SECTION 1: Product and company identification

Product name: Liquid Ice Melt
Use of the substance/mixture: Ice melter
Product code: 0275
Company: Total Solutions
P.O. Box 240014
Milwaukee, WI 53224 - USA
T (414) 354-6417
Emergency number: Chemtrec: (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Flam. Liq. 3 H226
Acute Tox. 4 (Oral) H302
Acute Tox. 4 (Dermal) H312
Acute Tox. 4 (Inhalation:dust,mist) H332
Skin Irrit. 2 H315
Repr. 1B H360
Lact. H362
STOT SE 1 H370
STOT RE 2 H373

2.2. Label elements
GHS-US labeling
Hazard pictograms (GHS-US): GHS02 GHS07 GHS08
Signal word (GHS-US): Danger
Hazard statements (GHS-US): Flammable liquid and vapor
Harmful if swallowed, in contact with skin or if inhaled
Causes skin irritation
May damage fertility or the unborn child
May cause harm to breast-fed children
Causes damage to organs (blood, central nervous system, eyes) (Inhalation)
May cause damage to organs (kidneys) through prolonged or repeated exposure (oral)

Precautionary statements (GHS-US): Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, open flames, sparks. - No smoking.
Keep container tightly closed.
Ground/Bond container and receiving equipment
Use explosion-proof electrical, lighting equipment
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe mist, spray.
Avoid contact during pregnancy/while nursing.
Wash thoroughly after handling
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear eye protection, protective clothing, protective gloves.
If swallowed: Call a doctor, a POISON CENTER if you feel unwell
If on skin: Wash with plenty of soap and water.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with
water/shower
If inhaled: Remove person to fresh air and keep comfortable for breathing
If exposed: Call a poison center/doctor
If exposed or concerned: Get medical advice/attention.
Call a doctor, a POISON CENTER if you feel unwell
Get medical advice/attention if you feel unwell.
Specific treatment (see First aid measures on this label)
Rinse mouth.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
In case of fire: Use carbon dioxide (CO2), dry extinguishing powder, foam to extinguish.
2.3. Other hazards
No additional information available

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances
Not applicable
Full text of H-phrases: see section 16

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylene glycol</td>
<td>(CAS-No.) 107-21-1</td>
<td>25-35</td>
<td>Acute Tox. 4 (Oral), H302&lt;br&gt;                 Skin Irrit. 2, H315&lt;br&gt; STOT SE 1, H370&lt;br&gt; STOT RE 2, H373</td>
</tr>
<tr>
<td>methanol</td>
<td>(CAS-No.) 67-56-1</td>
<td>20-30</td>
<td>Flam. Liq. 2, H225&lt;br&gt; Acute Tox. 3 (Oral), H301&lt;br&gt; Acute Tox. 3 (Dermal), H311&lt;br&gt; Acute Tox. 3 (Inhalation), H331&lt;br&gt; Lact., H362&lt;br&gt; Repr. 1B, H360&lt;br&gt; STOT SE 1, H370</td>
</tr>
<tr>
<td>diethylene glycol</td>
<td>(CAS-No.) 111-46-6</td>
<td>1-5</td>
<td>Acute Tox. 4 (Oral), H302&lt;br&gt; STOT RE 2, H373</td>
</tr>
</tbody>
</table>

A specific chemical identity and/or percentage of composition has been withheld as a trade secret. Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: If you feel unwell, seek medical advice (show the label where possible). IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact: Take off immediately all contaminated clothing and wash it before reuse. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion: Do NOT induce vomiting. Rinse mouth. Immediately call a poison center or doctor/physician. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects: May damage fertility or the unborn child. May cause harm to breast-fed children. Causes damage to organs (blood, central nervous system) (Inhalation). May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

Symptoms/effects after inhalation: Harmful if inhaled.

Symptoms/effects after skin contact: Harmful in contact with skin.

Symptoms/effects after eye contact: Direct contact with the eyes is likely to be irritating.

Symptoms/effects after ingestion: Harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Keep watching the victim. Symptoms may be delayed.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Dry chemical powder. Carbon dioxide. Alcohol-resistant foam.

Unsuitable extinguishing media: Solid water jet ineffective as extinguishing medium.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Flammable liquid and vapor. A methanol fire may not be visible to the naked eye.

Reactivity: Upon combustion: CO and CO2 are formed.

5.3. Advice for firefighters

Firefighting instructions: Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Take account of environmentally hazardous firefighting water.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Remove ignition sources. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

Emergency procedures: Evacuate unnecessary personnel. No naked flames or sparks.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection.
Emergency procedures: Stop leak if safe to do so. Stop release. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment: Contain released product, pump into suitable containers.
Methods for cleaning up: This material and its container must be disposed of in a safe way, and as per local legislation. Take up liquid spill into inert absorbent material, e.g.: sand/earth. Clean contaminated surfaces with a soap solution.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Comply with the legal requirements. Do not handle until all safety precautions have been read and understood. Do not breathe vapors. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing. Handle and open the container with care. Keep away from sources of ignition - No smoking. Take precautions against electrostatic charges. Obtain special instructions before use. Remove contaminated clothing immediately.

Hygiene measures: Wash thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Comply with applicable regulations. Proper grounding procedures to avoid static electricity should be followed.
Storage conditions: Keep container tightly closed. Keep only in the original container in a cool, well ventilated place away from: sparks, open flames, excessive heat.
Incompatible products: Strong oxidizers.
Incompatible materials: Sources of ignition. Heat sources.
Storage area: Store away from heat. Store in a cool area. Store in a dry area. Store in a well-ventilated place. Keep locked up.

Special rules on packaging: Keep only in original container. meet the legal requirements.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

**diethylene glycol (111-46-6)**

<table>
<thead>
<tr>
<th>Source</th>
<th>Limit (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>25 ppm</td>
</tr>
</tbody>
</table>

**ethylene glycol (107-21-1)**

<table>
<thead>
<tr>
<th>Source</th>
<th>Limit (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH TWA</td>
<td>25 ppm</td>
</tr>
<tr>
<td>ACGIH STEL</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>ACGIH STEL</td>
<td>50 ppm</td>
</tr>
<tr>
<td>ACGIH TWA</td>
<td>25 ppm</td>
</tr>
</tbody>
</table>

**methanol (67-56-1)**

<table>
<thead>
<tr>
<th>Source</th>
<th>Limit (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH TWA</td>
<td>200 ppm</td>
</tr>
<tr>
<td>ACGIH STEL</td>
<td>250 ppm</td>
</tr>
<tr>
<td>ACGIH TWA</td>
<td>250 ppm</td>
</tr>
<tr>
<td>ACGIH STEL</td>
<td>250 ppm</td>
</tr>
<tr>
<td>OSHA PEL (TWA)</td>
<td>260 mg/m³</td>
</tr>
</tbody>
</table>

**OSHA PEL (TWA) (ppm)**

<table>
<thead>
<tr>
<th>Limit (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 ppm</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.
Personal protective equipment: Use appropriate personal protective equipment when risk assessment indicates this is necessary. Gloves. Safety glasses. Protective goggles. Protective clothing.

Environmental exposure controls: Do not exceed the occupational exposure limits (OEL).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Green. Liquid.</td>
</tr>
<tr>
<td>Odor</td>
<td>glycol Alcohol odor</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>96 °F Closed Cup</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Specific gravity / density</td>
<td>0.99 g/ml</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>VOC content</td>
<td>25 %</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

10.1. Reactivity
Upon combustion: CO and CO2 are formed.

10.2. Chemical stability
No additional information available

10.3. Possibility of hazardous reactions
Refer to section 10.1 on Reactivity.

10.4. Conditions to avoid
No additional information available

10.5. Incompatible materials
Oxidizing agents.

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Oral: Harmful if swallowed. Dermal: Harmful in contact with skin. Inhalation: Dust, mist: Harmful if inhaled.

<table>
<thead>
<tr>
<th>Compound</th>
<th>Route of Exposure</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>diethylene glycol (111-46-6)</td>
<td>Oral</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td></td>
<td>Dermal</td>
<td>Harmful in contact with skin</td>
</tr>
<tr>
<td></td>
<td>Inhalation dust, mist</td>
<td>Harmful if inhaled</td>
</tr>
</tbody>
</table>

LD50 oral rat: 12565 mg/kg
Liquid Ice Melt
Safety Data Sheet

<table>
<thead>
<tr>
<th>Substance</th>
<th>LD50 oral rat</th>
<th>LD50 dermal rabbit</th>
<th>ATE CLP (oral)</th>
<th>ATE CLP (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>diethylene glycol</td>
<td>4700 mg/kg</td>
<td>10626 mg/kg</td>
<td>500 mg/kg body weight</td>
<td>10626 mg/kg body weight</td>
</tr>
<tr>
<td>ethylene glycol</td>
<td>11890 mg/kg</td>
<td>11890 mg/kg body weight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>methanol</td>
<td>12800 mg/kg</td>
<td>100 mg/kg body weight</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/irritation: Not classified

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: May damage fertility or the unborn child. May cause harm to breast-fed children.

Specific target organ toxicity – single exposure: Causes damage to organs (blood, central nervous system, eyes) (Inhalation).

Specific target organ toxicity – repeated exposure: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

Aspiration hazard: Not classified

Symptoms/effects after inhalation: Harmful if inhaled.

Symptoms/effects after skin contact: Harmful in contact with skin.

Symptoms/effects after eye contact: Direct contact with the eyes is likely to be irritating.

Symptoms/effects after ingestion: Harmful if swallowed.

Likely routes of exposure: Skin and eye contact

SECTION 12: Ecological information

12.1. Toxicity
No additional information available

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential
No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Product/ Packaging disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

Transport document description: UN1993 Flammable liquids, n.o.s. (methanol), 3, III

UN-No. (DOT): UN1993

Proper Shipping Name (DOT): Flammable liquids, n.o.s.

Class (DOT): 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT): 3 - Flammable liquid

Packing group (DOT): III - Minor Danger
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Symbols : G - Identifies PSN requiring a technical name
DOT Special Provisions (49 CFR 172.102) : B1,B52,IB3,T4,TP1,TP29
DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L
DOT Vessel Stowage Location : A

Additional information
Other information : When transported by ground, this product may be eligible to be shipped as a Limited Quantity or Consumer Commodity ORM-D utilizing the exception found at 49 CFR 173.150. If any alteration of packaging, product, or mode of transportation is further intended, different shipping names and labeling may be required.

ADR
No additional information available

Transport by sea
No additional information available

Air transport
No additional information available

SECTION 15: Regulatory information
All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

ethylene glycol CAS-No. 107-21-1 25-35%
methanol CAS-No. 67-56-1 20-30%

ethylene glycol (107-21-1)
Subject to reporting requirements of United States SARA Section 313

CERCLA RQ 5000 lb

methanol (67-56-1)
Subject to reporting requirements of United States SARA Section 313

CERCLA RQ 5000 lb

WARNING This product can expose you to ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information
Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H225</th>
<th>Highly flammable liquid and vapor</th>
</tr>
</thead>
<tbody>
<tr>
<td>H301</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled</td>
</tr>
<tr>
<td>H360</td>
<td>May damage fertility or the unborn child</td>
</tr>
<tr>
<td>H362</td>
<td>May cause harm to breast-fed children</td>
</tr>
</tbody>
</table>
Liquid Ice Melt
Safety Data Sheet

<table>
<thead>
<tr>
<th>H370</th>
<th>Causes damage to organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>H373</td>
<td>May cause damage to organs through prolonged or repeated exposure</td>
</tr>
</tbody>
</table>

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.

Prepared by: Technical Department

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Our company assumes no responsibility for personal injury or property damage to the vendee, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of this material.