

Safety Data Sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Regulation (EU) No 830/2015

Revision 2, Replaces Rev. 1

Revised: March 2019

HYDROSCOUT OIL REAGENTS

SECTION 1: Identification of the substance/mixture and the company/undertaking

1.1. Product identifier

Product Description: The HYDROSCOUT product line is an On-Site test kit for quantifying water in used oil and other hydrocarbon matrices.

This product is a mixture. For identification of the individual components, see section 3.

1.2. Relevant identified uses of the substance or mixture and uses against

This product contains prepackaged reagents for the analysis of oil or soil samples for water contamination.

1.3. Details of the supplier of the safety data sheet

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

Telephone Number: (203) 288-3509
Email: info@dexsil.com

Importer: ETI Umwelttechnik AG
Kalchbuhlstrasse 18
7007 Chur, Switzerland

Telephone Number: (081) 253 54 54
Email: info@eti-swiss.com

1.4. Emergency telephone number

USA (800) 424-9300 (CHEMTREC) SWITZERLAND (435) 08 20 11

Section 2: Hazards Identification

2.1. Classification of the substance or mixture

Ampule 1 (Grey): Calcium hydride / Solvent naphtha (petroleum), light aromatic			
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

Green Ampule: Water	
No applicable GHS categories.	

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.

closed.

[Disposal]:

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

[Storage]:

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

Green Ampule

No applicable GHS categories.

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

Section 3: Composition/information on ingredients

3.2. Mixtures

The HYDROSCOUT Oil Reagents consist 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 ¹	7789-78-8	232-189-2	5.25%
	Solvent naphtha (petroleum), Light aromatic ¹	64742-95-6	265-199-0	76.00%
Green Ampule	Propylene Glycol ¹	57-55-6	200-338-0	11.25%
	in Water	7732-18-5	231-791-2	7.50%
				100.00%

¹A REACH registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

Section 4: First aid measures

4.1. Description of first aid measures

First Aid: In case of contact with reagents, rinse well with water.

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. 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.

4.2. Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

Section 5: Firefighting measures

5.1. Extinguishing media

Extinguishing Media Use Dry chemical or CO₂.

Special Fire Fighting Procedures Wear SCBA. Avoid breathing calcium oxide fumes that will form on combustion.

5.2. Special hazards arising from the substance or mixture

Gray Ampule – Calcium oxides

5.3. Advice for firefighters

Do not use water on Calcium Hydride. Wear SCBA. Avoid breathing calcium oxide fumes that will form on combustion.

5.4. Further information

No data available.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment incl., chemical safety glasses and rubber gloves. 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.

6.2. Environmental precautions

Keep out of drains and surface water.

6.3. Methods for material containment and cleaning up

Gray Ampule - Cover with dry soda ash or salt. Store in a well ventilated area away from moisture.

Section 7: Handling and storage

7.1. Precautions for safe handling

Wear appropriate safety equipment when performing the test on site.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2, no other specific uses are stipulated.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Components with work place control parameters

Gray Ampule

Occupational Exposure Limits for some aromatic constituents of C8 and C9. Solvent naphtha (petroleum), light aromatic.

C8	C9	Others
Xylenes TWA(ACGIH): 100 ppm STEL(ACGIH): 150 ppm BEI (ACGIH): methylhipuric acid in urine:1,5 g/g creatinine REL-TWA (NIOSH): 100 ppm REL-STEL(NIOSH): 150 ppm PEL-TWA(OSHA): 100 ppm PEL-STEL(OSHA): 150 ppm	Cumene TWA(ACGIH): 50 ppm REL-TWA (NIOSH): 50 ppm [skin] REL-TWA(OSHA): 50 ppm [skin] Trimethylbenzene (all isomers) TWA(ACGIH): 25 ppm REL-TWA (NIOSH): 25 ppm REL-TWA(OSHA): 25 ppm	Naphtha REL-TWA (NIOSH): 350 mg/m3 REL-TWA(OSHA): 2000 mg/m3

8.2. Exposure controls

Engineering Controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the work day.

Personal Protective Equipment (PPE)

Respiratory protection	None required during normal use.
Ventilation	Perform test only in a well-ventilated area.
Protective gloves	Always wear rubber gloves when performing the test.
Eye protection	Wear safety glasses.
General Hygiene Measures	Avoid contact with skin, eyes and clothing. Wash after running tests.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<u>Property</u>	<u>Calcium Hydride/Solvent Naphtha</u>	<u>Water/Propylene Glycol</u>
Boiling Pt. °C	N/A/153.3 - 168.3	100/188
Vapor Pressure mm Hg @ 21°C	N/A/3.00	17.5/0.08
Solubility in Water	decompose/negligible	100%/100%
Specific Gravity	1.90/0.876	1.00/1.036
Percent Volatile	N/A/100	none
Evaporation Rate Butyl Acetate =1	N/A/25.00	N/A
Appearance	gray liquid/clear, colorless	green clear
Odor	none/aromatic, strong	odorless

N/A = not available

Section 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

All components are stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Calcium hydride reacts violently with water.

10.4. Conditions to avoid

Do not expose broken calcium hydride ampule to moisture. Keep from strong oxidizers.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Calcium hydride will form hydrogen and calcium oxide when moisture is present. Other solutions are stable.

