Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: “Frost-Proof GL48” Anti-Freeze
Synonyms: None
Chemical family: Glycerine mixture
Producer: J.C. Whitlam Manufacturing Company
200 West Walnut Street
P.O. Box 380
Wadsworth, Ohio 44282-0380
www.jcwhitlam.com

Section 2. HAZARDS IDENTIFICATION

This product does not meet the Global Harmonizing System criteria for classification

GHS Pictograms: Not Applicable
GHS Signal Word: Not Applicable
GHS Hazard Statements: Not Applicable
GHS Precautionary Statements: Not Applicable

Precautionary Statements:

Eye/Skin Contact: Not irritating to skin. May be irritating to eyes. Wash thoroughly after handling.

Inhalation: Not likely to cause irritation at ambient temperatures. Mist can cause irritation.

Ingestion: Unlikely to be harmful unless excessive amount is swallowed.

Carcinogenic: No ingredients listed by the IARC, NTP, OSHA, or the ACHIH.

Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

Material information:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>51 - 53</td>
</tr>
<tr>
<td>Glycerol</td>
<td>56-81-5</td>
<td>46 - 48</td>
</tr>
<tr>
<td>Dye</td>
<td>n/a</td>
<td>0 - 1</td>
</tr>
</tbody>
</table>

*Note: The above weight percentages are represented in ranges as estimates. Due to variation among production batches, component percentages may vary.*
Section 4. FIRST AID MEASURES

Inhalation: After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR).

Skin contact: In case of contact with skin immediately remove contaminated clothing. Wash thoroughly with soap & water. Wash contaminated clothing before reuse.

Ingestion: Rinse mouth. Get medical attention immediately. Do NOT give liquids to an unconscious or convulsing person.

Eye contact: For eyes, flush with plenty of water for 15 minutes & get medical attention.

Section 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use dry powder, alcohol-resistant foam, water spray, carbon dioxide.

Specific hazards: Slightly combustible. Isolate from oxidizers, heat, & open flame. Closed containers may explode if exposed to extreme heat. Applying to hot surfaces requires special precautions. Continue all label precautions.

Advice for Firefighters: Water spray may be ineffective on fire but can protect fire-fighters and cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coats, gloves & rubber boots).

NFPA rating: HMIS rating:

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Flammability</th>
<th>Instability/reactivity</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>B (PPE)</td>
</tr>
<tr>
<td>Instability/reactivity</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>N/A</td>
<td>B (PPE)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Keep unprotected personnel away. Wear appropriate personal protective equipment given in Section 8.

Large Spill: Keep from entering storm sewers and ditches which lead to waterways.

Section 7. HANDLING AND STORAGE

Handling: Isolate from oxidizers, heat, & open flame. Use only with adequate ventilation. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse. Avoid free fall of liquid. Ground containers when transferring. Do not flame cut, braze, or weld. Continue all label precautions.

Storage: Keep separated from strong oxidants. Do not store above 120°F (49°C). Keep container tightly closed & upright when not in use to prevent leakage.

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS No.</th>
<th>ACGIH® TLV® Exposure Limits:</th>
<th>Federal OSHA PELs</th>
<th>OSHA PELs 1989</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
</tr>
<tr>
<td>Glycerol</td>
<td>56-81-5</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
</tr>
<tr>
<td>Dye</td>
<td>n/a</td>
<td>None Known</td>
<td>None Known</td>
<td>None Known</td>
</tr>
</tbody>
</table>

Engineering measures: Local exhaust ventilation is preferable.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection: When engineering controls are not sufficient to reduce exposure to levels below applicable exposure limits, seek professional advice prior to respirator selection and use. Wear a properly fitted NIOSH/MSHA-approved respirator.

Skin and body protection: Wear impervious clothing and nitrile rubber gloves to prevent contact.

Eye protection: Wear safety spectacles with unperforated side shields, or goggles.

