SAFETY DATA SHEET


1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY UNDERTAKING

IDENTIFICATION OF THE MIXTURE

TRADE/MATERIAL NAME: SpecSeal® Series ES Sealant
CHEMICAL NAMES: Acrylic Polymer Mixture
SYNONYMS: None
RELEVANT USE of the SUBSTANCE: Sealant
USES ADVISED AGAINST: Other than Relevant Use

SPECIFIED TECHNOLOGIES, INC.

Address: 210 Evans Way,
Somerville, New Jersey 08876
(908) 526-8000 (8:00am to 5:00pm Eastern Standard Time)

U.S., Canada: 1-800-255-3924 (24 hrs)
International: +1-813-248-0585 (Collect-24 hrs)

KOREAN ISHA (Notice 2009-68) LABELING AND CLASSIFICATION: Classified in accordance with ISHA Notice 2009-68. Under ISHA, no differences in classification are applicable.

2. HAZARD IDENTIFICATION

GLOBAL HARMONIZATION AND JAPANESE JIS Z7253 LABELING AND CLASSIFICATION: This product has been classified per UN GHS Standards under U.S., Japanese and other applicable regulations that require Global Harmonization compliance.

Classification: Carcinogenic Cat. 2, Eye Irritation Cat. 2A, STOT (Inhalation-Respiratory Irritation) SE Cat. 3, Aquatic Acute Toxicity Cat. 3, Aquatic Chronic Toxicity Cat. 3

Hazard Symbols: GHS07, GHS08

EMERGENCY OVERVIEW: Product Description: This product is a blue paste with a mild ammonia odor. Health Hazards: May be harmful if accidentally ingested. Inhalation of vapors or fume if product is heated may cause headache, nausea and respiratory irritation. Eye contact with vapors or fume may also cause irritation. Brief skin contact is not expected to cause adverse effects. Prolonged skin contact may cause irritation. This product contains a known human carcinogen and a suspect carcinogen by inhalation; however, this hazard is not expected to be significant due to viscosity of the product. Flammability Hazards: This product is formulated to be non-flammable and non-combustible. If involved in a fire, this product will release smoke, acrid vapors and toxic gases (e.g., calcium, carbon, magnesium and titanium oxides, and acrylic monomers). Reactivity Hazards: This product is not reactive. Environmental Hazards: This product has not been tested for potential hazards if released to the environment; however the Proprietary Benzoate Esters component may cause acute and chronic harm to aquatic organisms. All release should be avoided. Emergency Considerations: Emergency responders should wear appropriate protection for the situation to which they respond.

3. COMPOSITION and INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Chinese IECSC Inventory</th>
<th>Japanese ENCS #</th>
<th>Korean ECL #</th>
<th>Taiwan NESCI/ECSC</th>
<th>WT%</th>
<th>LABEL ELEMENTS</th>
</tr>
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<tbody>
<tr>
<td>Ground limestone</td>
<td>1317-65-3</td>
<td>Listed</td>
<td>Exempted as Mineral</td>
<td>KE-21996</td>
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<td>40-50</td>
<td>GHS &amp; Japanese JIS Z7253 Classification Not Applicable</td>
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<tr>
<td>Proprietary Acrylic Polymer</td>
<td>Not Available</td>
<td>Not Determined</td>
<td>Not Determined</td>
<td>Not Determined</td>
<td>Not Determined</td>
<td>30-40</td>
<td>GHS Hazard Codes Classification Not Applicable</td>
</tr>
</tbody>
</table>

See Section 16 for full text of classification
3. COMPOSITION and INFORMATION ON INGREDIENTS (Continued)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Chinese IECSC Inventory</th>
<th>Japanese ENCS #</th>
<th>Korean ECL #</th>
<th>Taiwan NESCI ECS</th>
<th>WT%</th>
<th>Label Elements</th>
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<tbody>
<tr>
<td>Proprietary Benzoate Esters</td>
<td>Not Available</td>
<td>Not Determined</td>
<td>Not Determined</td>
<td>Not Determined</td>
<td>Not Determined</td>
<td>2-6%</td>
<td>SELF CLASSIFICATION</td>
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<td>GHS &amp; JAPANESE JIS Z7253, KOREAN ISHA:</td>
</tr>
<tr>
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<td>Classification: Acute Dermal Toxicity Cat. 5,</td>
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<td></td>
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<td></td>
<td></td>
<td>Acute Inhalation Toxicity Cat. 5, Aquatic Chronic</td>
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<tr>
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<td></td>
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<td></td>
<td>Toxicity Cat. 2</td>
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<td>Hazard Codes: H313, H333, H401, H411</td>
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<td>Propylene Glycol</td>
<td>57-55-6</td>
<td>Listed</td>
<td>2-234</td>
<td>KE-29267</td>
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<td>1-2%</td>
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<tr>
<td>Titanium Dioxide</td>
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<td>1-558</td>
<td>KE-33390</td>
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<td>SELF CLASSIFICATION</td>
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<td>GHS &amp; JAPANESE JIS Z7253, KOREAN ISHA:</td>
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<tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>Classification: Carcinogenic Cat. 2</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Hazard Codes: H351i</td>
</tr>
<tr>
<td>Crystalline Silica</td>
<td>14808-60-7</td>
<td>Listed</td>
<td>1-548</td>
<td>KE-29983</td>
<td></td>
<td>0.5- 0.9%</td>
<td>SELF CLASSIFICATION</td>
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<td>GHS &amp; JAPANESE JIS Z7253, KOREAN ISHA:</td>
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<td>Classification: Carcinogenic Cat. 1, STOT (Inhalation-Lungs) RE Cat. 2</td>
</tr>
<tr>
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<td></td>
<td>Hazard Codes: H350, H373</td>
</tr>
</tbody>
</table>

