Section 1. Identification

GHS product identifier : COOLCUT® 400 U
SDS no. : C-03E
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against
Identified uses : Metal working fluid, cutting lubricant and coolant.

Manufacturer
: Walter Surface Technologies Inc.
5977 Trans Canada Highway
Pointe-Claire, QC H9R 1C1
Canada
info@walter.com
www.walter.com
General Information: 1-888-592-5837

Emergency telephone number (with hours of operation)
24 hours/day, 7 days/week.

Section 2. Hazards identification

OSHA/HCS status
: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture
: SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1
AQUATIC HAZARD (ACUTE) - Category 2
AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements
Hazard pictograms :

Signal word
: Danger

Hazard statements
: H318 - Causes serious eye damage.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements
Prevention
: P280 - Wear protective gloves. Wear eye or face protection.
P273 - Avoid release to the environment.
P261 - Avoid breathing vapor.
P264 - Wash hands thoroughly after handling.
P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.
Section 2. Hazards identification

Response:
P391 - Collect spillage.
P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.
P333 + P313 - If skin irritation or rash occurs: Get medical attention.
P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage:
Not applicable.

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

Hazards not otherwise classified:
None known.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C16-18, ethoxylated propoxylated</td>
<td>≥10 - ≤25</td>
<td>68002-96-0</td>
</tr>
<tr>
<td>Tall oil</td>
<td>≥3 - ≤5</td>
<td>8002-26-4</td>
</tr>
<tr>
<td>2,2',2''-Nitrilotriethanol</td>
<td>≥1 - ≤3</td>
<td>101-83-7</td>
</tr>
<tr>
<td>2,2'',2'''-Nitrilotriethanol</td>
<td>≥1 - ≤1.5</td>
<td>141-43-5</td>
</tr>
<tr>
<td>Dicyclohexylamine</td>
<td>≥0.1 - ≤0.3</td>
<td>55406-53-6</td>
</tr>
<tr>
<td>2-Aminoethanol</td>
<td>≥1 - ≤1.5</td>
<td>141-43-5</td>
</tr>
<tr>
<td>3-Iodo-2-propynyl butylcarbamate</td>
<td>≥0.1 - ≤0.3</td>
<td>55406-53-6</td>
</tr>
</tbody>
</table>

United States: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.
Canada: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with the amended HPR as of October 2017.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact:
Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician.

Inhalation:
Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
## Section 4. First aid measures

### Skin contact
- Get medical attention immediately. Call a poison center or physician. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

### Ingestion
- Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects
- **Eye contact**: Causes serious eye damage.
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: Causes skin irritation. May cause an allergic skin reaction.
- **Ingestion**: No known significant effects or critical hazards.

#### Over-exposure signs/symptoms
- **Eye contact**: Adverse symptoms may include the following:
  - pain
  - watering
  - redness
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: Adverse symptoms may include the following:
  - pain or irritation
  - redness
  - blistering may occur
- **Ingestion**: Adverse symptoms may include the following:
  - stomach pains

#### Indication of immediate medical attention and special treatment needed, if necessary
- **Notes to physician**: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- **Specific treatments**: No specific treatment.
- **Protection of first-aiders**: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)
Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media**: Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**: None known.

**Specific hazards arising from the chemical**: This material may cause long lasting harmful effects to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products**: Decomposition products may include the following materials:
- Carbon dioxide
- Carbon monoxide
- Nitrogen oxides

**Special protective actions for fire-fighters**: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters**: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders**: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions**: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

**Methods and materials for containment and cleaning up**

**Small spill**: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill**: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
**Section 7. Handling and storage**

**Precautions for safe handling**

**Protective measures**

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene**

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures. Remove contaminated clothing and protective equipment before entering eating areas.

