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

**TRADE/MATERIAL NAME:** SpecSeal® Firestop Putty (SSP 100, SSP28, SSP9S pads)

**RELEVANT USE of the SUBSTANCE:** Firestop and Sound Transmission

**USES ADVISED AGAINST:** none

**SUPPLIER/MANUFACTURER'S NAME:** Specified Technologies, Inc.

**Address:** 210 Evans Way, Somerville, New Jersey 08876

**Business Phone:** (908) 526-8000 (8:00am to 5:00pm Eastern Standard Time)

**Emergency Phone:** U.S., Canada: 1-800-255-3924 (24 hrs)

**International:** +1-813-248-0585 (collect-24 hrs)

**EMAIL of Competent Person for Information on SDS:** techserv@stifirestop.com

**NOTE:** ALL United States Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalent Standards, Canadian WHMIS [Controlled Products Regulations], Mexican NOM018-STPS 2000, SPRING Singapore, and Japanese JIS Z7250 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 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, Germ Cell Mutagen Category 2, Acute Dermal Toxicity Category 5, Eye Irritation Category 2A, Skin Irritation Category 2, Skin Sensitization Category 1, Specific Target Organ Toxicity Repeated Exposure Category 2
- **Signal Word:** Warning
- **Hazard Statements:** H351: Suspected of causing cancer. H341: Suspected of causing genetic effects. H313: May be harmful in contact with skin. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H373: May cause damage to organs through prolonged or repeated exposure.

- **Precautionary Statements:**
  - **Prevention:** P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P260: Do not breathe vapors/fume. P271: Use only outdoors or in a well-ventilated area. P272: Contaminated work clothing should not be allowed out of the workplace. P280: Wear protective gloves, clothing, eye protection and face protection.
  - **Response:** P308 + 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. P302 + P333: IF ON SKIN: Wash with plenty of soap and water. P332 + P313: If skin irritation or rash occurs: Get medical advice/attention. P312: Call a POISON CENTER or doctor if you feel unwell. P362 + P364: Take off contaminated clothing and wash it before reuse. P321: Specific treatment (remove from exposure and treat symptoms).
  - **Storage:** P403 + P233 + P405: Store in a well-ventilated place. Keep container tightly closed. Store locked up.
  - **Disposal:** P501: Dispose of contents/containers in accordance with all local, regional, national and international regulations.

