



**SAFETY DATA SHEET**

Date :04/17/2019

**Section 01 - Product and company identification**

**Product Name: Ethylene Glycol HEAT TRANSFER FLUID 50% Inhibited (DOWTHERM IG 50/50)**

**Identification of the company:**

Prairie Mud Service  
738 6th Street, Estevan, Sk. S4A 1A4  
306-634-3411

**Primary product use:** Petroleum industry, additive for crude oil

**Section 02 - Hazards identification**

**Classification:** WHMIS controlled: **yes**

**Class:** D1B  
D2A



May cause eye, skin, and respiratory tract irritation. Harmful if swallowed or if inhaled

**Health effects of exposure:**

Harmful by ingestion. Contact with eyes may cause serious eye damage. Skin contact will cause irritation. Inhalation may cause irritation of the respiratory tract.

Ethylene glycol : human poison by ingestion. Very toxic by inhalation. A skin, eye and mucous membrane irritant. Human systemic effect by ingestion and inhalation (eye lacrimation, general anesthesia, head- ache, cough, respiratory stimulation, nausea or vomiting, pulmonary, kidney and liver changes). There is evidence of experimental terato- genic and mutagenic data. Repeated or high exposure may cause kidney and brain damage.

**Section 03 - Composition/information on ingredients**

**Hazardous ingredients:**

Component	CAS number	Concentration
Ethylene glycol	107-21-1	30 - 60 %
Dipotassium hydrogenorthophosphate	7758-11-4	1 - 5 %

**Component toxicity information:**

Ethylene glycol ( 107-21-1 )

**Acute oral toxicity:** LD50 4,700 mg/kg (Rat)

**Section 04 - First aid measures**

**After inhalation:**

Move the victim to fresh air. Give oxygen or artificial respiration if needed. Get immediate medical advice/ attention.

**After contact with skin:**

Remove contaminated clothing and wash affected areas with soap and plenty of water for at least 15 minutes. If redness or skin irritation occurs, seek medical attention.

**After contact with eyes:**

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.

## After ingestion:

Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. Give large quantities of water immediately to reduce concentration. Seek medical attention immediately. If ingested, immediately seek medical attention and bring along a copy of the MSDs.

### Advice to doctor / Treatment:

The principal toxic effects of ethylene glycol, when swallowed, are kidney damage and metabolic acidosis. Ethanol is antidotal, and its early administration may block the formation of Nephrotoxic Metabolites of ethylene glycol in the liver. Ethanol should be given intravenously, as a 5% solution in Sodium Bicarbonate, at a rate of about 10 ml ethanol per hour. A desired therapeutic level of Ethanol in blood is 100 mg/dl. Hemodialysis may be required. Pulmonary Edema with hypoxemia has been described in a number of patients following poisoning with ethylene glycol. The mechanism of production has not been elucidated, but it appears to be noncardiogenic in origin in several cases. Respiratory support with mechanical ventilation and positive end-expiratory pressure may be required.

## Section 05 - Fire fighting measures

**Flashpoint:** 126.7 °C

Method: Pensky-Martens (DIN EN ISO 2719) (closed cup)

**Lower explosion limit:** 3.2 % (V)

**Upper explosion limit:** no data available

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Special fire fighting procedure:

Wear full protective clothing and self-contained breathing apparatus. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

**Hazardous combustion products:** Hazardous decomposition products: Carbon monoxide and carbon dioxide. Keep away from sources of ignition. Take precautionary measures to prevent static discharges. Wear proper protective equipment to avoid inhalation of smoke, fumes, or hazardous decomposition of products.

## Section 06 - Accidental release measures

### Steps to be taken in case of spill or leak:

Only trained personnel should be involved in spill operations. Wear suitable protective equipment. Ensure adequate ventilation. Remove all ignition sources. Contain spill and pump into proper containers using explosion-proof equipment. Smaller spills may be recovered using an inert non-combustible absorbent material (sand, kieselguhr) and collected into suitable containers. Do not use organic absorbent material. Containers in which spilled substance has been collected must be properly labelled. Spill may be covered with an appropriate foam to hinder the formation of explosive vapours. Wash spill area. Do not allow to enter sewers, storm drains, surface waters or the soil.

## Section 07 - Handling and storage

### Advice on safe handling:

Avoid contact with skin, eyes and clothing. Use only with adequate ventilation and proper protective eyewear, gloves, and clothing.

### Further info on storage conditions:

Store in original container. Keep container tightly closed; open and handle with care

## Section 08 - Exposure controls / personal protection

### Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value
Ethylene glycol ( Aerosol)	107-21-1	USA. ACGIH Threshold Limit Values (TLV)	Ceiling limit		100 mg
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### Respiratory protection:

Wear an approved respirator when exposed to vapours or to mists beyond the TLV. Use appropriate filters. Do not exceed filter limitations. TLV = Threshold Limit Value

**Hand protection:** Chemical resistant gloves

**Eye protection:** Safety goggles

**Other protective equipment:** Avoid skin contact.

Wear suitable protective equipment.

## **Section 09 - Physical and chemical properties**

<b>Form:</b>	liquid
<b>Color:</b>	Colorless to yellow
<b>Odor:</b>	characteristic
<b>pH:</b>	9.5
<b>Solubility in water:</b>	soluble
<b>Density:</b>	1.06 - 1.10 g/cm <sup>3</sup>
<b>Freezing point :</b>	-37 °C
<b>Boiling point/boiling range :</b>	108 °C

## **Section 10 - Stability and reactivity**

<b>Thermal decomposition:</b>	No decomposition if used as directed.
<b>Chemical stability:</b>	Stable
<b>Hazardous Polymerization:</b>	Hazardous polymerization does not occur.
<b>Hazardous decomposition products</b>	Carbon monoxide and carbon dioxide

## **Section 11 - Toxicological information**

<b>Acute oral toxicity:</b>	LD50 8,200 mg/kg (Rat)
<b>Acute inhalation toxicity:</b>	LC50 > 3.95 mg/l (7 h, Rat )
<b>Acute dermal toxicity:</b>	LD50 > 2,000 mg/kg (Rabbit)
<b>Acute dermal toxicity:</b>	LD50 > 2,000 mg/kg (Rabbit)
<b>Skin irritation:</b>	irritating
The data refer to the solvent	
<b>Eye irritation:</b>	irritating
The data refer to the solvent	

## **Section 12 - Ecological information**

### **Product information:**

### **Remarks:**

Product must not be released into water without pre-treatment.

## **Section 13 - Disposal considerations**

### **Waste disposal information:**

Preferred disposal is through industrial waste treatment systems. Product may be landfilled after solidification. Follow local regulations.

## **Section 14 - Transport information**

<b>TDG</b>	not restricted
<b>IATA</b>	not restricted
<b>IMDG</b>	not restricted

## **Section 15 - Regulatory information**

### **Registration status**

<b>DSL:</b>	yes
<b>NDSL:</b>	no

All components of the product are listed on the DSL/Canada.

### **CEPA**

Listed as toxic substance:	Not listed
Listed as priority substance:	Not listed

<b>NPRI</b>	Listed
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## **Section 16 - Other information**

### **Prepared: May 2, 2019 by Prairie Mud Service**

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