SAFETY DATA SHEET

DynaTrol® II-SG Base
(Part B)

1. PRODUCT IDENTIFICATION

IDENTIFICATION of the SUBSTANCE or PREPARATION

TRADE NAME (AS LABELED): DynaTrol® II-SG Base
PRODUCT DESCRIPTION: Part B For Caulking Compound
CHEMICAL NAME/CLASS: Hydroxyl Terminated Isocyanate/Polyol Ether Polyurethane
SYNONYMS: None
RELEVANT USE: General Use Polyurethane Sealant
USES ADVISED AGAINST: Other Than Relevant Use

COMPANY/UNDERTAKING IDENTIFICATION:
SUPPLIER/MANUFACTURER’S NAME: Pecora Corporation
ADDRESS: 165 Wambold Road, Harleysville, PA 19438
EMERGENCY PHONE: 800-424-9300 (CHEMTREC, 24-hours)
BUSINESS PHONE: 215-723-6051 (Mon–Fri, 8 AM–5 PM ET)
PREPARATION DATE: January 2011
REVISION DATE: February 9, 2015

This product is sold for commercial use. This MSDS has been developed to address safety concerns of those individuals working with bulk quantities of this material, as well as those of potential users of this product in industrial/occupational settings. ALL United States Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalent Standards, and Canadian WHMIS [Controlled Products Regulations] and the Global Harmonization Standard required information is included in appropriate sections based on the U.S. ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the countries listed above.

2. HAZARD IDENTIFICATION

GLOBAL HARMONIZATION LABELING AND CLASSIFICATION: This product has been classified per GHS Standards. This product does not meet the criteria for any hazard classification and subsequently, no Signal Word, Hazard Statements, Precautionary Statements or Hazard Symbols/Pictograms are applicable.

EMERGENCY OVERVIEW:

PHYSICAL DESCRIPTION: This product is a heavy, pigmented, pourable paste with a slight odor.

HEALTH HAZARDS: CAUTION! May cause mild eye, skin, and respiratory tract irritation, especially if exposure is prolonged.

May be harmful if ingested. Contains trace amounts of crystalline silica, a known human carcinogen by inhalation.

FLAMMABILITY HAZARD: This product is combustible and can ignite if exposed to high temperature or direct flame.

REACTIVITY HAZARD: This product is not reactive.

ENVIRONMENTAL HAZARD: This product has not been tested for environmental impact.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS®)

<table>
<thead>
<tr>
<th>Health</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>0</td>
</tr>
</tbody>
</table>

See Section 16 for definitions of ratings

0 = Minimal  3 = Serious
1 = Slight  4 = Severe
2 = Moderate  * = Chronic

HMIS® is a registered trademark of the National Paint and Coatings Association.

CANADIAN WHMIS CLASSIFICATION: Class D2B. See Section 15 (Regulatory Information) for all classification details.

U.S. OSHA REGULATORY STATUS: This material has a classification under the Global Harmonization Standard, as applied under OSHA regulations, as given earlier in this Section.

3. MATERIAL IDENTIFICATION

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>W/W%</th>
<th>GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate, Natural</td>
<td>1317-65-3</td>
<td>30.0-60.0</td>
<td>SELF CLASSIFICATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Classification: Not Applicable</td>
</tr>
<tr>
<td>Proprietary Polyol</td>
<td></td>
<td>20.0-40.0</td>
<td>SELF CLASSIFICATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Classification: Not Applicable</td>
</tr>
<tr>
<td>Dibutyl Phthalate</td>
<td>68515-43-5</td>
<td>2.0-0.30.0</td>
<td>SELF CLASSIFICATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Classification: Not Applicable</td>
</tr>
</tbody>
</table>

See Section 16 for full text of classification
3. MATERIAL IDENTIFICATION (Continued)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>W/W%</th>
<th>GHS Classification Hazard Statements</th>
</tr>
</thead>
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<tr>
<td>Di(2-ethylhexyl) Phthalate</td>
<td>68648-93-1</td>
<td>0.0-25.0</td>
<td>SELF CLASSIFICATION: Classification: Not Applicable</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>13463-67-7</td>
<td>1.0-3.0</td>
<td>SELF CLASSIFICATION: Classification: Not Applicable</td>
</tr>
<tr>
<td>Calcium Oxide</td>
<td>1305-78-8</td>
<td>1.0-5.0</td>
<td>SELF CLASSIFICATION: Classification: Not Applicable</td>
</tr>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>Trace</td>
<td>SELF CLASSIFICATION: Classification: Carcinogenic Cat. 1B, Hazard Statement Codes: H350</td>
</tr>
</tbody>
</table>

Other components. Each of the other components is present in less than 1 percent concentration (0.1% concentration for potential carcinogens, reproductive toxins, respiratory tract sensitizers, and mutagens).

See Section 16 for full text of classification.

4. FIRST-AID MEASURES

PROTECTION OF FIRST AID RESPONDERS: Rescuers should not attempt to retrieve victims of exposure to this material without adequate personal protective equipment. Rescuers should be taken for medical attention, if necessary.