**Hazard Symbols:** GHS07, GHS08

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

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 NESCIECS</th>
<th>WT%</th>
<th>LABEL ELEMENTS</th>
<th>GHS &amp; Japanese JIS Z7253 Classification</th>
<th>Korean ISHA Classification</th>
<th>GHS Hazard Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Trihydrate</td>
<td>21645-51-2</td>
<td>Listed</td>
<td>1-17</td>
<td>KE-00980</td>
<td>Listed</td>
<td>50-60%</td>
<td>SELF CLASSIFICATION</td>
<td>GHS &amp; JAPANESE JIS Z7253, KOREAN ISHA Classification</td>
<td>Hazard Codes: H319</td>
<td></td>
</tr>
<tr>
<td>Proprietary Polymer</td>
<td>Listed</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>Listed</td>
<td>20-30%</td>
<td>Classification Not Applicable</td>
<td></td>
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<td></td>
<td></td>
</tr>
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</table>
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>WT%</th>
<th>LABEL ELEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde Polymer with Ammonia and Phenol</td>
<td>35297-54-2</td>
<td>Listed</td>
<td>Not Listed</td>
<td>KE-17082</td>
<td>10-15%</td>
<td>SELF CLASSIFICATION GHS &amp; JAPANESE JIS Z7253, KOREAN ISHA:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Classification: Acute Oral Toxicity Cat. 5, Skin Sensitization Cat. 1B,</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>STOT Re Cat. 3 Hazard Codes: H303, H317, H373</td>
</tr>
<tr>
<td>Phenol</td>
<td>108-95-2</td>
<td>Listed</td>
<td>3-381</td>
<td>KE-28209</td>
<td>1-3%</td>
<td>GHS &amp; JAPANESE JIS Z7253, KOREAN ISHA: Classification: Mutagenic Cat. 2,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute Oral Toxicity Cat. 3, Acute Dermal Toxicity Cat. 3, Acute Inhalation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Toxicity Cat. 3, Skin Corrosion Cat. 1B, STOT RE Cat. 2 Hazard Codes: H341,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>H301 + H331, H314, H317</td>
</tr>
<tr>
<td>Sulfuric Acid Compound with Graphite</td>
<td>12777-87-6</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>KE-32585</td>
<td>2-5%</td>
<td>SELF CLASSIFICATION GHS &amp; JAPANESE JIS Z7253, KOREAN ISHA:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Classification: Carcinogenic Cat. 2 Hazard Codes: H351</td>
</tr>
<tr>
<td>Crystalline Silica</td>
<td>14806-60-7</td>
<td>Listed</td>
<td>1-548</td>
<td>KE-29983</td>
<td>Listed</td>
<td>GHS &amp; JAPANESE JIS Z7253, KOREAN ISHA: Classification: Carcinogenic Cat. 1,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STOT (Inhalation-Lungs) RE Cat. 2 Hazard Statement Codes: H350, H373</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>Listed</td>
<td>2-482</td>
<td>KE-17074</td>
<td>Trace</td>
<td>GHS &amp; JAPANESE JIS Z7253, KOREAN ISHA: Classification: Carcinogenic Cat. 2,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute Oral Toxicity Cat. 3, Acute Dermal Toxicity Cat. 3, Acute Inhalation</td>
</tr>
<tr>
<td>Water and Other Trace Ingredients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Toxicity Cat. 3, Skin Corrosion Cat. 1B, Skin Sensitization Cat. 1 Hazard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Codes: H351, H301 + H331, H314, H317</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

DESCRIPTION OF FIRST AID MEASURES:

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. 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. Remove contact lenses if easy to do. 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: See Section 11.

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

5. FIRE-FIGHTING MEASURES

FLASH POINT: Not determined.

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. Explosion Sensitivity to Mechanical Impact: Not sensitive.

Explosion Sensitivity to Static Discharge: Not sensitive.

SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS: No Special protective actions for fire-fighters are anticipated.

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).

PERSONAL PROTECTIVE EQUIPMENT: Proper protective equipment should be used.

Small Spills: Wear rubber gloves.

Large Spills: Minimum Personal Protective Equipment should be rubber gloves, rubber boots, face shield.
6. ACCIDENTAL RELEASE MEASURES (Continued)

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 polypads.

Large Spills: Access to the spill area should be restricted. For large spills, dike or otherwise contain spill and sweep-up or vacuum with 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.

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. 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.

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>ACGIH-TLVs</th>
<th>OSHA-PELs</th>
<th>NIOSH-RELs</th>
<th>NIOSH</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>TWA mg/m³</td>
<td>STEL mg/m³</td>
<td>TWA mg/m³</td>
<td>STEL mg/m³</td>
<td>TWA mg/m³</td>
</tr>
<tr>
<td>Aluminum Trihydrate</td>
<td>21645-51-2</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Crystalline Silica (Quartz)</td>
<td>14808-60-7</td>
<td>0.025 (resp. fract.)</td>
<td>NE</td>
<td>30 mg/m³ (total dust)</td>
<td>0.1 (vacated 1989 PEL)</td>
<td>0.05 (resp. dust)</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>SEN</td>
<td>0.37 (ceiling)</td>
<td>0.75 ppm</td>
<td>2 ppm</td>
<td>0.018 ppm</td>
</tr>
<tr>
<td>Formaldehyde Polymer with Ammonia and Phenol</td>
<td>35297-54-2</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Phenol</td>
<td>108-95-2</td>
<td>19 (skin)</td>
<td>Skin</td>
<td>19 (skin)</td>
<td>Skin</td>
<td>19 (skin)</td>
</tr>
<tr>
<td>Proprietary Polymer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfuric Acid Compound with Graphite</td>
<td>12777-87-6</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
</tbody>
</table>

