



MATERIAL SAFETY DATA SHEET

Product Number:
58935

DIONEX Corporation
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P.O. Box 3603
Sunnyvale, California
94088-3603

Product Description:

TRANSITION METAL STANDARD

Emergency Phone:
1-800-424-9300 (CHEMTREC)
Information Phone: (408) 737-0700
Date Prepared: 24 February 1995
Prepared By:

A handwritten signature in black ink, appearing to read 'Max Ebenhahn'.

(Max Ebenhahn)

SECTION 1

CHEMICAL IDENTIFICATION OF THE SUBSTANCE/PREPARATION

NAME: Custom Standard—Multi-Element Solution consisting of 1,000 ppm each of Iron, Copper, Cobalt and Zinc; 2,000 ppm each of Manganese and Nickel; and 5,000 ppm each of Lead and Cadmium, all in a solution of 5% Nitric Acid.

CHEMICAL FAMILY: Dilute salt solution

COMMON NAME OR SYNONYMS: None

SECTION 2

COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	%	TLV UNITS	CAS #	EINECS
Deionized Water	95	N/A	7732-18-5	N/A
HNO ₃	5	5 mg/m ³	7697-37-2	231-714-2
Iron (1,000 ppm Fe)	0.1	1 mg/m ³ TWA	7439-89-6	N/A
Copper (1,000 ppm Cu)	0.1	1mg(Cu)/m ³ as fume	7440-50-8	N/A
Cobalt Carbonate (1,000 ppm Co)	0.2	1mg/m ³ as Co TWA	513-79-1	N/A
Zinc (1,000 ppm Zn)	0.1	N/A	7440-66-6	N/A
Manganese Acetate (2,000 ppm Mn)	0.3	5 mg/m ³ as Mn TWA	6156-78-1	N/A
Nickel (2,000 ppm Ni)	0.2	.1 mg/m ³ (as Ni TWA)	7440-02-0	N/A
Lead Nitrate (5,000 ppm Pb)	0.8	.05 mg/m ³ (as Pb TWA)	10099-74-8	N/A
Cadmium (5,000 ppm Cd)	0.5	.05 mg/m ³ (as Cd TWA)	7440-43-9	N/A

SECTION 3

HAZARDS IDENTIFICATION

Corrosive. Harmful by ingestion. Imitating to the eyes and skin upon contact. May Cause Cancer and reproductive toxicity.

SECTION 4

FIRST AID MEASURES

General: Remove contaminated clothing, wash thoroughly before reuse.

Eyes: Flush with water for at least 15 minutes occasionally lifting upper and lower eyelids. **Skin:** Remove contaminated clothing and flush with water thoroughly. **Inhalation:** Move to fresh air. Consult doctor if symptoms persist. **Ingestion:** Get immediate medical help. If the patient is conscious, give large quantities of water.

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**SECTION 5
FIRE FIGHTING MEASURES**

Flash Point: Not applicable.

Extinguishing media: Appropriate to surrounding fire conditions.

Special Hazards and Procedure: Oxides of Nitrogen can be released in case of fire.

Protective Equipment: Wear self contained breathing apparatus and full protective suit.

**SECTION 6
ACCIDENTAL RELEASE MEASURES**

Ventilate area. Wear protective equipment. Do not allow to enter drainage systems or water ways. Dilute spill with water and neutralize with soda ash, limestone etc. Wipe up and put into a sealed container for proper disposal. Wash spill site with water after material pick up is complete. Wear chemical resistant glasses, gloves and clothing.

**SECTION 7
HANDLING & STORAGE**

Ensure good ventilation/exhaustion at work place. Have an immediate availability of an eye wash in case of emergency. Store at room temperature. Keep the container tightly closed.

**SECTION 8
EXPOSURE CONTROLS/PERSONAL PROTECTION**

Wear goggles, protective apron and acid resistant gloves. Use under fume hood. In case of brief exposure, use MSHA/NIOSH approved respirator.

**SECTION 9
PHYSICAL & CHEMICAL PROPERTIES**

Form:	Liquid
Appearance & odor:	Transparent with acid odor
Specific Gravity:	Approximately 1.0
pH:	1 to 2
Melting point:	n/a
Boiling Point:	-100 °C
Solubility in water:	Miscible
Danger of Explosion:	Not explosive
Self-ignitability:	Not self igniting

**SECTION 10
STABILITY & REACTIVITY**

Stability: Stable under normal storage and use.

Reactivity: Reacts with strong alkali, various metals, and organic substances.

Hazardous Decomposition Products: Toxic fumes under conditions of fire.

Hazardous Polymerization: Will not occur.

**SECTION 11
TOXICOLOGICAL INFORMATION**

Nitric Acid may produce caustic effect on skin, mucous membranes and eyes. Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach. Cadmium compounds (pure) are considered to be carcinogenic according to OSHA, NTP, and IARC. Increased incidence of prostatic cancer has been reported following exposure to Cadmium and its salts. Experimental tumorigen, and neoplastigen.

Nickel salts are considered to be carcinogenic according to OSHA, NTP, and IARC. In high concentrations it is a respiratory irritant. "Nickel itch" is a dermatitis resulting from sensitization to nickel. This may be followed by ulcers, eczema and decreased pulmonary function or asthma.

Lead nitrate (pure) is moderately toxic by ingestion. Experimental teratogenic and reproductive effects. Questionable carcinogen. Mutation data reported.

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TOXICITY DATA:Concentrated HNO₃—RTECS#-QU6775000

orl-hmn LDLo: 430 mg/kg

unk-man LDLo: 110 mg/kg

Lead Nitrate:

ipr-rat LDLo: 270 mg/kg

Cd - RTECS#EU9800000

orl-rat LD50: 225 mg/kg

unk-man LDLo: 15 mg/kg

Ni - RTECS#QR5950000

itr-rat LDLo: 12 mg/kg

ivn-mus LDLo: 50 mg/kg

SECTION 12**ECOLOGICAL INFORMATION**

Do not allow product to reach ground water, water bodies or sewage system.

SECTION 13**DISPOSAL CONSIDERATIONS**

Contact local Hazardous or Chemical waste disposal agency for regulations.

SECTION 14**TRANSPORT INFORMATION**

Air & Ground:

CLASS 8

UN/ID # 3264

Packing Group: III

Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid solution)

SECTION 16**REGULATORY INFORMATION**

USA:

SARA: Subject to the reporting requirements of Section 313 of SARA Title III and of 40 CFR 372. Components of this solution are reported in EPA TSCA Inventory List.

This solution contains chemical(s) known to cause cancer according to the State of California (Proposition 65)

WHMIS Classification (Canada): CLASS D & CLASS E

EC Guidelines:

C: Corrosive

T - Carcinogen - category 2

Risk Phrases:

25 - Toxic if swallowed

34 - Causes burns

45 - May cause cancer

48 - Danger of serious damage to health by prolonged exposure.

Safety Phrases:

36/37/39 - Wear suitable protective clothing, gloves, and eye/face protection

26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical attention.

SECTION 15**REGULATORY INFORMATION**

45 - In case of accident or if you feel unwell, seek medical advice immediately.

53 - Avoid exposure - obtain special instruction before use.

Note: Restricted to Professional Users

SECTION 18**OTHER INFORMATION**

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