

# Material Safety Data Sheet

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

## OIL/SOIL REFILL CHEMICALS FOR THE L2000DX CHLORIDE ANALYZER

### 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) 527-3887

**Date Prepared:** 12-11-10  
**Date Reviewed:** 12-11-10

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

### SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Oil Refills for the L2000DX Chloride Analyzer consist of four different solutions in polyethylene bottles and polyethylene test tube containing two glass ampules, each containing different reagents. Soil Refills contain additional vials of extraction solvent and plastic drying columns.

<u>Component</u>	<u>Contents</u>	<u>CAS#</u>	<u>%of liquid concentration in kit</u>	<u>Bracketted component only</u>
"Rinse"	[Sulfuric Acid]/ Nickel Nitrate in water <0.10% Nickel	7664-93-9 13478-00-7	30.58%	0.17%*
"Extract"	[Sulfuric Acid]/ Nickel Nitrate in water <0.10% Nickel	7664-93-9 13478-00-7	30.58%	0.91%*
"Calibration"	[Sulfuric Acid]/ Nickel Nitrate in water <0.10% Nickel	7664-93-9 13478-00-7	30.58%	0.17%*
"Filling Sol'n"	[Potassium Nitrate] in water	7757-79-1	6.73%	0.68%*
Ampule 1 (gray color, yellow dot)	[Sodium] dispersed in oil	7440-23-5	0.04%	<0.01%*
Ampule 2 (blue-dot)	[Naphthalene] in Diglyme Sol'n	91-20-3 111-96-6	0.02%	<0.01%*
"Soil Extract"	[Butyl Diglyme]/ water	112-73-2	1.21%	0.99%*
"Soil Drying Column"	Florisil	1343-90-4	0.26%	—
		Total Liquid	100.00%	

[\*Amounts are reported as a % of the total liquid in the kit]

### SECTION 3 – HAZARDS IDENTIFICATION

**Inhalation** Harmful if inhaled. May cause respiratory tract irritation  
**Skin** May be harmful if absorbed through skin. May cause skin burns.  
**Eyes** May cause eye irritation  
**Ingestion** Will cause burns of the gastrointestinal tract if swallowed.

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

## SECTION 4 — 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.

## SECTION 5 — FIRE AND EXPLOSION HAZARD

<b>Flash Point</b>	“Rinse” Solution	None
	“Extract” Solution	None
	“Calibration” Solution	None
	Filling Solution	None
	Ampule 1	138°F
	Ampule 2	135°F
	“Soil Extract”	243°F
	“Soil Drying Column”	None

**Flammable Limit:** Unknown

**Extinguishing Media** DO NOT USE WATER ON A SODIUM FIRE. Dry chemical, foam, CO<sub>2</sub>

**Special Fire Fighting Procedures** Do not use water. Wear SCBA. Avoid breathing sodium oxide fumes that will form on combustion.

## SECTION 6 — ACCIDENTAL RELEASE MEASURES

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

**Spills and Leaks** *Rinse, Extract, Calibration & Filling Solutions*  
Mop up thoroughly and rinse with clean water. Treat as an acid spill.

*Ampule 1 - Sodium Ampule*  
Cover with dry soda ash or salt. Store in a well ventilated area away from moisture.

*Ampule 2 - Naphthalene/Diglyme Ampule & Soil Extract Solvent*  
Absorb completely and dispose of as organic waste.

*Soil Extract”*  
Absorb completely and dispose of as organic waste.

## 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 during normal use.

<b>Ventilation</b>	Perform test only in a well-ventilated area. Avoid breathing in Florisil material.
<b>Protective gloves</b>	Always wear rubber gloves when performing the L2000 test. Viton gloves are recommended for use with PCB's
<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>Property</b>	<b>Rinse</b>	<b>Calib.</b>	<b>Extract</b>	<b>Filling</b>	<b>Ampule 1</b>	<b>Ampule 2</b>	<b>Soil Ext.</b>	<b>Soil Dry Col.</b>
<b>Boiling Pt °C</b>	110	110	110	108	N/A	168	256	N/A
<b>Vapor Pressure mmHg @ 21°C</b>	18	18	18	18	N/A	1.7	0.01	N/A
<b>Solubility in Water</b>	miscible	miscible	miscible	miscible	reacts	75%	0.3%	none
<b>Specific Gravity</b>	1.04	1.04	1.04	1.02	0.85	0.95	0.88	1.2
<b>Percent Volatile</b>	90	90	90	90	none	100	83	0
<b>Evaporation Rate Butyl Acetate = 1</b>	<0.01	<0.01	<0.01	<0.01	N/A	0.36	<0.01	0
<b>Appearance</b>	green	green	green	colorless	gray	colorless	colorless	white cryst.
<b>Odor</b>	none	none	none	none	none	ether-like	ether-like	none