NE: Not Established. Ca: Carcinogen NIC: Notice of Intended Change DSEN: May Cause Dermal Sensitization. This notation is used to indicate the potential for dermal sensitization resulting from the interaction of an absorbed agent and ultraviolet light (i.e. photosensitization) RSEN: May Cause Respiratory Sensitization SEN: Confirmed Potential Worker Sensitization as a Result of Dermal Contact and/or Inhalation Exposure, Based on the Weight of Scientific Evidence See Section 16 for Definitions of Other Terms Used
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.

### ALUMINUM HYDROXIDE:

- **Australia:** TWA = 2 mg(Al)/m³, JUL 2008
- **Belgium:** TWA = 2 mg(Al)/m³, NOV 2002
- **Finland:** TWA = 2 mg(Al)/m³, MAR 2002
- **France:** VME = 2 mg(Al)/m³, FEB 2006
- **Korea:** TWA = 2 mg(Al)/m³, MAR 2002
- **New Zealand:** TWA = 2 mg(Al)/m³, JAN 2002
- **Russia:** TWA = 6 mg/m³, JUN 2003
- **Sweden:** TWA = 1 mg(Al)/m³, JUN 2005
- **Switzerland:** MAK-W = 0.3 mg/m³, resp. JUN 2011
- **United Kingdom:** TWA = 2 mg(Al)/m³, OCT 2007

### CRYSTALLINE SILICA:

- **Australia:** TWA = 0.1 mg/m³, JUL 2008
- **Belgium:** TWA = 0.1 mg/m³ (resp. 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, JUL 2008
- **Norway:** TWA = 0.1 mg/m³ (resp. dust), JUN 2002
- **Norway:** TWA = 0.3 mg/m³ (total dust), JAN 1999
- **Peru:** TWA = 0.05 mg/m³, JUL 2005
- **Russia:** TWA = 1 ppm (4 mg/m³), Skin, FEB 2006
- **Sweden:** TWA = 0.1 mg/m³ (resp. dust), JUN 2005
- **Switzerland:** MAK-W = 0.15 mg/m³, DEC 2006
- **Thailand:** TWA = 0.15 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

### FORMALDEHYDE:

- **ARAB Republic of Egypt:** TWA = 2 ppm (3 mg/m³), JAN 1993
- **Australia:** TWA = 1 ppm (1.2 mg/m³), STEL = 2 ppm (2.5 mg/m³), Carcinogen, JUL 2008
- **Austria:** MAK-TMW = 0.2 ppm (0.4 mg/m³), Skin, 2007
- **Belgium:** MAK-TMW = 0.05 ppm (0.06 mg/m³), KZW = 0.5 ppm (0.6 mg/m³), skin, sen, 2007
- **Belgium:** STEL = 0.3 ppm (0.38 mg/m³), MAR 2002
- **Denmark:** CL = 0.3 ppm (0.4 mg/m³), carc, MAY 2011
- **Finland:** TWA = 0.3 ppm (0.37 mg/m³), CL = 0 ppm (1.2 mg/m³), Skin, NOV 2011
- **France:** VME = 0.05 ppm, VLE = 1 ppm, C3 carcinogen, FEB 2006
- **Germany:** MAK = 0.03 ppm (0.37 mg/m³), 2011
- **Hungary:** TWA = 0.6 mg/m³, STEL 0.6 mg/m³, Skin, SEP 2000

**PROTECTIVE EQUIPMENT:** The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132, including equivalent standards of Canada (including CSA Respiratory Standard Z94.4-02, Industrial Eye and Face Protectors and CSA Standard Z195-02, Protective Footwear), or standards of Japan (including JIS T 8150:2006 for respirator PPE, JIS T 8147:2003 for eye protectors, and JIS T 8030:2005 for protective clothing). Please reference applicable regulations and standards for relevant details.

