

# SAFETY DATA SHEET

To comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

## PETROFLAG HIGH RANGE REAGENTS

### SECTION 1 – COMPANY IDENTIFICATION

**Manufacturer:** Dexsil Corporation  
One Hamden Park Drive  
Hamden, CT 06517

**Emergency Telephone Number:**  
USA (800) 424-9300 (CHEMTREC)  
INT'L (703) 741-5970

**Telephone Number:** (203) 288-3509

**Email:** [info@dexsil.com](mailto:info@dexsil.com)

**Product Description:** The PetroFLAG product line is an On-Site test kit for quantifying petroleum hydrocarbons in soil.

### SECTION 2 – HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

High Range Extraction Solvent (Break-Top Ampule): Diethylene glycol dimethyl ether (Diglyme)			
Flammable liquid 3;H226	Flammable liquid and vapor.	Reproductive toxicity 1B;H360	May damage fertility or the unborn child.

#### 2.2. Label elements

**High Range Extraction Solvent: Diglyme**



**Danger**

H226 Flammable liquid and vapor.

H360 May damage fertility. May damage the unborn child.

**[Prevention]:**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical / ventilating / light / equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P280 Wear protective gloves / eye protection / face protection.

P281 Use personal protective equipment as required.

**[Response]:**

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P308+313 IF exposed or concerned: Get medical advice / attention.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

**[Storage]:**

P403+235 Store in a well ventilated place. Keep cool.

P405 Store locked up.

**[Disposal]:**

P501 Dispose of contents / container in accordance with local / national regulations.

For additional information on toxicity, please refer to Section 11.

### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

The PetroFLAG High Range reagents consist of break-top ampules of extraction solvent to be used in combination with the standard PetroFLAG reagents.

Component	Contents	CAS#	EC#	% liquid
High Range Extraction Solvent	Diglyme, Diethylene glycol dimethyl ether	111-96-6	203-924-4	100.00%

### SECTION 4 – FIRST AID MEASURES

#### First Aid

In case of contact with reagents, rinse well with water. Move out of dangerous area. Seek medical attention.

**Eye Contact**

Flush eyes with large amounts of water for 15 minutes. Seek medical attention.

**Skin contact**

Flush with large amounts of water. Use soap and water to wash away organic components. Seek medical attention.

**Inhalation**

In case of inhalation, remove to fresh air. If not breathing, give artificial respiration. Seek medical attention.

**Ingestion:** If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Rinse mouth with water. Get medical attention immediately.

**SECTION 5 --- FIRE AND EXPLOSION HAZARD**

**Flash Point** 135°F (57°C) - Closed Cup

**Flammable Limit** Upper: 17.4% (V) Lower: 1.5% (V)

**Extinguishing Media** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special Fire Fighting Procedures**

Wear SCBA and protective clothing.

**SECTION 6 — ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

**Spills and Leaks**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Contain spillage, and then collect and place in container for disposal according to local regulations.

**SECTION 7 — HANDLING AND STORAGE**

**Protective equipment** Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge. Wear appropriate safety equipment when performing the test on site.

**Storage** Store test kits in a cool, dry place.

**SECTION 8 — EXPOSURE CONTROLS/ PERSONAL PROTECTIVE EQUIPMENT**

**Engineering Controls** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Personal Protective Equipment (PPE)**

**Respiratory protection** None required where adequate ventilation conditions exist. If airborne concentration is high, use a chemical cartridge respirator.

**Ventilation** Perform test only in a well-ventilated area.

**Protective gloves** Always wear rubber gloves when performing the PETROFLAG test.

**Eye protection** Wear safety glasses.

**General Hygiene Measures** Avoid contact with skin, eyes and clothing. Wash after running tests.

**Workplace Control Parameters**

**PEL** 1 ppm, 5.5 mg/m<sup>3</sup> - California permissible exposure limits for chemical contaminants (Title 8, Article 107) Skin

**STEL** 5 ppm, 27 mg/m<sup>3</sup> - California permissible exposure limits for chemical contaminants (Title 8, Article 107) Skin

### Derived No Effect Level (DNEL)

Application Area	Exposure routes	Health effect	Value
Workers	Inhalation	Long-term systemic effects	26.8 mg/m3
Workers	Skin contact	Long-term systemic effects	2.08mg/kg BW/d
Consumers	Inhalation	Long-term systemic effects	6.67 mg/m3
Consumers	Skin contact	Long-term systemic effects	1.04mg/kg BW/d
Consumers	Ingestion	Long-term systemic effects	1.04mg/kg BW/d