Water and Other Trace Ingredients Balance Classification Not Applicable

See Section 16 for full text of Classification

4. FIRST-AID MEASURES

DESCRIPTION OF FIRST AID MEASURES: Contaminated individuals must be taken for medical attention if any adverse effects occur. Remove contaminated clothing and shoes. Take a copy of this SDS to health professional with victim. Wash clothing and thoroughly clean shoes before reuse. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Take a copy of label and SDS to physician or health professional with the contaminated individual.

Skin Exposure: If adverse skin effects occur, discontinue use and flush contaminated area. Seek medical attention if adverse effect occurs after flushing.

Inhalation: If fumes or vapors are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention if adverse effect continues after removal to fresh air.

Eye Exposure: If this product contaminates the eyes, rinse eyes under gently running water. Use sufficient force to open eyelids and then "roll" eyes while flushing. Minimum flushing is for 20 minutes. The contaminated individual must seek medical attention if any adverse effect continues after rinsing.

Ingestion: If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, DO NOT INDUCE VOMITING. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow. If victim is convulsing, maintain an open airway and obtain immediate medical attention.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing respiratory disorders may be aggravated by overexposures to this product.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT IF NEEDED: Treat symptoms and eliminate exposure.

5. FIRE-FIGHTING MEASURES

FLASH POINT: 302 °C (576 °F)

AUTOIGNITION TEMPERATURE: Not available.

FLAMMABLE LIMITS (in air by volume, %): Not applicable.

FIRE EXTINGUISHING MEDIA: Use extinguishing materials suitable for the surrounding area.

UNSUITABLE FIRE EXTINGUISHING MEDIA: None known.

UNUSUAL FIRE AND EXPLOSION HAZARDS: This product is formulated to be non-flammable and non-combustible. When involved in a fire, this material may decompose and produce irritating vapors and toxic gases (e.g., calcium, carbon, magnesium and titanium oxides, and acrylic monomers).


Explosion Sensitivity to Static Discharge: Not sensitive.

SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus (SCBA) and full protective equipment. Chemical resistant clothing may be necessary. Move containers from fire area if it can be done without risk to personnel. Water spray can be used to cool fire-exposed containers. Water fog or spray can also be used by trained firefighters to disperse this product's vapors and to protect 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: Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. Call CHEMTREC (1-800-424-9300) for emergency assistance. Or if in Canada, call CANUTEC (613-996-6666). 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.
6. ACCIDENTAL RELEASE MEASURES (Continued)

PERSONAL PROTECTIVE EQUIPMENT: Proper protective equipment should be used. Use only non-sparking tools and equipment.
Small Spills: Wear rubber gloves, splash goggles, and appropriate body protection.
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), boots, Tyvek or similar protective clothing, hard hat, and Self-Contained Breathing Apparatus.

METHODS FOR CLEAN-UP AND CONTAINMENT: Spills of this product present minimal hazard.
Small Spills: Small releases can be carefully swept up or cleaned up using a damp sponge or poly pads.
Large Spills: Large spills should be contained with a sandbag or other non-sparking vacuum.
All Spills: Place all spill residue in a double plastic bag or other containment and seal. Close off sewers and take other measures to protect human health and the environment as necessary. Rinse area with soap and water solution and follow with a water rinse.

Environmental Precautions: Avoid release to the environment. Run-off water may be contaminated by other materials and should be contained to prevent possible environmental damage.

REFERENCE TO OTHER SECTIONS: See information in Section 16 (Definition of Other Terms Used) and Section 1 (Definition of Terms Used) for additional information.

7. HANDLING and USE

PRECAUTIONS FOR SAFE HANDLING: As with all chemicals, avoid getting this material ON YOU or IN YOU. Do not eat, drink, smoke, or apply cosmetics while handling this product. Wash hands thoroughly after handling this product or containers of this product. Avoid breathing fumes or vapors generated by this product. Use in a well-ventilated location.

CONDITIONS FOR SAFE STORAGE: Store containers in a cool, dry location, away from direct sunlight, sources of intense heat. Containers should be grounded and separated from oxidizing materials by a minimum distance of 20 ft. or by a barrier of non-combustible material at least 5 ft. high having a fire-resistance rating of at least 0.5 hours. Storage areas should be made of fire resistant material. Post warning and "NO SMOKING" signs in storage and use areas as appropriate. Have appropriate extinguishing equipment in the storage area (e.g., sprinkler system, portable fire extinguishers). Do not store above 55°C (131°F)

SPECIFIC END USE(S): This product is for use as a sealant. Follow all industry standards for use of this product. Protective Practices during Maintenance of Contaminated Equipment: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain that application equipment is locked and tagged-out safely, if necessary. Collect all rinsates and dispose of according to applicable Federal, State, and local procedures.