**Respiratory Protection:** Maintain airborne contaminant concentrations below exposure limits listed above. For materials without listed exposure limits, minimize respiratory exposure. If necessary, use only respiratory protection authorized under appropriate regulations.

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

**Hand Protection:** During manufacture or other similar operations, wear the appropriate hand protection for the process.

**Skin Protection:** Use appropriate protective clothing. If necessary, refer to the U.S. OSHA Technical Manual (Section VII: Personal Protective Equipment) or other appropriate regulations. Full-body chemical protective clothing is recommended for emergency response procedures.

### 9. PHYSICAL and CHEMICAL PROPERTIES

**FORM:** Putty

**MOLECULAR FORMULA:** Mixture.

**ODOR:** Minimal.

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

**DECOMPOSITION TEMPERATURE:** Not available.

**AUTOIGNITION TEMPERATURE:** Not available.

**FREEZING/MELTING POINT:** Not available.

**COLOR:** Red.

**MOLECULAR WEIGHT:** Mixture.

**ODOR THRESHOLD:** Not available.

**OXIDIZING PROPERTIES:** Not applicable.

**PERCENT VOLATILE:** Not available.

**FLASH POINT:** Not available.

**BOILING POINT:** Not available.
9. PHYSICAL and CHEMICAL PROPERTIES (Continued)

VAPOR PRESSURE: Not available.
VAPOR DENSITY (air = 1): Not available.
EVAPORATION RATE (n-BuAc = 1): Not Applicable
SOLUBILITY IN WATER: Insoluble.
COEFFICIENT WATER/OIL DISTRIBUTION: Not established.

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. 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 if heated may cause irritation of the nose, throat, and lungs and cause coughing. Removal to fresh air should relieve symptoms. The trace Crystalline Silica and Formaldehyde components are known human carcinogens. Due to the form of this product, this hazard is not as significant due to viscosity and consistency of the mixture.
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: The Phenol component and trace Formaldehyde component can be absorbed through intact skin. Phenol in all forms (solid, solutions and vapor) is readily absorbed through the skin and can cause harmful effects if a large area of the skin is involved or if contact is prolonged. Due to the small amount of each of these materials, the possibility of adverse effects is not expected to be significant however, skin contact should be avoided. Formaldehyde and Phenol can cause sensitization effects as described under ‘Sensitization Effect’s’.

SYMPTOMS OF EXPOSURE BY ROUTE OF EXPOSURE (continued):
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.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: Exposure to this product may cause the following health effects:
Acute: Inhalation of fumes or vapors may cause irritation of respiratory system. Eye contact with fumes can cause irritation. May be harmful if swallowed.
Chronic: Prolonged or repeated skin exposure may cause dermatitis (dry red skin).

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.

