

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

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

| 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. | |

| White capped vial(dilution kit): diglyme | | | |
|---|------------------------------|------------------------------------|--|
| 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. | | |

| Extraction Solvent(soil kit): Ethanol | | | |
|--|------------------------------------|---------------------|--------------------------------|
| 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]:

Green Ampule

No applicable GHS categories.

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.

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

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

| | | | |
|------------------------|---------------------------------|-----------------|-----------------|
| Flammable Limit | 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, CO₂

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

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

| <u>Component</u> | <u>Component</u> | <u>TLV/(PEL)</u> |
|---|---|---|
| <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 ³ /(1900 mg/m ³) |

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

| DOT | | | |
|---|--|------------------------------------|--------------------|
| Proper Shipping Name: | None | | |
| Domestic Highway or Rail Transport Only: | 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. | | |
| IATA | | | |
| Proper Shipping Name: | Calcium Hydride | Flammable liquid, n.o.s. (Diglyme) | Ethanol (Soil kit) |
| UN Number: | 1404 | 1993 | 1170 |
| Hazard Class: | 4.3 | 3 | 3 |
| Packing Group | I | III | 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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