

Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Product Name: DuraSeal Liquid
Company Identification:
Reliance Dental Mfg., LLC.
5805 W. 117th Place
Alsip, IL 60803

For Product Information, call: 708-597-6694 **For Medical Information, call:** 800-535-5053

Section 2 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colourless. Flash Point: 50 deg F. **Danger! Flammable liquid and vapor.** Corrosive. Light sensitive. Air sensitive. Heat sensitive. May form explosive peroxides. Sensitizer. May cause severe eye and skin irritation with possible burns. May cause respiratory and digestive tract irritation. May cause central nervous system depression. May cause liver and kidney damage. May cause allergic respiratory reaction. May cause allergic skin reaction. May cause reproductive and fetal effects.

Target Organs: Kidneys, central nervous system, liver.



Potential Health Effects

Eye: Contact with eyes may cause severe irritation, and possible eye burns. May cause eye injury.

Skin: May cause severe skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.

Ingestion: May cause central nervous system depression, kidney damage, and liver damage. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause allergic reaction. Exposure may cause headache, anorexia, and irritability.

Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause allergic respiratory reaction. May cause respiratory tract irritation. May cause effects similar to those described for ingestion.

Chronic: Prolonged or repeated skin contact may cause sensitization dermatitis and possible destruction and/or ulceration. May cause reproductive and fetal effects. Repeated exposure may cause tingling in the extremities and other nervous system abnormalities.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELI NCS
80-62-6	Methyl Methacrylate Monomer Stabilized	>98	201-297-1

Hazard Symbols: XI F

Risk Phrases: 11 36/37/38 43

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 medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician: No specific antidote exists. Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors can travel to a source of ignition and flash back. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Vapor may cause flash fire. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. May form explosive peroxides. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. May polymerize explosively when involved in a fire. Containers may explode when heated.

Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Water may be ineffective. For large fires, use water spray, fog or alcohol-resistant foam. Do NOT use straight streams of water. Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Scoop up with a nonsparking tool, then place into a suitable container for disposal. Remove all sources of ignition. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Ground and bond containers when transferring material. Avoid contact with skin and eyes. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid ingestion and inhalation. If peroxide formation is suspected, do not open or move container. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from heat, sparks, and flame. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. After opening, purge container with nitrogen before reclosing. Periodically test for peroxide formation on long-term storage. Addition of water or appropriate reducing materials will lessen peroxide formation.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
METHYL METHACRYLATE	50 ppm TWA; 100 ppm STEL	100 ppm TWA; 410 mg/m ³ TWA 1000 ppm IDLH	100 ppm TWA; 410 mg/m ³ TWA

OSHA Vacated PELs: METHYL METHACRYLATE: 100 ppm TWA; 410 mg/m³ TWA

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Liquid **Appearance:** colourless **Odor:** sweetish odor - sharp odor **pH:** Not available.

Vapor Pressure: 28 mm Hg @ 20 deg C **Vapor Density:** 3.5 **Evaporation Rate:**3.1 (butyl acetate=1)

Viscosity: Not available. **Boiling Point:** 212 deg F **Freezing/Melting Point:**-54.4 deg F

Autoignition Temperature: 790 deg F (421.11 deg C) **Flash Point:** 50 deg F (10.00 deg C)

Decomposition Temperature:Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 3; Reactivity: 2

Explosion Limits, Lower:1.7 **Upper:** 8.2 **Solubility:** Slightly soluble in water.

Specific Gravity/Density:0.94 (water=1) **Molecular Formula:**C₅H₈O₂ **Molecular Weight:**100.0548

Section 10 - Stability and Reactivity

Chemical Stability: Stable. However, may decompose if heated. On long term storage, substances with similar functional groups form explosive peroxides.

Conditions to Avoid: High temperatures, incompatible materials, light, ignition sources, exposure to air.

