SAFETY DATA SHEET

DynaTrol® II Part A Activator

PART I

What is the material and what do I need to know in an emergency?

1. PRODUCT IDENTIFICATION

IDENTIFICATION of the SUBSTANCE or PREPARATION

<table>
<thead>
<tr>
<th>TRADE NAME (AS LABELED):</th>
<th>DynaTrol® II Part A</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCT DESCRIPTION:</td>
<td>Part A Urethane</td>
</tr>
<tr>
<td>CHEMICAL NAME/CLASS:</td>
<td>Aromatic Isocyanate in Polyether Triol</td>
</tr>
<tr>
<td>SYNONYMS:</td>
<td>None</td>
</tr>
<tr>
<td>RELEVANT USE:</td>
<td>General Polyurethane Sealant</td>
</tr>
<tr>
<td>USES ADVISED AGAINST:</td>
<td>Other Than Relevant Use</td>
</tr>
</tbody>
</table>

COMPANY/UNDERTAKING IDENTIFICATION:

<table>
<thead>
<tr>
<th>SUPPLIER/MANUFACTURER’S NAME:</th>
<th>Pecora Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDRESS:</td>
<td>165 Wambold Road, Harleysville, PA 19438</td>
</tr>
<tr>
<td>EMERGENCY PHONE:</td>
<td>800-424-9300 (CHEMTREC, 24-hours)</td>
</tr>
<tr>
<td>BUSINESS PHONE:</td>
<td>215-723-6051 (Mon–Fri, 8 AM–5 PM ET)</td>
</tr>
<tr>
<td>PREPARATION DATE:</td>
<td>January 2004</td>
</tr>
<tr>
<td>REVISION DATE:</td>
<td>December 31, 2013</td>
</tr>
</tbody>
</table>

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

2. HAZARD IDENTIFICATION

GLOBAL HARMONIZATION LABELING AND CLASSIFICATION: This product has been classified per GHS Standards.

Classification: Carcinogenic Cat. 2, Acute Inhalation Toxicity Cat. 3, Eye Irritation Cat. 2, STOT (Inhalation-Respiratory Irritation) SE Cat. 3, Skin Irritation Cat. 2, Respiratory Sensitizer Cat. 1, Skin Sensitization Cat. 1, Aquatic Chronic Toxicity Cat. 3

Signal Word: Danger

Hazard Statement Codes: H351, H331, H319, H335, H334, H317, H412


Hazard Symbols/Pictograms: GHS06, GHS08

EMERGENCY OVERVIEW:

PHYSICAL DESCRIPTION: This product is a clear, light yellow liquid with an odor characteristic of isocyanates.

HEALTH HAZARDS: DANGER! Inhalation of vapors may be harmful or fatal. Harmful or fatal if swallowed. This compound can cause irritation by all routes of exposure. Eye irritation may be severe. Chronic inhalation may cause lung damage. May cause toxic systemic effects by skin absorption. Can cause skin and respiratory sensitization and allergic reaction. Contain compounds that are suspect carcinogens.

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

REACTIVITY HAZARD: Contact with water produces heat, carbon dioxide and urea polymers; reaction can be vigorous. Closed containers can rupture violently if contaminated with water or if involved in a fire. Due to the high level of the Polyether Triol component, this product may form unstable or flammable peroxides on prolonged exposure to air if stabilizer is depleted.

ENVIRONMENTAL HAZARD: This product has not been tested for environmental impact. All release to the environment should be avoided. Contains compounds that can cause harm to aquatic organisms.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS®)

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3*</td>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

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

CANADIAN WHMIS CLASSIFICATION: Class D1A, Class D2A, Class D2B, See Section 15 (Regulatory Information) for all classification details.

U.S. OSHA REGULATORY STATUS: This material is classified as hazardous under OSHA regulations.
### 3. COMPOSITION AND INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>W/W%</th>
<th>GHS Classification Hazard Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyether Triol</td>
<td>25791-96-2</td>
<td>70.0-90.0</td>
<td>Classification: Not Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hazard Statement Codes: Not Applicable</td>
</tr>
<tr>
<td>2,4-Toluene Diisocyanate</td>
<td>584-84-9</td>
<td>10.0-20.0</td>
<td>Classification: Carcinogenic Cat. 2, Acute Inhalation Toxicity Cat. 2, Eye Irritation Cat. 2, Sensitizer Cat. 1, Skin Sensitization Cat. 1, Aquatic Chronic Toxicity Cat. 3</td>
</tr>
<tr>
<td>2,6-Toluene Diisocyanate</td>
<td>91-06-7</td>
<td></td>
<td>Hazard Statement Codes: H351, H330, H319, H335, H334, H317, H412</td>
</tr>
<tr>
<td>Polyether Diol</td>
<td>25322-69-4</td>
<td>5.0-10.0</td>
<td>Classification: Not Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hazard Statement Codes: Not Applicable</td>
</tr>
<tr>
<td>Isophorone Diisocyanate</td>
<td>4098-71-9</td>
<td>3.0-7.0</td>
<td>Classification: Acute Inhalation Toxicity Cat. 3, Eye Irritation Cat. 2, STOT (Inhalation-Respiratory Irritation) SE Cat. 3, Skin Irritation Cat. 2, Respiratory Sensitization Cat. 1, Skin Sensitization Cat. 1, Aquatic Chronic Toxicity Cat. 2</td>
</tr>
</tbody>
</table>

Other proprietary and trace components. Each of the other components is present in less than 1 percent concentration (0.1% concentration for potential carcinogens, reproductive toxins, respiratory tract sensitizers, and mutagens). Balance Classification: Not Applicable Hazard Statement Codes: Not Applicable

See Section 16 for full text of Ingredient Hazard and Precautionary Statements

### PART II  
**What should I do if a hazardous situation occurs?**

#### 4. FIRST-AID MEASURES

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

**DESCRIPTION OF FIRST AID MEASURES:** Remove victim(s) to fresh air, as quickly as possible. Only trained personnel should administer supplemental oxygen and/or cardio-pulmonary resuscitation, if necessary. Remove and isolate contaminated clothing and shoes. Seek immediate medical attention. Take copy of label and MSDS to physician or other health professional with victim(s).

