



**DEFENSE LOGISTICS AGENCY**  
DEFENSE NATIONAL STOCKPILE CENTER  
8725 JOHN J. KINGMAN ROAD, SUITE 3229  
FT. BELVOIR, VIRGINIA 22060-6223

IN REPLY  
REFER TO DNSC-C2

October 30, 2003

AMENDMENT NO. 004  
to  
DLA-CHROMIUM METAL-002  
FOR  
CHROMIUM METAL

Effective October 30, 2003, DLA-CHROMIUM METAL-002 is hereby amended to replace **I.2 Item Bid Page–DLA-CHROMIUM METAL-002 (JUL 03)**, **J.1 Chromium Metal Analyses–DLA-CHROMIUM METAL-002 (JUL 03)**, and **J.2 Storage Locations–DLA-CHROMIUM METAL-002 (JAN 03)** with the following:

- I.2 Item Bid Page–DLA-CHROMIUM METAL-002 (OCT 03)**
- J.1 Chromium Metal Analyses–DLA-CHROMIUM METAL-002 (OCT 03)**
- J.2 Storage Locations–DLA-CHROMIUM METAL-002 (OCT 03)**

The scheduled bid opening dates for the fourth Thursday at 1:00 p.m. for the months of November 2003 and December 2003 are changed as follows:

**November 20, 2003 at 1:15 p.m.**  
**December 18, 2003 at 1:15 p.m.**

The Material Safety Data Sheet (MSDS) **dated June 20, 2003** is incorporated into DLA-CHROMIUM METAL-002. This revision supersedes previous versions of the MSDS.

1. DLA-CHROMIUM METAL-002, Amendment No. 004 will be available on the DNS Website at <https://dncs.dla.mil>.
2. Except as provided herein, all other terms and conditions of DLA-CHROMIUM METAL-002 remain unchanged and in full force and effect.
3. Bidders shall acknowledge receipt of this addendum to the Solicitation by signing, dating, and returning the addendum with any bid submitted for chromium metal.

Mailing Address:   ATTN:   DNSC-R/Bid Custodian  
Defense National Stockpile Center  
8725 John J. Kingman Road  
Suite 3229  
Fort Belvoir, Virginia 22060-6223  
Facsimile No. (703) 767-5541

**COMPANY:** \_\_\_\_\_

**NAME AND TITLE:** \_\_\_\_\_

**SIGNATURE AND DATE:** \_\_\_\_\_

**TELEPHONE NUMBER:** \_\_\_\_\_

**FAX NUMBER:** \_\_\_\_\_

## DLA-CHROMIUM METAL-002

## I.2 SHOPPING LIST (OCT 03)

(Aluminothermic / Exothermic)

Item	Location	Purchase I.D.	Lot	Origin	No. of Drums	Net weight (Lb)	Unit Price Per Lb	Quantity Lbs	Total Offer Price
24	POINT PLEASANT, WV	057-480	002	UNITED KINGDOM	60	33,567.00	\$		\$
25	POINT PLEASANT, WV	057-480	009	GERMANY	122	54,892.00	\$		\$
26	POINT PLEASANT, WV	057-480	010	GERMANY	122	54,837.00	\$		\$
27	POINT PLEASANT, WV	057-480	011	GERMANY	100	45,146.00	\$		\$
28	POINT PLEASANT, WV	057-480	050	FRANCE	45	22,808.00	\$		\$
29	POINT PLEASANT, WV	057-480	051	UNITED KINGDOM	45	22,805.00	\$		\$
30	POINT PLEASANT, WV	057-480	058	FRANCE	45	22,776.00	\$		\$
31	POINT PLEASANT, WV	057-480	071	FRANCE	45	22,750.00	\$		\$
32	POINT PLEASANT, WV	057-480	44A	UNITED KINGDOM	34	22,768.00	\$		\$
33	POINT PLEASANT, WV	057-480	50A	UNITED KINGDOM	37	24,920.00	\$		\$
<b>Depot Total:</b>					<b>655</b>	<b>327,269.00</b>			