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 (if applicable). Exhaust directly to the outside, taking necessary precautions for environmental protection.

Workplace Exposure Limits/Control Parameters:

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS #</th>
<th>EXPOSURE LIMITS IN AIR</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ACGIH-TLVs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA mg/m³</td>
</tr>
<tr>
<td>Crystalline Silica (Quartz)</td>
<td>14808-60-7</td>
<td>0.025 (resp. fract.)</td>
</tr>
<tr>
<td>Ground Limestone</td>
<td>1317-65-3</td>
<td>NE</td>
</tr>
<tr>
<td>Proprietary Acrylic Polymer</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Proprietary Benzoate Esters</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Propylene Glycol</td>
<td>57-55-6</td>
<td>NE</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>13463-67-7</td>
<td>10</td>
</tr>
</tbody>
</table>

NE = Not Established. See Section 16 for Definitions of Other Terms Used
8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

EXPOSURE LIMITS/CONTROL PARAMETERS (continued):

International Occupational Exposure Limits: Currently, the following additional exposure limit values have been established by various countries for the components of this mixture. More current limits may be available; individual countries should be consulted to determine if newer limits are available.

CRYSTALLINE SILICA:
- Australia: TWA = 0.1 mg/m³, JUL 2008
- Belgium: TWA = 0.3 mg/m³ (respirable dust), MAR 2002
- Denmark: TWA = 0.1 mg/m³ (respirable), carc, MAY 2011
- Denmark: TWA = 0.1 mg/m³ (resp.), carc, MAY 2011
- Denmark: TWA = 0.3 mg/m³ (total), MAY 2011
- Finland: TWA = 0.05 mg/m³, resp. dust, SEP 2009
- France: VME = 0.1 mg/m³, (resp), FEB 2006
- Iceland: TWA = 0.1 mg/m³ (resp. dust), NOV 2011
- Japan: OEL-C = 0.03 mg/m³ (respirable), APR 2007
- Korea: TWA = 0.1 mg/m³, 2006
- Mexico: TWA = 0.1 mg/m³ (respirable), 2004
- The Netherlands: MAC-TGG = 0.075 mg/m³, 2003
- New Zealand: TWA = 0.2 mg/m³ (respirable dust), JAN 2002
- Norway: TWA = 0.1 mg/m³ (resp. dust), JAN 1999
- Norway: TWA = 0.3 mg/m³ (total dust), JAN 1999
- Peru: TWA = 0.05 mg/m³, JUL 2005
- Russia: TWA = 1 mg/m³, STEL = 3 mg/m³, JUN 2003
- Sweden: TWA = 0.1 mg/m³ (resp. dust), JUN 2005
- Switzerland: MAK-W = 0.15 mg/m³, DEC 2006
- Thailand: TWA = 10 mg/m³ (resp. dust), JAN 1993
- Thailand: TWA = 30 mg/m³ (total dust), JAN 1993
- United Kingdom: TWA = 0.1 mg/m³ (resp. dust), OCT 2007

GROUND LIMESTONE:
- Belgium: TWA = 10 mg/m³, MAR 2002
- Hungary: TWA = 10 mg/m³, SEP 2000
- Japan: OEL = 2 mg/m³ (resp. dust), 84 mg/m³ (total dust), MAY 2012
- Korea: TWA = 10 mg/m³, 2006
- Mexico: TWA = 10 mg/m³, STEL = 20 mg/m³ (inhalable), 2004
- The Netherlands: MAC-TGG = 10 mg/m³, 2003
- New Zealand: TWA = 10 mg/m³ (inspirable dust), JAN 2002
- Poland: MAC/(TWA) = 10 mg/m³, JAN 1993
- Russia: STEL = 6 mg/m³, JUN 2003
- Switzerland: MAK-W = 3 mg/m³, resp, JAN 2011

In Argentina, Bulgaria, Colombia, Jordan, Singapore, Vietnam check ACGIH TLV


Respiratory Protection: Maintain airborne contaminant concentrations below exposure limits listed above. For materials with not listed exposure limits, minimize respiratory exposure. If necessary, use only respiratory protection authorized under appropriate regulations. Oxygen levels below 19.5% are considered IDLH by U.S. 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 U.S. OSHA’s Respiratory Protection Standard (1910.134-1998).

Eye Protection: Wear splash goggles or safety glasses as appropriate for the task.

Hand Protection: Wash hands and wrists before putting on and after removing gloves. During manufacture or other similar operations, wear the appropriate hand protection for the process. Use double gloves for spill response, as stated in Section 6 (Accidental Release Measures) of this SDS. Because all gloves are to some extent permeable and their permeability increases with time, they should be changed regularly (hourly is preferable) or immediately if torn or punctured. If necessary refer to appropriate regulations.

Skin Protection: Use appropriate protective clothing for the task (e.g., lab coat, etc.). If necessary, refer to the U.S. OSHA Technical Manual (Section VI: Personal Protective Equipment) or other appropriate regulations. Full-body chemical protective clothing is recommended for emergency response procedures. If a hazard of injury 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 U.S. OSHA and Canadian Standards.