<table>
<thead>
<tr>
<th>ALUMINUM TRHYDRATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDL(Oral-Child) 79 gm/kg/2 years-intermittent: Behavioral: changes in motor activity (specific assay), muscle contraction or spasticity; Musculoskeletal: osteomalacia</td>
</tr>
<tr>
<td>TDL(Oral-Child) 122 gm/kg/4 days: Gastrointestinal: other changes; Nutritional and Gross Metabolic: body temperature increase</td>
</tr>
<tr>
<td>TDL(Oral-Woman) 84 gm/kg: female 1-40 week(s) after conception: Reproductive: Effects on Newborn: physical</td>
</tr>
<tr>
<td>TDL(Oral-Infant) 68040 mg/kg/24 weeks-intermittent: Musculoskeletal: osteoporosis; Nutritional and Gross Metabolic: weight loss or decreased weight gain, changes in phosphorus</td>
</tr>
<tr>
<td>TDL(Oral-Woman) 37912.5 mg/kg/26 weeks-intermittent: Blood: changes in serum composition (e.g. TP, bilirubin, cholesterol); Musculoskeletal: osteoporosis, Nutritional and Gross: Metabolic: changes in phosphorus</td>
</tr>
<tr>
<td>TDL(Unreported-Infant) 39 gm/kg/24 days-intermittent: Musculoskeletal: osteomalacia</td>
</tr>
<tr>
<td>TDL(Oral-Rat) 15 mg/kg: Gastrointestinal: other changes</td>
</tr>
<tr>
<td>TDL(Oral-Rat) 8040 mg/kg/7 days-continuous: Blood: changes in serum composition (e.g. TP, bilirubin, cholesterol); Nutritional and Gross Metabolic: changes in phosphorus</td>
</tr>
<tr>
<td>TDL(Oral-Mouse) 80,880 mg/kg/23 weeks-continuous: Liver: other changes; Musculoskeletal: other changes; Nutritional and Gross Metabolic: changes in metals, not otherwise specified</td>
</tr>
<tr>
<td>TDL(Infrapertionelone-Rat) 150 mg/kg</td>
</tr>
<tr>
<td>TDL(Infrapertionelone-Rat) 6240 mg/kg/26 weeks-intermittent: Blood: pigmented or nucleated red blood cells; Nutritional and Gross Metabolic: weight loss or decreased weight gain, changes in iron</td>
</tr>
<tr>
<td>TDL(Infrapertionelone-Rat) 1920 mg/kg/8 weeks-intermittent: Blood: microcytosis with or without anemia</td>
</tr>
<tr>
<td>TDL(Infrapertionelone-Rat) 960 mg/kg/4 weeks-intermittent: Blood: changes in erythrocyte (RBC) count</td>
</tr>
</tbody>
</table>

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard
11. TOXICOLOGICAL INFORMATION (Continued)

ALUMINUM TRIHYDRATE:
TDLo (Oral-Child) 79 mg/kg/2 years-intermittent: Behavioral: changes in motor activity
(specific assay), muscle contraction or spasticity; Musculoskeletal: osteomalacia
TDLo (Oral-Child) 22 mg/kg/4 days: Gastrointestinal: other changes; Nutritional and
Gross Metabolic: body temperature increase
TDLo (Oral-Woman) 84 mg/kg: female 1-40 week(s) after conception: Reproductive:
changes in serum composition (e.g. TP, bilirubin, cholesterol); Musculoskeletal: other;
Nutritional and Gross Metabolism: changes in phosphorus
TDLo (Oral-Infant) 68040 mg/kg/24 weeks-intermittent: Musculoskeletal: osteoporosis;
Nutritional and Gross Metabolism: loss of weight or decreased weight gain, changes
in phosphorus
TDLo (Oral-Infant) 73912.5 mg/kg/26 weeks-intermittent: Blood: changes in serum
composition (e.g. TP, bilirubin, cholesterol); Musculoskeletal: osteoporosis;
Nutritional and Gross Metabolism: changes in phosphorus
TDLo (Oral-Infant) 39 gm/kg/24 days-intermittent: Musculoskeletal: osteomalacia
TDLo (Oral-Rat) 15 mg/kg: Gastrointestinal: other changes
TDLo (Oral-Infant) 6040 mg/kg/7 days-intermittent: Blood: changes in serum
composition (e.g. TP, bilirubin, cholesterol); Musculoskeletal: osteomalacia;
Nutritional and Gross Metabolism: changes in phosphorus
TDLo (Oral-Mouse) 80,880 mg/kg/23 weeks-continuous: Liver: other changes;
Musculoskeletal: other changes; Nutritional and Gross Metabolic: changes in metals,
not otherwise specified
TDLo (Intraperitoneal-Rat) 150 mg/kg
TDLo (Intraperitoneal-Rat) 2640 mg/kg/26 weeks-intermittent: Blood: pigmented or
nucleated red blood cells; Nutritional and Gross Metabolic: weight loss or decreased
weight gain, changes in iron
TDLo (Intraperitoneal-Rat) 1920 mg/kg/8 weeks-intermittent: Blood: microcytosis with
or without anaemia
TDLo (Intraperitoneal-Rat) 960 mg/kg/4 weeks-intermittent: Blood: changes in
erythrocyte (RBC) count