Incompatibilities with Other Materials: Substance is incompatible with polymerization catalysts (peroxides, persulfates), nitric acid, strong oxidizers, amines, halogens, bases, light, heat.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: May occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 80-62-6: OZ5075000

LD50/LC50:

CAS# 80-62-6:

Inhalation, mouse: LC50 = 18500 mg/m³/2H;

Inhalation, rat: LC50 = 78000 mg/m³/4H;

Oral, mouse: LD50 = 3625 mg/kg;

Oral, rabbit: LD50 = 8700 mg/kg;

Oral, rat: LD50 = 7872 mg/kg;

Skin, rabbit: LD50 = >5 gm/kg;<BR.

Carcinogenicity:

CAS# 80-62-6:

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Group 3 carcinogen

Epidemiology: No information available.

Teratogenicity: Embryo or Fetus: Death, inhalation-rat TCLo=109g/m³/54M. Specific Developmental Abnormalities: Musculoskeletal, inhalation-rat TCLo=109g/m³/17M.

Reproductive Effects: Fertility: Post-implantation mortality, inhalation-rat TCLo=4480mg/m³/2H. Maternal Effects: Menstrual cycle changes, inhalation-rat TCLo=54mg/m³/24H.

Neurotoxicity: No information available.

Mutagenicity: Please refer to RTECS# OZ5075000 for specific information.

Other Studies: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available. **Environmental:** No information reported.

Physical: No information available. **Other:** No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: CAS# 80-62-6: waste number U162; (Ignitable waste, Toxic waste).

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	METHYL METHACRYLATE MONOMER, STABILIZED				METHYL METHACRYLATE MONOMER (FLASHPOINT 10C)
Hazard Class:	3				3(9.2)
UN Number:	UN1247				UN1247
Packing Group:	II				II

US FEDERAL

TSCA - CAS# 80-62-6 is listed on the TSCA inventory.

Health & Safety Reporting List

CAS# 80-62-6: Effective date: April 13, 1989; Sunset Date: June 30, 19 98

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ)

CAS# 80-62-6: final RQ = 1000 pounds (454 kg)

Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 80-62-6: acute, chronic, flammable, reactive.

Section 313

This material contains METHYL METHACRYLATE (CAS# 80-62-6, 98%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

Clean Air Act:

CAS# 80-62-6 is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

CAS# 80-62-6 is listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 80-62-6 can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

XI F

Risk Phrases:

R 11 Highly flammable.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 43 May cause sensitization by skin contact.

Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.

S 29 Do not empty into drains.

S 33 Take precautionary measures against static discharges.

S 9 Keep container in a well-ventilated place.

WGK (Water Danger/Protection)

CAS# 80-62-6: 1

Canada

CAS# 80-62-6 is listed on Canada's DSL List. CAS# 80-62-6 is listed on Canada's DSL List.

This product has a WHMIS classification of B2, D2B.

CAS# 80-62-6 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 80-62-6: OEL-AUSTRALIA:TWA 100 ppm (410 mg/m3) OEL-BELGIUM:TWA 100 ppm (410 mg/m3) OEL-DENMARK:TWA 75 ppm (307 mg/m3) OEL-FINLAND: TWA 100 ppm (410 mg/m3);STEL 150 ppm (615 mg/m3) OEL-FRANCE:TWA 100 ppm (410 mg/m3);STEL 200 ppm (820 mg/m3) OEL-GERMANY:TWA 50 ppm (210 mg/m3) OEL-HUNGARY:TWA 50 mg/m3;STEL 150 mg/m3 OEL-THE NETHERLANDS:TW A 100 ppm (410 mg/m3) OEL-THE PHILIPPINES:TWA 100 ppm (410 mg/m3) OEL-POLAND:TWA 50 mg/m3 OEL-RUSSIA:STEL 10 mg/m3 OEL-SWEDEN:TWA 50 ppm (200 mg/m3);STEL 150 ppm (600 mg/m3);Skin OEL-SWITZERLAND:TWA 50 ppm (210 mg/m3);STEL 100 ppm (420 mg/m3) OEL-UNITED KINGDOM:TWA 100 ppm (410 mg/m3);STEL 125 ppm OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Section 16 - Additional Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Reliance Dental Mfg. Co. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.

Revised April 4, 2016

Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Product Name: DuraSeal Powder

Company Identification:

Reliance Dental Mfg., LLC.

