



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

IN REPLY
REFER TO:

DNOSC-CC

May 29, 2007

**AMENDMENT NO. 001
TO BASIC ORDERING AGREEMENT FOR
CHROMIUM METAL
UNDER
DLA-CHROMIUM METAL-003**

The above referenced Basic Ordering Agreement for the sale of Chromium Metal is hereby amended to update various sections of the Basic Ordering Agreement as follows:

1. Section A.3 Web Page (JUL 06), paragraph a.

Delete this paragraph in its entirety and replace with the following:

- a. All requests for Quotes under this Agreement shall be posted on the second Wednesday of each month on the DNOSC web site at <https://www.dnosc.dla.mil> by 11:30 a.m., local time, Ft. Belvoir, VA. Quoters shall check the web site to determine if DNOSC is soliciting Quotes for the month.

2. Section C.1 Submission of Quotes (JUL 06), paragraph a.

Delete this paragraph in its entirety and replace with the following:

- a. DNOSC will post any material being offered for sale on its website at <https://www.dnosc.dla.mil> on the second Wednesday of each month by 11:30 a.m., local time, Ft. Belvoir, VA.

3. In Section G - Contract Administration Data, ADD the following as Section G.15 (JAN 07):

G.15 Bankruptcy (JAN 07)

In the event the contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the contractor agrees to furnish, by certified mail or electronic commerce method authorized by the contract, written notification of the bankruptcy to the contracting officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed and the identity of the court in which the bankruptcy petition was filed.

4. I.4 Certification Regarding Debarment, Suspension, Proposed Debarment, Environmental Compliance and Other Responsibility Matters (JUL 97)

Delete this section in its entirety and replace with the following:

I.4 Certification Regarding Debarment, Suspension, Proposed Debarment, and Other Responsibility Matters (FEB 07)

- a. (1) The Offeror certifies, to the best of its knowledge and belief, that –
- (i) The Offeror and/or any of its Principals –
 - (A) Are (___) are not (___) presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;
 - (B) Have (___) have not (___), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of record, making false statements, tax evasion, or receiving stolen property; and
 - (C) Are (___) are not (___) presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision a.(1)(i)(B) of this provision.
 - (ii) The Offeror has (___) has not (___), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.
- (1) “Principals,” for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

- b.** The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- c.** A certification that any of the items in paragraph **a.** of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.
- d.** Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith, the certification required by paragraph **a.** of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- e.** The certification in paragraph **a.** of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to the other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

5. Section J.5 Material Safety Data Sheet (JUN 06)

Delete this section in its entirety and replace with the attached **J.5 Material Safety Data Sheet (MAR 07)**.

6. Quoters shall acknowledge receipt of this Amendment by signing in the space provided below and returning a copy of this form along with their quote to:

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

Failure to acknowledge receipt of this Amendment may result in the quoter being considered ineligible for award. Except as provided herein, all other terms and conditions of DLA-CHROMIUM METAL-003 remain unchanged and in full force and effect.

NAME OF FIRM: _____

ADDRESS: _____

TELEPHONE: _____

FACSIMILE: _____

EMAIL: _____

BY: _____

SIGNATURE: _____

TITLE: _____

DATE: _____

MATERIAL SAFETY DATA SHEET (MAR 07)

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

DEFENSE LOGISTICS AGENCY

**EMERGENCY TELEPHONE
NUMBER:**

**DEFENSE NATIONAL STOCKPILE CENTER
8725 JOHN J. KINGMAN ROAD
SUITE 3339
FORT BELVOIR, VA 22060-6223**

**1-800-424-9300 (NORTH AMERICA)
1-703-527-3887 (INTERNATIONAL)**

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: Mar 15 2007

2. COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: CHROMIUM

CAS NUMBER: 7440-47-3

EC NUMBER (EINECS): 231-157-5

PERCENTAGE: 100.0

3. HAZARDS IDENTIFICATION

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

4. FIRST AID MEASURES

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.

