2. HAZARDS IDENTIFICATION

Physical Hazards: Not classified
Health Hazards: Acute Toxicity, Oral Category 5
Specific Target Organ Toxicity – Repeated Exposure Category 2

Signal Word: WARNING
Hazard Statement: H303 May be harmful if swallowed
H373 May cause damage to kidneys through prolonged or repeated exposure

GHS Symbol: GHS08
Precautionary Statements

Prevention: P260 Do not breathe mist or vapors
Response: P314 Get medical attention if you feel unwell
          P312 Call a POISON CENTER or doctor/physician if you feel unwell
Storage: Not applicable
Disposal: P501 Dispose of contents/container with compliance to federal, state and local regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

   Synonyms: Premix Ethylene Glycol based Antifreeze/Engine Coolant
   Formula: Mixture
   Molecular Weight: Variable

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Concentration %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoethylene Glycol</td>
<td>000107-21-1</td>
<td>45</td>
</tr>
<tr>
<td>Diethylene Glycol</td>
<td>000111-46-6</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Water</td>
<td>007732-18-5</td>
<td>50</td>
</tr>
<tr>
<td>Additives and Inhibitors</td>
<td>Trade Secret</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Sodium Tetraborate Pentahydrate</td>
<td>001303-96-4</td>
<td>&lt;1.5</td>
</tr>
<tr>
<td>Purple Dye</td>
<td></td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eyes
   May cause minimal irritation, temporary discomfort, flush with water if needed.

Inhalation
   Mist or vapors, in excess of unusually high concentrations generated from spraying, heating or as from exposure in poorly ventilated areas or confined spaces, may cause irritation of the nose and throat, headache nausea and drowsiness. Remove to fresh air and restore and/or support breathing as required. If breathing is difficult, seek medical attention.

Skin
   Brief skin contact is not irritating. Remove contaminated clothing. Rinse with soap and water, if irritation persists, seek medical attention.

Ingestion
   Contains Ethylene Glycol and/or diethylene Glycol, which are toxic when swallowed. A lethal dose for an adult is 1-2 ml per kilogram, or about 4 ounces (one-half cup). Ingestion may cause abdominal discomfort or pain, nausea, vomiting, dizziness, drowsiness, malaise, blurring of vision, irritability, back pain, decreased urine output, kidney failure, and central nervous system effects. Seek immediate medical attention for large ingestions.
5. FIREFIGHTING MEASURES

Suitable extinguishing media

Use any media appropriate for surrounding the fire.

Specific hazards from combustion

Solid stream of water or foam directed into hot, burning liquid can cause frothing. Burning may produce carbon monoxide and carbon dioxide.

Special protective equipment for fire-fighters

Wear full firefighting turn-out gear (full bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Cool fire exposed containers with water spray and avoid spreading burning material with water used for cooling purposes.

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

6. ACCIDENTAL RELEASE MEASURES

Personal precautions and Protective equipment

Personal Protection, see section 8. Any individual not wearing protective equipment should not enter spill or contaminated area until all clean-up has been completed.

Emergency procedures

For personal emergency procedures see section 4. For fire emergency procedures see section 5. Contain spilled liquid if possible without posing any risk or personal injury.

Environmental precautions

Prevent spreading over a wide area. Contain spill immediately. Contact appropriate authorities of spill. Do not allow spill to enter sewer system, drains of any kind, surface water or water courses. Avoid flushing to such areas as well.

Methods and materials for containment and cleaning up

Soak up or absorb with appropriate inert materials such as, sand, clay, silica gel, acid binder, universal binder, sawdust, paper fiber etc. Large spills may be picked up using vacuum pumps, shovels, buckets or other means of transfer and placed into drums or any other approved and suitable containers.

7. HANDLING AND STORAGE

Precautions for safe handling

This product is not classified as a Hazardous Material under DOT regulations. See NFPA 30 and OSHA 1910.106 flammable and combustible liquids. Harmful or Fatal if swallowed.
Conditions for safe storage

Store in only approved and marked containers. Store in a cool, dry ventilated area. Keep containers closed when not in use and during transportation. Keep containers away from flame or other ignition sources.

Incompatibilities

Store away from strong oxidizing agents and excessive heat.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA Final: (PEL)

Contains no substances with occupational exposure limit values.

American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV)

50 ppm ceiling limit value, not to exceed during any part exposure for Ethylene Glycol.

Respiratory protection

If vapor mist is generated when the material is heated or handled, use an organic vapor respirator with a dust and mist filter. All respirators must be NIOSH certified. Fit testing may be required before use. Adequate ventilation in accordance with good engineering practices must be provided to maintain concentrations below the specified exposure or flammable limits.