9. PHYSICAL and CHEMICAL PROPERTIES

FORM: Paste.
MOLECULAR FORMULA: Mixture.
ODOR: Mild acridy.
FLAMMABLE LIMITS (in air by volume, %): Not applicable.
DECOMPOSITION TEMPERATURE: Not available.
AUTOIGNITION TEMPERATURE: Not available.
FREEZING/MELTING POINT: Not available.
VAPOR PRESSURE: Not available.
VAPOR DENSITY (air = 1): Not available.
EVAPORATION RATE (n-ButAc = 1): > 1
 SOLUBILITY IN WATER: Dissolves when wet; insoluble when cured.
 COEFFICIENT WATER/OIL DISTRIBUTION: Not established.

COLOR: Blue.
MOLECULAR WEIGHT: Mixture.
ODOR THRESHOLD: Not available.
OXIDIZING PROPERTIES: Not applicable.
PERCENT VOLATILE: 17-20
FLASH POINT: Not available.
BOILING POINT: 100-105°C (212-221°F)
SPECIFIC GRAVITY (water = 1): 1.2-20 gm/L
CARB VOC: 3.04 wt % (calc.)
SCAQMID (U.S. EPA Method 24): 44 gm/L
SOLUBILITY IN SOLVENTS: Not applicable.
ph: Not available.
9. PHYSICAL and CHEMICAL PROPERTIES (Continued)

HOW TO DETECT THIS SUBSTANCE (warning properties in event of accidental release): The appearance may be characteristics to distinguish a release of this product.

10. STABILITY and REACTIVITY

CHEMICAL STABILITY: This product is stable when properly stored at normal temperature and pressures (see Section 7, Handling and Storage).

DECOMPOSITION PRODUCTS: Combustion: If exposed to extremely high temperatures, thermal decomposition may generate irritating fumes and toxic gases (e.g., calcium, carbon, magnesium and titanium oxides, and acrylic monomers). Hydrolysis: None known.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: This product is incompatible with strong oxidizers.

POSSIBILITY OF HAZARDOUS POLYMERIZATION OR REACTION: Will not occur.

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

11. TOXICOLOGICAL INFORMATION

SYMPTOMS OF EXPOSURE BY ROUTE OF EXPOSURE: The health hazard information provided below is pertinent to employees using this product in an occupational setting. The following paragraphs describe the symptoms of exposure by route of exposure.

Inhalation: Inhalation of fumes or vapors may cause irritation of the nose, throat, and lungs and cause coughing. Removal of fresh air should relieve symptoms. The Crystalline Silica component is a known human carcinogen and Titanium Dioxide, as suspect carcinogen by inhalation. Due to the form of this product, this hazard is not as significant as a powdered or solid products; however, all inhalation exposure must be avoided in order to mitigate carcinogenic potential.

Contact with Skin or Eyes: Direct eye contact may cause irritation, redness, and tearing from mechanical irritation. Prolonged or repeated skin exposures may cause dermatitis (dry red skin).

Skin Absorption: Components are not known to be absorbed through intact skin.

Ingestion: Ingestion is not a significant route of occupational exposure and is unlikely to occur. If this product is swallowed, irritation of the mouth, throat, esophagus and other tissues of the digestive system may occur. Symptoms of ingestion may include nausea, vomiting, and diarrhea.

Injection: Accidental injection of this product, via laceration or puncture by a contaminated object can cause redness at the site of injection. Animal data for the Crystalline Silica component indicate that it may cause carcinogenic effects by this route of exposure.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in Lay Terms. Exposure to this product may cause the following health effects:

Acute: Inhalation of fumes or vapors may cause irritation of respiratory system. Eye contact may cause mechanical irritation.

Chronic: Prolonged or repeated skin exposure may cause dermatitis (dry red skin).

This product contains Crystalline Silica, a known human carcinogen.

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

TOXICITY DATA: Currently, the following toxicological data are available for components of 1% or more concentration. Due to the large amount of data available for the Propylene Glycol, Titanium Dioxide and Crystalline Silica components, only human data, LD50 Oral Rat and Mouse, LD50 Skin Rabbit and Rat, LC50 Inhalation Rat and Mouse, carcinogenic and mutation data are provided. Contact STI for information on additional data for these components.