5. FIRE FIGHTING MEASURES

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/ft³

6. ACCIDENTAL RELEASE MEASURES

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).

7. HANDLING AND STORAGE

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.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

CHROMIUM:

1 mg(Cr)/m³ OSHA TWA (metal)

0.5 mg(Cr)/m³ ACGIH TWA (metal)

0.5 mg(Cr)/m³ NIOSH recommended TWA 8 hour(s) (metal)

2 mg/m³ EC OEL TWA (IOELV) (metal)

0.5 mg/m³ UK WEL TWA 8 hour(s) (metal)

MEASUREMENT METHOD: NIOSH IV # 7024, 7300, 7301, 7303, 9102; OSHA ID121, ID125G

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/m³

Any quarter-mask respirator.

5 mg/m³

Any particulate respirator equipped with an N95, R95, or P95 filter (including N95, R95, and P95 filtering facepieces) except quarter-mask respirators.

Any supplied-air respirator.

12.5 mg/m³

Any supplied-air respirator operated in a continuous-flow mode.

Any powered, air-purifying respirator with a high-efficiency particulate filter.

25 mg/m³

Any air-purifying, full-facepiece respirator equipped with an N100, R100, or P100 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/m³

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

Emergency or planned entry into unknown concentrations or IDLH conditions.

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Escape -

Any air-purifying, full-facepiece respirator equipped with an N100, R100, or P100 filter.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

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

10. STABILITY AND REACTIVITY

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.

11. TOXICOLOGICAL INFORMATION

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
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

MUTAGENIC DATA: DNA damage - human lung 1 umol/L

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.

12. ECOLOGICAL INFORMATION

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

13. DISPOSAL CONSIDERATIONS

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.

14. TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101:

PROPER SHIPPING NAME: RQ Environmentally hazardous substances, solid, n.o.s. (CHROMIUM)

ID NUMBER: UN3077

HAZARD CLASS OR DIVISION: 9

PACKING GROUP: III

LABELING REQUIREMENTS: 9



CANADIAN TRANSPORTATION OF DANGEROUS GOODS:

SHIPPING NAME: Environmentally hazardous substance, solid, n.o.s. (CHROMIUM)

UN NUMBER: UN3077

CLASS: 9

PACKING GROUP/RISK GROUP: III

LAND TRANSPORT ADR:

PROPER SHIPPING NAME: Environmentally hazardous substance, solid, n.o.s.

(CHROMIUM)
UN NUMBER: UN3077
CLASS: 9
CLASSIFICATION CODE: M7
PACKING GROUP: III
LABELS: 9

LAND TRANSPORT RID:
PROPER SHIPPING NAME: Environmentally hazardous substance, solid, n.o.s.
(CHROMIUM)
UN NUMBER: UN3077
CLASS: 9
CLASSIFICATION CODE: M7
PACKING GROUP: III
LABELS: 9

AIR TRANSPORT IATA:
PROPER SHIPPING NAME: Environmentally hazardous substance, solid, n.o.s.
(CHROMIUM)
UN/ID NUMBER: UN3077
CLASS OR DIVISION: 9
HAZARD LABELS: 9
PACKING GROUP: III

AIR TRANSPORT ICAO:
PROPER SHIPPING NAME: Environmentally hazardous substance, solid, n.o.s.
(CHROMIUM)
UN NUMBER: UN3077
CLASS OR DIVISION: 9
LABELS: 9
UN PACKING GROUP: III

MARITIME TRANSPORT IMDG:
PROPER SHIPPING NAME: Environmentally hazardous substance, solid, n.o.s.
(CHROMIUM)
UN NUMBER: UN3077
CLASS OR DIVISION: 9
PACKING GROUP: III

[15. REGULATORY INFORMATION](#)

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.

16. OTHER INFORMATION

MSDS SUMMARY OF CHANGES

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

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