

# SAFETY DATA SHEET

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

## HYDROSCOUT 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 Soil Reagents are designed to be used with the HYDROSCOUT Water Analyzer as an on-site test method for quantifying water in liquid and solid matrices, including soil.

### SECTION 2 – HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

2.2. Label elements

**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.

**GHS Classification(s)**

Acute toxicity, Oral (Category 4)

Eye irritation (Category 2A)

Flammable Liquids (Category 2)

Skin irritation (Category 2)

Specific target organ toxicity - single exposure (Category 1)

Specific target organ toxicity - single exposure (Category 3)

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

### **SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS**

The HYDROSCOUT Soil Reagents consist of break-top ampule containing denatured alcohol and 50-ml sample tube.

Component	Contents	CAS#	EC#	% liquid
Extraction Solvent (soil kit)	Ethyl Alcohol	64-17-5	200-578-6	90.5
	Isopropyl Alcohol	67-63-0	200-661-7	4.98
	Methyl Alcohol	67-56-1	200-659-6	4.52

### **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.

#### **Note to Physician**

Symptoms vary with alcohol level of the blood. Mild alcohol intoxication occurs at blood levels between 0.05- 0.15 %. Approximately 25% of individuals show signs of intoxication at these levels. Above 0.15% the person is definitely under the influence of ethanol; 50-95% of individuals are clinically intoxicated at these levels. Severe poisoning occurs when the blood is ethanol level is 0.3- 0.5%. Above 0.5% the individual will be comatose and death can occur. The unabsorbed ethanol should be removed by gastric lavage after intubating the patient to prevent aspiration. Avoid the use of depressant drugs or the excessive administration of fluids.

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

#### **Flash Point**

Reagent Alcohol 58°F

#### **Flammable Limit**

Reagent Alcohol Upper - Unknown Lower - Unknown

**Extinguishing Media** Water spray, dry chemical, alcohol-resistant foam, 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.

#### **Methods and materials for containment and cleaning up:**

Highly flammable liquid. Eliminate all sources of ignition. All equipment used when handling this product must be grounded. A vapor suppressing foam may be used to reduce vapors. Do not touch or walk through spilled material. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations. Use clean non-sparking tools to collect absorbed material.

## **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**

**Control parameters, e.g., occupational exposure limit values or biological limit values:**

### **Occupational Exposure Limits**

<b>Component</b>	<b>Source</b>	<b>Type</b>	<b>Value</b>	<b>Note</b>
Ethyl alcohol	US (OSHA)	TWA	1000 ppm / 1,900 mg/m <sup>3</sup>	29 CFR 1910.1000 Table Z-1 Limits for Air Contaminants.
Ethyl alcohol	US (ACGIH)	STEL	1000 ppm	Upper Respiratory Tract irritation Confirmed animal carcinogen with unknown relevance to humans
Isopropyl Alc.	US (ACGIH)	TWA	200 ppm	
Isopropyl Alc.	US (OSHA)	TWA	400 ppm	
Isopropyl Alc.	US (ACGIH)	STEL	400 ppm	
Methyl Alcohol	US (ACGIH)	STEL	250 ppm	
Methyl Alcohol	US (OSHA)	TWA	200 ppm	
Methyl Alcohol	US (ACGIH)	TWA	200 ppm	

### **Appropriate engineering controls:**

General room or local exhaust ventilation is usually required to meet exposure limit(s). Electrical equipment should be grounded and conform to applicable electrical code

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

<b>Respiratory protection</b>	None required where adequate ventilation conditions exists. If airborne concentration is high, use a chemical cartridge respirator.
<b>Ventilation</b>	Perform test only in a well-ventilated area.
<b>Protective gloves</b>	Always wear rubber gloves when performing the HYDROSCOUT test.
<b>Eye protection</b>	Wear safety glasses.
<b>General Hygiene Measures</b>	Avoid contact with skin, eyes and clothing. Wash after running tests.