DESCRIPTION OF FIRST AID MEASURES: Remove victim(s) to fresh air, as quickly as possible. Only trained personnel should treat symptoms and e victim rinse mouth with water or give several cupfuls of water, if necessary.

EXTINGUISHING MEDIA:

- Suitable Extinguishing Media: Use extinguishing material suitable to the surrounding fire, including foam, halon, carbon dioxide and dry chemical.
- Unsuitable Extinguishing Media: None known.

FIREFIGHTERS:

- Special Hazards Arising from the Substance: This product is combustible and can be ignited when exposed to its flashpoint. Not sensitive to mechanical impact under normal conditions. Not sensitive to static discharge under normal conditions. Closed containers may develop pressure and rupture in event of fire.
- Special Protective Actions for Fire-Fighters: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move containers from fire area if it can be done without risk to personnel. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

5. FIRE-FIGHTING MEASURES

FLASH POINT: 105°C (220°F)  AUTOIGNITION: Unknown.

EXTINGUISHING MEDIA:

- Suitable Extinguishing Media: Use extinguishing material suitable to the surrounding fire, including foam, halon, carbon dioxide and dry chemical.
- Unsuitable Extinguishing Media: None known.

PROTECTION OF FIREFIGHTERS:

- Special Hazards Arising from the Substance: This product is combustible and can be ignited when exposed to its flashpoint. Not sensitive to mechanical impact under normal conditions. Not sensitive to static discharge under normal conditions. Closed containers may develop pressure and rupture in event of fire.
- Special Protective Actions for Fire-Fighters: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move containers from fire area if it can be done without risk to personnel. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS AND EMERGENCY PROCEDURES: An accidental release can result in a fire if exposed to ignition source. Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. Use only non-sparking tools and equipment during the response. The atmosphere must at least 19.5 percent Oxygen before non-emergency personnel can be allowed in the area without Self-Contained Breathing Apparatus and fire protection. Spills may be slippery.

PERSONAL PROTECTIVE EQUIPMENT: Responders should wear the level of protection appropriate to the type of chemical released, the amount of the material spilled, and the location where the incident has occurred.

Small Spills: For releases of 1 drum or less, Level D Protective Equipment (gloves, chemical resistant apron, boots, and eye protection) should be worn.
6. ACCIDENTAL RELEASE MEASURES (Continued)

PERSONAL PROTECTIVE EQUIPMENT (continued):

Large Spills: Minimum Personal Protective Equipment should be rubber gloves, rubber boots, face shield, and Tyvek suit. Minimum level of personal protective equipment for releases in which the level of oxygen is less than 19.5% or is unknown must be Level B: triple-gloves (rubber gloves and nitrile gloves over latex gloves), chemical resistant suit, fire-retardant clothing and boots, hard hat, and Self-Contained Breathing Apparatus.

METHODS FOR CLEAN-UP AND CONTAINMENT:

All Spills: Access to the spill area should be restricted. Spread should be limited by gently covering the spill with polygrips. Scrape up or pick-up spilled material, placing in suitable containers. Absorb any residual on appropriate material, such as sand. All contaminated absorbents and other materials should be placed in an appropriate container and seal. Do not mix with wastes from other materials. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations). Dispose of recovered material and report spill per regulatory requirements. Remove all residue before decontamination of spill area. Clean spill area with soap and copious amounts of water.

ENVIRONMENTAL PRECAUTIONS: Minimize use of water to prevent environmental contamination. Prevent spill or rinsate from contaminating storm drains, sewers, soil or groundwater. Place all spill residues in a suitable container and seal. Do not discharge effluent containing this product into streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

OTHER INFORMATION: U.S. regulations may require reporting of spills of this material that reach surface waters if a sheen is formed. If necessary, the toll-free phone number for the US Coast Guard National Response Center is 1-800-424-8802.

REFERENCE TO OTHER SECTIONS: See information in Section 8 (Exposure Controls – Personal Protection) and Section 13 (Disposal Considerations) for additional information.

7. HANDLING and STORAGE

PRECAUTIONS FOR SAFE HANDLING: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat or drink while handling this material. Avoid contact with eyes, skin, and clothing. Avoid breathing fumes, dusts, vapors or mist. Do not taste or swallow. Use only with adequate ventilation. Keep away from heat and flame. In the event of a spill, follow practices indicated in Section 6: ACCIDENTAL RELEASE MEASURES.

CONDITIONS FOR SAFE STORAGE: This product is stable under ordinary conditions of handling, use and storage. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials (see Section 10: STABILITY AND REACTIVITY). Keep container tightly closed when not in use. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. To prolong shelf life, store at temperatures at or below 27°C (80°F).

PRODUCT END USE: This product is used as a sealant. Follow all industry standards for use of this product.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS/CONTROL PARAMETERS:

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below.