**Conditions for safe storage, including any incompatibilities**

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

---

**Section 8. Exposure controls/personal protection**

**Control parameters**

**United States**

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C16-18, ethoxylated propoxylated</td>
<td>None.</td>
</tr>
<tr>
<td>Tall oil</td>
<td>None.</td>
</tr>
<tr>
<td>2,2',2''-Nitrilotriethanol</td>
<td><strong>ACGIH TLV (United States, 3/2017).</strong> TWA: 5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>None.</td>
</tr>
<tr>
<td>Dicyclohexylamine</td>
<td><strong>ACGIH TLV (United States, 3/2017).</strong> TWA: 3 ppm 8 hours.</td>
</tr>
<tr>
<td>2-Aminoethanol</td>
<td>TWA: 7.5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>STEL: 6 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>STEL: 15 mg/m³ 15 minutes.</td>
</tr>
<tr>
<td></td>
<td><strong>NIOSH REL (United States, 10/2016).</strong> TWA: 3 ppm 10 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 8 mg/m³ 10 hours.</td>
</tr>
<tr>
<td></td>
<td>STEL: 6 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>STEL: 15 mg/m³ 15 minutes.</td>
</tr>
<tr>
<td>3-iodo-2-propynyl butylcarbamate</td>
<td><strong>OSHA PEL (United States, 6/2016).</strong> TWA: 3 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 6 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>None.</td>
</tr>
</tbody>
</table>

**Canada**

**Occupational exposure limits**

---

5/13
Section 8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2',2''-Nitrilotriethanol</td>
<td>CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>CA British Columbia Provincial (Canada, 7/2016). TWA: 5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>CA Ontario Provincial (Canada, 7/2015). TWA: 3.1 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>CA Quebec Provincial (Canada, 1/2014). Skin sensitizer. TWA: 5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 10 mg/m³ 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>2-Aminoethanol</td>
<td>CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 7.5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>8 hrs OEL: 3 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>15 min OEL: 15 mg/m³ 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>15 min OEL: 6 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>CA British Columbia Provincial (Canada, 7/2016). TWA: 3 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>STEL: 6 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>CA Ontario Provincial (Canada, 7/2015). TWA: 3 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>STEL: 6 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>CA Quebec Provincial (Canada, 1/2014). TWAEV: 3 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>TWAEV: 7.5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>STEV: 6 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>STEV: 15 mg/m³ 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 6 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>TWA: 3 ppm 8 hours.</td>
</tr>
</tbody>
</table>

Appropriate engineering controls: No personal respiratory protective equipment normally required. Avoid breathing dust/fume/gas/mist/vapors/spray. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Section 8. Exposure controls/personal protection

**Body protection**: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection**: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**: Use a NIOSH/MSHA approved respirator if there is a risk of exposure at levels exceeding the exposure limits. Advice should be sought from respiratory protection specialists.

Section 9. Physical and chemical properties

**Appearance**
- **Physical state**: Liquid.
- **Color**: Brown.
- **Odor**: Characteristic.
- **Odor threshold**: Not available.
- **pH**: 9.5 [Conc. (% w/w): 5%]

**Melting point**: Not available.
**Boiling point**: Not available.
**Flash point**: Not applicable.

**Evaporation rate**: Not available.

**Flammability (solid, gas)**: Not applicable.

**Lower and upper explosive (flammable) limits**: Not available.

**Vapor pressure**: Not available.
**Vapor density**: Not available.

**Relative density**: 0.981 g/cm³ @ 15°C (59°F)

**Solubility**: Fully miscible in water.

**Partition coefficient: n-octanol/water**

**Auto-ignition temperature**: Product is not self igniting.

**Decomposition temperature**: Not available.

**Viscosity**: Kinematic (20°C (68°F)): 1.7 cm²/s (170 cSt)

**Flow time (ISO 2431)**: Not available.
**VOC content (g/l)**: 0

Section 10. Stability and reactivity

**Reactivity**: No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**: The product is stable.

**Possibility of hazardous reactions**: Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid**: No specific data.
Section 10. Stability and reactivity

Incompatible materials: Reactive or incompatible with the following materials: oxidizing materials.

