

# Material Safety Data Sheet

## ESF #13

### I. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** ESF #13  
**Chemical Family:** Glycol  
**Chemical Name:** Polyether Polyol  
**Product Use:** Petroleum Drilling

**Date Revised:** 7/2010

#### Supplier:

#### NOV FluidControl

4310 N. Sam Houston Parkway E  
Houston, TX 77032  
Office: (713) 482-0500  
Fax: (713) 482-0695  
Company website: [www.nov.com](http://www.nov.com)

#### Emergency Telephone Number:

**CHEMTREC: 1-800-424-9300 or International +1-703-527-3887**

### II. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>CAS #</u>	<u>Wt. %</u>
Proprietary Ingredients	Proprietary	100%

### III. HAZARDS IDENTIFICATION

**Emergency Overview:** Viscous liquid. Pungent odor. Causes eye irritation.

**Potential Health Effects** (See Section 11 for toxicological data.)

**Eye:** May cause slight eye irritation. May cause moderate corneal injury.

**Skin:** Prolonged or repeated exposure may cause skin irritation. May cause allergic skin reaction in susceptible individuals. A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.

**Ingestion:** Single dose oral toxicity is considered to be low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.

**Inhalation:** At room temperature, vapors are minimal due to low vapor pressure. Certain operations may generate vapor or aerosol concentrations sufficient to cause irritation. Such operations include those in which the material is heated or sprayed as an aerosol (venting of vessels/lines).

#### **Chronic Effects:**

**Systemic (Other Target Organ) Effects:** In rats, repeated dietary ingestion of diethyltoluenediamine (DETDA) has caused pancreatic, eye, liver and thyroid effects.

**Cancer Information:** Diethyltoluenediamine (DETDA) has caused cancer in long-term animal studies. Increased numbers of tumors in the liver, thyroid & possibly the mammary glands were observed in rats given DETDA in their diet at exaggerated doses for 2 years.

**ESF #13****Material Safety Data Sheet****IV. FIRST AID MEASURES**

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**Eyes:** Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel.

**Skin:** Wash off in flowing water or shower.

**Ingestion:** If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

**Inhalation:** Remove to fresh air if effects occur. Consult a physician.

**Note to Physician:** No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

**V. FIRE FIGHTING MEASURES**

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**Flammable Properties**

**FLASH POINT:** >325 F, >163 C  
**METHOD USED:** PMCC, ASTM D93

**Flammability Limits**

**LFL:** Not determined.  
**UFL:** Not determined.

**Hazardous Combustion Products:**

Combustion may produce carbon dioxide and carbon monoxide. Unidentified organic compounds may be formed during combustion which may present a greater hazard. Other flammability information: Fire water run-off may be toxic.

**Extinguishing Media:**

Water fog, carbon dioxide, dry chemical, and foam. For large scale fires, alcohol resistant foams are preferred if available. General purpose synthetic foams or protein foams may function, but much less effectively. Water may be used to flush spills away from fire exposures and to dilute spills to non-flammable mixtures. If possible, contain for water run-off. For large scale fires, direct water stream may cause violent frothing, but fine water spray may help control situation.

**Fire Fighting Procedures:**

Keep unnecessary people away; isolate hazard area and deny unnecessary entry. When using water spray, boil-over may occur when the product temperature reaches the boiling point of water (tank-type scenarios, not spills).

**Protective Equipment for Fire Fighters:** Wear positive-pressure self-contained breathing apparatus and full protective equipment.

**VI. ACCIDENTAL RELEASE MEASURES (SEE SECTION 14 FOR REGULATORY INFORMATION)**

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**Protect People:** Isolate and confine spill area. Spills may be a slipping hazard.

**Protect the Environment:** Keep out of sewers, storm drains, surface waters and soil. Material is denser than water and has limited water solubility. It will collect on the lowest surface.

**Cleanup:** Spills should be collected to prevent contamination of Waterways.

**ESF #13****Material Safety Data Sheet****VII. HANDLING AND STORAGE**

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**Special Precautions:** Materials not considered hazardous as handled in most industrial operations. Exercise reasonable care and cleanliness. Avoid skin and eye contact. Avoid breathing vapors if generated.

**VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**Engineering Controls:** Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

**Personal Protective Equipment:**

**Eye/Face Protection:** Use chemical goggles.

**Skin Protection:** Use gloves impervious to this material.

**Respiratory Protections:** Atmospheric levels should be maintained below the exposure guideline. If respiratory irritation is experienced, use an approved air-purifying respirator.

**Exposure Guidelines:** Although some of the additives used in this product may have exposure guidelines, these additives are complex with other components in the product and no exposure would be expected under normal handling conditions.

**IX. PHYSICAL AND CHEMICAL PROPERTIES**

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<b>Boiling Point:</b>	<b>Not applicable</b>
<b>Vapor Pressure:</b>	<b>Nil</b>
<b>Vapor Density:</b>	<b>Not applicable</b>
<b>Solubility in Water:</b>	<b>Partially soluble</b>
<b>Specific Gravity:</b>	<b>1.0306 25/25C</b>
<b>Appearance:</b>	<b>Viscous liquid</b>
<b>Odor:</b>	<b>Pungent odor</b>

**X. STABILITY AND REACTIVITY**

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**Chemical Stability:** Stable under normal handling and storage conditions.

**Conditions to Avoid:** None known.

**Incompatibility with other Materials:** Strong acids and oxidizing materials. Also alkali or alkaline earth such as copper, zinc or brass.

**Hazardous Decomposition Products:** Decomposition may produce carbon dioxide and toxic carbon monoxide. Unidentified organic compounds may be formed during decomposition.

**Hazardous Polymerization:** Will not occur.

**ESF #13****Material Safety Data Sheet****XI. TOXICOLOGICAL INFORMATION**

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(See Section III for Potential Health Effects. For detailed toxicological data, write or call the address or non-emergency number shown in Section 1)

**Acute:**

**Ingestions:** The oral LD50 for rats is between 1000-2000 mg/kg.

**Skin Absorption:** The LD50 for skin absorption in rabbits is <2000 mg/kg.

**Mutagenicity (Effects on Genetic Material):** For diethyltoluenediamine, in vitro mutagenicity studies were negative in some cases and positive in other cases. Animal mutagenicity studies were negative.

**XII. DISPOSAL CONSIDERATIONS**

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(See Section XIV for Regulatory Information)

**Disposal:** Any disposal practice must be in compliance with all federal, state/provincial, and local laws and regulations. State/provincial and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Regulations may also vary in different locations. Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance are the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. None of these waste management options should be considered arranging for disposal.

Product as sold is not a RCRA hazardous waste when disposed.

Do not allow into any sewers, on the ground, or into any body of water.

Refer to 40 CFR Section 261, and/or any other appropriate federal, state, provincial, or local requirements for proper classification information.

**XIII. TRANSPORT INFORMATION**

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**Department of Transportation (D.O.T.):** For DOT regulatory information, if required, consult transportation regulations or product shipping papers.

**XIV. REGULATORY INFORMATION**

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(Not meant to be all inclusive B selected regulations represented)

**Notice:** The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See other sections for health and safety information.

**ESF #13****Material Safety Data Sheet****REGULATORY INFORMATION CONTINUED**

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**U.S. REGULATIONS**

**SARA HAZARD CATEGORY:** This product has been reviewed according to the EPA Hazard Categories@ promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:  
Not to have met any hazard category.

**CANADIAN REGULATIONS**

The workplace hazardous materials information system (WHMIS) classification for the product is:  
Not Controlled

**The Transportation of Dangerous Goods Act (T.D.G.A.) classification for this product is:**  
Not Regulated

**XV. OTHER INFORMATION**

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**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:**

Health	1
Flammability	1
Reactivity	0

**DISCLAIMER:**

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, NOV FluidControl, makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the person receiving this MSDS will make own determination as to its suitability for their intended purpose prior to use. Since the product is within the exclusive control of the user, it is the user's obligation to determine the conditions of safe use of this product. Such conditions should comply with all Federal Regulations concerning the Product. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER NATURE ARE MADE HERUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

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