OCCUPATIONAL/WORKPLACE EXPOSURE LIMITS/GUIDELINES:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Guideline</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate, Natural</td>
<td>1317-65-3</td>
<td>OSHA PEL TWA</td>
<td>15 mg/m³ total dust</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL TWA</td>
<td>5 mg/m³ respirable fraction</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 mg/m³ total dust</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5 mg/m³ respirable fraction</td>
</tr>
<tr>
<td>Calcium Oxide</td>
<td>1305-78-8</td>
<td>ACGIH TLV TWA</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH REL TWA</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>Diisononyl Phthalate</td>
<td>68515-43-5</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Diallyl Phthalate</td>
<td>68648-93-1</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Proprietary Polyol</td>
<td></td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>ACGIH TLV TWA</td>
<td>0.025 mg/m³ Respirable Fraction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH REL TWA</td>
<td>30 mg/m³ / % SiO2 + 2 Total Dust; 10 mg/m³ / % SiO2 + 2 Respirable Fraction</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.05 mg/m³ (Respirable Dust)</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>13463-67-7</td>
<td>ACGIH TLV TWA</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH REL TWA</td>
<td>15 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lowest feasible concentration (LOQ 0.2 mg/m³)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DFG MAK TWA</td>
<td>1.5 mg/m³ respirable fraction</td>
</tr>
</tbody>
</table>

NE = Not Established. See Section 16 for Definitions of Terms Used.


EYE/FACE PROTECTION: Use approved safety goggles or safety glasses. If necessary, refer to appropriate regulations and standards.

SKIN PROTECTION: Wear chemical impervious gloves (e.g., Nitrile or Neoprene). Use triple gloves for spill response. If necessary, refer to appropriate regulations and standards.
8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

PERSONAL PROTECTIVE EQUIPMENT (PPE) [continued]:

BODY PROTECTION: Use body protection appropriate for task (e.g., lab coat, coveralls, Tyvek suit). If necessary, refer to the OSHA Technical Manual (Section VII: Personal Protective Equipment) or appropriate Standards of Canada. If a hazard to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee’s feet may be exposed to electrical hazards, use foot protection, as described in appropriate regulations and standards.

RESPIRATORY PROTECTION: If mists or sprays from this product are created during use, use appropriate respiratory protection. If necessary, use only respiratory protection authorized in appropriate regulations. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece pressure demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under appropriate regulations and standards.

9. PHYSICAL and CHEMICAL PROPERTIES

FORM: Heavy, pourable paste.

MOLECULAR WEIGHT: Mixture.

ODOR: Mild.

SPECIFIC GRAVITY: 1.51

RELATIVE VAPOR DENSITY (air = 1): Heavier than air.

SOLUBILITY IN WATER: Insoluble.

MEETING/FREEZING POINT: Not available.

VOC: 25 g/L

FLASH POINT: 105°C (220°F)

pH: Not available.

FLAMMABLE LIMITS (in air by volume, %): Lower: Not established; Upper: Not established.

COEFFICIENT OF OIL/WATER DISTRIBUTION (PARTITION COEFFICIENT): Not established.

HOW TO DETECT THIS SUBSTANCE (IDENTIFYING PROPERTIES): The appearance of this product may act as an identifying property in the event of an accidental release.

10. STABILITY and REACTIVITY

CHEMICAL STABILITY: Stable under normal circumstances of use and handling. May absorb small amounts of moisture. May form peroxides on long standing due to the Mixed Polyether Polymer component.

CONDITIONS TO AVOID: Avoid contact with incompatible chemicals and exposure to extreme temperatures.

INCOMPATIBLE MATERIALS: This product is not compatible with strong acids, alkalies and oxidizers, ketones and isocyanates.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion: Thermal decomposition of this product can generate carbon, calcium, titanium and nitrogen oxides, nitriles and formaldehyde. Hydrolysis: Not known.

POSSIBILITY OF HAZARDOUS REACTIONS/POLYMERIZATION: This product is not expected to undergo hazardous polymerization, decomposition, condensation, or self-reactivity. Product slowly cures upon contact with moisture in air.

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS: The most significant routes of occupational overexposure are inhalation and contact with skin and eyes. The symptoms of overexposure to this product are as follows:

CONTACT WITH SKIN or EYES: Contact may mildly irritate the skin. Prolonged or repeated skin contact may cause dermatitis (dry, red skin). Eye contact may cause redness, pain, and tearing.

SKIN ABSORPTION: The components of this product are not known to be absorbed through intact skin.

INGESTION: If the product is swallowed, it may mildly irritate the mouth, throat, and other tissues of the gastro-intestinal system and may cause nausea, vomiting, and diarrhea.

INHALATION: Overexposure to vapors of this product generated during curing, or dusts of this product generated during use after curing may mildly irritate the respiratory tract and cause coughing and sneezing. Vapors or fumes when used in an enclosed space, if heated or during curing may cause irritation of the respiratory system. Symptoms include nose irritation, dry or sore or burning throat, runny nose, shortness of breath.