Hand protection

For prolonged or repeated exposures hand protection is required. Wear resistant gloves suitable for the product, contact your safety department or supplier to determine the proper hand protection.

Eye protection

Not required under normal conditions of use. If material is handled such that it could be splashed or misted into eyes, wear plastic face shield or splash resistant safety goggles or glasses with side shields.

Skin and body protection

For prolonged or repeated exposures, use impervious clothing (boots, gloves, aprons, bibs, etc.) over parts of the body subject to exposure. If handling hot material, use insulated protective clothing. Launder soiled clothes, do not reuse contaminated clothing. Proper dispose of contaminated clothing or articles that cannot be laundered such as leather gloves, boots, etc. If skin irritation develops, contact your facility safety department or safety supplier to determine the proper protective equipment for your use.

Hygiene measures

Do not use contaminated clothing, launder clothing before reuse. Wash contaminated areas of the body which may have been exposed with soap and water. Wash thoroughly before handling food and beverages. Food and beverage consumption should be avoided in work areas where Ethylene Glycol is present.
9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Purple liquid
Physical state: Liquid
Odor: Sweet
Specific gravity (H₂O=1): 1.04-1.08 @ 60°F
Melting point/freezing point: -34°F, (-36°C)
Initial boiling point and boiling range: 330°F, (166°C)
Flash point (C.O.C): 119°C, (247°F) (Setaflash)
Upper/lower flammability or explosive limits: No data available
Vapor pressure: <0.1 mmHg @ 68°F
Solubility in water: Completely miscible
Percent volatile: Negligible
Vapor density: >1
Evaporation rate: Not determined
Autoignition Temperature: 413°C, (775°F) approx.

10. STABILITY AND REACTIVITY

Reactivity: Stable
Chemical stability: Stable under normal temperatures and pressures.
Possibility of hazardous reactions: Product will not undergo hazardous polymerization.
Conditions to avoid: Heat, open flames, oxidizing materials and mist.
Incompatible materials: May react strong with oxidizing agents.
Hazardous decomposition products: Carbon monoxide, carbon dioxide and water

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity: Swallowing large amounts can cause kidney damage and/or failure.
Acute inhalation toxicity: Mist and poor ventilation may cause nose and throat irritation.
Ethylene Glycol: LD50 Oral Rat: 4700 mg/kg, LD50 Skin Rabbit: 9530 mg/kg
12. ECOLOGICAL INFORMATION

Biodegradability: Ethylene Glycol is readily biodegradable (97-100% in 2-12 days)
Bioaccumulation: No data available
Toxicity to fish: No data available
Toxicity to daphnia and other aquatic invertebrates: No data available
Toxicity to algae: No data available
Toxicity to bacteria: No data available

13. DISPOSAL CONSIDERATIONS

Waste Disposal methods
All disposals must comply with federal, state and local regulations. Spilled or discarded material may be a regulated waste. Refer to state and local regulations. If other material was used during cleanup efforts the resultant mixture may be regulated. Department of Transportation regulations may apply for transporting of this material.

14. TRANSPORT INFORMATION

U.S. DOT Road/Rail/Waterways: Not dangerous/hazardous goods
Transport Canada Road/Rail/Waterways: Not dangerous/hazardous goods

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Federal Regulatory Status

Notification Status
EINECS All components listed
DSL All components listed
TSCA All components listed
SARA Hazard Categories (311/312)
Title III: Ethylene Glycol, An immediate health hazard A delayed health hazard
Canadian WHMIS: Class D-Division 2-Subdivision B: toxic material causing other toxic effects

State Regulatory Status
California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)
Ethylene Glycol (ingested) 107-21-1 Developmental Toxicity AB(NTP-CERHR)
16. OTHER INFORMATION

The information and recommendations contained within this document are believed by PetroChoice to be accurate and reliable as of the date prepared. The information and recommendations are offered for the user's consideration and analysis and in no way guarantee the chemical specifications for the specified product. It is solely the responsibility of the user to determine safe conditions for use of this product and to assume liability for any loss, damage or expense arising out of the product's improper use. The user should consider the information in this document in the context of how the selected product will be handled and used in conjunction with other products. It is the user's responsibility to determine that the product is suitable for the intended use.

Appropriate warnings and safe-handling procedures should be provided to all handlers and users. PetroChoice assumes no responsibility for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices within this document.

Rev. Date: 7/10/2017