PHENOL:
LD50 (Intraperitoneal -Rat) 6240 mg/kg/26 weeks -intermittent: Blood: pigmented or
nucleated red blood cells; Nutritional and Gross Metabolic: weight loss or decreased
weight gain, changes in phosphorus
LD50 (Intraperitoneal -Rat) 15 mg/kg: female 12-14 day(s) after conception:
Reproductive: changes in serum composition (e.g. TP, bilirubin, cholesterol);
Musculoskeletal: osteomalacia
LD50 (Oral-Infant) 73912.5 mg/kg/26 weeks-intermittent: Blood: changes in serum
composition (e.g. TP, bilirubin, cholesterol); Musculoskeletal: osteoporosis;
Nutritional and Gross Metabolism: changes in phosphorus
LD50 (Unreported -Infant) 39 gm/kg/24 days -intermittent: Musculoskeletal:
osteomalacia
LD50 (Oral-Rat) 140 mg/kg: Behavioral: hallucinations, distorted perceptions; Skin
LD50 (Oral -Human) 14 gm/kg: Behavioral: muscle weakness; Lungs, Thorax, or
Respiration: cyanosis
LD50 (Oral-Woman) 73912.5 mg/kg/26 weeks -intermittent: Blood: changes in serum
composition (e.g. TP, bilirubin, cholesterol); Musculoskeletal: osteoporosis;
Nutritional and Gross Metabolism: changes in phosphorus
LD50 (Oral-Infant) 68040 mg/kg/24 weeks -intermittent: Musculoskeletal:
osteomalacia
LD50 (Oral-Infant) 39 gm/kg/24 days-intermittent: Musculoskeletal: osteomalacia
LD50 (Oral-Rat) 15 mg/kg: Gastrointestinal: other changes
LD50 (Oral-Infant) 6040 mg/kg/7 days-intermittent: Blood: changes in serum
composition (e.g. TP, bilirubin, cholesterol); Musculoskeletal: osteomalacia;
Nutritional and Gross Metabolism: changes in phosphorus
LD50 (Oral-Infant) 1920 mg/kg/8 weeks-intermittent: Blood: microcytosis with
or without anaemia
LD50 (Intraperitoneal-Rat) 960 mg/kg/4 weeks-intermittent: Blood: changes in
erthrocyte (RBC) count

Toxicity Data (Continued):
11. TOXICOLOGICAL INFORMATION (Continued)

IRRITANT OF PRODUCT: Inhalation of fumes or vapors may cause respiratory irritation. Eye contact may cause irritation. Eye contact with fumes may cause irritation. Prolonged skin contact may cause irritation.

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)

FORMALDEHYDE: ACGIH-TLV-A2 (Suspected Human Carcinogen); EPA-B1 (Probable Human Carcinogen-Limited Evidence of Carcinogenicity from Epidemiological Studies); IARC-1 (Carcinogenic to Humans); MAK-4 (Substances with Carcinogenic Potential for Which Genotoxicity Plays No or at Most a Minor Role. No significant contribution to human cancer risk is expected, provided the MAK value is observed); NIOSH-Ca (Potential Occupational Carcinogen with No Further Categorization); NTP-K (Known to Be a Human Carcinogen); OSHA-Ca (Carcinogen Defined with No Further Categorization)

PHENOL: ACGIH-TLV-A4 (Not Classifiable as a Human Carcinogen); EPA-I (Data are Inadequate for an Assessment of Human Carcinogenic Potential); EPA-D (Not Classifiable as to Human Carcinogenicity); IARC-3 (Unclassifiable as to Carcinogenicity in Humans); MAK-3B (Substances for Which in vitro tests or animal studies have yielded evidence of carcinogetic effects that is not sufficient for classification of the substance in one of the other categories. Further studies are required before a final classification can be made.)

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: This product is not expected or reported to cause human mutagenic, embryotoxic, teratogenic or reproductive toxicity effects. The following gives information on possible effects from components.