GROUND LIMESTONE:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>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</td>
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<tr>
<td>TLo (Inhalation-Rat) 84 mg/m^3/4 hours/40 weeks-intermittent: Lungs, Thorax, or Respiration: fibrosis (interstitial); Liver: other changes; Kidney/Ureter/Bladder: other changes</td>
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<td>TLo (Inhalation-Rat) 250 mg/m^3/4 hours/24 weeks-intermittent: Lungs, Thorax, or Respiration: fibrosis, focal (pneumoniosis)</td>
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PROPRIETARY BENZATE ESTERS:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 (Skin-Rat) &gt; 2000 mg/kg</td>
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</tr>
<tr>
<td>LD50 (Inhalation-Rat) 4 hours &gt; 220 mg/L</td>
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PROPYLENE GLYCOL:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Draize Test (Skin-Human) 500 mg/7 days: Mild</td>
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</tr>
<tr>
<td>Standard Draize Test (Skin-Man) 104 mg/3 days-intermittent: Moderate</td>
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<tr>
<td>Standard Draize Test (Skin-Man) 10%2 days</td>
<td></td>
</tr>
<tr>
<td>Standard Draize Test (Skin-Child) 30%6 hours-continuous: Moderate</td>
<td></td>
</tr>
<tr>
<td>Open Irritation Test (Skin-woman) 30%6 hours: Mild</td>
<td></td>
</tr>
<tr>
<td>TLo (Animal) 79 gm/kg/56 weeks-intermittent: Brain and Coverings: changes in surface EEG; Behavioral: general anesthetic, convulsions or effect on seizure threshold</td>
<td></td>
</tr>
<tr>
<td>TLo (Skin-Human) 10 pH: Skin and Appendages: dermatitis, allergic (after topical exposure)</td>
<td></td>
</tr>
<tr>
<td>TLo (Parenteral-Infant) 10 gm/kg/3 days-continuous: Nutritional and Gross Metabolic: other changes</td>
<td></td>
</tr>
</tbody>
</table>

IRRITANCY OF PRODUCT: Inhalation of fumes or vapors may cause respiratory irritation. Eye contact may cause irritation. Prolonged skin contact may cause irritation.
11. TOXICOLOGICAL INFORMATION (Continued)

SENSITIZATION OF PRODUCT: This product is not currently known to cause allergic skin or respiratory reaction.

CARCINOGENIC POTENTIAL OF COMPONENTS: Components of this product are listed by agencies tracking the carcinogenic potential of chemical compounds, as follows:

- CRYSTALLINE SILICA: ACGIH-TLV-A2 (Suspected Human Carcinogen); IARC-1 (Carcinogenic to Humans); MAK-1 (Substances that Cause Cancer in Man and Can Be Assumed to Make a Significant Contribution to Cancer Risk); NIOSH-Ca (Potential Occupational Carcinogen with No Further Categorization); NTP-K (Known to Be a Human Carcinogen)

- TITANIUM DIOXIDE: ACGIH TLV-A3 (Confirmed Animal Carcinogen); IARC-3 (Unclassifiable as to Carcinogenicity in Humans); NIOSH-Ca (Potential Occupational Carcinogen, with No Further Categorization)

The remaining components are not found on the following lists: U.S. EPA, U.S. NTP, U.S. OSHA, U.S. NIOSH, GERMAN MAK, IARC, or ACGIH and therefore is neither considered to be nor suspected to be a cancer-causing agent by these agencies.

REPRODUCTIVE TOXICITY INFORMATION: Components of this product have no reported mutagenic, embryotoxic, teratogenic or reproductive toxicity.

ACGIH BIOLOGICAL EXPOSURE INDICES (BEIs): Currently, there are no ACGIH Biological Exposure Indices (BEIs) determined for this material.

DEGREE OF EFFECT TO THE HEALTH OF THE POLLUTING AGENT OF ENVIRONMENT OF WORK (per Mexican NOM-010 STPS-1999): 0

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. The mineral components are not expected to biodegrade to great extent.

BIO-ACCUMULATION POTENTIAL: This product has not been tested for bio-accumulation potential.

ECOTOXICITY: This product has not been tested for aquatic or animal toxicity. All releases to terrestrial, atmospheric and aquatic environments should be avoided. The following aquatic toxicity data are available for the Proprietary Benzoate Esters component.

- EC50 (Daphnids) 19.3 mg/L
- EC50 (Algae) 72 hours = 4.9 mg/L
- LC50 (Fish) 96 hours = 3.7 mg/L

OTHER ADVERSE EFFECTS: This material is not listed as having 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

DISPOSAL METHODS: It is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste per regulations of the area in which the waste is generated and/or disposed of. Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Shipment of wastes must be done with appropriately permitted and registered transporters.

DISPOSAL CONTAINERS: Waste materials must be placed in and shipped in appropriate 5-gallon or 55-gallon poly or metal waste pails or drums. Permeable cardboard containers are not appropriate and should not be used. Ensure that any required marking or labeling of the containers be done to all applicable regulations.

PRECAUTIONS TO BE FOLLOWED DURING WASTE HANDLING: Wear proper protective equipment when handling waste materials.

U.S. EPA WASTE NUMBER: Not applicable.

14. TRANSPORTATION INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION REGULATIONS: 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 (IATA): This product is not classified as dangerous goods under rules of IATA.

INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION: This product is not classified as Dangerous Goods by the International Maritime Organization.

OFFICIAL MEXICAN STANDARD: REGULATION FOR THE TRANSPORT OF DANGEROUS GOODS AND RESIDUES: This product is not classified as Dangerous Goods, per transport regulations of Mexico.

SINGAPORE STANDARD 288: PART A: This product has no requirements under the Specification for Caution Labeling for Hazardous Substances, Part 4: Marking of Packages, Containers and Vehicles, as it does not meet the criteria for any hazard class under this regulation.

TRANSPORT IN BULK ACCORDING TO THE IBC CODE: See the information under the individual jurisdiction listings for IBC information.