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

<b><u>Property</u></b>	<b><u>Reagent Alcohol</u></b>
<b>Boiling Pt. °C</b>	78
<b>Vapor Pressure mm Hg @ 21°C</b>	44
<b>Solubility in Water</b>	miscible
<b>Specific Gravity</b>	0.79
<b>Percent Volatile</b>	99
<b>Evaporation Rate Butyl Acetate =1</b>	2.7
<b>Appearance</b>	colorless
<b>Odor</b>	pleasant

N/A = not available

## **SECTION 10 — REACTIVITY DATA**

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

**Conditions to Avoid** Heat, flames, and sparks. Extreme temperatures and direct sunlight.

**Incompatible materials** Alkali metals, Ammonia, Oxidizing agents, Peroxides, Strong Inorganic Acids

**Hazardous Decomposition Productions** None

**Hazardous Polymerization** Will not occur.

## **SECTION 11 — TOXICOLOGICAL INFORMATION**

### **Toxicity Data**

#### **Ethyl Alcohol 64-17-5**

Ethanol is not toxic by OSHA standards. Coingestion of sedative hypnotics or tranquilizers can increase the toxic affects of ethanol.

#### **Acute Toxicity:**

LC50 (inhl)	Rat	20000ppm	10 hrs.
LC50 (Oral)	Rat	7060mg/Kg BWT	
LDLo (Oral)	Human	1400 mg/Kg BWT	

#### **Irritation:**

##### **Eyes (ETHANOL)**

Eye exposure to Ethanol generally causes transient pain, irritation, and reflex lid closure. A foreign-body sensation may persist for one to two days. Vapors produce transient stinging and tearing, but no apparent adverse effects. Transiently impaired preception of color may occur with acute ingestion or chronic alcoholism. Standard Draize eye test (rabbit) - Dose: 500 mg Reaction: Severe Dose: 500 mg/24 hrs Reaction: Mild

##### **Skin**

Standard Draize skin test (rabbit) - Dose: 20 mg/24 hrs Reaction: Moderate Repeated exposure may cause skin dryness or cracking.

#### **Carcinogenicity**

IARC: Not classifiable as a human carcinogen.

ACGIH: Not classifiable as a human carcinogen.

NTP: Not classifiable as a human carcinogen.

OSHA: Not classifiable as a human carcinogen.

#### **Methyl Alcohol 67-56-1**

#### **Acute Toxicity:**

LC50 (Inhl)	Rat	64,000 mg/Kg BWT	4 hours
LD50 (Oral)	Rat	5,628 mg/Kg BWT	
LD50 (Skin)	Rabbit	15,800 mg/Kg BWT	

#### **Irritation:**

##### **Eyes (METHANOL)**

Direct contact with the eyes produces a mild, reversible irritation, assuming treatment is initiated promptly. Methanol ingestion or inhalation can lead to visual disturbance that can proceed to blindness.

##### **Skin**

Standard Draize skin test (rabbit) - Dose: 20 mg/24 hrs Reaction: Moderate Repeated exposure may cause skin dryness or cracking.

#### **Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen

or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### **Isopropyl Alcohol 67-63-0**

#### **Acute Toxicity:**

LC50 (vapor)	Rat	19,000 ppm	8 hours
LD50 (oral)	Rat	4,396 mg/kg	
LD50 (skin)	Rabbit	12,870 mg/kg	

#### **Irritation:**

##### **Eyes**

Rabbit - Irritating to eyes - 24 hours

##### **Eyes (ISOPROPANOL)**

Mildly irritating to the eye at an airborne concentration of 400 ppm, unpleasant at 800 ppm.

##### **Skin**

Moderate skin irritant

#### **Carcinogenicity**

IARC: Group 3: Not classifiable as to its carcinogenicity to humans.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

## **SECTION 12 — ECOLOGICAL INFORMATION**

### **Ethyl Alcohol 64-17-5**

#### **Ecotoxicity (aquatic and terrestrial, where available):**

##### **Acute Fish toxicity (ETHANOL)**

LC50 / 96 HOUR Oncorhynchus mykiss (rainbow trout) > 10,000 mg/l

LC50 / 96 HOUR Pimephales promelas (fathead minnow) > 13,400 mg/l

##### **Toxicity to aquatic plants (ETHANOL)**

Growth inhibition / 96 HOURS Chlorella vulgaris (Fresh water algae) 1,000 mg/l

##### **Toxicity to microorganisms (ETHANOL)**

Toxicity Threshold / Pseudomonas putida 6,500 mg/l

Summary: Inhibition of cell multiplication begins.

#### **Persistence and degradability:**

Biodegradation is expected.