Mutagenicity: Formaldehyde is considered mutagenic, based on positive results (e.g. chromosomal aberrations in lung cells) observed in studies with live animals. In occupational exposure studies, which are limited by such problems as low numbers of workers studied and mixed exposures, both positive and negative results (micronuclei, sister chromatid exchanges (SCEs), chromosome aberrations in lymphocytes or cheek and nose cells) and a negative result (abnormal sperm) were obtained.(19,44,46,81) However, positive results (SCEs in lymphocytes, DNA-protein crosslinks in lymphocytes) were obtained in 2 reasonably well-conducted studies.

Embryotoxicity/Teratogenicity: No component is known to cause human embryotoxicity or teratogenicity. Animal studies are inconclusive or have not shown embryotoxicity or teratogenicity.

Reproductive Toxicity: There is insufficient evidence to determine if Formaldehyde causes reproductive toxicity in humans. Despite limitations, the few animal studies available do not suggest that Formaldehyde exposure will affect fertility.

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.

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, National, International, 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. 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 286: 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: The 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 as follows.

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>SARA 302 (40 CFR 355, Appendix A)</th>
<th>SARA 304 (40 CFR Table 302.4)</th>
<th>SARA 313 (40 CFR 372.65)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Phenol</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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): Formaldehyde: 500 lb (27.2 kg); Phenol: 500 lb (27.2 kg)

U.S. CERCLA Reportable Quantity (RQ): Formaldehyde: 100 lb (45.4 kg); Phenol: 1000 lb (454 kg)

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 and Formaldehyde (gas) components are on the California Proposition 65 lists. WARNING! This product contains compounds known to the State of California to cause Cancer. This product contains trace amounts of a suspected human carcinogen by inhalation; however, this hazard is not expected to be significant due to viscosity and consistency of the mixture.

CANADIAN REGULATIONS:

Canadian DSL/NDSL Inventory Status: Components are on the DSL or NDSL Inventories.

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: The Phenol and Formaldehyde components are on the CEPA Priorities Substances 2 List.

Canadian WHMIS Classification and Symbols: This product would be categorized as a Controlled Product, D2B (Other Toxic Effects-Potential Carcinogenic and Mutagenic Effect, Irritation, Skin Sensitization) 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), or are not listed, per information in Section 2.

JAPANESE REGULATIONS:

Japanese ENCS: Components listed by CAS# are on the ENCS Inventory, are excepted, or are not listed, per information in Section 2.

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, or are not listed, per information in Section 2.

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

### DEFINITION OF TERMS

- **Rabbit**: Oral Toxicity LD50 Rat irreversible in 21 days. Draize > 5–8, with destruction of tissue. and/or corrosive; may cause destruction of dermal tissue, skin burns, and dermal necrosis. PII or Rat

### CAS 

- **CAS #:** This is the Chemical Abstract Service Number that uniquely identifies each constituent.

### REVISION DETAILS

- **REVISED:** Reviewed January 3, 2017, no changes.

### REFERENCES AND DATA SOURCES

Contact the supplier for information.

### PREPARED BY

- **CHEMICAL SAFETY ASSOCIATES, Inc.** PO Box 1961, Hilo, HI 96721-1961 (800) 441-3365

### EFFECTIVE DATE

- **JANUARY 3, 2017**
DEFINITION OF TERMS (Continued)

NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS:

