoid solvent cleaners. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal. Pick up and transfer to properly labeled containers.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Use personal protection recommended in Section 8. Never use pressure to empty container. Comply with the health and safety at work laws. Prevent product from entering drains. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

General Hygiene Considerations
Avoid contact with skin, eyes or clothing. When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep/store only in original container. Store in accordance with local regulations. Keep unauthorized personnel away. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Protect from sunlight. Store in a well-ventilated place.

Incompatible materials
Strong oxidizing agents.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits
If S* appears in the OEL table, it indicates this chemical contains a skin notation.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetone 67-64-1	STEL: 500 ppm TWA: 250 ppm	TWA: 1000 ppm TWA: 2400 mg/m³	IDLH: 2500 ppm TWA: 250 ppm TWA: 590 mg/m³
Propane 74-98-6	TWA: 1000 ppm See Appendix F: Minimal Oxygen Content	TWA: 1000 ppm TWA: 1800 mg/m³	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m³
n-Butyl acetate 123-86-4	STEL: 200 ppm TWA: 150 ppm	TWA: 150 ppm TWA: 710 mg/m³	IDLH: 1700 ppm TWA: 150 ppm TWA: 710 mg/m³ STEL: 200 ppm STEL: 950 mg/m³
Isobutyl acetate 110-19-0	TWA: 150 ppm	TWA: 150 ppm TWA: 700 mg/m³	IDLH: 1300 ppm TWA: 150 ppm TWA: 700 mg/m³
Titanium dioxide 13463-67-7	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust	IDLH: 5000 mg/m³

Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m³	IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m³ STEL: 125 ppm STEL: 545 mg/m³
Zirconium ethyl hexoate 22464-99-9	STEL: 10 mg/m³ Zr TWA: 5 mg/m³ Zr	TWA: 5 mg/m³ Zr	IDLH: 25 mg/m³ Zr TWA: 5 mg/m³ except Zirconium tetrachloride Zr STEL: 10 mg/m³ Zr

Appropriate engineering controls

Engineering Controls
Ensure adequate ventilation, especially in confined areas. Provide local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection
Tight sealing safety goggles.

Skin and body protection
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear suitable protective clothing. Personnel should wear anti-static clothing made of natural fiber or of high temperature resistant synthetic fiber.

Hand Protection
There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical / chemical damage and poor maintenance. Wear protective gloves.

Respiratory protection
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal Protection
No information available

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Aerosol
Appearance	No information available
Odor	Solvent
Color	red
Odor Threshold	No information available
pH value	No information available
Melting point/freezing point	No information available
Boiling point / boiling range	No information available °C / °F
flash point	-35 °C / -31 °F
evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor Pressure	No information available
vapor density	No information available
Density (lbs per US gallon)	6.41
specific gravity	.77
Solubility(ies)	Not Determined
Partition coefficient	No information available
Autoignition temperature	No information available

Decomposition temperature No information available
Kinematic viscosity No information available
Dynamic viscosity No information available

Other information

Section 10: STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization None under normal processing.

Conditions to avoid Heat, flames and sparks.

Incompatible materials Strong oxidizing agents.

Hazardous Decomposition Products Carbon monoxide. Carbon dioxide (CO2). Chlorine gas.

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Causes serious eye irritation
Skin Contact
May cause an allergic skin reaction
Ingestion
Not applicable
Inhalation
May cause drowsiness or dizziness

Numerical measures of toxicity - Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetone 67-64-1	= 5800 mg/kg (Rat)	-	= 50100 mg/m³ (Rat) 8 h
Propane 74-98-6	-	-	= 658 mg/L (Rat) 4 h
n-Butyl acetate 123-86-4	= 10768 mg/kg (Rat)	> 17600 mg/kg (Rabbit)	= 390 ppm (Rat) 4 h
Ethylene glycol monopropyl ether 2807-30-9	= 3089 mg/kg (Rat)	= 870 mg/kg (Rabbit) = 960 µL/kg (Rabbit)	= 1530 ppm (Rat) 7 h
Isobutyl acetate 110-19-0	= 15400 mg/kg (Rat)	> 17400 mg/kg (Rabbit)	-
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
Hexanoic acid, 2-ethyl-, zinc salt (2:1) 136-53-8	-	-	-
Ethylbenzene 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
Zirconium ethyl hexoate 22464-99-9	-	-	-

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (dermal) 29349 Mg/kg

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity
According to IARC, Volume 93, no significant exposure to primary particles of titanium dioxide is thought to occur from use in paints since the pigment is bound to other materials.

Chemical Name	ACGIH	IARC	NTP	OSHA
Titanium dioxide 13463-67-7		Group 2B		X
Ethylbenzene 100-41-4	A3	Group 2B		X

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen.
IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans.
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present.

Skin corrosion/irritation	Not applicable
Serious eye damage/eye irritation	Causes serious eye irritation
Skin sensitization	May cause an allergic skin reaction
Respiratory sensitization	Not applicable
Germ cell mutagenicity	Not applicable
Carcinogenicity	Suspected of causing cancer
Reproductive Toxicity	Suspected of damaging fertility or the unborn child
Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness
Specific target organ toxicity (repeated exposure)	Not applicable
Aspiration hazard	Not applicable

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity
Environmental precautions — Prevent product from entering drains.

Persistence and degradability
No information available

Bioaccumulation
No information available

Mobility
No information available

Other adverse effects — No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes — Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging — Improper disposal or reuse of this container may be dangerous and illegal. Empty containers must be scrapped or reconditioned.