#### **Bioaccumulative potential:**

Biaccumulation is unlikely

### **Isopropyl Alcohol 67-63-0**

#### **Ecotoxicity (aquatic and terrestrial, where available):**

##### **Acute Fish Toxicity (ISOPROPANOL)**

LC50 / 96 hours Pimephales promelas: 9,640 mg/L

##### **Toxic to Daphnia and Other Aquatic Invertebrates**

EC50 / 24 h / Water Flea - 5,102 mg/L

##### **Toxicity to Aquatic Plants (ISOPROPANOL)**

EC50 / 72 hours Scenedesmus subspicatus > 1,000 mg/L

**Persistence and degradability:**

No data available

**Bioaccumulative potential:**

No data available

**Methyl Alcohol 67-56-1****Ecotoxicity (aquatic and terrestrial, where available):****Acute Fish Toxicity (METHANOL)**LC50 / 96 hours *Lepomis macrochirus*: 15,400 mg/L / LC50 / 96 hours Fathead minnow: 29,400 mg/L**Toxicity to Aquatic Plants (METHANOL)**EC50 / 96 hours *Scenedesmus capricornutum*: 22,000 mg/L**Persistence and degradability:**

This material is expected to be readily biodegradable. There is evidence that it is degraded under anaerobic conditions.

**Bioaccumulative potential:**

Bioconcentration factor (BCF) of 0.2. This material is not expected to bioaccumulate.

**Other adverse effects:**

BOD: 600 mg/g - 1120 mg/g COD: 1420 mg/g

**SECTION 13 — DISPOSAL CONSIDERATIONS**

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

**SECTION 14 — TRANSPORTATION INFORMATION**

<b>Proper Shipping Name:</b>	Alcohols, n.o.s. (Ethanol, Isopropanol)
<b>UN Number:</b>	UN1987
<b>Transport Hazard Class</b>	3
<b>Packing Group:</b>	II

**IMDG**

Proper shipping name:	Alcohols, n.o.s. (Ethanol, Isopropanol)OLS, N.O.S.
UN-Number:	UN1987
Class:	3
Packing Group:	II
EMS-No:	F-E, S-D
Marine pollutant:	No

**IATA**

Proper shipping name:	Alcohols, n.o.s. (Ethanol, Isopropanol)
UN-Number:	UN1987
Class:	3
Packing Group:	II

**SECTION 15 — REGULATORY INFORMATION****Safety, health and environmental regulations specific for the product in question:****OSHA Hazards**Flammable liquid, Target Organ Effect, Irritant, Toxic by inhalation, Toxic by ingestion, Toxic by skin absorption  
All ingredients are on the following inventories or are exempted from listing

<b>Country</b>	<b>Notification</b>
Australia	AICS
Canada	DSL
China	IECS
European Union	EINECS
Japan	ENCS/ISHL
Korea	ECL
New Zealand	NZIoC
Philippines	PICCS
United States of America	TSCA

**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: METHANOL (CAS# 67-56-1) Revision date 2007-07-01. / ISOPROPANOL (CAS# 67-63-0) Revision date: 1987-01-01.

**SARA 311/312 Hazards**

Acute Health Hazard  
Chronic Health Hazard  
Fire Hazard

**CERCLA**

Methanol CAS-No. 67-56-1. RQ: 5,000 lbs

**Massachusetts Right To Know Components**

Ethanol CAS-No.64-17-5 Revision Date 2007-03-01  
Isopropyl Alcohol CAS-No. 67-63-0 Revision Date 1987-01-01  
Methanol CAS-No.67-56-1 Revision Date 2007-07-01

**Pennsylvania Right To Know Components**

Ethanol CAS-No.64-17-5 Revision Date 2007-03-01  
Isopropyl Alcohol CAS-No. 67-63-0 Revision Date 1987-01-01  
Methanol CAS-No.67-56-1 Revision Date 2007-07-01

**New Jersey Right To Know Components**

Ethanol CAS-No.64-17-5 Revision Date 2007-03-01  
Isopropyl Alcohol CAS-No. 67-63-0 Revision Date 1987-01-01  
Methanol CAS-No.67-56-1 Revision Date 2007-07-01

**California Prop 65 Components**

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm (ETHYL ALCOHOL) CAS No. 64-17-5 Revision Date: December 11, 2009

**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:** 06-10-2021 Revision 2