INJECTION: Accidental injection of this product (e.g. puncture with a contaminated object) may cause burning, redness, and swelling in addition to the wound.

TARGET ORGANS: Acute: Skin, eyes, central nervous system. Chronic: Skin, respiratory system.

CHRONIC EFFECTS: Prolonged or repeated skin contact may cause dermatitis (dry, red skin).

TOXICITY DATA: There are currently no toxicity data available for this product; the following toxicology information is available for components greater than 1% in concentration:

CALCIUM CARBONATE, NATURAL:

TDLo (Intravenous-Rat) 30 mg/kg: Vascular: BP lowering not characterized in autonomic section; Lungs, Thorax, or Respiration: changes in lung weight; Blood: other changes

TCLo (Inhalation-Rat) 84 mg/m³/4 hours/40 weeks-intermittent: Lungs, Thorax, or Respiration: fibrosis (interstitial); Liver: other changes; Kidney/Ureter/Bladder: other changes

TCLo (Inhalation-Rat) 250 mg/m³/2 hours/24 weeks-intermittent: Lungs, Thorax, or Respiration: fibrosis, focal (pneumoconiosis)

CALCIUM OXIDE:

LD₅₀ (Intraperitoneal-Mouse) 3059 mg/kg

TITANIUM DIOXIDE:

LD₅₀ (Oral-Rat) > 100 µg/kg: Lungs, Thorax, or Respiration: structural or functional change in trachea or bronchi; Blood: changes in serum composition (e.g. TP, bilirubin, cholesterol); Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels; other Enzymes

12. SUMMARY

The information presented in this document is based on the available data and is intended to provide a general overview of the product's characteristics and potential hazards. It is important to consult the product's Material Safety Data Sheet (MSDS) and relevant regulatory standards for comprehensive safety information. The user is responsible for ensuring compliance with all applicable laws and regulations. The information provided is not a substitute for a thorough risk assessment and proper training. Safety, health, and environmental issues must be considered when handling and using this product. Always follow the instructions and warnings provided by the manufacturer.
11. TOXICOLOGICAL INFORMATION (Continued)

TOXICITY DATA (continued):

TITANIUM DIOXIDE (continued):
TLD (Intratracheal-Rat) 260 mg/kg/84 weeks-intermittent; Tumorogenic; equivocal tumorigenic agent by RTECS criteria; Blood: lymphoma, including Hodgkin's disease; Tumorogenic: tumors at site of application
TLD (Oral-Rat) 60 gm/kg; Gastrointestinal: hypermetabolism, diarrhea, other changes
TLD (Intramuscular-Rat) 360 mg/kg/2 years-intermittent; Tumorogenic: neoplastic by RTECS criteria; Blood: lymphoma, including Hodgkin's disease; Tumorogenic: tumors at site of application
TLD (Intratracheal-Rat) 1.25 mg/kg; Vascular: regional or general arteriolar constriction; Lungs, Thorax, or Respiration: other changes
TLD (Intratracheal-Rat) 1.6 mg/kg; Lungs, Thorax, or Respiration: other changes
TLD (Intratracheal-Rat) 5 mg/kg; Lungs, Thorax, or Respiration: other changes; Biochemical: Metabolism (Intermediary): effect on inflammation or mediation of inflammation
TLD (Intratracheal-Mouse) 100 mg/kg; Tumorogenic: increased incidence of tumors in susceptible strains
TCLo (Inhalation-Rat) 1 mg/kg; Lungs, Thorax, or Respiration: other changes; Biochemical: Metabolism (Intermediary): effect on inflammation or mediation of inflammation
TCLo (Inhalation-Rat) 250 mg/m³/6 hours/4 weeks-intermittent; Lungs, Thorax, or Respiration: chronic pulmonary edema, other changes
TCLo (Inhalation-Rat) 50 mg/m³/6 hours/13 weeks-intermittent; Lungs, Thorax, or Respiration: structural or functional change in trachea or bronchi
TCLo (Inhalation-Rat) 10 mg/m³/6 hours/13 weeks-intermittent; Lungs, Thorax, or Respiration: fibrosis (interstitial), other changes; Biochemical: Metabolism (Intermediary): effect on inflammation or mediation of inflammation
TCLo (Inhalation-Rat) 50 mg/m³/13 weeks-intermittent; Lungs, Thorax, or Respiration: sputum; Blood: changes in cell count (unspecified); Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: dehydrogenases
TCLo (Inhalation-Rat) 250 mg/m³/6 hours/13 weeks-intermittent; Lungs, Thorax, or Respiration: sputum; Blood: changes in cell count (unspecified); Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: dehydrogenases
TCLo (Inhalation-Rat) 274 mg/m³/6 hours/2 years-intermittent; Lungs, Thorax, or Respiration: changes in lung weight; Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: multiple enzyme effects, Metabolism (Intermediate): effect on inflammation or mediation of inflammation
TCLo (Inhalation-Rat) 250 mg/m³/6 hours/2 years-intermittent; Tumorogenic: carcinogenic by RTECS criteria; Lungs, Thorax, or Respiration: tumors
TCLo (Inhalation-Mouse) 10 mg/m³/6 hours/13 weeks-intermittent; Lungs, Thorax, or Respiration: other changes; Biochemical: Metabolism (Intermediate): effect on inflammation or mediation of inflammation
TCLo (Inhalation-Mouse) 10 mg/m³/6 hours/13 weeks-intermittent; Lungs, Thorax, or Respiration: structural or functional change in trachea or bronchi
TCLo (Inhalation-Mouse) 10 mg/m³/13 weeks-intermittent; Lungs, Thorax, or Respiration: other changes; Biochemical: Metabolism (Intermediate): effect on inflammation or mediation of inflammation
TCLo (Inhalation-Mouse) 50 mg/m³/13 weeks-intermittent; Lungs, Thorax, or Respiration: sputum; Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: dehydrogenases
TCLo (Inhalation-Mouse) 250 mg/m³/13 weeks-intermittent; Lungs, Thorax, or Respiration: sputum; Blood: changes in cell count (unspecified); Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: dehydrogenases
TCLo (Inhalation-Hamster) 250 mg/m³/6 hours/13 weeks-intermittent; Lungs, Thorax, or Respiration: structural or functional change in trachea or bronchi
DNA Damage (Human Lung) 100 µg/plate
DNA Damage (Human Lung) 20 µg/disk/4 hours
Sister Chromatid Exchange (Human Lymphocyte) 2 µmol/L/72 hours
Micronucleus Test (Human Lymphocyte) 5 µmol/L/72 hours
Micronucleus Test (Intrapertitoneal-Mouse) 0.03 µmol/kg/3 days-continuous
Micronucleus Test (Hamster Ovary) 5 µmol/L
DNA Inhibition (Hamster Lung) 500 µg/mL
Sister Chromatid Exchange (Hamster Ovary) ≤ 1 µmol/L