Section 14: TRANSPORT INFORMATION

	DOT	IMDG	IATA
14.1 UN/ID no	ORM-D	UN1950	UN1950
14.2 Proper shipping name	CONSUMER COMMODITY	Aerosols, flammable	Aerosols, flammable

14.3 Hazard Class 2.1 2.1
14.4 Packing Group
14.5 Environmental hazard Not applicable
14.6 Special Provisions

Emergency Response Guide Number	EmS-No
126	F-D, S-U

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

The supplier may apply one of the following exceptions: Combustible Liquid (49 CFR 173.150(f)); Consumer Commodity (49 CFR 173.150(c), ICAO/IATA SP A112); Limited Quantity (49 CFR 173.150(b), ICAO Part 3 Chapter 4, IATA 2.7, IMDG Chapter 3.4); Viscous Liquid (49 CFR 173.121(b), IMDG 2.3.2.2, IATA 3.3.3.1.1, ICAO 3.2.2, ADR 2.2.3.1.5); Does Not Sustain Combustion (49 CFR 173.120(a), IATA 3.3.1.3, ICAO 3.1.3, IMDG 2.3.1.3, ADR 2.2.3.1.1 Note 1); or others as allowed under hazardous materials/dangerous goods regulations.

Section 15: REGULATORY INFORMATION

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory — All components are listed or exempt from listing.

DSL - Canadian Domestic Substances List — All components are listed or exempt from listing

US Federal Regulations

Chemical Name	SARA 313 - Threshold Values %	Hazardous air pollutants (HAPs) content
Ethylene glycol monopropyl ether 2807-30-9 3 - 5	1	Present
Ethylbenzene 100-41-4 0.1 - 0.3	0.1	Present

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	Yes
Reactive Hazard	No

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
n-Butyl acetate 123-86-4	5000 lb			X
Isobutyl acetate 110-19-0				X
Hexanoic acid, 2-ethyl-, zinc salt (2:1) 136-53-8		X		
Ethylbenzene 100-41-4	1000 lb	X	X	X

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Acetone 67-64-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
n-Butyl acetate 123-86-4	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Isobutyl acetate 110-19-0	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Ethylbenzene 100-41-4	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations

Rule 66 status of product
Not photochemically reactive.

California Proposition 65
WARNING! This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

U.S. EPA Label information
EPA Pesticide registration number Not applicable

U.S. State Right-to-Know Regulations

Chemical Name
Acetone 67-64-1
Propane 74-98-6
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Butane 106-97-8
n-Butyl acetate 123-86-4
Ethylene glycol monopropyl ether 2807-30-9
Isobutyl acetate 110-19-0
Ethylbenzene 100-41-4
Zirconium ethyl hexoate 22464-99-9

Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal
Repeated or prolonged overexposure to solvents may cause permanent damage to the nervous system

Section 16: OTHER INFORMATION

HMIS
Health hazards 2*
** = Chronic Health Hazard*
Flammability 4
Physical hazards 0
Personal Protection X

Supplier Address

Valspar Consumer Headquarters
8725 W. Higgins Rd. Suite 1000
Chicago, IL 60631
773-628-5500

The Valspar Corporation
4999 36th St.
Grand Rapids, MI 49512
800-253-3957

Valspar Plasti-Kote
1636 Shawsone Dr.
Mississauga, Ontario L4W 1N7
905-671-8333

Prepared By Product Stewardship

Revision date 15-Jan-2017
Revision Note No information available

Disclaimer

The information on this Safety Data Sheet (SDS) is based on the present state of our knowledge, current national legislation and guidelines. As the specific conditions of use of the product are outside the supplier's knowledge and control the user is responsible for ensuring that the requirements of relevant legislation are complied with. This SDS should not be construed as any guarantee of the technical performance or suitability for particular applications. UNLESS SUPPLIER AGREES OTHERWISE IN WRITING, SUPPLIER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. SUPPLIER WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

End of Safety Data Sheet

SAFETY DATA SHEET

Revision date 18-Jan-2017 **Version** 6 **Supersedes Date:** 26-Jun-2016

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code 410.0085058.076

Product Name VAL85058 PREM GLOSS CLEAR 6UC

Other means of identification

No information available

Recommended use of the chemical and restrictions on use

Aerosol, Paint

Details of the supplier of the safety data sheet

See section 16 for more information

The Valspar Corporation
PO Box 1461
Minneapolis, MN 55440

E-mail address msds@valspar.com

Emergency telephone number

United States of America 1-888-345-5732

American Samoa, Guam, Northern Mariana Islands, Puerto Rico, U.S. Virgin Islands 1-800-255-3924

Section 2: HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable aerosols	Category 2
Gases under pressure	Liquefied gas

Label elements

Signal word **WARNING**

HAZARD STATEMENTS
Flammable aerosol
Contains gas under pressure; may explode if heated
Causes serious eye irritation
May cause drowsiness or dizziness

PREVENTION
Wash face, hands and any exposed skin thoroughly after handling. Wear eye/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

RESPONSE
Get medical advice/attention if you feel unwell.

Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin
Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Ingestion
Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

STORAGE
Store locked up. Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Protect from sunlight.

DISPOSAL
Dispose of contents/containers in accordance with local regulations.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)
Propellant is classified as a simple asphyxiant if released in large quantities: May displace oxygen and cause rapid suffocation.

OTHER HAZARDS
Not applicable.

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	weight-%
Acetone	67-64-1	25 - 50
Isobutyl acetate	110-19-0	25 - 50
Propane	74-98-6	10 - 25

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

First Aid Measures

General advice
Get medical advice/attention if you feel unwell.

Eye contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact
Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Ingestion
Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media
Dry chemical, CO2, water spray or alcohol-resistant foam.

Not to be used for safety reasons: Strong water jet

Specific hazards arising from the chemical
Burning produces heavy smoke. Fire may produce irritating and/or toxic gases. In the event of fire and/or explosion do not breathe fumes.