**Inhalation:** If mists, sprays or fumes of this material are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions.

**Skin Exposure:** If the material contaminates the skin, immediately begin decontamination with running water. **Minimum flushing** is for 20 minutes. Do not interrupt flushing. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Victim must seek immediate medical attention.

**Eye Exposure:** If this product enters the eyes, open victim’s eyes while under gently running water. Use sufficient force to open eyelids. Have victim "roll" eyes. **Minimum flushing** is for 20 minutes. Do not interrupt flushing.

**Ingestion:** If this material is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. DO NOT INDUCE VOMITING, unless directly by medical personnel. Have victim rinse mouth with water or give several cupsfuls of water, if conscious. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Acute or chronic respiratory conditions, skin and respiratory allergies and asthma may be aggravated by overexposure to this product.

**INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT IF NEEDED:** Treat symptoms and eliminate overexposure. Be observant for pulmonary edema. Copiously irrigate contaminated skin and eyes with saline. Non-cardiogenic pulmonary edema and bronchospasm are the most immediate serious clinical consequences of isocyanate exposure. Markedly symptomatic patients should receive oxygen, ventilatory support, and an intravenous line. Treatment for asthma includes inhaled sympathomimetics (salbutamol, metaproterenol), intravenous theophylline, parenteral sympathomimetics (epinephrine, terbutaline), and steroids.

#### 5. FIRE-FIGHTING MEASURES

**FLASH POINT:** 93.25°C (200°F)

**AUTOIGNITION:** Not determined.

**FLAMMABLE LIMITS IN AIR:** Not known for product.

**EXTINGUISHING MEDIA:**

- **Suitable Extinguishing Media:** Use materials appropriate for surrounding materials. Water should be used for cooling of containers only due to reaction with water.
- **Unsuitable Extinguishing Media:** Water and halogenated media.

**PROTECTION OF FIREFIGHTERS:**

- **Special Hazards Arising From The Product:** This is a combustible liquid which is also toxic by inhalation and skin contact and so presents a contact hazard to fire-fighters. This compound reacts with water to form urea polymers, heat and carbon dioxide. Products of thermal decomposition are highly toxic (refer to Section 10 Stability and Reactivity). This reaction can be vigorous. Not sensitive to mechanical impact under normal conditions. Closed containers may develop pressure and rupture in event of fire or if contaminated with water.

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See Section 16 for Definitions of Ratings
5. FIRE-FIGHTING MEASURES (Continued)

PROTECTION OF FIREFIGHTERS (continued):
Special Protective Actions For Fire-Fighters: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move containers from fire area if it can be done without risk to personnel. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS AND EMERGENCY PROCEDURES: An accidental release may result in a fire. Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. Eliminate any possible sources of ignition, and provide maximum explosion-proof ventilation. Use only non-sparking tools and equipment during the response. The atmosphere must at least 19.5 percent Oxygen before non-emergency personnel can be allowed in the area without Self-Contained Breathing Apparatus and fire protection. Avoid contact with water.

PERSONAL PROTECTIVE EQUIPMENT: Responders should wear the level of protection appropriate to the type of chemical released, the amount of the material spilled, and the location where the incident has occurred. Small Spills: For releases of 1 drum or less, Level D Protective Equipment (gloves, chemical resistant apron, boots, and eye protection) should be worn. Large Spills: Minimum Personal Protective Equipment should be rubber gloves, rubber boots, face shield, and Tyvek suit. Minimum level of personal protective equipment for releases in which the level of oxygen is less than 19.5% or is unknown must be Level B: triple-gloves (rubber gloves and nitrile gloves over latex gloves), chemical resistant suit, fire-retardant clothing and boots, hard hat, and Self-Contained Breathing Apparatus.

METHODS FOR CLEAN-UP AND CONTAINMENT:
All Spills: Access to the spill area should be restricted. Spread should be limited by gently covering the spill with poly pads. Absorb spilled liquid with clay, sand, poly pads, or other suitable inert absorbent materials. All contaminated absorbents and other materials should be placed in an appropriate container and seal. Do not mix with wastes from other materials. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations). Dispose of recovered material and report spill per regulatory requirements. Remove all residue before decontamination of spill area. Clean spill area with soap and copious amounts of water. Monitor area for residual product; therefore, empty containers should be handled with care.

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

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

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

PART III

How can I prevent hazardous situations from occurring?

7. HANDLING and STORAGE

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

CONDITIONS FOR SAFE STORAGE: Keep container tightly closed when not in use. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Containers should be 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 materials. Local Fire Departments should be notified of the storage of this product on site. Storage and processing areas of this product should be identified with a NFPA 704 placard (diamond) large enough to be seen from a distance. Post warning and “NO SMOKING” signs in storage and use areas, as appropriate. Refer to NFPA 30, Flammable and Combustible Liquids Code, for additional information on storage. Have appropriate extinguishing equipment in the storage area (such as sprinkler systems or portable fire extinguishers). Inspect all incoming containers before storage to ensure containers are properly labeled and not damaged. Empty containers may contain residual product; therefore, empty containers should be handled with care.