Section 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Gray Ampule (Calcium Hydride) - If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Gray Ampule (Solvent Naphtha) - LD50 oral rat >14000 mg/kg (Sprague-Dawley)
LD50 dermal rabbit >2000 mg/kg
LC50 inhalation rat (mg/l) – 4h 6,000 - 10,000 mg/m3 (C9 aromatic naphtha)

Skin corrosion/irritation

Gray Ampule (Calcium Hydride) - in case of perspiration/moisture corrosive.

Serious eye damage/eye irritation

Gray Ampule (Calcium Hydride) - Causes serious eye damage. Risk of corneal clouding. Risk of blindness.

Respiratory or skin sensitisation

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

Gray Ampule (Solvent Naphtha) – There are in vivo studies that indicate positive results of kidney cancer.

Reproductive toxicity

Gray Ampule (Solvent Naphtha) – This product is a suspected human reproductive toxicant.

Specific target organ toxicity - single exposure

Gray Ampule (Solvent Naphtha) – May cause respiratory irritation and depression of central nervous system with drowsiness, dizziness, weakness, loss of consciousness, nausea and headache.

Aspiration hazard

Gray Ampule (Solvent Naphtha) – May be fatal if swallowed and enters airways.

Additional information

Gray Ampule (Calcium Hydride) – After uptake: Discomfort, shortness of breath, unconsciousness. Decomposition of the substance with tissue moisture, possible decomposition products in case of hydrolysis are: calcium hydroxide.

Section 12: Ecological information

12.1. Toxicity

Gray Ampule (Solvent Naphtha)
Toxicity to fish - LC50 9.2 mg/L (Oncorhynchus mykiss, 96h)
Toxicity to daphnia - LC50 – 1.6% soluble fraction (D. magna)

12.2. Persistence and degradability

Gray Ampule (Solvent Naphtha)
In biodegradability studies this substance was not readily biodegradable.

12.3. Bioaccumulative potential

Gray Ampule (Solvent Naphtha)
Bioaccumulation - Most of the hydrocarbon blocks comprising gasoline have a Log Kow > 3, indicating these constituents have a potential to bioaccumulate.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0,1% or higher.

12.6. Other adverse effects

No data available.

Section 13: Disposal considerations

13.1. Waste treatment methods

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

Section 14: Transportation information

In accordance with ADR / RID / IMDG / IATA

14.1. UN number

Gray Ampule (Calcium Hydride): 1404
Gray Ampule (Solvent Naphtha): 1268

14.2. UN proper shipping name

Gray Ampule (Calcium Hydride): Calcium Hydride **IATA: Passenger Aircraft: Not permitted for transport**

14.3. Transport hazard class(es)

Gray Ampule (Calcium Hydride): 4.3
Gray Ampule (Solvent Naphtha): 3

14.4. Packing group

Gray Ampule (Calcium Hydride): I
Gray Ampule (Solvent Naphtha): III

14.5. Environmental hazards

Gray Ampule (Solvent Naphtha): Marine Pollutant

14.6. Special precautions for user

14.6.1. Transport by air

Gray Ampule (Calcium Hydride): IATA (Passenger) Not permitted for transport

14.6.2. Transport by sea

Gray Ampule (Calcium Hydride): EMS: F-G, S-O
Gray Ampule (Solvent Naphtha): EMS: F-E, S-E

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

The cargo is not intended to be carried in bulk.

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

This SDS complies with the requirements of Regulation (EC) No. 1907/2006

Authorizations and/or restrictions on use

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

Swiss Regulatory Information:

Federal Act on Protection against Dangerous Substances and Preparations (Chemicals Act, ChemA) of 15 December 2000 (Status as of 13 June 2006) SR 813.1

Ordinance on Protection against Dangerous Substances and Preparations (Chemicals Ordinance, ChemO) of 18 May 2005 (Status as of 15 July 2014) 813.11

Ordinance on the Reduction of Risks relating to the Use of Certain Particularly Dangerous Substances, Preparations and Articles (Chemical Risk Reduction Ordinance, ORRChem) of 18 May 2005 (Status as of 1 January 2014) SR 814.81

Federal Act on the Protection of the Environment (Environmental Protection Act, EPA) of 7 October 1983 (Status as of 1 July 2014) 814.01

Fifth Ordinance on the federal Act about Work (Occupational Safety For The Youth) ArGV 5 of 28 September 2007 (Status as of 1 August 2014) SR 822.115.2

Ordinance from the department of Economy, Education and Research on dangerous and difficult chores during pregnancy and maternity (Maternity Protection Ordinance) of 20 March 2001 (Status as of 1 January 2013) SR 822.111.52

Ordinance from the department of Environment, Traffic, Energy and Communications about Lists on the traffic of waste of 18 October 2005 (Status as of 1 January 2010) SR 814.610.1

Federal Act on Work in Industry, Trade and Commerce (Federal Act on Work) of 13 March 1964 (Status as of 1 December 2013)

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

Section 16: Other information

The information in this Safety Data Sheet meets the requirements of Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No 830/2015. 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 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.

For additional information, contact Dexsil.