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus and protective suit. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Avoid breathing vapors or mists. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

For emergency responders
Use personal protection recommended in Section 8.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Dispose of waste product or used containers according to local regulations. Clean with detergents. Avoid solvent cleaners. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Use personal protection recommended in Section 8. Never use pressure to empty container. Comply with the health and safety at work laws. Prevent product from entering drains. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Use only with adequate ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

General Hygiene Considerations
When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep/store only in original container. Store in accordance with local regulations. Keep unauthorized personnel away. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep container tightly closed in a dry and well-ventilated place. Protect from sunlight. Store in a well-ventilated place.

Incompatible materials
Strong bases. Strong oxidizing agents. Strong acids.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits
If S* appears in the OEL table, it indicates this chemical contains a skin notation.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetone 67-64-1	STEL: 500 ppm TWA: 250 ppm	TWA: 1000 ppm TWA: 2400 mg/m³	IDLH: 2500 ppm TWA: 250 ppm TWA: 590 mg/m³
Isobutyl acetate 110-19-0	TWA: 150 ppm	TWA: 150 ppm TWA: 700 mg/m³	IDLH: 1300 ppm TWA: 150 ppm TWA: 700 mg/m³
Propane 74-98-6	TWA: 1000 ppm See Appendix F: Minimal Oxygen Content	TWA: 1000 ppm TWA: 1800 mg/m³	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m³

Appropriate engineering controls

Engineering Controls
Ensure adequate ventilation, especially in confined areas. Provide local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin and body protection
Personnel should wear anti-static clothing made of natural fiber or of high temperature resistant synthetic fiber.

Hand Protection
There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical / chemical damage and poor maintenance. Wear protective gloves.

Respiratory protection
In case of inadequate ventilation wear respiratory protection.

Thermal Protection
No information available

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Aerosol
Appearance	No information available
Odor	Solvent
Color	clear
Odor Threshold	No information available
pH value	No information available
Melting point/freezing point	No information available
Boiling point / boiling range	No information available °C / °F
flash point	-35 °C / -31 °F
evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor Pressure	No information available
vapor density	No information available
Density (lbs per US gallon)	6.39
specific gravity	.77
Solubility(ies)	Not Determined
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available

Other information

Section 10: STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization None under normal processing.

Conditions to avoid Heat, flames and sparks.

Incompatible materials Strong bases. Strong oxidizing agents. Strong acids.

Hazardous Decomposition Products Carbon monoxide. Carbon dioxide (CO2).

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Causes serious eye irritation
Skin Contact
Not applicable
Ingestion
Not applicable
Inhalation
May cause drowsiness or dizziness

Numerical measures of toxicity - Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetone 67-64-1	= 5800 mg/kg (Rat)	-	= 50100 mg/m³ (Rat) 8 h
Isobutyl acetate 110-19-0	= 15400 mg/kg (Rat)	> 17400 mg/kg (Rabbit)	-
Propane 74-98-6	-	-	= 658 mg/L (Rat) 4 h

Numerical measures of toxicity - Product Information

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Not applicable
Serious eye damage/eye irritation	Causes serious eye irritation
Skin sensitization	Not applicable
Respiratory sensitization	Not applicable
Germ cell mutagenicity	Not applicable
Carcinogenicity	Not applicable
Reproductive Toxicity	Not applicable
Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness
Specific target organ toxicity (repeated exposure)	Not applicable
Aspiration hazard	Not applicable

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity
Environmental precautions Prevent product from entering drains.

Persistence and degradability
No information available

Bioaccumulation
No information available

Mobility
No information available

Other adverse effects No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Improper disposal or reuse of this container may be dangerous and illegal. Empty containers must be scrapped or reconditioned.

Section 14: TRANSPORT INFORMATION

	DOT	IMDG	IATA
14.1 UN/ID no	ORM-D	UN1950	UN1950
14.2 Proper shipping name	CONSUMER COMMODITY	Aerosols, flammable	Aerosols, flammable
14.3 Hazard Class		2.1	2.1
14.4 Packing Group			

14.5 Environmental hazard Not applicable

14.6 Special Provisions

Emergency Response Guide Number	EmS-No
126	F-D, S-U

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

The supplier may apply one of the following exceptions: Combustible Liquid (49 CFR 173.150(f)); Consumer Commodity (49 CFR 173.150(c), ICAO/IATA SP A112); Limited Quantity (49 CFR 173.150(b), ICAO Part 3 Chapter 4, IATA 2.7, IMDG Chapter 3.4); Viscous Liquid (49 CFR 173.121(b), IMDG 2.3.2.2, IATA 3.3.3.1.1, ICAO 3.2.2, ADR 2.2.3.1.5); Does Not Sustain Combustion (49 CFR 173.120(a), IATA 3.3.1.3, ICAO 3.1.3, IMDG 2.3.1.3, ADR 2.2.3.1.1 Note 1); or others as allowed under hazardous materials/dangerous goods regulations.

Section 15: REGULATORY INFORMATION

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory — All components are listed or exempt from listing.

DSL - Canadian Domestic Substances List — All components are listed or exempt from listing

US Federal Regulations

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	Yes
Reactive Hazard	No

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Isobutyl acetate 110-19-0				X

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Acetone 67-64-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Isobutyl acetate 110-19-0	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

Rule 66 status of product

Not photochemically reactive.