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

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS/CONTROL PARAMETERS:
Ventilation and Engineering Controls: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below.
### 8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

**PERSONAL PROTECTIVE EQUIPMENT (PPE):** 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 the Respiratory Protection), Occupational Exposure Standards (29 CFR 1910.134), and the Foot Protection. Please reference applicable regulations and standards for relevant details.

#### Eye/Face Protection
Use approved safety goggles or safety glasses. If necessary, refer to appropriate regulations.

#### Skin Protection
Wear chemical impervious gloves (e.g., Nitrile or Neoprene). Use triple gloves for spill response. If necessary, refer to appropriate regulations.

#### Body Protection
Use body protection appropriate for task (e.g., lab coat, coveralls, Tyvek suit). Full-body chemical protection may be necessary. If necessary, refer to the OSHA Technical Manual (Section VII: Personal Protective Equipment) or appropriate Standards of Canada. 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 appropriate regulations.

#### Respiratory Protection
If mists or sprays from this product are created during use, use appropriate respiratory protection. If necessary, use only respiratory protection authorized in appropriate regulations. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use a full-facepiece pressure-demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under appropriate regulations. The following NIOSH respiratory equipment guidelines for components that present an inhalation hazard are presented for additional assistance in respiratory protective equipment selection.

#### ISOPHORONE DIISOCYANATE

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Guideline</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isophorone Diisocyanate</td>
<td>4098-71-9</td>
<td>MAK TWA</td>
<td>0.005 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL TWA</td>
<td>0.005 ppm (vacated 1989 PEL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL STEL</td>
<td>0.02 ppm (skin) (vacated 1989 PEL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL TWA</td>
<td>0.005 ppm (skin)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH REL STEL</td>
<td>0.02 ppm (skin)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DFG MAK TWA</td>
<td>0.005 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DFG MAK PEAK</td>
<td>▶ MAK 15 minute average value, 1-hr interval, 4 per shift</td>
</tr>
</tbody>
</table>

#### Polyether Diol

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Guideline</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>Polyether Diol</td>
<td>25322-69-4</td>
<td>NE</td>
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#### Polyether Triol

<table>
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<th>Chemical Name</th>
<th>CAS #</th>
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<th>Value</th>
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<tbody>
<tr>
<td>Polyether Triol</td>
<td>25791-96-2</td>
<td>NE</td>
<td>NE</td>
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#### Toluene-2,4-Diisocyanate

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Guideline</th>
<th>Value</th>
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<tbody>
<tr>
<td>Toluene-2,4-Diisocyanate</td>
<td>584-84-9</td>
<td>MAK TWA</td>
<td>0.005 ppm (NIC: 0.001), Sensitizer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL TWA</td>
<td>0.02 ppm (NIC: 0.003), Sensitizer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL STEL</td>
<td>0.02 ppm (ceiling) [CAS# 584-84-9]</td>
</tr>
</tbody>
</table>

#### Toluene-2,6-Diisocyanate

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Guideline</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene-2,6-Diisocyanate</td>
<td>91-08-7</td>
<td>MAK TWA</td>
<td>0.005 ppm</td>
</tr>
</tbody>
</table>

#### ODOR THRESHOLD
Water: Not available.
Mixture: ≥ 200°C (> 392°F)

#### COLOR
Clear, yellow.

#### MOLECULAR FORMULA
Mixture.

#### ODOR THRESHOLD
Not available.

#### PERCENT VAPORABLE BY VOLUME
< 10 mg/L.

#### MOLECULAR WEIGHT
266-6000 (average)

#### VAPOR DENSITY
Not available.

#### BOILING POINT
> 200°C (> 392°F)

#### EXPANSION RATIO
Not applicable.

#### pH
Not available.

#### EVAPORATION RATE
Not available.

#### SPECIFIC VOLUME
Not available.

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**9. PHYSICAL and CHEMICAL PROPERTIES**

The following information is available for the product.

**FORM:** Liquid.

**MOLECULAR WEIGHT:** Mixture.

**ODOR:** Characteristic of isocyanates.

**SPECIFIC GRAVITY:** 1.04

**WATER SOLUBILITY:** Insoluble

**HOW TO DETECT THIS SUBSTANCE (WARNING PROPERTIES):** The appearance and odor of this product may act as warning properties in the event of an accidental release.

The following information is available for the Polyether Triol component.

**MOLECULAR FORMULA:** C₃(n+3)-(H₆n+8)-(O₇n+3)

**ODOR:** Gasoline-like.

**VAPOR DENSITY:** Not available.

**POUR POINT:** ~ -32 to -18°C (~ -26 to 0°F)

**SPECIFIC GRAVITY:** 20°C (water = 1): 1.01-1.15

**SOLUBILITY IN WATER:** 1-50 g/100 mL

**VAPOR PRESSURE:** Extremely low.

**COEFFICIENT WATER/OIL DISTRIBUTION:** Not available.
The following information is available for the toluene disiocyanate components (as a mixture). MOLECULAR FORMULA: Mixture MOLECULAR WEIGHT: Mixture ODOR: Solvent-like ODOR THRESHOLD: Not determined. SPECIFIC GRAVITY @ 20°C (water = 1): ~1.15 EVAPORATION RATE (n-BuAc = 1): Not available. VAPOR DENSITY (air = 1): > 1 VAPOR PRESSURE @ 20°C: ~ 11 mbar pH: Not available. PERCENT VOLATILE: 25-25% (est.) BOILING POINT: ~ 145.7°C (~ 293°F) FREEZING/MELTING POINT: Not available. SOLUBILITY IN WATER: Reacts. OTHER SOLUBILITIES: Not available. FLASH POINT: ~ 40°C (~ 104°F) LOG COEFFICIENT WATER/OIL DISTRIBUTION: Not available. 

