1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer
Coolants Plus Inc.
2570 Van Hook Ave.
Hamilton, OH 45015

Phone: 1-888-258-8723

Product Name: Starfire FRH 200WG
Revision Date: 5/8/2015
SDS Number: 11175
CAS Number: Blend
Product Code: 11175
Chemical Family: Glycols
Synonyms: Fire Resistant Hydraulic Fluid

For emergencies contact Chemtrec at 1-800-424-9300

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):
- Health, Acute toxicity, 4 Oral
- Health, Specific target organ toxicity - Repeated exposure, 2
- Health, Skin corrosion/irritation, 2
- Health, Serious Eye Damage/Eye Irritation, 1

GHS Label elements, including precautionary statements

GHS Signal Word: DANGER

GHS Hazard Pictograms:

GHS Hazard Statements:
- H302 - Harmful if swallowed
- H373 - May cause damage to organs through prolonged or repeated exposure
- H315 - Causes skin irritation
- H318 - Causes serious eye damage

GHS Precautionary Statements:
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P302+350 - IF ON SKIN: Gently wash with soap and water.
- P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Hazards not otherwise classified (HNOC) or not covered by GHS
**3 COMPOSITION/INFORMATION ON INGREDIENTS**

**Ingredients:**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Percentage</th>
<th>CAS#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol</td>
<td>30.0 - 35.0</td>
<td>111-46-6</td>
</tr>
<tr>
<td>Water</td>
<td>45.0 - 50.0</td>
<td>7732-18-5</td>
</tr>
<tr>
<td>Polyalkylene glycol</td>
<td>15.0 - 20.0</td>
<td>Proprietary</td>
</tr>
<tr>
<td>Decanoic acid</td>
<td>0.5 - 3.0</td>
<td>334-48-5</td>
</tr>
<tr>
<td>Dimethylethanolamine</td>
<td>0.5 - 1.0</td>
<td>108-01-0</td>
</tr>
<tr>
<td>N,N-Diethyldiethanolamine</td>
<td>0.5 - 1.0</td>
<td>100-37-8</td>
</tr>
<tr>
<td>2-Amino-2-Methyl-1-Propanol</td>
<td>0.5 - 1.0</td>
<td>124-68-5</td>
</tr>
</tbody>
</table>

**4 FIRST AID MEASURES**

**Inhalation:**
If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.

**Skin Contact:**
Wash with soap and water. Remove contaminated clothing and wash before reuse. Get medical attention if needed.

**Eye Contact:**
Flush with water for several minutes. If effects occur, consult a physician.

**Ingestion:**
Do not induce vomiting. Seek medical attention immediately. If person is fully conscious give 1 cup or 8 ounces (240 ml) of water. If medical advice is delayed and if an adult has swallowed several ounces of chemical, then give 3-4 ounces (1/3-1/2 Cup) (90-120 ml) of hard liquor such as 80 proof whiskey. For children, give proportionally less liquor at a dose of 0.3 ounce (1 1/2 tsp.) (8 ml) liquor for each 10 pounds of body weight, or 2 ml per kg body weight [e.g., 1.2 ounce (2 1/3 tbsp.) for a 40 pound child or 36 ml for an 18 kg child].

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed
Notes to physician: Due to structural analogy and clinical data, this material may have a mechanism of intoxication similar to ethylene glycol. On that basis, treatment similar to ethylene glycol intoxication may be of benefit. In cases where several ounces (60 - 100 ml) have been ingested, consider the use of ethanol and hemodialysis in the treatment. Consult standard literature for details of treatment. If ethanol is used, a therapeutically effective blood concentration in the range of 100 - 150 mg/dl may be achieved by a rapid loading dose followed by a continuous intravenous infusion. Consult standard literature for details of treatment. 4-Methyl pyrazole (Antizol©) is an effective blocker of alcohol dehydrogenase and should be used in the treatment of ethylene glycol (EG), di- or triethylene glycol (DEG, TEG), ethylene glycol butyl ether (EGBE), or methanol intoxication if available. Fomepizole protocol (Brent, J. et al., New England Journal of Medicine, Feb. 8, 2001, 344:6, p. 424-9): loading dose 15 mg/kg intravenously, follow by bolus dose of 15 mg/kg every 12 hours; after 48 hours, increase bolus dose to 15 mg/kg every 12 hours. Continue fomepizole until serum methanol, EG, DEG, TEG or EGBE are undetectable. The signs and symptoms of poisoning include anion gap metabolic acidosis, CNS depression, renal tubular injury, and possible late stage cranial nerve involvement. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. In severe poisoning, respiratory support with mechanical ventilation and positive end expiratory pressure may be required. Maintain adequate ventilation and oxygenation of the patient. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.
5 FIRE FIGHTING MEASURES

Flammability: Liquid will not burn as made. After the water evaporates, remaining material will burn.
Flash Point: None

EXTINGUISHING MEDIA:
Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. do not use direct water steam. May spread fire. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

FIRE & EXPLOSION HAZARDS:
Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

FIRE FIGHTING INSTRUCTIONS:
Keep people away. Isolate fire and deny unnecessary entry. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

COMBUSTION PRODUCTS:
During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Carbon monoxide. Carbon dioxide.

6 ACCIDENTAL RELEASE MEASURES

Contain spilled material.
Collect in suitable and properly labeled containers.
Pick up excess with inert absorbant material
Keep away from drains and ground water.

7 HANDLING AND STORAGE

Handling Precautions: Avoid contact with eyes, skin, or clothing.
Do not swallow.
Keep away from sources of ignition.
Handle with care and avoid spillage on the floor (slippage).

Storage Requirements: Store in original container
Shelf life: 2 years
8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94).

Personal Protective Equipment: Use of safety glasses and gloves are recommended.

Exposure Guidelines:  
Diethylene glycol  
OSHA TWA: 10 mg/m³, 50 ppm

9 PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Transparent Red</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Viscosity</td>
<td>46.0 cSt at 40 degrees C</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>100 °C @ 760 mm Hg</td>
</tr>
<tr>
<td>pH</td>
<td>9.5</td>
</tr>
<tr>
<td>Solubility</td>
<td>Completely soluble in water</td>
</tr>
<tr>
<td>Freezing/Melting Pt.</td>
<td>-42 °C</td>
</tr>
</tbody>
</table>

10 STABILITY AND REACTIVITY

Stability: Product is stable under normal conditions.

Materials to Avoid: Avoid contact with: strong acids, strong bases, and strong oxidizers.

11 TOXICOLOGICAL INFORMATION

Repeated skin contact with this product may cause dermatitis or an acne.

No test data available on product.

No component is listed as a carcinogen, mutagen, or teratogen.

LD50 / LC50 - No data available

12 ECOLOGICAL INFORMATION

Avoid exposing to the environment, no specific aquatic data available

13 DISPOSAL CONSIDERATIONS

Dispose of waste material in accordance with all local, state/provincial, and national requirements

Do not flush to surface water or drains

14 TRANSPORT INFORMATION

Not regulated by DOT
This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substances Control Act (TSCA).

**Canadian Disclosure List**
Decanoic acid (334-48-5)
N,N-Diethylmonoethanolamine (100-37-8)

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