U.S. EPA Label information

EPA Pesticide registration number Not applicable

U.S. State Right-to-Know Regulations

Chemical Name
Acetone 67-64-1
Isobutyl acetate 110-19-0
Propane 74-98-6
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Butane 106-97-8
Proprietary Non-Hazardous Ingredient - Proprietary CAS

Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal
Repeated or prolonged overexposure to solvents may cause permanent damage to the nervous system

Section 16: OTHER INFORMATION

HMIS

Health hazards	2
Flammability	4
Physical hazards	0
Personal Protection	X

Supplier Address

Valspar Consumer Headquarters
8725 W. Higgins Rd. Suite 1000
Chicago, IL 60631
773-628-5500

The Valspar Corporation
4999 36th St.
Grand Rapids, MI 49512
800-253-3957

Valspar Plasti-Kote
1636 Shawsone Dr.
Mississauga, Ontario L4W 1N7
905-671-8333

Prepared By Product Stewardship

Revision date 18-Jan-2017
Revision Note No information available

Disclaimer

The information on this Safety Data Sheet (SDS) is based on the present state of our knowledge, current national legislation and guidelines. As the specific conditions of use of the product are outside the supplier's knowledge and control the user is responsible for ensuring that the requirements of relevant legislation are complied with. This SDS should not be construed as any guarantee of the technical performance or suitability for particular applications. UNLESS SUPPLIER AGREES OTHERWISE IN WRITING, SUPPLIER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. SUPPLIER WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

End of Safety Data Sheet

SAFETY DATA SHEET

Revision date 26-Apr-2017 **Version** 8 **Supersedes Date:** 07-Dec-2016

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code 410.0085015.076

Product Name VAL85015 PREM GLOSS CUT RUBY 6UC

Other means of identification

No information available

Recommended use of the chemical and restrictions on use

Aerosol, Paint

Details of the supplier of the safety data sheet

See section 16 for more information

The Valspar Corporation
PO Box 1461
Minneapolis, MN 55440

E-mail address msds@valspar.com

Emergency telephone number

United States of America 1-888-345-5732

American Samoa, Guam, Northern Mariana Islands, Puerto Rico, U.S. Virgin Islands 1-800-255-3924

Section 2: HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable aerosols	Category 2
Gases under pressure	Liquefied gas

Label elements

Signal word **WARNING**

HAZARD STATEMENTS
Flammable aerosol
Contains gas under pressure; may explode if heated
Causes serious eye irritation
May cause an allergic skin reaction
Suspected of damaging fertility or the unborn child
May cause drowsiness or dizziness

PREVENTION
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wash face, hands and any exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Use only outdoors or in a well-ventilated area. P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

RESPONSE
IF exposed or concerned: Get medical advice/attention.

Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin
IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion
Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

STORAGE
Store locked up. Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Protect from sunlight.

DISPOSAL
Dispose of contents/containers in accordance with local regulations.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)
No information available.

OTHER HAZARDS
Propellant is classified as a simple asphyxiant if released in large quantities: May displace oxygen and cause rapid suffocation. Not applicable.

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	weight-%
Acetone	67-64-1	25 - 50
Propane	74-98-6	10 - 25
n-Butyl acetate	123-86-4	5 - 10
Ethylene glycol monopropyl ether	2807-30-9	3 - 5
Isobutyl acetate	110-19-0	1 - 3

Hexanoic acid, 2-ethyl-, zinc salt (2:1)	136-53-8	0.1 - 0.3
Zirconium ethyl hexoate	22464-99-9	0.1 - 0.3

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

First Aid Measures

General advice
IF exposed or concerned: Get medical advice/attention.

Eye contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact
IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion
Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media
Dry chemical, CO2, water spray or alcohol-resistant foam.

Not to be used for safety reasons: Strong water jet

Specific hazards arising from the chemical
Burning produces heavy smoke. Fire may produce irritating and/or toxic gases. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by skin contact.

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus and protective suit. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Avoid breathing vapors or mists. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

For emergency responders
Use personal protection recommended in Section 8.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Dispose of waste product or used containers according to local regulations. Clean with detergents. Avoid solvent cleaners. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. Take up mechanically, placing in appropriate containers for disposal.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Use personal protection recommended in Section 8. Never use pressure to empty container. Comply with the health and safety at work laws. Prevent product from entering drains. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Use only with adequate ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

General Hygiene Considerations
When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep/store only in original container. Store in accordance with local regulations. Keep unauthorized personnel away. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep container tightly closed in a dry and well-ventilated place. Protect from sunlight. Store in a well-ventilated place.

Incompatible materials
Strong oxidizing agents.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits
If S* appears in the OEL table, it indicates this chemical contains a skin notation.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetone 67-64-1	STEL: 500 ppm TWA: 250 ppm	TWA: 1000 ppm TWA: 2400 mg/m³	IDLH: 2500 ppm TWA: 250 ppm TWA: 590 mg/m³
Propane 74-98-6	TWA: 1000 ppm See Appendix F: Minimal Oxygen Content	TWA: 1000 ppm TWA: 1800 mg/m³	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m³
n-Butyl acetate 123-86-4	STEL: 200 ppm TWA: 150 ppm	TWA: 150 ppm TWA: 710 mg/m³	IDLH: 1700 ppm TWA: 150 ppm TWA: 710 mg/m³ STEL: 200 ppm STEL: 950 mg/m³
Isobutyl acetate 110-19-0	TWA: 150 ppm	TWA: 150 ppm TWA: 700 mg/m³	IDLH: 1300 ppm TWA: 150 ppm TWA: 700 mg/m³

Zirconium ethyl hexoate 22464-99-9	STEL: 10 mg/m³ Zr TWA: 5 mg/m³ Zr	TWA: 5 mg/m³ Zr	IDLH: 25 mg/m³ Zr TWA: 5 mg/m³ except Zirconium tetrachloride Zr STEL: 10 mg/m³ Zr

Appropriate engineering controls

Engineering Controls
Ensure adequate ventilation, especially in confined areas. Provide local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection
Tight sealing safety goggles.