10. STABILITY and REACTIVITY

CHEMICAL STABILITY: Stable under normal circumstances of use and handling. May become unstable if stabilizer becomes depleted. At temperatures greater than 177°C (350°F), the Toluene Disiocyanate components is product can form carbodiimides with the release of carbon dioxide, which can cause pressure build up in closed containers.

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

INCOMPATIBLE MATERIALS: Based on components, this product may be incompatible with amines, water, strong bases, alcohols, copper alloys, zinc, tin and aluminum compounds.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion: Thermal decomposition of this product can generate formaldehyde, carbon oxides, nitrogen oxides, hydrogen cyanide, mercury compounds, isocyanates and isocyanic acid. Hydrolysis: Carbon dioxide, heat and urea polymers.

POSSIBILITY OF HAZARDOUS REACTIONS: This product may undergo hazardous polymerization in contact with water or materials to which it is incompatible. The reaction may produce heat, carbon dioxide and urea polymers; reaction may be vigorous. Containers may rupture. Due to the high level of the Polyether Triol component, this product may form unstable or flammable peroxides on prolonged exposure to air if stabilizer is depleted.

PART IV Is there any other useful information about this material?

11. TOXICOLOGICAL INFORMATION

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

Contact with Skin or Eyes: Depending on the duration of skin contact, skin overexposures can cause reddening, discomfort and to severe irritation. Prolonged or further contact can cause severe inflammation, redness, rash, swelling and blistering. Repeated skin exposure to low concentration can cause dermatitis. Skin contact can cause allergic reaction. Brief contact with the liquid or vapors from this product and the eyes can cause irritation, reddening and watering. Direct eye contact may cause severe eye irritation.

Skin Absorption: Prolonged skin contact may cause adverse systemic toxicity by skin absorption as described under ingestion or inhalation, as well as sensitization and allergic reaction to the skin.

Ingestion: If the product is swallowed, it can irritate the mouth, throat, and other tissues of the gastro-intestinal system or cause burns and may cause nausea, vomiting, and diarrhea. Symptoms can include dizziness, vomiting and incoordination. Ingestion of large amounts may be harmful and cause systemic toxicity. Aspiration into the lungs after ingestion can pose a serious hazard of chemical and pulmonary edema. Ingestion may be fatal.

Inhalation: Inhalation of vapors, mists, or sprays of this product can moderately to severely irritate the tissues of the nose, mouth, throat, and upper respiratory system. Symptoms of overexposure may include coughing, sneezing, and difficulty breathing. Severe overexposure via inhalation may result in a potentially fatal respiratory disorder (e.g., pulmonary edema, chemical pneumonitis); symptoms may be delayed by hours or even days. Inhalation of high concentrations of this product (as may occur in a poorly ventilated area) may be fatal. Repeated inhalation of mists of this product may cause respiratory disorders (e.g., bronchitis). Inhalation can also lead to adverse central nervous system effects, including dizziness, incoordination, nausea and vomiting. Chronic inhalation of low concentration may cause permanent damage to the lungs and reduced lung function. Effects such as euphoria, muscle incoordination and loss of consciousness have been reported after severe exposure to toluene disiocyanates. Inhalation can cause respiratory sensitization and allergic reaction as described further in this Section.

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

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

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

ISOPHORONE DIISOCYANATE: Standard Draize Test (Skin-Rabbit) 1%/5 days-continuous

LD₅₀ (Oral-Rat) 4825 mg/kg

LD₂₀ (Oral-Cat) 1 ml/kg

LC₅₀ (Inhalation-Rat) 123 mg/m⁴ hours

LC₅₀ (Inhalation-Guinea Pig) 118 mg/m³/1 hour: Behavioral: somnolence (general depressed activity); Lungs, Thorax, or Respiration: dyspnea; Nutritional and Gross Metabolic: weight loss or decreased weight gain

LDLo (Skin-Rat) 1 ml/kg

LDLo (Oral-Mouse) 2500 μL/kg

TCLo (Inhalation-Rat) 7.5 mg/m³/6 hours: Lungs, Thorax, or Respiration: acute pulmonary edema, changes in lung weight

TCLo (Inhalation-Rat) 7.5 mg/m³/6 hours: Lungs, Thorax, or Respiration: other changes

TCLo (Inhalation-Rat) 170 mg/m³/4 hours/weeks- intermittent: Lungs, Thorax, or Respiration: changes in lung weight; Liver: changes in liver weight; Nutritional and Gross Metabolic: weight loss or decreased weight gain

ISOPHORONE DIISOCYANATE (continued):

TCLo (Inhalation-Rat) 7.5 mg/m³/6 hours: Nutritional and Gross Metabolic: body temperature decrease

TCLo (Inhalation-Mouse) 7.5 mg/m³/3 days- intermittent: Immunological Including Allergic: increased immune response; Biochemical: Metabolism (Intermediate): other proteins, effect on inflammation or mediation of inflammation

