

## SAFETY DATA SHEET

### 1. IDENTIFICATION

Product identifier used on the label

: **Flottec F160-05 Frother**

Recommended use of the chemical and restrictions on use

: Flotation chemical used in mining industry.

Chemical family

: Glycol ethers

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

**Flottec, LLC**

2505 Collingsworth Street, 2nd Floor

Houston, Texas 77026 U.S.A.

www.flottec.com

Information Telephone # : +1.713.425.7055

24 Hr. Emergency Tel # : Chemtrec 1-800-424-9300 (Within Continental U.S.); Chemtrec 703-527-3887 (Outside U.S.)

### 2. HAZARDS IDENTIFICATION

Classification of the chemical

Eye Damage (Category 1)

Skin Irritation (Category 2)

Label elements

**Signal Word**

DANGER

**Hazard statement(s)**

H318: Causes serious eye damage

H315: Causes skin irritation

**Precautionary statement(s)**

P264 Wash thoroughly after handling.

P280 Wear protective gloves, eye and face protection.

P305+PP351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call your local poison control center.

P302+P352 IF ON SKIN: Wash with plenty of water or use emergency shower.

P333+P313 If skin irritation or rash occurs: Get medical attention.

P362+P364 Take off contaminated clothing and wash it before reusing.

**Hazard pictogram(s)**



**Other hazards**

N/Ap

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Common name	CAS #	Concentration / wt %
Polyether polyol	37286-64-9	90-95
Sodium hydroxide	1310-73-2	0-1

The exact concentrations of the above listed chemicals are being withheld as a trade secret.

### 4. FIRST-AID MEASURES

#### Description of first aid measures

- Ingestion* : DO NOT induce vomiting, unless recommended by medical personnel. Never give anything by mouth if victim is unconscious or convulsing. Seek medical attention or contact a Poison Centre immediately.
- Inhalation* : Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
- Skin Contact* : Flush with water for at least 15 minutes. Remove contaminated clothing and wash before reuse. If a problem develops or persists, seek medical attention.
- Eye Contact* : IMMEDIATELY flush with plenty of water. Remove contact lenses. Flush with water for at least 15 minutes. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.

- Symptoms** : May cause severe eye irritation or eye damage. May cause redness and irritation of the skin.
- Notes to the physician** : Treat according to person's condition and specifics of exposure. 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

#### Extinguishing media

- Suitable extinguishing media* : Dried powder, water spray, carbon dioxide (CO<sub>2</sub>), chemical foam.
- Unsuitable extinguishing media* : Do not use direct water jet.

#### Special hazards arising from the substance or mixture

- : Non-Flammable.

#### Special protective equipment and precautions for firefighters

- Protective equipment for fire-fighters* : Firefighters must wear self-contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
- Special fire-fighting procedures* : Use water spray to cool fire-exposed containers. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

- : Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.

#### Environmental precautions

: For a large spillage, consult the Department of Environment or the relevant authorities.

#### Methods and material for containment and cleaning up

- : Ventilate the area well. Stop leak, if it's possible to do so without risk. Small spill - dilute with water and mop up. Then wash the contaminated surface with water. Large spill - Absorb with inert material (soil, sand, vermiculite) and place in an appropriate waste disposal clearly identified. Finish cleaning by rinsing with soapy water the contaminated surface. Dispose via a licensed waste disposal contractor.

## 7. HANDLING AND STORAGE

- Precautions for safe handling** : Use only in well-ventilated area. Avoid contact with skin, eyes and clothing. Do not breathe vapors, mists or aerosols. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Keep in the workplace only the quantities necessary for the work being performed. Keep away from heat and open flame. Keep containers tightly closed when not used. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toilet articles. Remove contaminated clothing and wash before reuse.
- Conditions for safe storage** : Store tightly close and in properly labelled containers in a cool, dry and well-ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep away from direct sunlight and heat. Store away from oxidizing materials and incompatible materials (see section 10).
- Storage temperature** : 15 to 30 °C (59 to 86 °F)

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Immediately Dangerous to Life or Health

- : No IDLH value reported.

- Exposure limits** : Sodium Hydroxide: 2 mg/m<sup>3</sup> (OSHA)

### Exposure controls

- Appropriate engineering controls** : Ensure adequate ventilation, especially in confined areas.

- Respiratory protection** : Respiratory protection is not required in normal use. Respiratory protection equipment (PPE) must be selected, fitted, maintained and inspected in accordance with regulations and CSA Standard Z 94.4 and approved by NIOSH / MSHA.

- Skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code. If necessary, wear an apron or long-sleeve protective coverall suit.

- Hands** : Chemical-resistant, impervious gloves should always be worn when handling this chemical product. Wear nitrile or neoprene gloves. Before using, user should confirm impermeability. Discard gloves that show tears, pinholes, or signs of wear. Gloves must only be worn on clean hands. Wash gloves with water before removing them. After using gloves, hands should be washed and dried thoroughly.

- Eye / face protection** : Wear chemical splash goggles. If risk of contact with eyes or the face, wear a face shield.