Skin and body protection
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear suitable protective clothing. Personnel should wear anti-static clothing made of natural fiber or of high temperature resistant synthetic fiber.

Hand Protection
There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical / chemical damage and poor maintenance. Wear protective gloves.

Respiratory protection
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal Protection
No information available

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Aerosol
Appearance	No information available
Odor	Solvent
Color	red
Odor Threshold	No information available
pH value	No information available
Melting point/freezing point	No information available
Boiling point / boiling range	No information available °C / °F
flash point	-35 °C / -31 °F
evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor Pressure	No information available
vapor density	No information available
Density (lbs per US gallon)	6.41
specific gravity	.77
Solubility(ies)	Not Determined
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available

Other information

Section 10: STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization None under normal processing.

Conditions to avoid Heat, flames and sparks.

Incompatible materials Strong oxidizing agents.

Hazardous Decomposition Products Carbon monoxide. Carbon dioxide (CO2). Chlorine gas.

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Causes serious eye irritation
Skin Contact
May cause an allergic skin reaction
Ingestion
Not applicable
Inhalation
May cause drowsiness or dizziness

Numerical measures of toxicity - Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetone 67-64-1	= 5800 mg/kg (Rat)	-	= 50100 mg/m³ (Rat) 8 h
Propane 74-98-6	-	-	= 658 mg/L (Rat) 4 h
n-Butyl acetate 123-86-4	= 10768 mg/kg (Rat)	> 17600 mg/kg (Rabbit)	= 390 ppm (Rat) 4 h
Ethylene glycol monopropyl ether 2807-30-9	= 3089 mg/kg (Rat)	= 870 mg/kg (Rabbit) = 960 µL/kg (Rabbit)	= 1530 ppm (Rat) 7 h
Isobutyl acetate 110-19-0	= 15400 mg/kg (Rat)	> 17400 mg/kg (Rabbit)	-
Hexanoic acid, 2-ethyl-, zinc salt (2:1) 136-53-8	-	-	-
Zirconium ethyl hexoate 22464-99-9	-	-	-

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (dermal) 29349 Mg/kg

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Not applicable
Serious eye damage/eye irritation Causes serious eye irritation
Skin sensitization May cause an allergic skin reaction

Respiratory sensitization	Not applicable
Germ cell mutagenicity	Not applicable
Carcinogenicity	Not applicable
Reproductive Toxicity	Suspected of damaging fertility or the unborn child
Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness
Specific target organ toxicity (repeated exposure)	Not applicable
Aspiration hazard	Not applicable

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Environmental precautions: Prevent product from entering drains.

Persistence and degradability

No information available

Bioaccumulation

No information available

Mobility

No information available

Other adverse effects: No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging: Improper disposal or reuse of this container may be dangerous and illegal. Empty containers must be scrapped or reconditioned.

Section 14: TRANSPORT INFORMATION

	DOT	IMDG	IATA
14.1 UN/ID no	ORM-D	UN1950	UN1950
14.2 Proper shipping name	CONSUMER COMMODITY	Aerosols, flammable	Aerosols, flammable
14.3 Hazard Class		2.1	2.1
14.4 Packing Group			

14.5 Environmental hazard Not applicable

14.6 Special Provisions

Emergency Response Guide Number	EmS-No
126	F-D, S-U

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: No information available

The supplier may apply one of the following exceptions: Combustible Liquid (49 CFR 173.150(f)); Consumer Commodity (49 CFR 173.150(c), ICAO/IATA SP A112); Limited Quantity (49 CFR 173.150(b), ICAO Part 3 Chapter 4, IATA 2.7, IMDG Chapter 3.4); Viscous Liquid (49 CFR 173.121(b), IMDG 2.3.2.2, IATA 3.3.3.1.1, ICAO 3.2.2, ADR 2.2.3.1.5); Does Not Sustain Combustion (49 CFR 173.120(a), IATA 3.3.1.3, ICAO 3.1.3, IMDG 2.3.1.3, ADR 2.2.3.1.1 Note 1); or others as allowed under hazardous materials/dangerous goods regulations.

Section 15: REGULATORY INFORMATION

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory	All components are listed or exempt from listing.
DSL - Canadian Domestic Substances List	Not all components are listed or exempt from listing

US Federal Regulations

Chemical Name	SARA 313 - Threshold Values %	Hazardous air pollutants (HAPs) content
Ethylene glycol monopropyl ether 2807-30-9 3 - 5	1	Present

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	Yes
Reactive Hazard	No

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
n-Butyl acetate 123-86-4	5000 lb			X
Isobutyl acetate 110-19-0				X
Hexanoic acid, 2-ethyl-, zinc salt (2:1) 136-53-8		X		

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Acetone 67-64-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
n-Butyl acetate 123-86-4	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Isobutyl acetate 110-19-0	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

Rule 66 status of product

Not photochemically reactive.

California Proposition 65

WARNING! This product contains a chemical known in the State of California to cause cancer.

