

# SAFETY DATA SHEET

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

## HYDROSCOUT OIL/SOIL 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 HYDROSCOUT product line is an On-Site test kit for quantifying water in used oil and other hydrocarbon matrices.

### SECTION 2 – HAZARDS IDENTIFICATION

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

<b>Ampule 1 (Grey): Calcium hydride / Solvent naphtha (petroleum), light aromatic</b>			
Flammable Liquid 3;H226	Flammable liquid and vapor	respiratory irritation 3;H335	May cause respiratory irritation
Water-react. 1;H260	In contact with water releases flammable gases which may ignite spontaneously.	Germ cell mutagen 1A, 1B;H340	May cause genetic defects
Aspiration hazard 1;H304	May be fatal if swallowed and enters airways	Carcinogen 1A,1B;H350	May cause cancer
Skin irritant 2;H315	causes skin irritation	Chronic toxicity 4;H411	Toxic to aquatic life with long lasting effects

<b>Green Ampule: Water</b>	
No applicable GHS categories.	

<b>White capped vial(dilution kit): diglyme</b>			
Flammable Liquid 3;H226	Flammable liquid and vapor.	Reproductive toxicity 1A,1B;H360FD	May damage fertility. May damage the unborn child.
Carcinogen. 2;H351	Suspected of causing cancer.		

<b>Extraction Solvent(soil kit): Ethanol</b>			
Flammable liquid 2;H225	Highly Flammable liquid and vapor.	Eye Irritant 2;H319	Causes serious eye irritation.

#### 2.2. Label elements

**Grey Ampule: Calcium hydride / Solvent naphtha (petroleum), light aromatic**



**Danger**

H226 Flammable liquid and vapor.

H260 In contact with water releases flammable gases which may ignite spontaneously.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H335 May cause respiratory irritation.

H340 May cause genetic defects.

H350 May cause cancer.

H411 Toxic to aquatic life with long lasting effects.

**[Prevention]:**

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

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

P260 Do not breathe mist / vapors / spray.

P262 Do not get in eyes, on skin, or on clothing.

P280 Wear protective gloves / eye protection / face protection.

**[Response]:**

P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.

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

P331 Do NOT induce vomiting.

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

P403+233 Store in a well ventilated place. Keep container tightly closed.

**[Disposal]:**

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

**[Storage]:**

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**Green Ampule**

No applicable GHS categories.

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**White Capped Vial (dilution kit): Diglyme**



**Danger**

H226 flammable liquid and vapor.

H360FD\* 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.

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

P280 Wear protective gloves / eye protection / face protection.

**[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+233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

**[Disposal]:**

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

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**Extraction Solvent (soil kit): Ethanol**



**Danger**

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

**[Prevention]:**

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

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

P280 Wear protective gloves / eye protection / face protection.

**[Response]:**

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

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+313 If eye irritation persists: Get medical advice/ attention.

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

**[Storage]:**

P403+233 Store in a well ventilated place. Keep container tightly closed.

**[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 HYDROSCOUT Oil Reagents consists of a test tube containing a glass ampule which contains a calcium hydride solution in a light aromatic solvent, a glass ampule containing a green-colored water/propylene glycol mixture and a polypropylene sampling syringe. The HYDROSCOUT Dilution Kit Reagents consist of a black-screw cap vial for measuring high water levels (>20%) in oils. The HYDROSCOUT Soil Reagents consist of break-top ampule containing reagent alcohol and 50-ml sample tube.

Component	Contents	CAS#	EC#	% liquid
Grey Ampule	Calcium Hydride	7789-78-8	232-189-2	5.25%
	Solvent naphtha (petroleum), Light aromatic	64742-95-6	265-199-0	76.00%
Green Ampule	Propylene Glycol	57-55-6	200-338-0	11.25%
	in Water	7732-18-5	231-791-2	7.50%
				100.00%
White Capped Vial (dilution kit)	Diglyme	111-96-6	203-924-4	100.00%
Extraction Solvent (soil kit)	Ethanol	64-17-5	200-578-6	100.00%

### **SECTION 4 — FIRST AID MEASURES**

#### **First Aid**

In case of contact with reagents, rinse well with water. If swallowed, do NOT induce vomiting.

#### **Eye Contact**

For all kit components, flush eyes with large amounts of water for 15 minutes. Seek medical attention.

#### **Skin contact**

Flush with large amounts of water for 15 minutes. Use soap and water to wash away organic components.

#### **Inhalation**

In case of inhalation, remove to fresh air.