TDLo (Oral-Mouse) 415 mg/kg: female 8-12 days after conception: Reproductive: Effects on Newborn: viability index (e.g., # alive at day 4 per # born alive)

TDLo (Skin-Mouse) 220 mg/kg/12 days- intermittent: Skin and Appendages: cutaneous sensitization, experimental (after topical exposure); Biochemical: Metabolism (Intermediate): other proteins, effect on inflammation or mediation of inflammation

TDLo (Skin-Mouse) 480 mg/kg/28 days- intermittent: Immunological Including Allergic: increase in humoral immune response

TDLo (Skin-Mouse) 1 ppb/3 days- intermittent: Immunological Including Allergic: increased immune response; Biochemical: Metabolism (Intermediate): other proteins, effect on inflammation or mediation of inflammation

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Immediately upon exposure (within an hour), several hours after known human skin and act with even a small amount of toluene diisocyanate. Following removal from exposure, some sensitized workers may experience:

- Immediate: Gastrointestinal: changes in structure or function of salivary glands.
- LD₅₀ (Intravenous): 2 mg/kg: Sense Organs and Special Senses (Olfaction): effect, not otherwise specified.
- LD₅₀ (Mouse) 7.5 mg/kg/10 days: Other changes; Related to Chronic Data: death.
- LD₅₀ (Mouse) 75 mg/kg: Lungs, Thorax, or Respiration: structural or functional change in trachea or bronchi.
- TCL₀ (Mouse) 20 ppm/4 hours: Behavioral: irritant; Lungs, Thorax, or Respiration: cough, spasm.
- TCL₀ (Human) 1 ppm: Other changes; Related to Chronic Data: death.
- NTP: 62-5

**CARCINOGENIC POTENTIAL:** The following table summarizes the carcinogenicity listing for the components of this product.

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>IARC</th>
<th>EPA</th>
<th>NTP</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>PROP 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyether Diol</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Polyether Triol</td>
<td>No</td>
<td>No</td>
<td>R</td>
<td>Ca</td>
<td>A4</td>
<td>No</td>
<td>Toluene Diisocyanate Mixture (CAS# 26471-62-5)</td>
</tr>
<tr>
<td>Toluene 2,4 &amp; 2,6-Diisocyanates</td>
<td>2B</td>
<td>No</td>
<td>R</td>
<td>Ca</td>
<td>A4</td>
<td>No</td>
<td>Toluene Diisocyanate Mixture (CAS# 26471-62-5)</td>
</tr>
</tbody>
</table>

**TOLUENE 2,4-DIISOCYANATE (continued):**

- LD₅₀ (Skin Mouse) 240 mg/kg/28 days: Immunological Including Allergic: increase in immunological immune response.
- LD₅₀ (Skin Mouse) 0.03 mL/kg: Skin and Appendages: cutaneous sensitization, experimental (after topical exposure).
- LD₅₀ (Skin Mouse) 1.8 µL/kg/3 days: Skin and Appendages: cutaneous sensitization, experimental (after topical exposure).
- LD₅₀ (Skin Mouse) 18 µL/kg/17 days: Skin and Appendages: cutaneous sensitization, experimental (after topical exposure)/TDLo (Skin Mouse) 18.2 µL/kg/31 days: Skin and Appendages: cutaneous sensitization, experimental (after topical exposure).
- LD₅₀ (Skin Mouse) 90 µg/kg/3 days: Immunological Including Allergic: increase in immunological immune response.

**SENSITIVITY TO THE PRODUCT:** This product contains toluene diisocyanate compounds, which are known human skin and respiratory sensitizers. Exposure can cause allergic reactions. Cross-sensitization between different isocyanates may occur.

**IRRITANT OF PRODUCT:** This product is irritating by all routes of exposure.

**INHIBITORY OF PRODUCT:** This product contains toluene diisocyanate compounds, which are known human skin and respiratory sensitizers. Exposure can cause allergic reactions. Cross-sensitization between different isocyanates may occur.

**Respiratory Sensitization:** Initial symptoms of respiratory reactions may appear to be cold or mild hay fever. However, severe asthmatic symptoms can develop and include wheezing, chest tightness, shortness of breath, difficulty breathing and/or coughing. Fever, chills, general feelings of discomfort, headache, and fatigue can also occur. Symptoms may occur immediately upon exposure (within an hour), several hours after exposure or both, and/or at night. Typically, the asthma improves with removal from exposure (e.g. weekends or vacations) and returns, in some cases, in the form of an “acute attack,” on renewed exposure. Sensitized people who continue to work with toluene diisocyanates may develop symptoms sooner following each exposure. The number and severity of symptoms may increase. Death has occurred in sensitized individuals accidentally exposed to relatively low concentrations of toluene diisocyanate. Following removal from exposure, some sensitized workers may continue to show a slow decline in lung function and have persistent respiratory problems such as asthmatic symptoms, chronic bronchitis, and hypersensitivity for months or years. Exposure to isocyanates is likely to aggravate existing respiratory disease, such as chronic bronchitis, and emphysema.

**Skin Sensitization:** Repeated skin contact with toluene diisocyanates has caused skin sensitization in humans, although the condition is not common. Once a person is sensitized, contact with even a small amount can cause outbreaks of dermatitis with symptoms such as redness, rash, itching and swelling. This can spread from the hands or arms to the face and body. Some people who inhaled toluene diisocyanate developed extensive skin rashes can last weeks.
11. TOXICOLOGICAL INFORMATION (Continued)

TOXICOLOGICAL SYNERGISTIC PRODUCTS: None known.