**NOTE 1:** Items 24, 32 & 33 are stored in 30 gallon galvanized drums with 5 drums to pallet. Pallet size is 4' x 4'.

**NOTE 2:** Items 25 thru 31 are stored in 30 gallon galvanized drums with 6 drums to pallet. Pallet size is 4' x 4'.

(Electrolytic)

Item	Location	Purchase I.D.	Lot	Origin	No. of Drums	Net weight (Lbs)	Unit Price Per Lb	Quantity Lbs	Total Offer Price
16	BINGHAMTON, NY	062-261	14-5A	DOMESTIC	69	28,152.00	\$		\$
17	BINGHAMTON, NY	062-261	14-5B	DOMESTIC	69	28,152.00	\$		\$
18	BINGHAMTON, NY	062-261	14-5C	DOMESTIC	69	28,152.00	\$		\$
19	BINGHAMTON, NY	062-261	14-5D	DOMESTIC	69	28,152.00	\$		\$
20	BINGHAMTON, NY	062-261	14-5E	DOMESTIC	69	28,152.00	\$		\$
21	BINGHAMTON, NY	062-261	14-5F	DOMESTIC	69	28,152.00	\$		\$
22	BINGHAMTON, NY	062-261	14-5G	DOMESTIC	69	28,152.00	\$		\$
23	BINGHAMTON, NY	062-261	14-5H	DOMESTIC	66	26,928.00	\$		\$
<b>Depot Total:</b>					<b>549</b>	<b>223,992.00</b>			

**NOTE 3:** Items 16 thru 23 do not have a known analysis, each lot will have 1 drum available for taking samples, it is strongly advised that all interested parties consider sampling before submitting an offer.

**NOTE 4:** Items 16 thru 23 are setup to be truck load shipments, items 16 thru 22 have a gross weight of 30,942 lbs and a net weight of 28,152 lbs.  
Item 23 has a gross weight of 29,568 lbs and a net weight of 26,928

**NOTE 5:** Items 16 thru 22 have 11 pallets at 6 drums each and 1 pallet at 3 drums each (Total of 69 drums), item 23 has 11 pallets at 6 drums each (Total of 66 drums).  
Pallets with 6 drums are on 4' x 4' pallets and pallets with 3 drums are on 3' x 3' pallets.

**NOTE 6:** Items 16 thru 23 will require a 48 foot box / flatbed trailer for shipment. Pallets cannot be loaded side by side due to size and cannot be double stacked.

## DLA-CHROMITE METAL-002

## J.1 ANALYSIS OF MATERIAL (OCT 03)

## (Aluminothermic / Exothermic)

Item	Purchase I.D.	Lot	CR	Metallic Impurities						Gaseous Impurities			Other Impurities	
				AL	SI	P	FE	CU	PB	N	O	H	C	S
24	057-480	002	99.57%	0.05%	0.02%	0.005%	0.20%		0.005%				0.020%	0.005%
25	057-480	009	99.46%	0.15%	0.09%	0.005%	0.15%	0.005%	0.005%	0.002%	0.040%		0.011%	0.016%
26	057-480	010	99.40%	0.19%	0.12%	0.005%	0.13%	0.020%	0.005%	0.002%	0.040%		0.013%	0.030%
27	057-480	011	99.47%	0.19%	0.10%	0.005%	0.14%	0.005%	0.005%	0.002%	0.027%		0.013%	0.011%
28	057-480	050	99.41%	0.20%	0.06%	0.005%	0.18%	0.020%	0.005%	0.002%	0.017%		0.039%	0.017%
29	057-480	051	99.44%	0.18%	0.06%	0.005%	0.17%	0.020%	0.005%	0.002%	0.015%		0.036%	0.014%
30	057-480	058	99.49%	0.19%	0.05%	0.005%	0.17%	0.020%	0.005%	0.002%	0.019%		0.022%	0.012%
31	057-480	071	99.41%	0.20%	0.05%	0.005%	0.19%	0.005%	0.005%	0.001%	0.017%		0.021%	0.016%
32	057-480	44A	99.43%	0.10%	0.05%	0.005%	0.19%	0.007%	0.005%	0.003%	0.026%		0.028%	0.012%
33	057-480	50A	99.27%	0.22%	0.10%	0.005%	0.23%	0.020%	0.005%	0.001%	0.030%		0.012%	0.017%