**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. Get medical attention immediately.

### **SECTION 5 — FIRE AND EXPLOSION HAZARD**

<b>Flash Point</b>	Calcium Hydride/Solvent Naphtha	NA/100 - 120°F
	Water/Propylene Glycol	NA/217°F
	Diglyme	135°F
	Reagent Alcohol	48°F

<b>Flammable Limit</b>	Calcium Hydride/Solvent Naphtha	Upper - NA/7.0%	Lower - NA/1.0%
	Water/Propylene Glycol	Upper - NA	Lower - NA
	Diglyme	Upper - Unknown	Lower - Unknown
	Reagent Alcohol	Upper - Unknown	Lower - Unknown

**Extinguishing Media** Dry Chemical, foam, powdered limestone, CO<sub>2</sub>

**Special Fire Fighting Procedures** Wear SCBA and protective clothing.

### **SECTION 6 — ACCIDENTAL RELEASE MEASURES**

**Personal Protection** Chemical safety glasses and rubber gloves

**Spills and Leaks** Shut off all ignition sources, no flares, smoking or flames in area. Soak up with noncombustible absorbent material and place into container for disposal later. Flush area with water.

## **SECTION 7 — HANDLING AND STORAGE**

**Protective equipment**      Wear appropriate safety equipment when performing the test on site.

**Storage**                      Store test kits in a cool, dry place. Check expiration date prior to performing test.

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

**Engineering Controls**                      None required

### **Personal Protective Equipment(PPE)**

**Respiratory protection**                      None required where adequate ventilation conditions exists. 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 HYDROSCOUT test.

**Eye protection**                                Wear safety glasses.

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

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

<b><u>Property</u></b>	<b><u>Calcium Hydride/Solvent Naphtha</u></b>	<b><u>Water/Propylene Glycol</u></b>	<b><u>Diglyme</u></b>	<b><u>Reagent Alcohol</u></b>
<b>Boiling Pt. °C</b>	N/A/153.3 - 168.3	100/188	163	78
<b>Vapor Pressure mm Hg @ 21°C</b>	N/A/3.00	17.5/0.08	1.7	44
<b>Solubility in Water</b>	decompose/negligible	100%/100%	100%	miscible
<b>Specific Gravity</b>	1.90/0.876	1.00/1.036	0.95	0.79
<b>Percent Volatile</b>	N/A/100	none	100	99
<b>Evaporation Rate Butyl Acetate =1</b>	N/A/25.00	N/A	0.36	2.7
<b>Appearance</b>	gray liquid/clear, colorless	green clear	colorless	colorless
<b>Odor</b>	none/aromatic, strong	odorless	ether-like	pleasant

N/A = not available

## **SECTION 10 — REACTIVITY DATA**

**Chemical Stability**      All components are stable under recommended storage conditions.

**Conditions to Avoid**      Strong oxidizing agents, strong acids, some alcohols, halogens, and water along with exposure to heat, sparks, flame and other sources of ignition, moisture and humidity.

**Hazardous Decomposition Productions**      Hydrogen, calcium oxide, carbon monoxide, and carbon dioxide. Diglyme may form peroxides on exposure to air.

**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.

### **Toxicity Data**

<b><u>Component</u></b>	<b><u>Component</u></b>	<b><u>TLV/(PEL)</u></b>
<i>Gray Ampule</i>	[Calcium Hydride] in Solvent Naphtha	N/A 100 ppm/100 ppm
<i>Green Ampule</i>	Water & [Propylene glycol]	N/A N/A
<i>White-Capped Vials</i> (Dilution Kit Only)	Diglyme	5 ppm
<i>Extraction Solvent</i> Ampule (Soil Kit Only)	Reagent Alcohol	1900 mg/m <sup>3</sup> /(1900 mg/m <sup>3</sup> )

## **SECTION 12 – ECOLOGICAL INFORMATION**

**Propylene Glycol:** Ecotoxicity in water (LC50): >5000 mg/l 24 hours [Goldfish]. >10000 mg/l 48 hours [guppy]. >10000 mg/l 48 hours [water flea].

## **SECTION 13 – DISPOSAL CONSIDERATIONS**

Dispose of in accordance with all applicable federal, state and local environmental regulations.

## **SECTION 14 – TRANSPORTATION INFORMATION**

<b>DOT</b>		
<b>Proper Shipping Name:</b>	None	
<b>Domestic Highway or Rail Transport Only:</b>	As originally packaged by Dexsil Corporation, under Competent Authority Approval CA-1996100010, packages are approved for transportation by domestic highway or rail transport only. Packaging conforms to conditions and limitations specified in 49 CFR 173.4.	
<b>IATA</b>		
<b>Proper Shipping Name:</b>	Calcium Hydride	Ethanol (Soil kit)
<b>UN Number:</b>	1404	1170
<b>Hazard Class:</b>	4.3	3
<b>Packing Group</b>	I	II

## **SECTION 15 – REGULATORY INFORMATION**

**SARA Listed:** Aromatic hydrocarbons, diglyme and methanol component in reagent alcohol are identified on SARA Sec. 313.

**TSCA Inventory Items:** Solvent naphtha, diglyme, methanol component in reagent alcohol and calcium hydride.

**CERCLA Listed:** Solvent naphtha and methanol component in reagent alcohol.

**EINECS:** Components of this product are on the European Inventory of Existing Commercial Chemical Substances.

## **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. .*

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