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

Mutagenicity Embryotoxicity/Teratogenicity/Reproductive Toxicity: Mercury compounds, such as the trace Phenyl Mercury Neodecanoate components, can cause reproductive toxicity effects. No specific information is available.

BIOLOGICAL EXPOSURES INDICES (BEIs): The following BEI’s have been established for components, as follows:

<table>
<thead>
<tr>
<th>CHEMICAL DETERMINANT</th>
<th>SAMPLING TIME</th>
<th>BEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylenes</td>
<td>End of Shift</td>
<td>1.5 g/g Creatinine</td>
</tr>
</tbody>
</table>

Methylhippuric Acid in Urine

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

MOBILITY: This product has not been tested for mobility in soil. The following information is available for the toluene diisocyanate components.

2,4-TOLUENE DIISOCYANATE:

- Toluene Diisocyanate hydrolyzes rapidly in aqueous solution; therefore, leaching and adsorption to sediment will not be environmentally important.
- 2,6-TOLUENE DIISOCYANATE:

The following information is available for the toluene diisocyanate components.

PERSISTENCE AND BIODEGRADABILITY: This product has not been tested for persistence or biodegradability. The following information is available for the toluene diisocyanate components.

2,4-TOLUENE DIISOCYANATE:

- If released to air, a vapor pressure of 8 x 10^-3 mm Hg at 25°C indicates 2,4-toluene Diisocyanate will exist solely as a vapor in the ambient atmosphere. Vapor-phase 2,4-toluene Diisocyanate will be degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 1.7 days. Atmospheric degradation may also occur through contact with clouds, fog or rain. If released to water or moist soil, 2,4-toluene Diisocyanate is not expected to leach or adsorb to solids due to its rapid degradation reaction with water. 2,4-Toluene Diisocyanate is not expected to volatilize from dry soil surfaces based upon its vapor pressure. If spilled on wet land, TDI is rapidly degraded. If released into water, a crust forms around the liquid TDI and <0.5% of the original material remains after 35 days. Low concentrations of TDI hydrolyze in the aqueous environment in approximately a day.

2,6-TOLUENE DIISOCYANATE:

- If released to air, a vapor pressure of 0.02 mm Hg at 25°C indicates 2,6-toluene Diisocyanate will exist solely as a vapor in the ambient atmosphere. Vapor-phase 2,6-Toluene Diisocyanate will be degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 2.5 days. Atmospheric degradation may also occur through contact with clouds, fog or rain. If released to moist soil, 2,6-Toluene Diisocyanate is not expected to leach or adsorb to solids due to its rapid degradation reaction with water. In one experiment simulating a spill, 5.5% of the original material remained after 24 hours and in a field situation the concentration of TDI had declined to the ppm level in 12 weeks. If released to water, 2,6-Toluene Diisocyanate is not expected to leach or adsorb to solids due to its rapid degradation reaction with water. If released into water in a spill situation, a crust forms around the liquid TDI mixture and <0.5% of the original material remains after 35 days. Low concentrations of TDI hydrolyze in the aqueous environment in approximately a day.

BIOACCUMULATION POTENTIAL: This product has not been tested for bio-accumulation potential. The following information is available for the toluene diisocyanate components.

2,4-TOLUENE DIISOCYANATE:

- 2,4-Toluene Diisocyanate hydrolyzes rapidly in aqueous solution; therefore, bioconcentration will not be environmentally important.

2,6-TOLUENE DIISOCYANATE:

- 2,6-Toluene Diisocyanate decomposes in water; therefore, bioconcentration in aquatic organisms is not expected to be an important environmental fate process.

ECOTOXICITY: This product has not been tested for aquatic or animal toxicity. All release to terrestrial, atmospheric and aquatic environments should be avoided. The following aquatic toxicity data are available for the toluene diisocyanate components.

2,4-TOLUENEDIISOCYANATE:

- LC₅₀ (fathead minnow) 24 hours = 194.9 mg/L
- LC₅₀ (fathead minnow) 48 hours = 172.1 mg/L
- LC₅₀ (fathead minnow) 96 hours = 164.5 mg/L
- TLM (fathead minnow) 96 hours = 10.1 ppm (est.)

2,6-TOLUENE DIISOCYANATE:

- LC₅₀ (Pimephales promelas fathead minnow) 24 hours = 195 mg/L/Conditions of bioassay not specified

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

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

13. DISPOSAL CONSIDERATIONS

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

U.S. EPA WASTE NUMBER: Not applicable.

14. TRANSPORTATION INFORMATION

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

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

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

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

ADDITIONAL U.S. REGULATIONS:

U.S. SARA Reporting Requirements: The following 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.