CARCINOGENIC POTENTIAL: The table on the following page summarizes the carcinogenicity listing for the components of this product. “NO” indicates that the substance is not considered to be or suspected to be a carcinogen by the listed agency, see section 16 for definitions of other ratings.

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>EPA</th>
<th>IARC</th>
<th>NTP</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>PROP 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate (Natural)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Calcium Oxide</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Diisononyl Phthalate</td>
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<td>No</td>
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<td>No</td>
</tr>
<tr>
<td>Proprietary Polyol</td>
<td>No</td>
<td>No</td>
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<td>No</td>
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</tr>
<tr>
<td>Quartz</td>
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<td>K</td>
<td>Ca</td>
<td>A2</td>
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</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(airborne, unbound particles of respirable size)</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>No</td>
<td>2B</td>
<td>No</td>
<td>Ca</td>
<td>A4</td>
<td>No</td>
<td>No</td>
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</tbody>
</table>


IRRITANT OF PRODUCT: This product may mildly irritate contaminated tissue, especially if contact is prolonged. Eye irritation may be more pronounced.

SENSITIZATION TO THE PRODUCT: This product and its components are not known to cause sensitization to cause human skin or respiratory protection.

TOXICOLOGICAL SYNERGISTIC PRODUCTS: None known.

REPRODUCTIVE TOXICITY INFORMATION: This product has not been tested for reproductive toxicity.

MUTAGENICITY/EMBRYOTOXICITY/TERATOGENICITY/REPRODUCTIVE TOXICITY: No information available.

BIOLOGICAL EXPOSURES INDICES (BEIs): There are no BEI’s established for any component of this product at this time.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

MOBILITY: This product has not been tested for mobility in soil.

PERSISTENCE AND BIODEGRADABILITY: This product has not been tested for persistence or biodegradability.

ECOTOXICITY: This product has not been tested for aquatic or animal toxicity.

OTHER ADVERSE EFFECTS: This material is not expected to have any ozone depletion potential.

ENVIRONMENTAL EXPOSURE CONTROLS: Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: As supplied, this product would not be a hazardous waste as defined by U.S. federal regulation (40 CFR 261) if discarded or disposed. State and local regulations may differ from federal regulations. The generator of the waste is responsible for proper waste determination and management.

U.S. EPA WASTE NUMBER: Not applicable.
14. TRANSPORTATION INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: This product is NOT classified as Dangerous Goods, per U.S. DOT regulations, under 49 CFR 172.101.

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This product is NOT classified as Dangerous Goods, per regulations of Transport Canada.

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is NOT classified as dangerous goods, per the International Air Transport Association.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is not classified as dangerous goods, per the International Maritime Organization.