N/A = not available

## **SECTION 10 – REACTIVITY DATA**

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

**Conditions to Avoid** Do not expose broken sodium ampule to moisture. Keep from strong oxidizers.

**Hazardous Decomposition Productions** Sodium will form hydrogen and sodium oxide when moisture is present. Diglyme & Butyl diglyme may form peroxides on exposure to air. Other solutions are stable.

**Hazardous Polymerization** Will not occur.

## **SECTION 11 – TOXICOLOGICAL INFORMATION**

### **Carcinogenicity**

NTP: Yes IARC: Yes 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>Contents</u></b>	<b><u>TLV/(PEL)</u></b>
<i>"Rinse"</i>	[Sulfuric Acid]/Nickel Nitrate in water <0.10% Nickel	[1 mg/m <sup>3</sup> / $<0.1$ ] mg/m <sup>3</sup>
<i>"Extract"</i>	[Sulfuric Acid]/Nickel Nitrate in water <0.10% Nickel	[1 mg/m <sup>3</sup> / $<0.1$ mg/m <sup>3</sup> ]
<i>"Calibration"</i>	[Sulfuric Acid]/Nickel Nitrate in water <0.10% Nickel	[1 mg/m <sup>3</sup> / $<0.1$ mg/m <sup>3</sup> ]
<i>"Filling Sol'n"</i>	[Potassium Nitrate] in water	N/A
<i>Ampule 1 (gray color, yellow dot)</i>	[Sodium] dispersed in oil	[2 mg/m <sup>3</sup> /2 mg/m <sup>3</sup> ]
<i>Ampule 2 (blue-dot)</i>	[Naphthalene] in Diglyme Sol'n	[50 mg/m <sup>3</sup> /50 mg/m <sup>3</sup> ] 5 ppm
<i>"Soil Extract"</i>	[Butyl Diglyme]/water	[N/A]
<i>"Soil Drying Column"</i>	Florisil	N/A

## Section 12 – Ecological Information

No data available

## Section 13 – Disposal Considerations

### **Rinse, Extract, Calibration and Filling Solution**

Small quantities can be flushed away. Check federal, state and local environmental regulation for disposal of larger quantities of aqueous chemicals that contain nickel nitrate.

### **Soil Extract**

Dispose of as an organic waste in accordance with all applicable federal, state and local environmental regulations.

### **Test Tube 1**

Contents include reacted oil or soil sample extract, organic liquid and may contain residual PCB's. Dispose of as an organic waste in accordance with all applicable federal, state and local environmental regulations. Contents may contain PCB's when the original concentration is greater than 12,000 ppm.

## SECTION 14 – TRANSPORTATION INFORMATION

**DOT**  
**Proper Shipping Name:** None  
**Non-Hazardous for Transport:** As originally packaged by Dexsil Corporation, under Competent Authority Approval CA-9610010, packages are approved for transportation by motor vehicle, rail freight, cargo vessel, cargo aircraft only and passenger aircraft.

**Domestic Highway & Rail Transport Only:** Packaging conforms to conditions and limitations specified in 49 CFR 173.4.

**IATA**  
**Proper Shipping Names:** Alkali Metal Dispersion, Flammable Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid solution)  
**IATA UN Numbers:** 3482 3264  
**Hazard Class:** 4.3 8  
**Packing Group:** I III

**NOTE:** UN3482 materials are packaged separately from UN3264 material.

## SECTION 15 – REGULATORY INFORMATION

### **United States Regulatory Information**

**SARA Listed:** Naphthalene/diglyme component and nickel nitrate are identified on SARA Sec. 313.

**TSCA Inventory Items:** Naphthalene/diglyme component and nickel nitrate.

**CERCLA Listed:** Naphthalene and nickel nitrate.

## 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, ITS 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.

Rev. 11