HAZARD HEALTH: 6 Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials. Gases and vapors with an LC50 for acute inhalation toxicity greater than 10,000 ppm. Dusts and mists with an LC50 for acute inhalation toxicity greater than 200 mg/L. Materials with an LDLo for acute oral toxicity greater than 2000 mg/kg. Materials essentially non-irritating to the respiratory tract, eyes, and skin. Materials that have not undergone emergency conditions, cause significant irritation. Gases and vapors with an LDLo for acute inhalation toxicity greater than 5,000 ppm but less than or equal to 10,000 ppm. Dusts and mists with an LDLo for acute inhalation toxicity greater than 10 mg/L but less than or equal to 200 mg/L. Materials with an LDLo for acute dermal toxicity greater than 1000 mg/kg but less than or equal to 2000 mg/kg. Materials that slightly to moderately irritate the respiratory tract, eyes, and skin. Materials under emergency conditions, cause severe tissue damage, depending on duration of exposure. Materials that are respiratory irritants. Materials that cause severe, irreversible irritation to the eyes or are lacrimators. Materials that are primary skin irritants or sensitizers. Materials whose LDLo for acute oral toxicity is greater than 50 mg/kg but less than or equal to 500 mg/kg. 3 Materials that, under emergency conditions, can cause serious or permanent injury. Gases with an LC50 for acute inhalation toxicity greater than 1000 ppm but less than or equal to 3000 ppm. Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater than one-fifth its LC50 for acute inhalation toxicity, if its LDLo is less than or equal to 5000 ppm and that does not meet the criteria for either degree of hazard 3 or degree of hazard 4. Dusts and mists with an LC50 for acute inhalation toxicity greater than 2 mg/L but less than or equal to 10 mg/L. Materials with an LDLo for acute dermal toxicity greater than 200 mg/kg but less than or equal to 1000 mg/kg. Compressed liquefied gases with boiling points between -9°C (16°F) and -5°C (-23°F) that cause severe tissue damage, depending on duration of exposure. Materials that are respiratory irritants. Dusts and mists whose LC50 for acute inhalation toxicity is greater than 10 mg/L but less than or equal to 50 mg/kg. Materials with an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) below 0.01 W/mL. Any liquid or gaseous material that is liquid while under pressure and has a flash point below 22.8°C (73°F) and a boiling point below 37.8°C (100°F) (i.e. Class IA liquids). Materials that ignite when exposed to air. Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and will burn readily. Flammable gases. Flammable cryogenic materials. Any liquid or gaseous materials that is liquid while under pressure and has a flash point below 22.8°C (73°F) and a boiling point below 37.8°C (100°F) (i.e. Class IA liquids). Materials that ignite when exposed to air. Solids containing greater than 0.5% by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. INSTABILITY HAZARD: 0 Materials that in themselves are normally stable, even under fire conditions. Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) below 0.01 W/mL and below 10 W/mL. 2 Materials that readily undergo violent chemical change at elevated temperatures and pressures: Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 10 W/mL and below 1000 W/mL. Materials that are sensitive to thermal or mechanical shock at elevated temperatures and pressures. 4 Materials that in themselves are readily capable of detonation or explosive decomposition or explosive reaction 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. Materials that are sensitive to localized thermal or mechanical shock at normal temperatures and pressures. FLAMMABILITY LIMITS IN AIR:

MUCH of the information related to fire and explosion is derived from the National Fire Protection Association. The flash point is defined as the lowest 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. Autoignition Temperature: Minimum temperature of a solid, liquid, or gas required to initiate or promote combustion in the absence of an external source of ignition. UEL: Lowest concentration of a flammable vapor or gas/mixture that will ignite and burn within flame. LEL: Highest concentration of a flammable vapor or gas/mixture that will ignite and burn with a flame.

TOXICOLOGICAL INFORMATION:

Human and Animal Toxicology:

47 Materials with no known hazard 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: Parts per million of air or water. mg/m3: Concentration expressed in weight of substance per volume of air. mg/L: Concentration of material, expressed in weight of substance per volume of water, used as a test subject, based on their body weight in kg. TDo, LDLo, and TCLo: Lowest dose to cause a symptom. TCo, LClO, and LCo: Lowest dose (or concentration) to cause lethal or toxic effects. BEI: ACGIH Biological Exposure Indices. CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act. Marine Pollution 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.

ECOLOGICAL INFORMATION:

EC: Effect concentration in water. BCF: Biocumulative Factor, which is used to determine if a substance will concentrate in life. RE: Residue Contamination in Plant or animal. Hydro: Median threshold limit. iec: 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. FDA: Food and Drug Administration. RMP: Risk Management Plans. CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act. Marine Pollution 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: