

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Spartalloy
Product Number: 0020K25, 0020K, 0020, 0020S, 0020KC
Chemical Name: Chrome Cobalt Alloy
Chemical Family: Metal Alloy
CAS Number: Blend

Company Identification

Nobilium, Div. of CMP Industries LLC
413 North Pearl St
Albany, NY 12207-1311 USA
(518)-434-3147 (For product information)
(800)-424-9300 (For emergencies)
1-800-424-9300 or 1-703-527-3887 (CHEMTREC)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

WARNING: US Hazard Classification: Hazardous.

GHS Classification:

Respiratory or skin Sensitization - Category 1
Chronic aquatic toxicity - Category 4

GHS Hazard Symbols:

Irritant, Health Hazard, Environmentally Damaging



GHS Hazard Statements:

H317 - May cause an allergic skin reaction.
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H413 - May cause long lasting harmful effects to aquatic life.

GHS Precautionary Statements:

P273 - Avoid release to the environment.
P285 - In case of inadequate ventilation wear respiratory protection.
P302/352 - IF ON SKIN: Wash with plenty of soap and water.



P304/341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342/311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P363 - Wash contaminated clothing before reuse.

EYE:

Causes eye irritation.

SKIN:

May cause skin irritation.

INHALATION:

Dust may be slightly irritating to respiratory tract.

INGESTION:

Ingestion is not considered a potential route of exposure.

CHRONIC EFFECTS:

Persons with impaired pulmonary function should not be subjected to excessive airborne concentrations.

REPRODUCTIVE HAZARDS:

None.

CARCINOGENICITY INFORMATION:

Cobalt and Nickel are listed by IARC and NTP as carcinogens.

TARGET ORGAN:

Overexposure may cause lung damage.

MEDICAL CONDITIONS AGRAVATED BY EXPOSURE:

Individuals with impaired pulmonary function should not be subjected to excessive airborne concentrations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT LISTING:

Chemical Name	Amount	CAS Number
COBALT	40.0 - 70.0 %	7440-48-4
CHROMIUM	10.0 - 40.0 %	7440-47-3
MOLYBDENUM	1.0 - 10.0 %	7439-98-7
SILICON	< 1.0 %	7440-21-3
NICKEL	< 1.0 %	7440-02-0

This product contains hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

As defined under Sara 311 and 312, this product contains materials that are acute, chronic hazards.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

Immediately flush with plenty of water. Get immediate medical attention.



SKIN CONTACT FIRST AID:

Wash affected area with soap and water. Get medical attention if irritation develops or persists.

INHALATION FIRST AID:

Remove to fresh air. If breathing is difficult get immediate medical attention.

If breathing is difficult, remove to fresh air and have qualified personnel provide oxygen.

Seek medical attention.

INGESTION FIRST AID:

Swallow large amounts of water and get immediate medical attention.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

COC Flash Point: N/A

Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A

UEL: N/A

FLAMMABLE PROPERTIES:

Not flammable.

EXTINGUISHING MEDIA:

Use extinguishing media appropriate for surrounding fire.

FIRE & EXPLOSION HAZARDS:

None.

COMBUSTION PRODUCTS:

None.

6. ACCIDENTAL RELEASE MEASURES

LARGE SPILLS PROCEDURE:

In solid form this material poses no special clean up problems.

Remove dust by vacuuming or wet sweeping to avoid air contamination.

Protective clothing not normally required during clean up procedures.

SMALL SPILLS PROCEDURE:

Same as large spill.

7. HANDLING AND STORAGE



HANDLING (PERSONNEL):

Do not breathe dust or fumes. Avoid contact with eyes, skin and clothing. Wear protective clothing as described in Section 8. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Do not eat, drink or smoke in work area.

HANDLING (PHYSICAL ASPECTS):

Keep containers closed when not in use.

STORAGE PRECAUTIONS:

Empty containers retain product residues and can be hazardous. Follow all SDS precautions when handling empty containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

If user operations generate dust, fume, or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

EYE / FACE PROTECTION REQUIREMENTS:

Safety glasses are recommended to avoid contact with eyes.

SKIN PROTECTION REQUIREMENTS:

Wear leather gloves to minimize skin contamination.

RESPIRATORY PROTECTION REQUIREMENTS:

Use a NIOSH approved organic vapor respirator when exposed to vapor from heated material.

EXPOSURE GUIDELINES:

COBALT

OSHA PEL: .1 mg/m³
OSHA TWA: 0.5 mg/m³

CHROMIUM

OSHA PEL: 1 mg/m³
OSHA TWA: 0.5 mg/m³

MOLYBDENUM

OSHA PEL: 15 mg/m³
OSHA TWA: 5 mg/m³

SILICON

OSHA PEL: 15 mg/m³
OSHA TWA: 10 mg/m³

NICKEL

OSHA PEL: <.1 mg/m³
OSHA TWA: <.1 mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Ingot
COLOR:	Silver
ODOR:	None
BOILING POINT:	2700 F
SPECIFIC GRAVITY:	8.2 (Water = 1)



MELTING/FREEZING POINT: 2278 - 2532 F

10. STABILITY AND REACTIVITY

STABILITY:

Stable.

POLYMERIZATION:

Product will not undergo polymerization.

INCOMPATIBILITY WITH OTHER MATERIALS:

Mineral acids and strong oxidizing agents.

DECOMPOSITION:

Metal oxides may be generated from melting.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:

Contact may cause mechanical irritation and possible injury.

SKIN EFFECTS:

No adverse effects are expected.

ACUTE ORAL EFFECTS:

No adverse effects expected for normal, incidental ingestion. Large amounts may cause gastrointestinal irritation.

ACUTE INHALATION EFFECTS:

Inhalation of dust may cause irritation to the nose, throat and upper respiratory tract with coughing and shortness of breath.

CHRONIC EFFECTS /:

May cause respiratory disease.

COBALT

Test Code: Oral LD50

Species: Rat

Results: 1500 mg / kg

CHROMIUM

Test Code: Implant TDLO

Species: Rat

Results: 1200 micrograms/kg of body weight administered intermittently over a six week period.

MOLYBDENUM

Test Code: Intraperitoneal LD50

Species: Rat

Results: 114 mg/kg



12. ECOLOGICAL INFORMATION

MISCELLANEOUS:

Dike and contain spill with absorbent material such as clay or commercial absorbent.

COBALT

Test Code: LC50

Description: 96 hr

Species: Brachydanio rerio

Results: > 100mg/L

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Dispose of waste material in accordance with all local, state/provincial, and national requirements.

14. TRANSPORT INFORMATION

PRODUCT LABEL:	Spartalloy
D.O.T. SHIPPING NAME:	N/A
TECHNICAL SHIPPING NAME:	N/A
D.O.T. HAZARD CLASS:	N/A
UN NUMBER:	N/A

15. REGULATORY INFORMATION

REGULATORY LISTS SEARCHED:

01 = SARA 313

03 = SARA 302/304

05 = ACGIH TWA

07 = ACGIH CALC TLV

09 = CANADIAN WHMIS

02 = CA Proposition 65

04 = CERCLA 302.4

06 = ACGIH STEL

08 = OSHA PEL

10 = OSHA Ceiling

REGULATORY DISCLOSURES:

As defined under Sara 311 and 312, this product contains materials that are acute, chronic hazards.

EEC Symbols and Indications of Danger:

Harmful (Xn), Irritant (Xi), Dangerous For The Environment (N)



R-Phrases:

R36/37/38 - Irritating to eyes, respiratory system, and skin.

R53 - May cause long-term adverse effects in the aquatic environment.



R42/43 - May cause sensitization by inhalation and skin contact.

S-Phrases:

S22 - Do not breathe dust.

WHMIS Hazard Symbols:

None

Canadian Disclosure List

COBALT (7440-48-4)
CHROMIUM (7440-47-3)
MOLYBDENUM (7439-98-7)
NICKEL (7440-02-0)

SARA Title III - Section 313

COBALT (7440-48-4)
CHROMIUM (7440-47-3)
NICKEL (7440-02-0)

CERCLA Hazardous Substances

CHROMIUM (7440-47-3) -- RQ 5000 lb
NICKEL (7440-02-0) -- RQ 100 lb

RCRA Hazardous Substances

CHROMIUM (7440-47-3) -- RCRA Code: D007
NICKEL (7440-02-0) -- RCRA Code: Unknown

Title V

COBALT (7440-48-4)
CHROMIUM (7440-47-3)
MOLYBDENUM (7439-98-7)
NICKEL (7440-02-0)

CA Proposition 65

COBALT (7440-48-4)
NICKEL (7440-02-0)

SC Toxic Air Pollutants List

CHROMIUM (7440-47-3)
MOLYBDENUM (7439-98-7)
SILICON (7440-21-3)
NICKEL (7440-02-0)

16. OTHER INFORMATION

REASON FOR ISSUE:	New MSDS
PREPARED BY:	John Nicpon
APPROVED BY:	John Nicpon
TITLE:	Quality Manager
APPROVAL DATE:	March 2, 2015
SUPERCEDES DATE:	November 4, 2013
RTN NUMBER:	00002069 (Official Copy)



HMIS Rating:

Health - 2*
Flammability - 0
Reactivity - 0

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END OF SAFETY DATA SHEET