U.S. EPA Label information

EPA Pesticide registration number Not applicable

U.S. State Right-to-Know Regulations

Chemical Name
Acetone 67-64-1
Propane 74-98-6
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Butane 106-97-8
n-Butyl acetate 123-86-4
Ethylene glycol monopropyl ether 2807-30-9
Proprietary Non-Hazardous Ingredient - Proprietary CAS

Isobutyl acetate 110-19-0
Zirconium ethyl hexoate 22464-99-9

Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal
Repeated or prolonged overexposure to solvents may cause permanent damage to the nervous system

Section 16: OTHER INFORMATION

HMIS

Health hazards 2*
** = Chronic Health Hazard*
Flammability 4
Physical hazards 0
Personal Protection X

Supplier Address

Valspar Consumer Headquarters
8725 W. Higgins Rd. Suite 1000
Chicago, IL 60631
773-628-5500

The Valspar Corporation
4999 36th St.
Grand Rapids, MI 49512
800-253-3957

Valspar Plasti-Kote
1636 Shawsone Dr.
Mississauga, Ontario L4W 1N7
905-671-8333

Prepared By Product Stewardship

Revision date 26-Apr-2017
Revision Note No information available

Disclaimer

The information on this Safety Data Sheet (SDS) is based on the present state of our knowledge, current national legislation and guidelines. As the specific conditions of use of the product are outside the supplier's knowledge and control the user is responsible for ensuring that the requirements of relevant legislation are complied with. This SDS should not be construed as any guarantee of the technical performance or suitability for particular applications. UNLESS SUPPLIER AGREES OTHERWISE IN WRITING, SUPPLIER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. SUPPLIER WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

End of Safety Data Sheet

Material Safety Data Sheet (MSDS)
"Wipe New Wipe-It"

Issue Date: September 10, 2013

Section 1 - Chemical Product & Company Identification

Product/Trade Name: "Wipe- New Wipe-It"
Product Type: Microfiber cloth pre-saturated with ≤10mL of Wipe New liquid

Distributor
Name: Wipe New, LLC
945 Seahawk Circle
Virginia Beach, VA 23452
Contact: admin@wipenew.com
Phone:757-463-6653
Fax:757-301-7930

Product is registered with CHEMTREC
24HR Emergency Telephone: 1-800-424-9300
International CHEMTREC:1-703-527-3887

Section 2 - Composition/Information on Ingredients

Single microfiber cloths saturated with ≤10mL of Wipe New liquid and packaged into individual foil packs.

This liquid is a sealant that restores and permanently protects hard surfaces; the formulation is proprietary but includes:
CAS 98-56-6 Benzene, 1-chloro-4-(trifluoromethyl)
CAS 540-88-5 tert-Butyl acetate
The primary ingredient in this product is considered to be hazardous by OSHA (as defined in the OSHA Hazard Communication Standard 29 CFR 1910.1200).
Flashpoint >38C (100.4F) - <=60C (140F)
VOC % by weight: 0% (solvents are VOC exempt, including the state of CA)

Section 3 - Hazards Identification/Emergency Overview

Ingestion – May cause irritation which could result in nausea, vomiting and diarrhea.

Skin – Slightly irritating. May cause skin sensitization

Eyes – Moderately irritating (especially if rubbed into the eyes).

Inhalation - May cause irritation to the respiratory tract, as well as allergic respiratory reaction.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the

upper and lower eyelids. Get immediate medical aid.

Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If irritation persists get immediate medical aid. Wash clothing before reuse.
Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get immediate medical aid.

Inhalation: Remove from exposure source and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical aid.

Section 5 - Fire Fighting Measures

Remove from sources of possible ignition. When mixed with air, vapors may burn or explode.
Extinguishing Media: Water, Spry Foam, Dry Powder, CO2
Special Fire-fighting Procedures or Equipment: Self-contained breathing apparatus and full protective clothing should be worn in fire conditions.
Combustion products: Carbon Dioxide, Carbon Monoxide and oxides of nitrogen.
Unusual Fire/Explosion Hazards: None known

Section 6 - Accidental Release Measures

Prevent entry into drains, water streams and soil. Spillages or uncontrolled discharges into water streams should be reported to appropriate regulatory bodies.

Wear adequate personal protective equipment, see Section 8.

Section 7 - Handling & Storage

Keep in a well-ventilated area, away from heat and direct sunlight. When handling, do not eat, drink or smoke.
Extremely flammable – keep product away from all sources of ignition.

Section 8 - Exposure Controls/Personal Protection

Eye Protection – wear chemical safety glasses.
Hand Protection – wear Neoprene or other impermeable gloves.
Respiratory Protection – not necessary under normal conditions, in a well ventilated workplace. A self-contained breathing apparatus may be appropriate if high levels of aerosols arise.
General - Provide readily accessible eye wash stations and safety showers.

Section 9 - Physical/Chemical Properties

Appearance/State: Microfiber cloth saturated with liquid chemical
Odor: Ammonia
Solubility (Water): Virtually Insoluble

Section 10 - Stability/Reactivity

This material is stable and non-reactive with most materials. May react with acids, oxidizers,

alkalis, nitrates.
Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, moisture, exposure to air, excess heat, strong acids.
Decomposition Products: Carbon Dioxide, Carbon Monoxide, silicon dioxide in fire conditions.
Hazardous Polymerization: Will not occur.

Section 11- Toxicological Information

No human studies have been conducted on this product.
May be irritating to the skin, eyes and gastrointestinal/respiratory tracts, may cause allergic reaction in some individuals.
Not listed as a carcinogen by the OSHA or the NTP, not evaluated by the IARC
Acute Oral LD_{50} Oral (Rat): > 6.8g/kg
Acute Dermal LD_{50} (Rabbit): >2.7g/kg

Section 12- Ecological Information

This product may be toxic to aquatic organisms and may cause long-term adverse effects to the aquatic environment if disposed in non-polymerized form. This material is not readily biodegradable.

Section 13 - Disposal Considerations

Set saturated cloth outside of reach of children in a well ventilated area or outdoors and allow to dry completely before discarding.

Waste, even small quantities, should never be poured down drains, sewers or watercourses. Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14 - Transportation Information

The raw chemical (liquid) is classified by the U.S. Department of Transportation (DOT) as a Flammable Liquid (3) #3.

