

Material Safety Data Sheet

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

TWO STEP REFILL CHEMICALS FOR THE L2000DX CHLORIDE ANALYZER

SECTION 1 --- MANUFACTURER

Manufacturer's Name:
Dexsil Corporation

Emergency Telephone Number:
USA (800) 424-9300 (CHEMTREC)
INT'L (202) 483-7616

Address:
One Hamden Park Drive
Hamden, CT 06517

Telephone Number:
(203) 288-3509

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SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

A Two-Step Refill 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 and additional vial of extraction solvent plus a vial of water.

<u>Component</u>	<u>Contents</u>	<u>CAS#</u>	<u>Concentration in kit</u>
"Rinse"	[Sulfuric Acid]*/ Nickel Nitrate in water <0.10% Nickel	7664-93-9 13478-00-7	30.69%/[0.41%]*
"Extract"	[Sulfuric Acid]*/ Nickel Nitrate in water <0.10% Nickel	7664-93-9 13478-00-7	30.69%/[1.80%]*
"Calibration"	[Sulfuric Acid]*/ Nickel Nitrate in water <0.10% Nickel	7664-93-9 13478-00-7	30.69%/[0.41%]*
"Filling Sol'n"	[Potassium Nitrate]* in water	7757-79-1	6.76%/[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%/[0.005%]*
"Soil Ext. Mixture"	[Isooctane]*/ Methanol	540-84-1 67-56-1	0.27%/[0.85%]*

{*Listed component as % of total liquid in kit}

SECTION 3 — HAZARDS IDENTIFICATION

Harmful if inhaled or swallowed.
May cause eye irritation.
May cause skin burns.
Ingestion will cause burns of the gastrointestinal tract.

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. In case of inhalation, remove to fresh air.

Soil Extract Mixture: If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat.

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

Flash Point	Rinse Solution	None
	Extract Solution	None
	Calibration Solution	None
	Filing Solution	None
	Ampule 1	NA
	Ampule 2	135°F
	Extract Solvent	10°F

Flammable Limit Unknown

Extinguishing Media DO NOT USE WATER ON A SODIUM FIRE. Dry chemical, foam, CO₂.

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 & Filing 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

Absorb completely and dispose of as organic waste.

Soil Extract Mixture

Shut off all sources of ignition. 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.

Ventilation Perform test only in a well-ventilated area.

Protective gloves Always wear rubber gloves when performing the L2000 test. Viton gloves are recommended for use with PCB's

Eye protection Wear safety glasses.

General Hygiene Measures Wash after running tests

SECTION 9 --- PHYSICAL/CHEMICAL CHARACTERISTICS

<u>Property</u>	<u>Rinse</u>	<u>Calib.</u>	<u>Extract</u>	<u>Filing</u>	<u>Ampule 1</u>	<u>Ampule 2</u>	<u>Soil Ext. Mixture</u>
Boiling Pt.°C	110	110	110	108	NA	168	99/64.5
Vapor Pressure mm Hg @ 21°C	18	18	18	18	NA	1.7	41/97
Solubility in Water	inf.	Inf.	inf.	inf.	reacts	75%	0.003%/Miscible
Specific Gravity	1.04	1.04	1.04	1.02	0.85	0.95	0.692/0.79
Percent Volatile	90	90	90	90	none	100	100/100
Evaporation Rate Butyl Acetate =1	<0.01	<0.01	<0.01	<0.01	NA	0.36	<1 (Ether - 1)/5.9
Appearance	green	green	green	colorless	gray	colorless	colorless/colorless
Odor	none	none	none	none	none	ether-like	hydrocarbon/pleasant

N/A = not available

SECTION 10 — REACTIVITY DATA

Stability All components are stable.

Incompatible With 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 may form peroxides on exposure to air. Soil Extract Mixture can form carbon monoxide and carbon dioxide. Other solutions are stable.

Hazardous Polymerization Will not occur.

Conditions to Avoid Moisture with sodium ampule. Heat and flame with Soil Extract Mixture.

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

<u>Component</u>	<u>Contents</u>	<u>TLV/(PEL)</u>
"Rinse"	[Sulfuric Acid]/Nickel Nitrate in water <0.10% Nickel	1 mg/m ³ / <0.1 mg/m ³
"Extract"	[Sulfuric Acid]/Nickel Nitrate in water <0.10% Nickel	1 mg/m ³ / <0.1 mg/m ³
"Calibration"	[Sulfuric Acid]/Nickel Nitrate in water <0.10% Nickel	1 mg/m ³ / <0.1 mg/m ³
"Filling Sol'n"	[Potassium Nitrate] in water	NA
Ampule 1 (gray color, yellow dot)	[Sodium] dispersed in oil	2 mg/m ³ /(2 mg/m ³)
Ampule 2 (blue-dot)	[Naphthalene] in Diglyme Sol'n	50 mg/m ³ /(50 mg/m ³) 5ppm
"Soil Ext Mixture"	[Isooctane]/ Methanol	NA 200 mg/m ³ /(200 mg/m ³)

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 Mixture

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

SECTION 14 — TRANSPORTATION INFORMATION

DOT

Proper Shipping Name: None
Non-Hazardous for Transport: As originally packaged by Dexsil Corporation under small quantity exemption Approval CA-9610010. Packaging conforms to conditions and limitations specified in 49 CFR 173.4.

IATA

Proper Shipping Name: Alkali Metal Dispersion
IATA UN Number: 1391
Hazard Class: 4.3
Packing Group: I

SECTION 15 — REGULATORY INFORMATION

United States Regulatory Information

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

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

CERCLA Listed: Naphthalene, methanol 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. 3