5805 W. 117th Place

Alsip, IL 60803

For Product Information, call: 708-597-6694 **For Medical Information, call:** 800-535-5053

Section 2 - Hazards Identification

EMERGENCY OVERVIEW:

WARNING:

For Polymer:

Acute Hazards: Eyes: OSHA classifies this material as Particulates, Not Otherwise Classified. May be irritating to the eyes by gross overexposure, no matter how generated. Symptoms of overexposure may include redness, itching, irritation, and watering. Keep dust out of eyes.

Ingestion: Not expected to cause any harmful effects. Ingestion of large amounts may be irritating if product is swallowed, may cause nausea, headache, vomiting and/or diarrhea.

Skin: May be irritating to skin in some sensitive individuals, especially after prolonged and/or repeated contact.

Inhalation: May be irritated by gross overexposure, no matter how generated.

Chronic Hazards: None known.

CARCINOGENICITY:

IARC lists Benzoyl Peroxide as unclassifiable as to carcinogenicity to humans. None of the other components of this material are listed by IARC, NTP, OSHA, or ACGIH as carcinogens.

PRIMARY ROUTES OF ENTRY: Inhalation, Skin or Eyes.

Section 3 - Composition, Information on Ingredients

Item	Chemical Name	CAS #	WT/WT%
01	Polymer	9003-42-3	60.0-100.0
02	Benzoyl Peroxide	94-36-0	0.0-5.0

ITEM	ACGIH		OSHA Company		Recommendation	SKIN
	TLV-TWA	TLV-STEL	PEL TWA	PEL CEILING		
01	10 mg/m ₃	NE	15 mg/m ₃	NE	15 mg/m ₃	NE
02	5 mg/m ₃	NE	5 mg/m ₃	NE	5 mg/m ₃	NE

Section 4 - First Aid Measures

EMERGENCY AND FIRST AID PROCEDURES:

EYES: If product gets in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. If irritation occurs, contact a physician.

INGESTION: If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give anything by mouth to an unconscious person. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed. Get medical attention immediately.

Section 4 - First Aid Measures Continued

INHALATION:	Remove to fresh air. Seek immediate medical attention.
SKIN:	If irritation occurs and product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the effected area with soap and water. If irritation, redness or swelling persists, contact a physician immediately.
CLOTHING:	Remove contaminated clothing, wash thoroughly before reuse.
TREATMENT:	Treat symptoms conventionally, after thorough decontamination.

Section 5 - Fire Fighting Measures

FLASH POINT:	304 °C, 580 °F
FLAMMABLE LIMIT, AIR VOL%	LOWER: NA UPPER: NA
AUTOIGNITION TEMPERATURE:	NE
EXTINGUISHER METHOD:	Water, carbon dioxide, dry chemical.
FIRE AND EXPLOSION HAZARDS:	Polymer dust is combustible. The explosive limits of the polymer particles suspended in air are approximately those of coal dust.
SPECIAL FIRE FIGHTING PROCEDURES:	Avoid extinguishing methods, which may generate dust clouds. Water stream can disperse dust into air producing a fire hazard and possible explosion hazard if exposed to ignition source.
EXPLOSION HAZARD:	Firefighters should wear self-contained breathing apparatus.
SENSITIVE TO MECHANICAL IMPACT:	For Polymer: No.
SENSITIVE TO STATIC DISCHARGE:	For Polymer: No.

Section 6 - Accidental Release Measures

ACCIDENTAL RELEASE:	Before cleaning any spill or leak, individuals involved must wear appropriate Personal Protective Equipment (e.g., goggles, gloves). Sweep up to avoid slipping hazard. Keep airborne particulates at a minimum when cleaning up spills. Dispose of properly in accordance with local, state and federal regulations. Wash all affected areas with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse.
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Section 7 - Handling and Storage

PRECAUTIONS FOR HANDLING:	Use in well ventilated areas. Avoid contact with skin, eyes and clothing. Avoid breathing dust. Use good personal hygiene and housekeeping.
PRECAUTIONS FOR STORAGE:	Store containers in a cool, dry location, away from direct sunlight, other light sources, or sources of intense heat. Keep container closed to prevent water absorption and contamination.
INDUSTRIAL HYGIENE PRACTICES:	Avoid prolonged contact with the product. Use in a well-ventilated location (e.g., local exhaust ventilation, fans). After use, wash hands and exposed skin with soap and water. Do not eat, drink or smoke while handling product.