Per IATA Special Provision A46: Small inner packagings consisting of sealed packets or articles containing less than 10 mL of a Packing Group II or III flammable liquid absorbed into a solid material are not subject to these Regulations provided there is no free liquid in the packet or article

Section 15 - Regulatory Information

Note: This regulatory information included here should not necessarily be considered all-inclusive. This product is not subject to the reporting requirements of the CERCLA, the SARA, the RCRA, the Clean Air Act and the Clean Water Act (US). This product is not formulated with, nor do the manufacturing or formulation processes utilize any Class I or II Ozone depleting substances. This product not listed as a carcinogen or a reproductive toxicant under the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65).

Section 16 - Other Information

The recommendations and information contained in this MSDS have been compiled from sources believed to represent the most current information available when the MSDS was prepared. However, the manufacturer/distributor of this product provides any warranty, guaranty or representation as to the correctness or sufficiency of this information. If this material is to be used in large amounts and/or an unusual manner, the user is obliged to determine what safety measures are appropriate, including the applicable and relevant workplace and environmental regulations pertaining to handling, use and disposal.

Abbreviations used in this MSDS

CERCLA = Comprehensive Environmental Response Compensation and Liability Act
CFR = Code of Federal Regulations
IARC = International Agency for Research on Cancer
NTP = National Toxicology Program
OSHA = Occupational Safety & Health Administration
RCRA = Resource Conservation and Recovery Act
SARA = Superfund Amendments Reauthorization Act

ZEP STAINLESS STEEL POL Z

Version 2.1 Revision Date 02/09/2017 Print Date 09/09/2017

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP STAINLESS STEEL POL Z

Material number : ZUSSTL14

Manufacturer or supplier's details

Company : Zep Inc.

Address : 1310 Seaboard Industrial Blvd., NW
Atlanta, GA 30318

Telephone : 404-352-1680

Emergency telephone numbers

For SDS Information	:	Compliance Services 1-877-428-9937
For a Medical Emergency	:	877-541-2016 Toll Free - All Calls Recorded
For a Transportation Emergency	:	CHEMTREC: 800-424-9300 - All Calls Recorded. In the District of Columbia 202-483-7616

Recommended use of the chemical and restrictions on use

Recommended use : Cleaner

Note: This product is labeled as a consumer product in accordance with the United States Consumer Product Safety Commission regulations. The warnings presented below in this Safety Data Sheet (SDS) comply with the 2012 OSHA Hazard Communication Standard (GHS - Globally Harmonized System of Classification and Labeling). The requirements for the labeling and warnings of consumer products may differ from those required for GHS based hazard communication.

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Aerosol containing a compressed gas
Colour	amber
Odour	characteristic

GHS Classification

Flammable aerosols : Category 1
Gases under pressure : Compressed gas
Skin irritation : Category 2
Eye irritation : Category 2A
Skin sensitisation : Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.

H280 Contains gas under pressure; may explode if heated.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear eye protection/ face protection.
P280 Wear protective gloves.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
Storage:
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
Disposal:
Dispose of contents/container in accordance with local regulation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration [%]
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	>= 50 - < 70
Distillates (petroleum), hydrotreated light	64742-47-8	>= 10 - < 20
Solvent naphtha (petroleum), light aliph.	64742-89-8	>= 5 - < 10
(R)-p-mentha-1,8-diene	5989-27-5	>= 1 - < 5
carbon dioxide	124-38-9	>= 1 - < 5
Solvent naphtha (petroleum), heavy aliph.	64742-96-7	>= 1 - < 5
propan-2-ol	67-63-0	>= 1 - < 5
citral	5392-40-5	>= 0.1 - < 1

The exact percentages of disclosed substances are withheld as trade secrets.

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled	:	If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of skin contact	:	If skin irritation persists, call a physician. Wash off immediately with plenty of water for at least 15 minutes. If on clothes, remove clothes.
In case of eye contact	:	Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. Rinse immediately with plenty of water for at least 15 minutes.
If swallowed	:	Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Most important symptoms and effects, both acute and delayed	:	Effects are immediate and delayed. Symptoms may include irritation, redness, pain, and rash. Effects are dependent on exposure (dose, concentration, contact time). Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Review section 2 of SDS to see all potential hazards.
Notes to physician	:	Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical Water spray jet
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Carbon dioxide (CO2) Carbon monoxide Smoke
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	:	Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Sweep up or vacuum up spillage and collect in suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Always replace cap after use.
Do not breathe vapours or spray mist.

Conditions for safe storage : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
No smoking.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Observe label precautions.
Keep in a dry, cool and well-ventilated place.
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m3	ACGIH
Distillates (petroleum), hydrotreated light	64742-47-8	TWA	500 ppm 2,000 mg/m3	OSHA Z-1
		TWA	400 ppm 1,600 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Mist)	5 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL
		PEL (particulate)	5 mg/m3	CAL PEL
carbon dioxide	124-38-9	TWA	5,000 ppm	ACGIH
		STEL	30,000 ppm	ACGIH
		TWA	5,000 ppm 9,000 mg/m3	NIOSH REL
		ST	30,000 ppm 54,000 mg/m3	NIOSH REL
		TWA	5,000 ppm 9,000 mg/m3	OSHA Z-1
		TWA	10,000 ppm 18,000 mg/m3	OSHA P0
		STEL	30,000 ppm 54,000 mg/m3	OSHA P0
		PEL	5,000 ppm 9,000 mg/m3	CAL PEL
		STEL	30,000 ppm 54,000 mg/m3	CAL PEL
propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m3	NIOSH REL
		ST	500 ppm 1,225 mg/m3	NIOSH REL
		TWA	400 ppm 980 mg/m3	OSHA Z-1
		TWA	400 ppm	OSHA P0