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>SECTION 302 EHS (TPQ) (40 CFR 355, Appendix A)</th>
<th>SECTION 304 RQ (40 CFR Table 302.4)</th>
<th>SECTION 313 TRI (threshold) (40 CFR 372.65)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isophorone Diisocyanate</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2,4-Toluene Diisocyanate</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2,6-Toluene Diisocyanate</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

U.S. SARA 302 Extremely Hazardous Threshold Planning Quantity (TPQ): Isophorone Diisocyanate: 500 lb (227 kg); 2,4-Toluene Diisocyanate: 500 lb (227 kg); 2,6-Toluene Diisocyanate: 100 lb (454 kg)

U.S. SARA 304 Extremely Hazardous Reportable Quantity (RQ): Isophorone Diisocyanate: 500 lb (227 kg); 2,4-Toluene Diisocyanate: 100 lb (454 kg); 2,6-Toluene Diisocyanate: 100 lb (454 kg)

U.S. SARA Hazard Categories (Section 311/312, 40 CFR 370-21): ACUTE: Yes; CHRONIC: Yes; FIRE: No; REACTIVE: Yes; SUDDEN RELEASE: No

U.S. CERCLA Reportable Quantity (RQ): 2,4-Toluene Diisocyanate = 100 lb (45.4 kg); 2,6-Toluene Diisocyanate = 100 lb (45.4 kg); Toluene = 100 lb (45.4 kg)

U.S. Clean Air Act (CA 112r) Threshold Quantity (TQ): 2,4-Toluene Diisocyanate = 10,000 lb (4540 kg); 2,6-Toluene Diisocyanate = 10,000 lb (4540 kg)

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): Toluene Diisocyanate Mixture (CAS# 26471-62-5) is on the California Proposition 65 lists. WARNING! This product contains a compound known to the State to cause cancer.

ADDITIONAL CANADIAN REGULATIONS:

Canadian DSL/NDSL Inventory Status: The components of this product are on the DSL Inventory.

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: Not applicable.

Canadian WHMIS Regulations: This product is classified as a Controlled Product, Hazard Classes, D1A/D2A (Poisonous and Infectious Material, Other Effects/Very Toxic: Inhalation Toxicity, Teratogenicity and Embryotoxicity), D2B (Poisonous and Infectious Material, Other effects/Toxic: Skin Irritation) as per the Controlled Product Regulations.

ADDITIONAL MEXICAN REGULATIONS:

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

16. OTHER INFORMATION

U.S. ANSI STANDARD LABELING (Precautionary Statements): DANGER! COMBUSTIBLE LIQUID. TOXIC BY INHALATION, MAY CAUSE EYE, SKIN AND RESPIRATORY IRRITATION, CAN CAUSE SKIN AND RESPIRATORY SENSITIZATION AND ALLERGIC REACTION. CONTAINS COMPOUNDS THAT ARE SUSPECT CARCINOGENS. POSES ASPIRATION HAZARD IF SWALLOWED. Avoid contact with eyes, skin, and clothing. Avoid breathing mist, vapors or fume. Do not taste or swallow. Wash thoroughly after handling. Keep container tightly closed. Use only with adequate ventilation. Keep away from heat and flame. Wear gloves, eye protection, respiratory protection, and appropriate body protection. FIRST-AID: In case of contact, immediately flush skin and eyes with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, do not induce vomiting. Get medical attention. IN CASE OF FIRE: Use water fog, foam, dry chemical, or CO₂. IN CASE OF SPILL: Absorb spilled product with poly pads or other suitable absorbing material. Place all spill residue in an appropriate container and seal. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada.

GLOBAL HARMONIZATION SYSTEM CLASSIFICATION:

Classification: Carcinogenic Category 2, Acute Inhalation Toxicity Category 3, Skin Irritation Category 2, Specific Target Organ Toxicity (Inhalation-Respiratory Irritation) Single Exposure Category 3, Skin Irritation Category 2, Respiratory Sensitizer Category 1, Skin Sensitization Category 1, Aquatic Chronic Toxicity Category 3

Signal Word: Danger


Disposal: P501: Dispose of contents/containers in accordance with all local, regional, national and international regulations.

Hazard Symbols/Pictograms: GH506, GH508
The information presented in this Material Safety Data Sheet is presented in good faith based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION OR RELIABILITY OF THE RESULTS FOR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE.

In no case shall the descriptions, information, data or designs provided be considered a part of our terms and conditions of sale. All materials may present hazards and should be used with caution. Because many factors may affect processing or application/use, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. A formal risk assessment is assumed for any damage or injury resulting from abnormal use or from any failure to follow any of the precautions, warnings, and directions of use. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.

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

REVISION DETAILS: August 2012 - Update and revise entire MSDS to include current GHS requirements. October 2013: Change of formulation.

DATE OF PRINTING: December 31, 2013

DEFINITIONS OF TERMS

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

KEY ACRONYMS:

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

CEILING LEVEL: The concentration that shall not be exceeded during any part of the work day. Hazardous materials that are subject to OSHA's Permissible Exposure Limits are regulated in terms of time-weighted averages (TWA) and shorter-term exposure limits (STEL). The STEL is an 8-minute exposure time for which no employee is permitted to be exposed for an 8-hour workday.

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

DNPH: 2,4-Dinitrophenylhydrazine for the detection of nitro groups in milder conditions.