Section 8 - Exposure Controls, Personal Protection

VENTILATION:	When working with large quantities of product provide adequate ventilation (e.g., local exhaust ventilation, fans). Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes. Use good local exhaust at processing equipment, including buffers, sanders, grinders and polishers.
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Section 8 - Exposure Controls, Personal Protection Continued

RESPIRATORY PROTECTION:	No special respiratory protection is required under typical circumstances of use or handling. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR §1910.134, or applicable U.S. state regulations, or the appropriate standards of Canada, its provinces, E.C. member states, or Australia.
EYE PROTECTION:	Depending on the use of this product, safety glasses or goggles may be worn. If necessary, refer to U.S. OSHA 29 CFR §1910.133, Canadian standards, or the European Standard EN166. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.
PROTECTIVE GLOVES:	If anticipated that prolonged & repeated skin contact will occur during use of this product, wear gloves for routine industrial use. If necessary, refer to U.S. OSHA 29 CFR §1910.138, the appropriate standards of Canada, of the E.C. member states.
OTHER PROTECTIVE EQUIPMENT:	No special body protection is required under typical circumstances of use and handling. If necessary, refer to appropriate standards of Canada, the E.C. member states, or U.S. OSHA. An eyewash station and a safety shower are recommended. High temperature processing equipment should be well ventilated.

Section 9 - Physical and Chemical Properties

APPEARANCE:	Fine clear to pigmented powder.
ODOR:	Faint odor in bulk.
pH:	NA
ODOR THRESHOLD:	ND
BOILING POINT:	NA
FREEZING POINT:	NA
VISCOSITY:	NA
SPECIFIC GRAVITY (H₂O=1):	ND
VAPOR PRESSURE:	NA
PERCENT VOLATILE W/W%:	NA
VAPOR DENSITY (AIR=1):	NA
EVAPORATION RATE (BuAc =1):	NA
SOLUBILITY IN WATER:	Insoluble.
COEFFICIENT OF WATER/OIL DISTRIBUTION:	ND

Section 10 - Stability and Reactivity

CONDITIONS TO AVOID:	Heating above 240 °C, 464 °F.
INCOMPATIBILITY (MATERIALS TO AVOID):	Strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS:	Methacrylate Monomer and Oxides of Carbon when burned.
HAZARDOUS POLYMERIZATION:	MAY OCCUR: WILL NOT OCCUR: X
STABILITY:	UNSTABLE: STABLE: X

Section 11 - Toxicological Information

TOXICITY DATA:

This product has NOT been tested on animals to obtain toxicology data. There is toxicology data for the components of the product, which is found in scientific literature. This data has not been presented in this document.

MUTAGENICITY DATA: This product is not reported to produce mutagenic effects in humans.

Section 11 - Toxicological Information Continued

REPRODUCTIVE TOXICITY DATA:

Embryotoxicity: This product is not reported to produce embryotoxic effects in humans.
Teratogenicity: This product is not reported to cause teratogenic effects in humans.
Reproductive Toxicity: This product is not reported to cause reproductive effects in humans.

Section 12 - Ecological Information

AQUATIC TOXICITY: There is no specific data available for this product; however, very large releases of this product may be harmful or fatal to overexposed aquatic life.

ENVIRONMENTAL FATE: There is no specific data available for this product.

Section 13 - Disposal Considerations

WASTE DISPOSAL METHOD: Dispose of properly in accordance with Federal, State, and Local regulations.
DISPOSAL OF EMPTY CONTAINERS: Reuse of empty drums or containers is not recommended. Employees should be advised of the potential hazards due to residual material associated with empty containers. Dispose of all empty containers properly in accordance with Federal, State and Local regulations.