- Other protective equipment** : Wear rubber boots to clean up a spill.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- |                                    |                                     |  |                             |
|------------------------------------|-------------------------------------|--|-----------------------------|
| <b>Physical state</b>              | : Liquid                            | <b>Flammability limits (% by vol.)</b>         | : N/Av                      |
| <b>Color</b>                       | : Dark brown                        | <b>Flash point</b>                             | : >93 °C (200 F) PMCC       |
| <b>Odor</b>                        | : Mild ether-like                   | <b>Auto-ignition temperature</b>               | : > 202 °C (396 F)          |
| <b>Odor threshold</b>              | : N/Av                              | <b>Sensibility to electrostatic charge</b>     | : N/Av                      |
| <b>pH</b>                          | : 10 @ 5%                           | <b>Sensibility to sparks/friction</b>          | : No                        |
| <b>Melting/Freezing point</b>      | : N/Av                              | <b>Vapor density (Air = 1)</b>                 | : 8                         |
| <b>Boiling point/range</b>         | : > 235 °C (455 F)                  | <b>Relative density (Water = 1)</b>            | : 0.98 - 1.07 @ 20°C (68 F) |
| <b>Solubility in water</b>         | : 100%                              | <b>Partition coefficient (n-octanol/water)</b> | : N/Av                      |
| <b>Evaporation rate (BuAc = 1)</b> | : <0.01                             | <b>Decomposition temperature</b>               | : N/Av                      |
| <b>Vapor pressure</b>              | : 0.004 kPa (0 mmHg) @ 20 °C (68°F) | <b>Viscosity</b>                               | : 20 cPs @ 23 °C (74 F)     |
| <b>Volatiles (% by weight)</b>     | : N/Av                              | <b>Molecular mass</b>                          | : N/Av                      |
| <b>Flammability (solid, gas)</b>   | : Not Flammable                     |  |                             |

## 10. STABILITY AND REACTIVITY

- Reactivity** : No information available for this product.
- Chemical stability** : Stable under recommended storage conditions.
- Possibility of hazardous reactions (including polymerizations)** : Hazardous polymerization will not occur.
- Conditions to avoid** : Avoid contact with incompatible materials.

**Incompatible materials** : Strong oxidizing agents (such as nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong acids, isocyanates.

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

## 11. TOXICOLOGICAL INFORMATION

### Toxicological data

Chemical name	LC <sub>50</sub> (Inhalation, rat)	LD <sub>50</sub> / mg/kg	
		(Oral, rat)	(Dermal, rabbit)
Polyether polyol	N/Av	>2000	>2000

### Likely routes of exposure

**Skin** : Yes  
**Eye** : Yes  
**Inhalation** : Yes  
**Ingestion** : Yes

### Potential Health Effects:

#### Signs and symptoms of delayed, immediate and chronic effects

**Skin** : May cause redness and slight irritation of the skin.  
**Eye** : May cause severe eye irritation or eye damage.  
**Inhalation** : No known adverse effects under normal use conditions. However, exposure to high concentration of mist, aerosol or vapors at elevated temperatures may cause irritation, coughing, and discomfort in the nose, throat and chest.  
**Ingestion** : Low degree of acute toxicity. Swallowing may cause digestive tract disturbances resulting in nausea, vomiting, cramps and diarrhea.  
**Sensitization to material** : Ingredients present at levels greater than or equal to 0.1% of this product are not skin or respiratory sensitizers.  
**IRAC/NTP Classification** : No ingredients listed  
**Carcinogenicity** : Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.  
**Mutagenicity** : Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effect.  
**Reproductive Effects** : Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause effects on reproduction.  
**Specific target organ effects – single exposure** : No target organ is listed.  
**Specific target organ effects – repeated exposure** : No target organ is listed  
**Other information** : The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. The acute toxicity estimate (ATE) by inhalation (aerosol/mist) of the mixture was calculated to be greater than 5 mg/L/4h. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** : No information available for this product.  
**Persistence** : Glycol ethers may persist in aquatic environment.  
**Degradability** : No information available for this product.  
**Bioaccumulation potential** : No information available for this product.  
**Mobility in soil** : No information available for this product. The product is poorly soluble in water; its distribution in the environment is primarily with the soil and sediment. There is little partition in water and in air.  
**Other adverse environmental effects** : This chemical does not deplete the ozone layer.

### 13. DISPOSAL CONSIDERATIONS

**Handling for Disposal** : Important! Prevent waste generation. Use in full. DO NOT throw residual to sewer, streams, sewers or drinking water supply. DO NOT puncture, cut, heat or burn container, even after use. Return empty container properly labeled to supplier or everywhere there is a recovery program. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.

### 14. TRANSPORTATION INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
DOT	Not regulated				
<b>Additional Information</b>	This material is not listed as a marine pollutant.				
TDG	Not regulated				
<b>Additional Information</b>					
IMO/IMDG	Not regulated				
<b>Additional Information</b>					
IATA	Not regulated				
<b>Additional Information</b>					

### 15 - REGULATORY INFORMATION

**US Federal Information:**

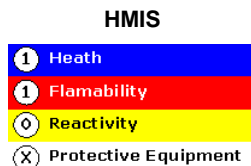
- Toxic Substance Control Act (TSCA) :  
 This material is listed in the TSCA Inventory or otherwise comply with TSCA requirements.
- EPCRA Section 302/304 Extremely Hazardous Substances:  
 Sodium Hydroxide (CAS 1310-73-2)

**Canadian Information:**

- Canada DSL and NDSL:  
 All ingredients are listed in the Domestic Substances List (DSL).
- Canadian National Pollutant Release Inventory Substances (NPRI):  
 No material is listed.

**WHMIS 1988:**

Class D2B : Toxic material causing other toxic effects



### 16. OTHER INFORMATION

**Other special considerations for handling** : Provide adequate information, instruction and training for operators.

Prepared by: Flottec, LLC

Revised by: C. Rodriguez

**REASON FOR REVISION:** Updated section 1 with new Flottec address.



**DISCLAIMER**

The above information is believed to be accurate and represents the best information currently available to us. However, we make no warrantee of merchantability or any other warrant, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular uses.

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