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C16-18, ethoxylated propoxylated</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>260 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td>Tall oil</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>66 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>2,2',2''-Nitrilotriethanol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>8.79 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Dicyclohexylamine</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>373 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>2-Aminoethanol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1720 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>3-Iodo-2-propynyl butylcarbamate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1470 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2',2''-Nitrilotriethanol</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>10 mg</td>
<td>-</td>
</tr>
<tr>
<td>Dicyclohexylamine</td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 560 mg</td>
<td>-</td>
</tr>
<tr>
<td>Skin - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 750 µg</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2-Aminoethanol</td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>250 µg</td>
<td>-</td>
</tr>
<tr>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>505 mg</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2',2''-Nitrilotriethanol</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Dicyclohexylamine</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
</tbody>
</table>

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Aminoethanol</td>
<td>Category 3</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Iodo-2-propynyl butylcarbamate</td>
<td>Category 1</td>
<td>Larynx</td>
</tr>
</tbody>
</table>

Aspiration hazard

There is no data available.
Section 11. Toxicological information

Information on the likely routes of exposure

Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact: Causes serious eye damage.
Inhalation: No known significant effects or critical hazards.
Skin contact: Causes skin irritation. May cause an allergic skin reaction.
Ingestion: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:
  - pain
  - watering
  - redness

Inhalation: No known significant effects or critical hazards.
Skin contact: Adverse symptoms may include the following:
  - pain or irritation
  - redness
  - blistering may occur

Ingestion: Adverse symptoms may include the following:
  - stomach pains

Potential chronic health effects

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>14820.1 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>110000 mg/kg</td>
</tr>
<tr>
<td>Inhalation (vapors)</td>
<td>1100 mg/L</td>
</tr>
</tbody>
</table>
Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2',2''-Nitrilotriethanol</td>
<td>Acute EC50 609.98 mg/L Fresh water</td>
<td>Crustaceans - Ceriodaphnia dubia - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 11800000 µg/L Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 16000 µg/L Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>21 days</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 70.1 mg/L Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 &gt;100000 µg/L Marine water</td>
<td>Algae - Desmodesmus subspicatus</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 170 mg/L Fresh water</td>
<td>Crustaceans - Crangon crangon - Adult</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 500 ppb Fresh water</td>
<td>Fish - Carassius auratus</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 40 ppb Fresh water</td>
<td>Crustaceans - Hyalella azteca</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 67 µg/L Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td>2-Aminoethanol</td>
<td>Acute EC50 8.42 mg/L Fresh water</td>
<td>Fish - Oncorhynchus mykiss - Juvenile</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 &gt;100000 µg/L Marine water</td>
<td>(Fledgling, Hatchling, Weanling)</td>
<td></td>
</tr>
<tr>
<td>3-Iodo-2-propynyl butylcarbamate</td>
<td>Chronic NOEC 8.4 ppb</td>
<td>Fish - Pimephales promelas</td>
<td>35 days</td>
</tr>
</tbody>
</table>

Persistence and degradability

There is no data available.

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP\text{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tall oil</td>
<td>3.2 to 6.8</td>
<td>-</td>
<td>high</td>
</tr>
<tr>
<td>2,2',2''-Nitrilotriethanol</td>
<td>-1</td>
<td>&lt;3.9</td>
<td>low</td>
</tr>
<tr>
<td>Dicyclohexylamine</td>
<td>2.724</td>
<td>459</td>
<td>low</td>
</tr>
<tr>
<td>2-Aminoethanol</td>
<td>-1.31</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

Mobility in soil

Soil/water partition coefficient (K\text{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
## Section 14. Transport information

<table>
<thead>
<tr>
<th>UN number</th>
<th>DOT Classification</th>
<th>TDG Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN3082</td>
<td>ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dicyclohexylamine, 2-Aminoethanol)</td>
<td>ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dicyclohexylamine, 2-Aminoethanol)</td>
<td>ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dicyclohexylamine, 2-Aminoethanol)</td>
<td>ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dicyclohexylamine, 2-Aminoethanol)</td>
</tr>
</tbody>
</table>

### Additional information

#### DOT Classification
- Non-bulk packages of this product are not regulated as hazardous materials unless transported by inland waterway. This product is not regulated as a hazardous material when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.

#### TDG Classification
- Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9), 2.7 (Marine pollutant mark).
- Non-bulk packages of this product are not regulated as dangerous goods when transported by road or rail.

#### IMDG
- This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

#### IATA
- This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

### Special precautions for user
- Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage. Protect from freezing. Freezing will damage product and render it unusable.

## Section 15. Regulatory information

### U.S. Federal regulations
- TSCA 4(a) proposed test rules: Benzotriazole
- United States inventory (TSCA 8b): All components are listed or exempted.
- Commerce control list precursor: 2,2',2''-Nitritolriethanol

### Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)
- Not listed
Section 15. Regulatory information

Clean Air Act Section 602 Class I Substances : Not listed
Clean Air Act Section 602 Class II Substances : Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304
Composition/information on ingredients
No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312
Classification
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2',2''-Nitrilotriethanol</td>
<td>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td>Dicyclohexylamine</td>
<td>ACUTE TOXICITY (oral) - Category 4</td>
</tr>
<tr>
<td></td>
<td>ACUTE TOXICITY (dermal) - Category 4</td>
</tr>
<tr>
<td></td>
<td>ACUTE TOXICITY (inhalation) - Category 4</td>
</tr>
<tr>
<td></td>
<td>SKIN CORROSION/IRRITATION - Category 1B</td>
</tr>
<tr>
<td></td>
<td>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1</td>
</tr>
<tr>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3</td>
</tr>
<tr>
<td>2-Aminoethanol</td>
<td>ACUTE TOXICITY (oral) - Category 4</td>
</tr>
<tr>
<td></td>
<td>ACUTE TOXICITY (inhalation) - Category 3</td>
</tr>
<tr>
<td></td>
<td>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1</td>
</tr>
<tr>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (larynx) - Category 1</td>
</tr>
<tr>
<td>3-Iodo-2-propynyl butylcarbamate</td>
<td>ACUTE TOXICITY (oral) - Category 4</td>
</tr>
<tr>
<td></td>
<td>ACUTE TOXICITY (inhalation) - Category 3</td>
</tr>
<tr>
<td></td>
<td>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1</td>
</tr>
<tr>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY - Category 1</td>
</tr>
</tbody>
</table>

SARA 313
There is no data available.

State regulations

Massachusetts : The following components are listed: Distillates (petroleum), hydrotreated heavy naphthenic; 2,2',2''-Nitrilotriethanol; Dicyclohexylamine; 2-Aminoethanol
New York : None of the components are listed.
New Jersey : The following components are listed: Distillates (petroleum), hydrotreated heavy naphthenic; 2,2',2''-Nitrilotriethanol; Dicyclohexylamine; 2-Aminoethanol
Pennsylvania : The following components are listed: 2,2',2''-Nitrilotriethanol; Dicyclohexylamine; 2-Aminoethanol

California Prop. 65
No products were found.

Canada

Canadian lists
Section 15. Regulatory information

Canadian NPRI: None of the components are listed.
CEPA Toxic substances: None of the components are listed.
Canada inventory (DSL NDSL): All components are listed or exempted.

International lists
National inventory
Australia: All components are listed or exempted.
China: All components are listed or exempted.
New Zealand: All components are listed or exempted.
Philippines: All components are listed or exempted.
Republic of Korea: All components are listed or exempted.
Taiwan: All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKIN CORROSION/IRRITATION - Category 2</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SKIN SENSITIZATION - Category 1</td>
<td>Calculation method</td>
</tr>
<tr>
<td>AQUATIC HAZARD (ACUTE) - Category 2</td>
<td>Calculation method</td>
</tr>
<tr>
<td>AQUATIC HAZARD (LONG-TERM) - Category 2</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

History
Date of issue mm/dd/yyyy: 02/28/2018
Date of previous issue: Not applicable.
Version: 1
Prepared by: KMK Regulatory Services Inc.

Notice to reader
To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.