**NOTE 1:** Item 24 - Produced by Murex Limited, Items 25 thru 27 - Produced by TH Goldschmidt AG, items 28 thru 31 - Produced by Acieries De Gennevilliers and Items 32 thru 33 - Produced by Metal Alloy.

## (Electrolytic)

Item	Purchase I.D.	Lot	CR	Metallic Impurities						Gaseous Impurities			Other Impurities	
				AL	SI	P	FE	CU	PB	N	O	H	C	S
16	062-261	14-5A												
17	062-261	14-5B												
18	062-261	14-5C												
19	062-261	14-5D												
20	062-261	14-5E												
21	062-261	14-5F												
22	062-261	14-5G												
23	062-261	14-5H												

**NOTE 2:** Items 16 thru 23 do not have a known analysis, each lot will have 1 drum available for taking samples, it is strongly advised that all interested parties consider sampling before submitting an offer.

**NOTE 3:** Items 16 thru 23 were produced by Union Carbide Corp, Marietta, OH.

**DLA-CHROMITE METAL-002**

**J.2 STORAGE LOCATIONS (OCT 03)**

<b>Location</b>	<b>Operational Status</b>	<b>Days</b>	<b>Hours</b>	<b>Accessibility</b>	<b>Responsible Depot</b>	<b>Depot Manager</b>
Binghamton, NY	Staffed	Monday - Thursday Friday	0700 - 1430 0800 - 1430	Truck / Rail	Binghamton, NY	William Guiton Phone: (607) 773-2602
Point Pleasaant, WV	Staffed	Monday - Friday	0700 - 1430	Truck / Rail	Point Pleasant, WV	David Taylor Phone: (304) 675-3410

**Point of Contact**

Defense Logistics Agency  
Defense National Stockpile Center  
Attn: Robert F Clark  
8725 John J Kingman Road, Suite 3229  
Fort Belvoir, VA 22060-6223

Telephone Number: (703) 767-7614



# MATERIAL SAFETY DATA SHEET

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## SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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**DEFENSE LOGISTICS AGENCY**

**EMERGENCY TELEPHONE  
NUMBER:**

**DEFENSE NATIONAL STOCKPILE  
CENTER**

**1-800-424-9300 (NORTH AMERICA)**

**8725 JOHN J. KINGMAN ROAD  
SUITE 3339**

**1-703-527-3887 (INTERNATIONAL)**

**FORT BELVOIR, VA 22060-6223**

**SUBSTANCE: CHROMIUM**

**TRADE NAMES/SYNONYMS:**

CHROME; CHROMIUM ELEMENT; CHROMIUM METAL; METALLIC  
CHROMIUM; CR; DLA05001; RTECS GB4200000

**CHEMICAL FAMILY:** metal

**CREATION DATE:** Mar 16 1995

**REVISION DATE:** Jun 20 2003

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## SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

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**COMPONENT:** CHROMIUM

**CAS NUMBER:** 7440-47-3

**EC NUMBER (EINECS):** 231-157-5

**PERCENTAGE:** 100.0

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## SECTION 3 HAZARDS IDENTIFICATION