15. REGULATORY INFORMATION

ADDITIONAL U.S. REGULATIONS:
- U.S. SARA REPORTING REQUIREMENTS: No components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.
- U.S. SARA 302 EXTREMELY HAZARDOUS THRESHOLD PLANNING QUANTITY (TPQ): Not applicable.
- U.S. SARA 304 EXTREMELY HAZARDOUS REPORTABLE QUANTITY (RQ): Not applicable.
- U.S. SARA HAZARD CATEGORIES (SECTION 311/312, 40 CFR 370-21): ACUTE: Yes; CHRONIC: Yes; FIRE: No; REACTIVE: No; SUDDEN RELEASE: No
- U.S. TSCA INVENTORY STATUS: All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
- U.S. CERCLA REPORTABLE QUANTITY (RQ): Not applicable.
- U.S. CLEAN AIR ACT (CA 112r) THRESHOLD QUANTITY (TQ): Not applicable.
- OTHER U.S. FEDERAL REGULATIONS: Not applicable.
- CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): The trace Quartz component (airborne, unbound particles of respirable size) is found on the Proposition 65 List of chemicals known to the state to cause cancer. Due to the form of the product, the Proposition 65 warning is not applicable to this compound in this product.

ADDITIONAL CANADIAN REGULATIONS:
- CANADIAN DSL/NSDL INVENTORY STATUS: The components of this product are listed on the DSL Inventory.
- CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: No component of this product is on the CEPA Priorities Substances Lists.
- CANADIAN WHMIS REGULATIONS: This product is classified as a Controlled Product, Hazard Class D2B (Irritation, Sensitization) as per the Controlled Product Regulations.

ADDITIONAL MEXICAN REGULATIONS:
- MEXICAN WORKPLACE REGULATIONS (NOM-018-STPS-2000): This product is not classified as hazardous.

16. OTHER INFORMATION

WARNINGS (per ANSI Z129.1): CAUTION! MAY BE HARMFUL IF INGESTED. MAY CAUSE EYE, SKIN, AND RESPIRATORY TRACT IRRITATION, ESPECIALLY IF EXPOSURE IS PROLONGED. CONTAINS TRACE AMOUNT OF CRYSTALLINE SILICA, A KNOWN HUMAN CARCINOGEN. COMBUSTIBLE – CAN IGNITE IF EXPOSED TO DIRECT FLAME. Avoid contact with eyes, skin, and clothing. Avoid breathing fumes, dusts, vapors or mist. Do not taste or swallow. Wash thoroughly after handling. Keep container tightly closed. Use only with adequate ventilation. Keep away from heat and flame. Wear gloves, eye protection, respiratory protection, and appropriate body protection. FIRST-AID: In case of contact, immediately flush skin and eyes with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, do not induce vomiting. Get medical attention. IN CASE OF FIRE: Use water fog, foam, dry chemical, or CO₂. IN CASE OF SPILL: Absorb spilled product with poly pads or other suitable absorbing material. Place all spill residue in an appropriate container and seal. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada.

GLOBAL HARMONIZATION LABELING AND CLASSIFICATION: This product has been classified per GHS Standards. This product does not meet the criteria for any hazard classification and subsequently, no Signal Word, Hazard Statements, Precautionary Statements or Hazard Symbols/Pictograms are applicable.

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

The information presented in this Material Safety Data Sheet is presented in good faith based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. In no case shall the descriptions, information, data or designs provided be considered a part of our terms and conditions of sale.

All materials may present hazards and should be used with caution. Because many factors may affect processing or application/use, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices or applicable federal, state, or local laws or regulations. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.

REFERENCES AND DATA SOURCES: Contact the supplier for information.

METHODS OF EVALUATING INFORMATION FOR THE PURPOSE OF CLASSIFICATION: Bridging principles were used to classify this product.

REVISION DETAILS: August 2012. Update and revise entire MSDS to include current GHS requirements.

DATE OF PRINTING: February 9, 2015
DEFINITIONS OF TERMS

A large number of abbreviations and acronyms appear on a MSDS. Some of these, which are commonly used, include the following:

KEY ACRONYMS:

CHEMTREC: Chemical Transportation Emergency Center, a 24-hour emergency information and/or emergency response service.

CEILING LEVEL: The concentration that shall not be exceeded during any part of the working exposure.

DEG MAK: Federal Republic of Germany Maximum Concentration Values in the workplace. Exposure limits are given as TWA (Time-Weighted Average) or PEAK (short-term exposure) values.

DEG MAK Germ Cell Mutagen Categories: I: Germ cell mutagens that have been shown to increase the mutant frequency in the progeny of exposed humans. II: Germ cell mutagens that have been shown to increase the mutant frequency in the progeny of exposed experimental animals. Trisulfuride has been shown to induce genetic damage in germ cells of human animals, which produce mutagenic effects in somatic cells of mammals in vivo and have been shown to reach the germ cells in an active form. These substances are not specified as germ cell mutagens by definition. Therefore, a Category 4 for germ cell mutagens cannot apply. At some time in the future, it is conceivable that a Category 4 could be established for genotoxic substances with primary targets other than DNA [e.g. purely aneugenic substances]. If research results make this seem sensible, fger germ cell mutagens, the potency of which is considered to be so low that, provided the MAK value is observed, their contribution to genetic risk for humans is not expected to be significant.