Draize: 1: Temporary or transitory irritation may occur; prolonged exposure may result in sensitization. 2: Moderate or slight irritation; may cause skin inflammation without permanent damage. Mechanical irritation may occur. Draize = 0. Oral Toxicity LD₅₀ Rat: > 5000 mg/kg. Dermal Toxicity LD₅₀ Rat or Rabbit: > 2000 mg/kg. Inhalation Toxicity LC₅₀ 4-hr Rat: > 20 mg/L. 1 Slight Hazard: Minor reversible irritation may occur in the skin if swallowed; may cause skin irritation and damage to the developing organism if ingested. Skin Irritation: Slightly or mildly irritating. Draize = 3. Oral Toxicity LD₅₀ Rat: > 500-5000 mg/kg. Dermal Toxicity LD₅₀ Rat or Rabbit: > 1000-2000 mg/kg. Inhalation Toxicity LC₅₀ 4-hr Rat: > 200 mg/L. 2 Moderate Hazard: Temporary or transitory irritation may occur; prolonged exposure may affect the CNS. Skin Irritation: Moderately irritating; primary irritant; sensitizer. Draize ≥ 3, with no destruction of dermal tissue. Eye Irritation: Moderately to severely irritating; temporary or transitory irritation; may cause permanent damage to the conjunctiva (sensitive eye) or the cornea (sensitized eye). Draize ≥ 3, with reversible effects. Oral Toxicity LD₅₀ Rat: 30-500 mg/kg. Dermal Toxicity LD₅₀ Rat or Rabbit: > 200-1000 mg/kg. Inhalation Toxicity LC₅₀ 4-hr Rat: > 0.5-2 mg/L.

16. OTHER INFORMATION (Continued)

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM HAZARD RATINGS (continued):

HEALTH HAZARD (continued): 3 Serious Hazard: Major injury likely unless prompt action is taken and effective medical treatment is given. Usually high level of medical treatment is necessary. Damage to the skin, eyes, or respiratory system will occur. PII or Draize > 5-8, with destruction of tissue. Eye Irritation: Corrosive, irreversible, irreversible ocular damage. IDLH: Not sufficient for final evaluation. TWA or REL: Not available.

RED: Materials that are suspected of being germ cell mutagens. Category 4 for germ cell mutagens cannot apply. At some time in the future, it is conceivable that a Category 4 classification may be assigned to this material.

S Local Hazard: Minor irritation may occur. Mechanical irritation may occur. Draize = 0. Oral Toxicity LD₅₀ Rat: > 5000 mg/kg. Dermal Toxicity LD₅₀ Rat or Rabbit: > 2000 mg/kg. Inhalation Toxicity LC₅₀ 4-hr Rat: > 20 mg/L. 1 Slight Hazard: Minor reversible irritation may occur in the skin if swallowed; may cause skin irritation and damage to the developing organism if ingested. Skin Irritation: Slightly or mildly irritating. Draize = 0. Oral Toxicity LD₅₀ Rat: > 5000 mg/kg. Dermal Toxicity LD₅₀ Rat or Rabbit: > 2000 mg/kg. Inhalation Toxicity LC₅₀ 4-hr Rat: > 20 mg/L. 2 Moderate Hazard: Temporary or transitory irritation may occur; prolonged exposure may affect the CNS. Skin Irritation: Moderately irritating; primary irritant; sensitizer. Draize ≥ 3, with no destruction of dermal tissue. Eye Irritation: Moderately to severely irritating; temporary or transitory irritation; may cause permanent damage to the conjunctiva (sensitive eye) or the cornea (sensitized eye). Draize ≥ 3, with reversible effects. Oral Toxicity LD₅₀ Rat: 30-500 mg/kg. Dermal Toxicity LD₅₀ Rat or Rabbit: > 200-1000 mg/kg. Inhalation Toxicity LC₅₀ 4-hr Rat: > 0.5-2 mg/L.

Other uses of this product and/or of any of its components shall be made solely at the risk of the person using the same and in no event shall the suppliers be held responsible for any damages, losses or injury resulting from such use or for any failure to follow any of the precautions, warnings, and directions of use. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use.
### DEFINITIONS OF TERMS (Continued)

#### NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS (continued)

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATERIALS IDENTIFICATION SYSTEM HAZARD RATINGS (continued):</td>
<td></td>
</tr>
<tr>
<td>PHYSICAL HAZARD (continued): 3 Water Reactivity: Materials that may form explosive reactions with water. Organic Peroxides: Materials that are capable of detonation or explosive reaction, but require a strong initiating source or must be heated under confinement before initiation; or materials that react explosively with water.</td>
<td></td>
</tr>
<tr>
<td>Dynamite: Materials that are capable of detonation or explosive reaction, but do not have a mass explosion hazard. Compressed Gases: Oxygen: Pressure: 5147 psi absolute at 21°C (70°F) (500 psig).</td>
<td></td>
</tr>
<tr>
<td>Pyrophoric Materials: Materials which give off a flammable vapor or gas when placed in an atmosphere of air at 37°C (99°F) or lower and at normal pressures or when exposed to a temperature of 816°C (1500°F) for a period of 5 minutes in accordance with Annex D of NFPA 704. 1 Materials that must be preheated before ignition can occur. Materials in this degree require considerable preheating, under all ambient temperature conditions, before ignition and will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.</td>
<td></td>
</tr>
</tbody>
</table>

#### FLAMMABILITY HAZARD (continued): 2 (continued): Solid and semisolids that readily give off flammable vapors. | |

#### FLAMMABILITY LIMITS IN AIR: Much of the information related to fire and explosion is derived from the National Fire Protection Association (NFPA) Point Minimum temperature at which a liquid gives off sufficient gas to form an ignitable mixture with air near the surface of the liquid or within the test vessel used. | |

### 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. | |

### ECOSYSTEM INFORMATION: | |

### REGULATORY INFORMATION: This section explains the impact of various laws and regulations on the material. | |

### EPA: U.S. Environmental Protection Agency. | |

### WIMIS: Canadian Workplace Hazardous Materials Information System. | |

### TRANSPORT CANADA: Transport Canada. | |

### DCI: DynaTroll II Part A Activator |