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**NFPA RATINGS (SCALE 0-4):** HEALTH=1 FIRE=0 REACTIVITY=0

**EMERGENCY OVERVIEW:**

**PHYSICAL DESCRIPTION:** Odorless, steel-gray, lustrous metal in pig, ingot or tub form.

**MAJOR HEALTH HAZARDS:** No significant target effects reported.

**PHYSICAL HAZARDS:** Dust/air mixtures may ignite or explode.

**POTENTIAL HEALTH EFFECTS:**

**INHALATION:**

**SHORT TERM EXPOSURE:** irritation

**LONG TERM EXPOSURE:** digestive disorders, lung damage

**SKIN CONTACT:**

**SHORT TERM EXPOSURE:** irritation

**LONG TERM EXPOSURE:** kidney damage

**EYE CONTACT:**

**SHORT TERM EXPOSURE:** irritation

**LONG TERM EXPOSURE:** tearing

**INGESTION:**

**SHORT TERM EXPOSURE:** vomiting, stomach pain, dizziness

**LONG TERM EXPOSURE:** no information is available

**CARCINOGEN STATUS:**

**OSHA:** No

**NTP:** No

**IARC:** No

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## SECTION 4 FIRST AID MEASURES

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**INHALATION:** If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

**SKIN CONTACT:** Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

**EYE CONTACT:** Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

**INGESTION:** If a large amount is swallowed, get medical attention.

**ANTIDOTE:** dimercaprol, intramuscular.

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## SECTION 5 FIRE FIGHTING MEASURES

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**FIRE AND EXPLOSION HAZARDS:** Negligible fire and explosion hazard in bulk form. Dust/air mixtures may ignite or explode.

**EXTINGUISHING MEDIA:** dolomite, dry powder for metal fires, dry sand, graphite, soda ash, sodium chloride

Do not get water directly on material.

**FIRE FIGHTING:** Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of

tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products.

**LOWER FLAMMABLE LIMIT:** 0.230 oz/ft<sup>3</sup>

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## [SECTION 6 ACCIDENTAL RELEASE MEASURES](#)

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### **OCCUPATIONAL RELEASE:**

Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

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## [SECTION 7 HANDLING AND STORAGE](#)

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**STORAGE:** Store and handle in accordance with all current regulations and standards. Store in a tightly closed container. Store in a cool, dry place. Store in a well-ventilated area. Keep separated from incompatible substances.

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## [SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION](#)

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### **EXPOSURE LIMITS:**

#### **CHROMIUM:**

1 mg/m<sup>3</sup> OSHA TWA

0.5 mg/m<sup>3</sup> ACGIH TWA

0.5 mg/m<sup>3</sup> NIOSH recommended TWA 10 hour(s)

DFG MAK (skin sensitizer) (dust) (aerosol)

0.5 mg/m<sup>3</sup> UK OES TWA

**MEASUREMENT METHOD:** Particulate filter; Acid; Flame atomic absorption spectrometry; NIOSH IV # 7024

**VENTILATION:** Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

**EYE PROTECTION:** Eye protection not required under normal conditions.

**CLOTHING:** Protective clothing is not required under normal conditions.

**GLOVES:** Wear appropriate chemical resistant gloves.

**RESPIRATOR:** The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA.

Measurement Element:

Chromium (Cr)

**2.5 mg/m<sup>3</sup>**

Any dust and mist respirator.

**5 mg/m<sup>3</sup>**

Any dust and mist respirator.

Any supplied-air respirator.

**12.5 mg/m<sup>3</sup>**

Any supplied-air respirator.

Any powered, air-purifying respirator with a dust and mist filter.

**25 mg/m<sup>3</sup>**

Any air-purifying respirator with a full facepiece and a high-efficiency particulate filter.

Any powered, air-purifying respirator with a tight-fitting facepiece and a high-efficiency particulate filter.

Any self-contained breathing apparatus with a full facepiece.

Any supplied-air respirator with a full facepiece.

**250 mg/m<sup>3</sup>**

Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode.

**Escape -**

Any air-purifying respirator with a full facepiece and a high-efficiency particulate filter.

Any appropriate escape-type, self-contained breathing apparatus.

**For Unknown Concentrations or Immediately Dangerous to Life or Health -**

Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

Any self-contained breathing apparatus with a full facepiece.

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## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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**PHYSICAL DESCRIPTION:** Odorless, steel-gray, lustrous metal in pig, ingot or tub form.

**MOLECULAR WEIGHT:** 51.996

**MOLECULAR FORMULA:** CR

**BOILING POINT:** 4842 F (2672 C)

**MELTING POINT:** 3339-3411 F (1837-1877 C)

**VAPOR PRESSURE:** 1 mmHg @ 1616 C

**VAPOR DENSITY:** Not applicable

**SPECIFIC GRAVITY (water=1):** 7.20 @ 28 C

**WATER SOLUBILITY:** insoluble

**PH:** Not applicable

**VOLATILITY:** Not applicable

**ODOR THRESHOLD:** Not available

**EVAPORATION RATE:** Not applicable

**COEFFICIENT OF WATER/OIL DISTRIBUTION:** Not available

**SOLVENT SOLUBILITY:**

**Soluble:** dilute sulfuric acid, hydrochloric acid

**Insoluble:** nitric acid, aqua regia

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## SECTION 10 STABILITY AND REACTIVITY

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**REACTIVITY:** Stable at normal temperatures and pressure.

**CONDITIONS TO AVOID:** None reported.

**INCOMPATIBILITIES:** bases, oxidizing materials, halogens, peroxides, metals

**CHROMIUM:**

ALKALI CARBONATES: Attacked.

ALKALIES (CAUSTIC): Attacked.

AMMONIUM NITRATE (FUSED): Violent or explosive reaction.

BROMINE PENTAFLUORIDE: Violent reaction and possible ignition.

HYDROGEN PEROXIDE: Violent decomposition reaction.

LITHIUM (MOLTEN): Vigorous reaction at elevated temperatures.

NITROGEN OXIDE: Incandescent reaction.

OXIDIZERS (STRONG): Fire and explosion hazard.

POTASSIUM CHLORATE (FUSED): Vigorous incandescent reaction.

SULPHUR DIOXIDE: Incandescent reaction.

**HAZARDOUS DECOMPOSITION:**

Thermal decomposition products: oxides of chromium

**POLYMERIZATION:** Will not polymerize.

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## SECTION 11 TOXICOLOGICAL INFORMATION

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**CHROMIUM:**

**TOXICITY DATA:**

27500 ug/kg unreported-rat LD50

**CARCINOGEN STATUS:** IARC: Human Inadequate Evidence, Animal Inadequate Evidence, Group 3 (Chromium metal); ACGIH: A4 -Not Classifiable as a Human Carcinogen

**ACUTE TOXICITY LEVEL:** Insufficient Data.

**TUMORIGENIC DATA:**

2160 ug/kg intravenous-rat TDLo/6 week(s) intermittent; 1200 ug/kg implant-rat TDLo/6 week(s) intermittent; 75 mg/kg implant-rabbit TDLo

**ADDITIONAL DATA:** May cross the placenta. May be excreted in breast milk.

**HEALTH EFFECTS:**

**INHALATION:**

**ACUTE EXPOSURE:**

CHROMIUM: High concentrations of dusts or fumes may cause irritation.

**CHRONIC EXPOSURE:**

CHROMIUM: Repeated or prolonged exposure to various chromium compounds has been reported to result in ulceration and perforation of the nasal septum, irritation of the throat and lower respiratory tract, less commonly in gastrointestinal disturbances, blood changes, pulmonary sensitization, pulmonary pneumoconiosis or fibrosis, and rarely liver effects. These effects have not been reported from exposure to the metal per se.

**SKIN CONTACT:**

**ACUTE EXPOSURE:**

CHROMIUM: Contact with dusts or powder may cause irritation.

**CHRONIC EXPOSURE:**

CHROMIUM: Repeated or prolonged exposure to various chromium compounds has been reported to cause various types of dermatitis, including eczema, "chrome holes", sensitization, and, in contact with damaged skin, kidney damage. These effects have not been reported from exposure to the metal per se.

**EYE CONTACT:**

**ACUTE EXPOSURE:**

CHROMIUM: Contact with dusts or powders may cause irritation.