### Predicted No Effect Concentration (PNEC)

Compartment	Value
Water	9.43 mg/l
Soil	1.72 mg/kg
Marine water	0.64 mg/l
Fresh water	6.4 mg/l
Marine sediment	2.74 mg/kg
Fresh water sediment	27.4 mg/kg
Onsite sewage treatment plant	50 mg/l

## **SECTION 9 – PHYSICAL/CHEMICAL CHARACTERISTICS**

### Property

<b>Boiling Pt.(°C)</b>	162
<b>Vapor Pressure (mm Hg 21°C)</b>	1.7
<b>Solubility in Water</b>	100%
<b>Specific Gravity</b>	0.95
<b>Percent Volatile</b>	100
<b>Evaporation Rate (Butyl Acetate =1)</b>	0.36
<b>Appearance</b>	clear
<b>Odor</b>	ether-like
<b>Relative Vapor Density</b>	4.63 – (Air=1.0)

## **SECTION 10 – REACTIVITY DATA**

**Chemical Stability** Stable under recommended storage conditions.

**Conditions to Avoid** Heat, flames and sparks. Avoid strong oxidizers.

**Hazardous Decomposition Productions** None Expected.

**Hazardous Polymerization** Will not occur.

## **SECTION 11 – TOXICOLOGICAL INFORMATION**

### **Carcinogenicity**

NTP: No IARC: No Z List: No OSHA Reg: No

Diglyme may cause teratogenic or mutagenic effects and cause harm to the unborn child.

### **Acute Toxicity**

LD50 Oral – Rat – 5,400 mg/kg

Remarks: Behavioral:Somnolence (general depressed activity). Behavioral:Ataxia. Respiratory disorder

### **Reproductive Toxicity**

Laboratory experiments have shown teratogenic effects.Presumed human reproductive toxicant  
Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

## **SECTION 12 — ECOLOGICAL INFORMATION**

### **Toxicity**

No data available

### **Persistence and Degradability**

No data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

## **SECTION 13 — DISPOSAL CONSIDERATIONS**

Used reagents contain oil and solvent. Dispose of as an organic waste in accordance with all applicable federal, state and local environmental regulations.

## **SECTION 14 — TRANSPORTATION INFORMATION**

### **DOT (US)**

UN number: 3271 Class: 3 Packing group: III

Proper shipping name: Ethers, n.o.s.

Reportable Quantity (RQ):

Poison Inhalation Hazard: No

### **IMDG**

UN number: 3271 Class: 3 Packing group: III EMS-No: F-E, S-D

Proper shipping name: ETHERS, N.O.S. (Bis(2-methoxyethyl)ether)

### **IATA**

UN number: 3271 Class: 3 Packing group: III

Proper shipping name: Ethers, n.o.s. (Bis(2-methoxyethyl)ether)

## **SECTION 15 — REGULATORY INFORMATION**

### **SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### **SARA 313 Components**

The following components are subject to reporting levels established by SARA Title III, Section 313:

Bis(2-methoxyethyl)ether CAS-No.111-96-6 Revision Date 1995-01-01

### **SARA 311/312 Hazards**

Fire Hazard, Chronic Health Hazard

### **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

### **Pennsylvania Right To Know Components**

Bis(2-methoxyethyl)ether CAS-No.111-96-6 Revision Date 1995-01-01

### **New Jersey Right To Know Components**

Bis(2-methoxyethyl)ether CAS-No.111-96-6 Revision Date 1995-01-01

## **SECTION 16 — OTHER INFORMATION**

The information in this Material Safety Data Sheet meets the requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and the Canadian WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. This document is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, chemical handling. The user is responsible for determining the precautions and danger of these chemicals for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. These chemicals may interact with other substances. Since the potential uses are so varied, Dexsil cannot warn of all of the potential dangers of use or interaction with other chemicals or materials. Dexsil warrants that the chemicals meet the specifications set forth on the label.

DEXSIL DISCLAIMS ANY OTHER WARRANTIES; EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, IT'S MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.

The user should recognize that this product can cause severe injury and even death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Dexsil will periodically revise this Material Safety Data Sheet. CHEMTREC emergency telephone number is to be used ONLY in the event of CHEMICAL EMERGENCIES involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to the Customer Service Dept. at 1-203-288-3509.

*For additional information, contact Dexsil.*

**Date Prepared:** 04-26-2019 Revision 1