Section 14 - Transport Information

DOT/UN SHIPPING NAME: POLYMER, NOI
DOT/UN CLASS:
NA/UN NUMBER:
PACKING GROUP:
LABEL:
IMDG CLASS:
IMDG PG:
CERCLA RQ:

Section 15 - Regulatory Information

SARA Reporting Requirements: NA
SARA Threshold Planning Quantity: There are no specific Threshold Planning Quantities for the components of this product.
TSCA Inventory Status: The components of this product are listed on the TSCA Inventory. For use in FDA regulated products only.
CERCLA Reportable Quantity (RQ): NA
Other Federal Requirements: This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics).
Other Canadian Regulations: This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substances List.
State Regulatory Information: This product may contain components that are covered under specific state criteria.

RISK STATEMENTS: R36/37/38 – Irritating to eyes, respiratory system and skin.
SAFETY STATEMENTS: S3 – Keep in a cool place.
S7 – Keep container tightly closed.
S9 – Keep container in a well-ventilated place.
S20 – When using do not eat or drink.
S 29 – Do not empty into drains.
S37/39 – Wear suitable gloves and eye/face protection.

Section 16 - Additional Information

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS) RATING:

HEALTH: 1
FLAMMABILITY: 1
REACTIVITY: 0
PERSONAL PROTECTIVE EQUIPMENT: Gloves and Safety Glasses or Chemical Goggles.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD IDENTIFICATION RATING:

HEALTH: 1
FLAMMABILITY: 1
REACTIVITY: 0

ABBREVIATIONS:

NA:	Not Applicable	ND:	Not Determined	NE:	Not Established
ppm:	parts per million	G:	Gallon	mg:	Milligram
L:	Liter	gm:	Gram	mol:	Mole
kg:	Kilogram	μ:	Micro	mm:	Millimeter p Pico
Pa:	Pascals	LC:	Lethal Concentration	LD:	Lethal Dose
TC:	Toxic Concentration	TD:	Toxic Dose	BOD:	Biological Oxygen Demand
COD:	Chemical Oxygen Demand			Lo:	Lowest
ThOD:	Theoretical Oxygen Demand			TIm:	Threshold Limit
H:	Hours	M:	Months	D:	Days
Y:	Years	W:	Weeks		

ACGIH: American Conference of Governmental Industrial Hygienist
CPR: Controlled Product's Regulation
DSL: Canadian Domestic Substances List
NDSL: Canadian Non-domestic Substance List
IARC: International Agency for Research for Cancer
NOEL: No Observed Effect Level
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
TLV: Threshold Limit Value

THIS MATERIAL SAFETY DATA SHEET IS PREPARED IN COMPLIANCE WITH FEDERAL REGULATIONS (29 CFR 1910.1200), THE COMMONWEALTH OF PENNSYLVANIA REGULATIONS (TITLE 34. CHAPTERS 301-323) AND CANADIAN WHMIS REGULATIONS, ANY APPLICABLE STATE AND LOCAL REGULATIONS SHOULD BE CONSULTED. THE ABOVE INFORMATION MAY BE BASED IN PART ON INFORMATION PROVIDED BY COMPONENT SUPPLIERS AND IS BELIEVED TO BE CORRECT AS OF THE DATE HEREOF. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY USE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OF THESE DATA, THE RESULTS TO BE OBTAINED FROM THE USE OF THE MATERIAL, OR THE HAZARDS CONNECTED WITH SUCH USE. SINCE THE INFORMATION CONTAINED HEREIN MAY BE APPLIED UNDER CONDITIONS BEYOND OUR CONTROL AND WITH WHICH WE MAY BE UNFAMILIAR, AND SINCE DATA MADE AVAILABLE SUBSEQUENT TO THE DATE HEREOF MAY SUGGEST MODIFICATION OF THE INFORMATION, WE ASSUME NO RESPONSIBILITY FOR THE RESULT OF ITS USE. THIS INFORMATION AND MATERIAL IS FURNISHED ON THE CONDITION THAT THE PERSON RECEIVING IT SHALL MAKE HIS/HER OWN DETERMINATION AS TO THE SUITABILITY OF THE MATERIAL FOR HIS/HER PARTICULAR PURPOSE AND ON THE CONDITION THAT HE/SHE ASSUME THE RISK OF HIS/HER USE THEREOF.

Revised April 4, 2016