**CHRONIC EXPOSURE:**

CHROMIUM: Repeated or prolonged exposure to some chromium compounds may cause conjunctivitis and lacrimation. These effects have not been reported from exposure to the metal per se.

**INGESTION:**

**ACUTE EXPOSURE:**

CHROMIUM: Chromium metal is poorly absorbed by the intestinal tract. Absorption of sufficient amounts of some chromium compounds may result in dizziness, intense thirst, abdominal pain, vomiting, shock, oliguria or anuria, and uremia, which may be fatal.

**CHRONIC EXPOSURE:**

CHROMIUM: No data available.

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**[SECTION 12 ECOLOGICAL INFORMATION](#)**

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**ECOTOXICITY DATA:**

**FISH TOXICITY:** 14300 ug/L 96 hour(s) LC50 (Mortality) Common, mirror, colored, carp (*Cyprinus carpio*)

**INVERTEBRATE TOXICITY:** 2000 ug/L 0-5 hour(s) LETH (Mortality) Copepod (*Tisbe holothuriae*)

**ALGAL TOXICITY:** 3000-5000 ug/L NR hour(s) (Population Growth) Blue-green algae (*Synechocystis aquatilis*)

**PHYTOTOXICITY:** 9900 ug/L 32 week(s) EC50 (Biomass) Water-milfoil (*Myriophyllum spicatum*)

**FATE AND TRANSPORT:**

**BIOCONCENTRATION:** 20-40 ug/L NR week(s) BCF (Residue) Common bay mussel, blue mussel (*Mytilus edulis*) 100 ug/L

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**SECTION 13 DISPOSAL CONSIDERATIONS**

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Hazardous Waste Number(s): D007. Dispose of in accordance with U.S. EPA 40 CFR 262 for concentrations at or above the Regulatory level. Regulatory level- 5.0 mg/L. Dispose in accordance with all applicable regulations.

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**SECTION 14 TRANSPORT INFORMATION**

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**U.S. DEPARTMENT OF TRANSPORTATION:** No classification assigned.

**CANADIAN TRANSPORTATION OF DANGEROUS GOODS:** No classification assigned.

**LAND TRANSPORT ADR:** No classification assigned.

**LAND TRANSPORT RID:** No classification assigned.

**AIR TRANSPORT IATA:** No classification assigned.

**AIR TRANSPORT ICAO:** No classification assigned.

**MARITIME TRANSPORT IMDG:** No classification assigned.

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**SECTION 15 REGULATORY INFORMATION**

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**U.S. REGULATIONS:**

**CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):**

**CHROMIUM: 5000 LBS RQ**

**SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):** Not regulated.

**SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40):** Not regulated.

**SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):**

ACUTE: No

CHRONIC: No

FIRE: No

REACTIVE: No

SUDDEN RELEASE: No

**SARA TITLE III SECTION 313 (40 CFR 372.65):**  
**CHROMIUM**

**OSHA PROCESS SAFETY (29CFR1910.119):** Not regulated.

**STATE REGULATIONS:**

**California Proposition 65:** Not regulated.

**CANADIAN REGULATIONS:**

**WHMIS CLASSIFICATION:** Not determined.

**EUROPEAN REGULATIONS:**

**EC CLASSIFICATION (CALCULATED):** Not determined.

**EC RISK AND SAFETY PHRASES:**

R 64	May cause harm to breastfed babies.
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**GERMAN REGULATIONS:**

**WATER HAZARD CLASS (WGK):**

**STATE OF CLASSIFICATION:** VwVwS

**CLASSIFICATION UNDER HAZARD TO WATER: 0**

**NATIONAL INVENTORY STATUS:**

**U.S. INVENTORY (TSCA):** Listed on inventory.

**TSCA 12(b) EXPORT NOTIFICATION:** Not listed.

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SECTION 16 OTHER INFORMATION

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**MSDS SUMMARY OF CHANGES**

SECTION 15 REGULATORY INFORMATION

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