DEG MAK and should not be exceeded in Group Classification A: A risk of damage to the developing embryo or fetus by exposure to the work material. Exposure of pregnant women to lead can lead to damage of the developing organism, even when MAK and BAT (Biological Tolerance Value for Working Materials) values are observed. It should be noted that nearly all workers may be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour TWA: Time Weighted Average exposure concentration for a conventional 8-hr (TWA) or to a 16-hr (REL) workday. Some irritants, such as acids, have higher RELs and the exposed PEL-TWA or REL-TWA: Time Limit Value: An airborne concentration of a substance that represents conditions under which nearly all workers may be repeatedly exposed without adverse effect. Even the best engineered control may not prevent exposure.

HEALTH RATING: 1 Minimal Health Hazard: No significant health risk, irritation of the skin or eyes not anticipated.

Skin Irritation: Essentially non-irritating. Mechanical irritation may occur. PII or Draize > 5.5, Eye Irritation: Slightly to mildly irritating. PII or Draize > 15.

2 Minimal Health Hazard: Risk of severe health effects with chronic exposure to a substance. Skin Irritation: Essentially non-irritating. Mechanical irritation may occur. PII or Draize > 5.5, Eye Irritation: Slightly to mildly irritating. PII or Draize > 15.

3 Minimal Health Hazard: Risk of significant health effects with chronic exposure to a substance. Skin Irritation: Slightly to mildly irritating. PII or Draize > 15. Eye Irritation: Moderately to severely irritating; high risk. PII or Draize > 80.

4 Severe Health Hazard: Moderate to severe health effects with chronic exposure to a substance. Skin Irritation: Moderately to severely irritating. PII or Draize > 80. Eye Irritation: Severe to extremely severe irritation. PII or Draize > 200.

5 Hazardous Health Hazard: Significant chance of death with chronic exposure to a substance. Skin Irritation: Severe to extremely severe irritation. PII or Draize > 1000. Eye Irritation: Severe to extremely severe irritation. PII or Draize > 5000.

HEALTH RATING: 0 Minimal Health Risk: Irritation of the skin or eyes not anticipated.

Skin Irritation: Essentially non-irritating. Mechanical irritation may occur. PII or Draize > 5.5, Eye Irritation: Slightly to mildly irritating. PII or Draize > 15.

2 Minimal Health Risk: Risk of severe health effects with chronic exposure to a substance. Skin Irritation: Essentially non-irritating. Mechanical irritation may occur. PII or Draize > 5.5, Eye Irritation: Slightly to mildly irritating. PII or Draize > 15.

3 Minimal Health Risk: Risk of significant health effects with chronic exposure to a substance. Skin Irritation: Slightly to mildly irritating. PII or Draize > 15. Eye Irritation: Moderately to severely irritating; high risk. PII or Draize > 80.

4 Severe Health Risk: Moderate to severe health effects with chronic exposure to a substance. Skin Irritation: Moderately to severely irritating. PII or Draize > 15. Eye Irritation: Severe to extremely severe irritation. PII or Draize > 80.

5 Hazardous Health Risk: Significant chance of death with chronic exposure to a substance. Skin Irritation: Severe to extremely severe irritation. PII or Draize > 1000. Eye Irritation: Severe to extremely severe irritation. PII or Draize > 5000.

Classifications in one of the following categories (A-I) should not be exceeded at any time during a workday, even if the 8-hour TWA is within the limits established for the work material. Some irritants, such as acids, have higher RELs and the exposed

WEAK: Workplace Environmental Exposure Limits from the AHA.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM HAZARD RATING: This rating system was developed by the National Pump and Coating Association and has been shown to be effective in evaluating the hazards of pump and coating materials. The ratings are intended to assist in the selection of suitable materials for specific applications. The rating system is based on a scale of 1 to 5, with 1 being the least hazardous and 5 being the most hazardous.

Ratings (1-5): 1 Minimal Hazard: No significant health risk, irritation of the skin or eyes not anticipated. Skin Irritation: Essentially non-irritating. Mechanical irritation may occur. PII or Draize > 5.5, Eye Irritation: Slightly to mildly irritating. PII or Draize > 15.

2 Minimal Hazard: Risk of severe health effects with chronic exposure to a substance. Skin Irritation: Essentially non-irritating. Mechanical irritation may occur. PII or Draize > 5.5, Eye Irritation: Slightly to mildly irritating. PII or Draize > 15.

3 Minimal Hazard: Risk of significant health effects with chronic exposure to a substance. Skin Irritation: Slightly to mildly irritating. PII or Draize > 15. Eye Irritation: Moderately to severely irritating; high risk. PII or Draize > 80.

4 Severe Hazard: Moderate to severe health effects with chronic exposure to a substance. Skin Irritation: Moderately to severely irritating. PII or Draize > 15. Eye Irritation: Severe to extremely severe irritation. PII or Draize > 80.

5 Hazardous Hazard: Significant chance of death with chronic exposure to a substance. Skin Irritation: Severe to extremely severe irritation. PII or Draize > 1000. Eye Irritation: Severe to extremely severe irritation. PII or Draize > 5000.