ENVIRONMENTAL HAZARDS: This material does not meet the criteria of environmentally hazardous according to the criteria of the UN Model Regulations (as reflected in the IMDG Code, ADR, RID, and ADN) and is not listed in Annex III under MARPOL 73/78.
15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:
U.S. SARA Reporting Requirements: This product is not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.
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. SARA Threshold Planning Quantity (TPQ): There are no specific Threshold Planning Quantities for components. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) may apply, per 40 CFR 370.20.
U.S. CERCLA Reportable Quantity (RQ): Not applicable.
U.S. TSCA Inventory Status: Components of this product are listed on the TSCA Inventory.
California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): The Crystalline Silica component is on the California Proposition 65 lists. WARNING! This product contains a compound known to the State of California to cause Cancer.
CANADIAN REGULATIONS:
Canadian DSL/NDSL Inventory Status: Components are on the DSL or NDSL Inventories.
Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: Components are not on the CEPA Priorities Substances Lists.
Canadian WHMIS Classification and Symbols: This product would be categorized as a Controlled Product, D2B (Other Toxic Effects-Potential Carcinogenic Effect, Irritation) as per the Controlled Product Regulations.

CHINESE REGULATIONS:
Chinese Inventory of Existing Chemical Substances Status: Components listed by CAS# are listed on the Chinese Inventory of Existing Chemical Substances (IECSC).

JAPANESE REGULATIONS:
Japanese ENCS: Components listed by CAS# are on the ENCS Inventory or are excepted.
Japanese Ministry of Economy, Trade, and Industry (METI) Status: Components are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese METI.
Poisonous and Deleterious Substances Control Law: Components are not listed as a Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law.

KOREAN REGULATIONS:
Korean Existing Chemicals List (ECL) Status: Components listed by CAS# are listed on the Korean ECL Inventory.

MEXICAN REGULATIONS:
Mexican Workplace Regulations (NOM-018-STPS-2000): This product is classified as hazardous.

SINGAPORE REGULATIONS:
List of Controlled Hazardous Substances: Components listed by CAS# are not listed on the Singapore List of Controlled Substances.
Code of Practice On Pollution Control Requirements: The components identified by CAS# in Section 2 (Composition and Information on Ingredients) NOT are subject to the requirements under the Singapore Code of Practice on Pollution Control.

TAIWANESE REGULATIONS:
Taiwan Existing Chemical Substances Inventory Status: Components listed by CAS# are listed on the Taiwan Existing Chemicals List.

16. OTHER INFORMATION

LABELING (Precautionary Statements) ANSI LABELING (Z129.1): CAUTION! MAY CAUSE MILD IRRITATION BY INHALATION AND EYE CONTACT. PROLONGED SKIN CONTACT MAY CAUSE IRRITATION. CONTAINS CRYSTALLINE SILICA, A KNOWN HUMAN CARCINOGEN BY INHALATION AND OTHER COMPONENTS THAT ARE SUSPECT CARCINOGENS BY INHALATION. CONTAINS COMPOUND THAT CAN CAUSE ACUTE AND CHRONIC HARM TO AQUATIC ORGANISMS. Avoid breathing fumes or vapors. Do not taste or swallow. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Wear appropriate eye, hand, and body protection. Avoid exposure to elevated temperatures. FIRST-AID: In case of contact, immediately flush skin or eyes with plenty of water for at least 20 minutes while removing 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: Sweep or vacuum spilled material, avoiding generation of dusts and place in suitable container. Place residual in appropriate container and seal. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations. Consult Safety Data Sheet for additional information.

GLOBAL HARMONIZATION AND JAPANESE JIS Z7253 LABELING AND CLASSIFICATION: This product has been classified per UN GHS Standards under U.S., Japanese and other applicable regulations that require Global Harmonization compliance.
Classification: Carcinogenic Category 2, Eye Irritation Category 2A, Specific Target Organ Toxicity (Inhalation-Respiratory Irritation)
Single Exposure Category 3
Signal Word: Warning
Precautionary Statements:
16. OTHER INFORMATION (Continued)

GLOBAL HARMONIZATION AND JAPANESE JIS Z7253 LABELING AND CLASSIFICATION (continued):

Precautionary Statements (continued):
Response: P300 + P313: IF exposed or concerned: Get medical advice/attention. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. P337 + P313: If eye irritation persists: Get medical advice/attention. P304 + P340: If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. P312: Call a POISON CENTER or doctor if you feel unwell. P321: Specific treatment (remove from exposure and treat symptoms).
Disposal: P501: Dispose of contents/container in accordance with all local, regional, national and international regulations.

Hazard Symbols: GHS07, GHS08

KOREANISHA (Notice 2009-68) LABELING AND CLASSIFICATION: Classified in accordance with ISHA Notice 2009-68. Under ISHA, no differences in classification are applicable.

COMPONENT CLASSIFICATION:
Labeling and Classification Full Text under GHS:
Crystalline Silica: This is a self-classification.
Classification: Carcinogenic Category 1, Specific Target Organ Toxicity (Inhalation-Lungs) Repeated Exposure Category 2
Hazard Statements: H350: May cause cancer. H373: May cause damage to lungs through prolonged or repeated exposure by inhalation.