			980 mg/m3	
		STEL	500 ppm 1,225 mg/m3	OSHA P0
		PEL	400 ppm 980 mg/m3	CAL PEL
		STEL	500 ppm 1,225 mg/m3	CAL PEL
citral	5392-40-5	TWA (Inhalable fraction and vapor)	5 ppm	ACGIH

Biological occupational exposure limits

Component	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
PROPAN-2-OL	67-63-0	Acetone	Urine	End of shift at end of workweek	40 mg/l	ACGIH BEI

Engineering measures : effective ventilation in all processing areas

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Hand protection
Material : Protective gloves
Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Ensure that eyewash stations and safety showers are close to the workstation location.
Tightly fitting safety goggles

Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Aerosol containing a compressed gas
Colour	:	amber
Odour	:	characteristic
Odour Threshold	:	No data available
pH	:	Not applicable
Melting point/freezing point	:	No data available
Boiling point	:	82.22 °C
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Extremely flammable aerosol.
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Density	:	0.856 g/cm3
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	not determined
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	not determined
Thermal decomposition	:	No data available
Viscosity		
Viscosity, kinematic	:	No data available
Heat of combustion	:	44.04 kJ/g

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed. Vapours may form explosive mixture with air.
Conditions to avoid	:	Heat, flames and sparks. Extremes of temperature and direct sunlight.

Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition products	:	Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Aggravated Medical Condition	:	None known.
Symptoms of Overexposure	:	Effects are immediate and delayed. Symptoms may include irritation, redness, pain, and rash. Effects are dependent on exposure (dose, concentration, contact time).

Carcinogenicity:

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Acute oral toxicity	:	LD50 Rat: > 5,000 mg/kg
Acute inhalation toxicity	:	LC50 Rat: > 5 mg/l Exposure time: 4 h
Acute dermal toxicity	:	LD50 Rabbit: > 5,000 mg/kg

Distillates (petroleum), hydrotreated light:

Acute oral toxicity	:	LD50 Rat: > 5,000 mg/kg

Acute inhalation toxicity	:	LC50 Rat: > 4.6 mg/l Exposure time: 6 h
Acute dermal toxicity	:	LD50 Rat: > 2,000 mg/kg

(R)-p-mentha-1,8-diene:

Acute oral toxicity	:	LD50 Oral Rat: 4,400 mg/kg
Acute dermal toxicity	:	LD50 Dermal Rabbit: > 5,000 mg/kg

propan-2-ol:

Acute oral toxicity	:	LD50 Oral Rat: 4,396 mg/kg Method: Calculation method

Skin corrosion/irritation

Product:

Remarks: Irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks: Irritating to eyes.

Respiratory or skin sensitisation

Product:

Remarks: Causes sensitisation.

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Distillates (petroleum), hydrotreated heavy naphthenic:
Distillates (petroleum), hydrotreated light:
Solvent naphtha (petroleum), light aliph.:
(R)-p-mentha-1,8-diene:
carbon dioxide:
Solvent naphtha (petroleum), heavy aliph.:
propan-2-ol:
citral:

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information

Product:

Remarks: No data available

Components:
Distillates (petroleum), hydrotreated light:
Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

Product:

Partition coefficient: n-octanol/water	:	Remarks: No data available

Components:
citral :

Partition coefficient: n-octanol/water	:	Pow: 2.76

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation	40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life.

Components:
Distillates (petroleum), hydrotreated light :

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Dispose of in accordance with local regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
UN1950, Aerosols, 2.1, - Limited quantity

Transportation Regulation: IMDG (Vessel):
UN1950, AEROSOLS, 2.1, - Limited quantity

Transportation Regulation: IATA (Cargo Air):
UN1950, Aerosols, flammable, 2.1, - Limited quantity

Transportation Regulation: IATA (Passenger Air):
UN1950, Aerosols, flammable, 2.1, - Limited quantity

Transportation Regulation: TDG (Canada):
UN1950, AEROSOLS, 2.1, - Limited quantity

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

SECTION 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.
No substances are subject to TSCA 12(b) export notification requirements.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards	:	Sudden Release of Pressure Hazard Acute Health Hazard Fire Hazard
SARA 302	:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
California Prop 65		This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA	On TSCA Inventory
DSL	This product contains the following components that are not on the Canadian DSL nor NDSL.

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

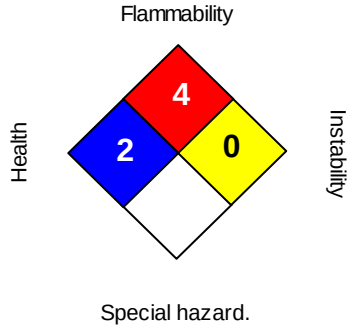
Inventory Acronym and Validity Area Legend:

TSCA (USA), DSL (Canada), NDSL (Canada)

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	2
FLAMMABILITY	4
PHYSICAL HAZARD	2

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

OSHA - GHS Label Information:

Hazard pictograms :

Signal word : **Danger:**

Hazard statements : Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

Precautionary statements :

Prevention: Keep away from heat/sparks/open flames/hot surfaces. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear eye protection/ face protection. Wear protective gloves.
Response: IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.
Storage: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
Disposal: Dispose of contents/container in accordance with local regulation.

Version:	2.1
Revision Date:	02/09/2017
Print Date:	09/09/2017

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes. This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®,Zep Professional®, Enforcer®, National Chemical™, Selig™, Misty®, Next Dimension™, Petro®, i-Chem®, TimeMist®, TimeWick™, MicrobeMax®, Country Vet®, Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National™, FC Forward Chemicals®,Rexodan®, Mykal™, and a number of private labeled brands.