Defining Toxicity: The term toxicity refers to the ability of a substance to cause injury to living organisms. Toxicity is measured in terms of the concentration of a substance that will cause a specific effect in a particular species of organism. The most commonly used measure of toxicity is the LD₅₀, which represents the dose of a substance that will kill 50% of a test population under specified conditions. Other measures of toxicity include the LC₅₀, which represents the dose of a substance that will cause an effect in 50% of a test population, and the no-effect concentration (NEC), which represents the lowest concentration of a substance that will not cause an effect in a test population.

Short-Term Toxicity: The term short-term toxicity refers to the effects of a substance on living organisms over a short period of time, typically within hours or days. Short-term toxicity is measured in terms of the concentration of a substance that will cause a specific effect in a particular species of organism. The most commonly used measure of short-term toxicity is the LD₅₀, which represents the dose of a substance that will kill 50% of a test population under specified conditions.
DEFINITIONS OF TERMS (Continued):

NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS (continued):

HEALTH HAZARD (continued): 2 Materials that, under emergency conditions, can cause temporary incapacitation or residual injury. Gases with an LC50, for acute inhalation toxicity greater than 3,000 ppm but less than or equal to 5,000 ppm. Any liquid that saturated vapor concentration at 20°C (68°F) is equal to or greater than one-fifth its LC50 for acute inhalation toxicity, if its LC50 is less than or equal to 5,000 ppm.

INSTABILITY HAZARD: 0 Materials that in themselves are normally stable, but under certain conditions can become unstable at elevated temperatures and pressures. Materials that have an instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 0.01 W/mL and below 10 W/mL. Materials that do not exhibit an exotherm at temperatures less than or equal to 500°C (932°F) when tested by differential scanning calorimetry. Materials that in themselves are normally stable, but that can become unstable at elevated temperatures and pressures. Materials that have an instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 0.01 W/mL and below 10 W/mL. Materials that readily undergo violent chemical change at elevated temperatures and pressures. Materials that have an instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 10 W/mL and below 100 W/mL. Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction, but that require a strong initiating source or that must be heated under confinement before initiation. Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) for above 100 W/mL and below 1000 W/mL. Materials that are sensitive to thermal or mechanical shock at elevated temperatures and pressures. Materials that in themselves are readily capable of detonation or explosive decomposition or explosive reaction at normal temperatures and pressures. Materials that are sensitive to localized thermal or mechanical shock at normal temperatures and pressures. Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) of 1000 W/mL or greater.

FLAMMABILITY LIMITS IN AIR:

Most of the information related to fire and explosion is derived from the National Fire Protection Association (NFPA). Flash Point: Minimum temperature at which a liquid gives off sufficient vapor to form an ignitable mixture with air near the surface of the liquid or within the test vessel used.

Autogeneration Temperature: Minimum temperature of a solid, liquid, or gas required to initiate or cause self-sustained combustion in air with no other source of ignition. LEL: Lowest concentration of a flammable vapor or gas mixture that will ignite and burn with a flame. UEL: Highest concentration of a flammable vapor or gas mixture that will ignite and burn with a flame.

TOXICOLOGICAL INFORMATION:

Human and Animal Toxicology: Possible health hazards as derived from human data, animal studies, or results of studies with similar compounds or materials. Lethal Dose: solids and liquids that kills 50% of the exposed animals. LC50: Lethal Concentration (gases) that kills 50% of the exposed animals. ppm: Concentration expressed in parts of material per million parts of air or water. mg/kg: Concentration expressed in weight of substance per weight of animal. mL: Quantity of material, by weight, administered to a test subject, based on their body weight in kg. TDLo: Lowest dose to cause a symptom. TCLo: Lowest concentration to cause a symptom. TD5, TD10, LC5, LC10, and LC50: Lowest dose (or concentration) to cause lethal or toxic effects.

Cancer Information: IARC: International Agency for Research on Cancer. NTP: National Toxicology Program. RTECS: Registry of Toxic Effects of Chemical Substances. IARC and NTP rate chemicals on a scale of decreasing potential to cause human cancer with rankings from 1 to 4. Substances (1, 2A, 2B, etc.) are also assigned to one of five groups: Group 1 (Carcinogenic to humans), Group 2A (Possibly carcinogenic to humans), Group 2B (Possibly carcinogenic to humans), Group 3 (Not classifiable as to its carcinogenicity to humans), and Group 4 (Not carcinogenic to humans).

External Exposure Indices: represent the levels of determinants which are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker in a particular occupation exposed to the hazards.

REPRODUCTIVE INFORMATION: A mutagen is a chemical that causes changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryo-toxic is a chemical that causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical that causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance that interferes in any way with the reproductive process.

ECOLOGICAL INFORMATION:

This section explains the impact of various laws and regulations on the material.

U.S.:


REGULATORY INFORMATION:

This section also includes information on the precautionary warnings that appear on the material’s package label.