Proprietary Benzoate Esters: This is a self-classification.
Classification: Acute Dermal Toxicity Category 5, Acute Inhalation Toxicity Category 5, Acute Acute Toxicity Category 2, Acute Chronic Toxicity Category 2
Hazard Statements: H315: May be harmful in contact with skin. H335: May be harmful if inhaled. H401: Toxic to aquatic life. H411: Toxic to aquatic life with long-lasting effects.

Titanium Dioxide: This is a self-classification.
Classification: Carcinogenic Category 2
Hazard Statements: H350i: May cause cancer by inhalation.

REVISION HISTORY:
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DEFINITION OF TERMS
A large number of abbreviations and acronyms appear on a SDS. Some of these, which are commonly used, include the following.
CAS #: The Chemical Abstract Service Number that uniquely identifies each constituent.

EXPOSURE LIMITS IN AIR:
CEILING LEVEL: The concentration that shall not be exceeded during any part of the work exposure.
TWA or REL, PEL – The TWA or REL, PEL.

DEFINITION OF TERMS
A large number of abbreviations and acronyms appear on a SDS. Some of these, which are commonly used, include the following.
CAS #: The Chemical Abstract Service Number that uniquely identifies each constituent.

EXPOSURE LIMITS IN AIR (continued):
TLV: Threshold Limit Value. An air concentration of a substance that represents conditions under which it is generally believed that nearly all workers may be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour.

OSHA: Weighted Average exposure concentration for a conventional 8-hr (TLV, PEL) or up to a 10-hr (REL) workday and a 40-hr workweek.

WEL: Workplace Environmental Exposure Limits from the AIHA.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM HAZARD RATINGS: This rating system was developed by the National Paint and Coating Association and has been adopted by industry to identify the degree of chemical hazards.

HEALTH HAZARD: 0 Minimal Hazard. No significant health risk, irritation of skin or eyes not anticipated. Skin Irritation: Essentially non-irritating. Mechanical irritation may occur. PI or Draize = 0.
Eye Irritation: Essentially non-irritating, minimal effects clearing in < 24 hours. Mechanical irritation may occur. Draize = 0. Oral Toxicity LD₅₀ Rat > 5000 mg/kg. Dermal Toxicity LD₅₀ Rat or Rabbit > 2000 mg/kg. Inhalation Toxicity 4-hrs LC₅₀ Rat > 20 mg/L. 1 Slight Hazard: Minor reversible injury may occur; may irritate the stomach if swallowed; may defat the skin and exacerbate existing dermatitis. Skin Irritation: Slightly or mildly irritating. PI or Draize = 0 – 5. Eye Irritation: Slightly to mildly irritating, but reversible within 7 days. Draize > 0 < 5. Oral Toxicity LD₅₀ Rat > 500–5000 mg/kg. Dermal Toxicity LD₅₀ Rat or Rabbit > 1000–2000 mg/kg. Inhalation Toxicity LC₅₀, 4-hrs Rat > 200–1000 mg/L. 2 Moderate Hazard: Temporary or transitory injury may occur; prolonged exposure may affect the CNS. Skin Irritation: Moderately irritating; irritant; sensitizer. PI or Draize ≥ 5, with no destruction of dermal tissue. Eye Irritation: Moderately to severely irritating; reversible corneal opacity; corneal involvement or irritation clearing in 8–21 days. Draize ≥ 26–100, with reversible effects. Oral Toxicity LD₅₀ Rat > 50–500 mg/kg. Dermal Toxicity LD₅₀ Rat or Rabbit > 200–1000 mg/kg. Inhalation Toxicity LC₅₀, 4-hrs Rat > 20 mg/L. 3 Serious Hazard: Major injury likely unless prompt action is taken and medical treatment is given; high level of toxicity; corrosive, skin, eyes and lungs, and dermal necrosis. PI or Draize ≥ 5, with destruction of tissue. Eye Irritation: Corrosive, irreversible destruction of ocular tissue; corneal involvement or irritation persisting for more than 21 days. Draize ≥ 80 with effects persisting 21 days. Oral Toxicity LD₅₀ Rat > 50 mg/kg. Dermal Toxicity LD₅₀ Rat or Rabbit > 200–1000 mg/kg. Inhalation Toxicity LC₅₀, 4-hrs Rat > 0.05–0.5 mg/L. 4 Severe Hazard: Life-threatening; major or permanent damage may result from single or repeated exposures; extremely severe irreversible injury may result from brief contact. Skin Irritation: Not appropriate. Do not rate as a 4, based on skin irritation alone. Eye Irritation: Not appropriate. Do not rate as a 4, based on eye irritation alone. Oral Toxicity LD₅₀ Rat ≤ 5 mg/kg. Dermal Toxicity LD₅₀ Rat or Rabbit ≥ 20 mg/kg. Inhalation Toxicity LD₅₀, 4-hrs Rat ≤ 0.005 mg/L. 5 FLAMMABILITY HAZARD: 0 Minimal Hazard: Materials that will not burn in air when exposed to a temperature of 815.5°C (1500°F) for a period of 5 minutes. 1 Slight Hazard: Materials that must be pre-heated before ignition can occur. Material requires considerable pre-heating, under the same ambient temperature conditions before ignition and combustion can occur. This usually includes the following: Materials that will burn in air when exposed to a temperature of 815.5°C (1500°F) for a period of 5 minutes or less. Liquids, solids and semisolids having a flash point at or above 93.3°C (200°F) (i.e. OSHA Class III); and Most ordinary combustible materials (e.g. wood, paper, etc.). 2 Moderate Hazard: Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur. Materials in this degree would not, under normal conditions, form hazardous atmospheres in air, but under high ambient temperatures or moderate heating may release vapor in sufficient quantities to produce hazardous atmospheres with air. This usually includes the following: Liquids having a flash-point at or above 37.8°C (100°F); Solid materials in the form of course dusts that may burn rapidly but that generally do not form explosive atmospheres.
DEFINITION OF TERMS (Continued)

NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS (continued):

HEALTH HAZARD (continued): 3 Materials that, under emergency conditions, can cause serious or permanent injury. Gases with an LC₅₀ for acute inhalation toxicity greater than 1,000 ppm but less than or equal to 5,000 ppm. Liquid substances with a LD₅₀ for acute oral toxicity greater than 5,000 mg/kg but less than or equal to 10,000 mg/kg. Materials that cause severe irritation of the respiratory tract, eyes, and skin. 1 Materials that, under emergency conditions, can cause temporary incapacitation or residual injury. Gases with an LC₅₀ for acute inhalation toxicity greater than 500 ppm but less than or equal to 1,000 ppm. Liquid substances with an LC₅₀ for acute oral toxicity greater than 100 mg/kg but less than or equal to 500 mg/kg. 2 Materials that, under emergency conditions, can cause lethal injury. Gases with an LC₅₀ for acute inhalation toxicity greater than or equal to 100 ppm but less than or equal to 500 ppm. Liquid substances with an LC₅₀ for acute oral toxicity greater than or equal to 5 mg/kg. MATERIALS THAT MAY NOT BE STORED UNDER ANY CIRCUMSTANCES: 2 Materials that must not be stored under any circumstances, including those that are inherently unstable, those that are toxic, or those that are capable of detonation. Materials that must be precluded from storage under any circumstances. Materials that must be precluded from storage under any circumstances, including those that are inherently unstable, those that are toxic, or those that are capable of detonation. MATERIALS STORED UNDER SPECIFIC CONDITIONS: 3 Materials that may be stored under specific conditions, including those that are inherently unstable, those that are toxic, or those that are capable of detonation. MATERIALS STORED UNDER GENERAL CONDITIONS: 2 Materials that may be stored under general conditions, including those that are inherently unstable, those that are toxic, or those that are capable of detonation. MATERIALS STORED UNDER SPECIAL CONDITIONS: 1 Materials that may be stored under special conditions, including those that are inherently unstable, those that are toxic, or those that are capable of detonation.

NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS:

FLAMMABILITY HAZARD: 6 Materials that must not burn under typical fire conditions, including materials that are inherently unstable, those that are toxic, or those that are capable of detonation. Materials that must not burn under typical fire conditions, including materials that are inherently unstable, those that are toxic, or those that are capable of detonation.

DEFINITION OF TERMS (Continued)

SPECSEAL SERIES ES SEALANT SDS

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EFFECTIVE DATE: OCTOBER 19, 2014
DEFINITION OF TERMS (Continued)

TOXICOLOGICAL INFORMATION:
Human and Animal Toxicology: Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. LD₅₀: Lethal Dose (solids & 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: Quantity of material, by weight, administered to a test subject, based on their body weight in kg. TDL₀: Lowest dose to cause a symptom. TCL₀: Lowest concentration to cause a symptom. TD₀, TDL₀, and LD₀, or TC, TCL₀, and LC₀: 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. ACGIH and NTP rate chemicals on a scale of decreasing potential to cause human cancer with rankings from 1 to 4. Subrankings (2A, 2B, etc.) are also used. Other Information: BEI: ACGIH Biological 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 with inhalation exposure to the TLV.

ECOLOGICAL INFORMATION:
EC: Effect concentration in water. BCF: Bioconcentration Factor, which is used to determine if a substance will concentrate in life forms that consume contaminated plant or animal matter. TLM: Median threshold limit. log Kₒₜₒ or log Kₒ₅₅: Coefficient of Oil/Water Distribution is used to assess a substance’s behavior in the environment.

REGULATORY INFORMATION:
U.S.: EPA: U.S. Environmental Protection Agency. ACGIH: American Conference of Governmental Industrial Hygienists, a professional association that establishes exposure limits. OSHA: U.S. Occupational Safety and Health Administration. NIOSH: National Institute of Occupational Safety and Health, which is the research arm of OSHA. DOT: U.S. Department of Transportation. TC: Transport Canada. SARA: Superfund Amendments and Reauthorization Act. TSCA: U.S. Toxic Substance Control Act. CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act. Marine Pollutant status according to the DOT; CERCLA or Superfund; and various state regulations. This section also includes information on the precautionary warnings that appear on the material’s package label.

CANADA: