SAFETY DATA SHEET

1. Identification

Identification
Product name: FREEZEMASTER™ ANTIFREEZE

Additional identification
Chemical name: Antifreeze

Recommended use and restriction on use
Recommended use: Fire Sprinkler Antifreeze
Restrictions on use: None identified.

Details of the supplier of the safety data sheet
Supplier
Company Name: THE LUBRIZOL CORPORATION
Address: 9921 BRECKSVILLE RD
          BRECKSVILLE, OH 44141
          US
Telephone: 216-447-5000

Emergency telephone number:
FOR TRANSPORT EMERGENCY CALL CHEMTREC (+1)703 527 3887, OR WITHIN USA 800 424 9300

2. Hazard(s) identification

Hazard Classification
Not classified

Label Elements:
Hazard Symbol: No symbol
Signal Word: No signal word.
Hazard Statement: Not applicable
Precautionary Statements: Not applicable

Other hazards which do not result in GHS classification: None identified.

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>Percent by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin</td>
<td>56-81-5</td>
<td>20 – 30%</td>
</tr>
</tbody>
</table>

4. First-aid measures

Ingestion: Treat symptomatically. Get medical attention.
Inhalation: Remove exposed person to fresh air if adverse effects are observed.

Skin Contact: Wash with soap and water. If skin irritation occurs, get medical attention.

Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses.

Most important symptoms/effects, acute and delayed

Symptoms: See section 11.

Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: See section 10 for additional information.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Recommend wearing self-contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: No data available.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Check on local, national and international regulatory information to determine any reporting requirements for spills.

Methods and material for containment and cleaning up: Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.

7. Handling and storage

Precautions for safe handling: Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment.
Maximum Handling Temperature: Not determined.

Conditions for safe storage, including any incompatibilities: Store away from incompatible materials. See section 10 for incompatible materials.

Maximum Storage Temperature: Not determined.

8. Exposure controls/personal protection

Control Parameters:

Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin - Total dust.</td>
<td>PEL</td>
<td>15 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)</td>
</tr>
<tr>
<td>Glycerin - Respirable fraction.</td>
<td>PEL</td>
<td>5 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)</td>
</tr>
</tbody>
</table>

Appropriate engineering controls: No special requirements under ordinary conditions of use and with adequate ventilation.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required.

Eye/face protection: If contact is likely, safety glasses with side shields are recommended.

Skin Protection Hand Protection: Suitable gloves can be recommended by the glove supplier.

Other: No data available.

Respiratory Protection: Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

9. Physical and chemical properties

Appearance

Physical state: liquid
Form: liquid
Color: Blue
Odor: Characteristic
Odor threshold: No data available.

pH: 7 - 8
Freezing point: No data available.
Boiling Point: No data available.
Flash Point: > 201 °F (94 °C) (Pensky-Martens Closed Cup)
Evaporation rate: No data available.
Flammability (solid, gas): No data available.
Upper/lower limit on flammability or explosive limits
  Flammability limit - upper (%): No data available.
  Flammability limit - lower (%): No data available.
Explosive limit - upper: No data available.
Explosive limit - lower: No data available.
Vapor pressure: No data available.
Vapor density: No data available.
Relative density: 1 - 1.168 °F (20 °C)
Solubility(ies)
  Solubility in water: Soluble
  Solubility (other): No data available.
Partition coefficient (n-octanol/water): No data available.
Auto-ignition temperature: No data available.
Decomposition temperature: No data available.
Viscosity: No data available.

10. Stability and reactivity
Reactivity: No data available.
Chemical Stability: Material is stable under normal conditions.
Possibility of hazardous reactions: Will not occur.
Conditions to avoid: Not determined.
Hazardous Decomposition Products: Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, and other products of incomplete combustion.

11. Toxicological information
Information on likely routes of exposure
  Inhalation: No data available.
  Ingestion: No data available.
  Skin Contact: No data available.
  Eye contact: No data available.
Information on toxicological effects

Acute toxicity

Oral
Product: Not classified for acute toxicity based on available data.

Dermal
Product: Not classified for acute toxicity based on available data.

Inhalation
Product: Not classified for acute toxicity based on available data. Avoid inhalation of mists or vapors.

Skin Corrosion/Irritation:
Product: Remarks: Not classified as a primary skin irritant. Prolonged or repeated exposure may cause a slight flaking, tenderness, and softening of skin.

Serious Eye Damage/Eye Irritation:
Product: Remarks: Not classified as a primary eye irritant.

Respiratory sensitization: No data available

Skin sensitization: No data available

Specific Target Organ Toxicity - Single Exposure:
No data available

Aspiration Hazard: No data available

Chronic Effects

Carcinogenicity: No data available

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:
No carcinogenic components identified

Germ Cell Mutagenicity: No data available

Reproductive toxicity: No data available

Specific Target Organ Toxicity - Repeated Exposure:
Product: Repeated excessive ingestion may cause central nervous system effects.
12. Ecological information

Ecotoxicity

**Fish**
Glycerin
LC 50 (Golden Orfe, 2 d): > 10,000 mg/l

**Aquatic Invertebrates**
Glycerin
EC 50 (Water flea (Daphnia magna), 1 d): > 10,000 mg/l

**Toxicity to Aquatic Plants**
No data available

**Toxicity to soil dwelling organisms**
No data available

**Sediment Toxicity**
No data available

**Toxicity to Terrestrial Plants**
No data available

**Toxicity to Above-Ground Organisms**
No data available

**Toxicity to microorganisms**
Glycerin
NOEC (Bacteria, 16 h): > 10,000 mg/l

Persistence and Degradability

**Biodegradation**
Glycerin
OECD TG 301 D, 90 %, 28 d, Readily biodegradable

**Bioaccumulative potential**
**Bioconcentration Factor (BCF)**
No data available

**Partition Coefficient n-octanol / water (log Kow)**
Glycerin
Log Kow: -1.76 (Measured)

**Mobility:**
No data available

**Other adverse effects**
No data available

13. Disposal considerations

**Disposal instructions:**
Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied.

**Contaminated Packaging:**
Container packaging may exhibit hazards.
14. Transport information

DOT
Not regulated.

IMDG
Not regulated.

IATA
Not regulated.

Transport in bulk according to Annex II of MARPOL and the IBC Code
None known.

The DOT shipping information in this section is based on a bulk container. Please review the accompanying shipping papers for the correct shipping descriptions based the size of the package. Shipping descriptions may vary based on mode of transport, quantities, temperature of the material, package size, and/or origin and destination. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material. During transportation, steps must be taken to prevent load shifting or materials falling, and all relating legal statutes should be obeyed. Review classification requirements before shipping materials at elevated temperatures.

15. Regulatory information

US Federal Regulations
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4)
None present or none present in regulated quantities.
Superfund amendments and reauthorization act of 1986 (SARA)

SARA 311 Classifications
Not classified

SARA 302 Extremely Hazardous Substance
None present or none present in regulated quantities.

SARA 304 Emergency Release Notification
None present or none present in regulated quantities.

SARA 313 (TRI Reporting)
None present or none present in regulated quantities.

US State Regulations
US. California Proposition 65
No ingredient requiring a warning under CA Prop 65.

Inventory Status
Australia (AICS)
All components are in compliance with chemical notification requirements in Australia.

Canada (DSL/NDSL)
May require notification before sale under Canadian regulations.

China (IECSC)
All components of this product are listed on the Inventory of Existing Chemical Substances in China.
European Union (REACH)  
To obtain information on the REACH compliance status of this product, please e-mail REACH@SDSInquiries.com.

Japan (ENCS)  
This product contains a substance that is not listed on the Japanese Existing and New Chemical Substances (ENCS) list.

Korea (ECL)  
All components are in compliance in Korea.

New Zealand (NZIoC)  
This product requires notification before sale in New Zealand.

Philippines (PICCS)  
This product requires notification before sale in the Philippines.

Switzerland (SWISS)  
All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.

Taiwan (TCSCA)  
All components of this product are listed on the Taiwan inventory.

United States (TSCA)  
All substances contained in this product are listed on the TSCA inventory or are exempt.

The information that was used to confirm the compliance status of this product may deviate from the chemical information shown in Section 3.

16. Other information, including date of preparation or last revision

HMIS Hazard ID

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

NFPA Hazard ID

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

Issue Date: 06/15/2020

Version #: 1.5
Source of information: Internal company data and other publically available resources.

Further Information: Contact supplier (see Section 1)

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