Hygiene measures: Wash at end of each work shift and before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Orange liquid
Physical state (solid/liquid/gas): Liquid
Substance type (pure/mixture): Mixture
Color: Orange
Odor: Characteristic
Molecular weight: Not Available
pH: Not Available
Boiling point: 212°F (100°C)
Melting point/range: +18°C / +64°F (solidifies at much lower temp)
Decomposition temperature: Not Available
Specific gravity: 1.131
Vapor density: (AIR = 1) .670
Vapor pressure: 17.5 mm Hg at 68°F (20°C)
Evaporation rate (Butyl acetate= 1): Not Applicable
Flash point, method used: 352°F; 177°C
Water solubility: Appreciable
VOC Content: 0%
Section 10. STABILITY AND REACTIVITY

| Reactivity: | No data available |
| Stability: | Stable under normal conditions, no hazardous reactions when kept from incompatibles. |
| Possibly hazardous reactions: | No data available |
| Conditions to avoid: | Isolate from oxidizers, heat, & open flame. |
| Incompatible Materials: | The substance decomposes on extreme heating producing fumes of acrolein. The substance can readily react with strong oxidants, causing fire & explosion hazard. |
| Hazardous decomposition products: | Carbon Oxides, acrolein from burning. |
| Polymerization: | Will not occur. |

Section 11. TOXICOLOGICAL INFORMATION

Acute toxicity: Pre-existing disorders of any target organs mentioned in this Document can be aggravated by over-exposure by routes of entry to components of this product. Persons with these disorders should avoid use of this product.

Product information:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS No.</th>
<th>Inhalation:</th>
<th>Dermal:</th>
<th>Oral:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>No data available.</td>
<td>No data available.</td>
<td>No data available.</td>
</tr>
<tr>
<td>Glycerol</td>
<td>56-81-5</td>
<td>No data available.</td>
<td>No data available.</td>
<td>LD50 &gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Dye</td>
<td>n/a</td>
<td>No data available.</td>
<td>No data available.</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

Carcinogenicity: This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date, greater or equal to 0.1%.

Sensitization: Not known to cause sensitization in humans.

Section 12. ECOLOGICAL INFORMATION

Ecotoxicity effects: All work practices must be aimed at eliminating environmental contamination.

Effect of material on plants and animals: This product may be harmful or fatal to plant and animal life if released into the environment.

Effect of material on aquatic life:
- LC50 / 96 hours: >5000 mg/L (Fish)
- EC50 / 24 hours: >10000 mg/L (Daphnia magna)
- EC50 / 16 hours: >10000 mg/L (Pseudomonas putida)

Persistence: No data available.

Degradability: Product is completely biodegradable.
Section 13. DISPOSAL CONSIDERATIONS

Cleanup considerations: Processing, use or contamination may change the waste disposal requirements. Do not dispose of on land, in surface waters, or in storm drains. Waste should be recycled or disposed of in accordance with regulations. Large amounts should be collected for reuse or consigned to licensed hazardous waste haulers for disposal. All disposal must be in accordance with all federal, state, provincial, and local regulations. If in doubt, contact proper agencies.

Section 14. TRANSPORT INFORMATION

Please refer to DOT regulation 49 CFR 172.101:

Transport information: This material is not regulated under DOT when transported via U.S. commerce routes: and IATA, and IMO via international routes

Hazardous Materials Description: (DOT and IATA):
UN/identification no.: Not Applicable
Proper shipping name: Not Applicable
Hazard class: Not Applicable
Packing group: Not Applicable
DOT reportable quantity (lbs.): Not Applicable

Section 15. REGULATORY INFORMATION

EPA REGULATION:
SARA SECTION 311/312 HAZARDS: None Known
All components of this product are on the TSCA list.
This material contains no known products restricted under SARA Title III, Section 313 in amounts greater or equal to 1%.

STATE REGULATIONS:
This product meets requirements of southern California AQMD rule 443.1 & similar regulations California Safe Drinking Water and Toxic Enforcement Act (proposition 65): This product contains no chemicals known to the State of California to cause cancer or reproductive toxicity.

INTERNATIONAL REGULATIONS:
The identified components of this product are listed on the chemical inventories of the following countries: Australia (AICS), Canada (DSL or NDSL), China (IECSC), Europe (EINECS, ELINCS), Japan (METI/CSCL, MHLW/ISHL), South Korea (KECI), New Zealand (NZIoC), Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

Canada: Workplace Hazardous Materials Information System (WHMIS)
D2B: Irritating to skin / eyes.
This product was classified using the hazard criteria of the Controlled Products Regulations (CPR). This Document contains all information required by the CPR.

Section 16. OTHER INFORMATION

The information and recommendations contained herein are based upon tests, data, and information resources believed to be reliable. However, the J.C. Whitlam Manufacturing Company, Inc., and its related operations or divisions (Whitlam) do not guarantee the accuracy or completeness, nor shall any of this information constitute a warranty, whether expressed or implied, as to the safety of goods, the merchantability of the goods or the fitness of the goods for a particular purpose. Adjustment to conform to actual conditions of usage may be required. Whitlam assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of this data. No warranty against infringement of any patent, copyright or trademark is made or implied.