

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Niranium X3 Non-Precious Ceramic C & B Alloy
Product Number: 726-8322
Chemical Name: Base Alloy Metal
Chemical Family: Metals
CAS Number: Blend

Company Identification

Niranium Co.
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 1-202-483-7616 (CHEMTREC)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

WARNING: US Hazard Classification: Hazardous.

GHS Classification:

Respiratory or skin Sensitization - Category 1

GHS Hazard Symbols:

Irritant, Health Hazard



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.

EYE:

Causes eye irritation.

SKIN:

Can cause moderate skin irritation. Allergic reactions are possible.



INHALATION:

Inhalation of metal fumes may cause mucous membrane and respiratory irritation. Severe overexposure may cause pneumonitis with delayed pulmonary edema. Pulmonary sensitization with asthma-like symptoms may also occur.

INGESTION:

Ingestion is not considered a potential route of exposure.

CHRONIC EFFECTS:

Pulmonary Disease may result due to long term exposure.

REPRODUCTIVE HAZARDS:

None.

CARCINOGENICITY INFORMATION:

Nickel is listed by IARC as a Group 2b-Possible Carcinogen to Humans. Beryllium is listed by IARC as a Group 1-Known Human Carcinogen.

TARGET ORGAN:

Prolonged or repeated exposure may cause lung injury.

MEDICAL CONDITIONS AGRAVATED BY EXPOSURE:

Nickel sensitive persons may experience dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT LISTING:

Chemical Name	Amount	CAS Number
CHROMIUM	14.0 %	7440-47-3
NICKEL	76.5 %	7440-02-0
MOLYBDENUM	4.5 %	7439-98-7
ALUMINUM	2.5 %	7429-90-5
BERYLLIUM	1.6 %	7440-41-7
COBALT	< 1.0 %	7440-48-4

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:

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

SKIN CONTACT FIRST AID:

Immediately flush skin with plenty of soap & water. Get medical attention if irritation develops or persists.

INHALATION FIRST AID:

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



attention.

INGESTION FIRST AID:

Do not induce vomiting. Contact a physician.

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

FIRE & EXPLOSION HAZARDS:

No known unusual hazards in a fire/explosion situation.

FIRE FIGHTING INSTRUCTIONS:

As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear.

MISCELLANEOUS:

Elemental metals and metal oxides may be generated from melting in fire.

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. Protective clothing not normally required.

SMALL SPILLS PROCEDURE:

Same as large spill.

7. HANDLING AND STORAGE

HANDLING (PERSONNEL):

Do not breathe dust or fumes. Do not eat, drink or smoke in work area.

HANDLING (PHYSICAL ASPECTS):

Store in a tightly closed container in a cool, well ventilated location away from incompatible materials. Store away from food or beverages.

STORAGE PRECAUTIONS:

Segregate from mineral acids and oxidizing agents.

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:

Chemical goggles or safety glasses are recommended to avoid contact with eyes.

SKIN PROTECTION REQUIREMENTS:

Wear leather work gloves.

RESPIRATORY PROTECTION REQUIREMENTS:

NIOSH approved respirators.

MISCELLANEOUS:

Grinding equipment should be provided with adequate exhaust system.

EXPOSURE GUIDELINES:

CHROMIUM

OSHA PEL: 1 mg/m³
OSHA TWA: 0.5 mg/m³

NICKEL

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

MOLYBDENUM

OSHA PEL: 15 mg/m³
OSHA TWA: 5 mg/m³

ALUMINUM

OSHA PEL: 10 mg/m³
OSHA TWA: 10 mg/m³

BERYLLIUM

OSHA PEL: .002 mg/m³
OSHA TWA: .002 mg/m³

COBALT

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

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Solid (cylindrical)
COLOR:	Metallic Grey
ODOR:	No odor
SOLUBILITY IN WATER:	Negligible
SPECIFIC GRAVITY:	8.0 (Water = 1)

10. STABILITY AND REACTIVITY

STABILITY:

Stable.

POLYMERIZATION:

Product will not undergo polymerization.



INCOMPATIBILITY WITH OTHER MATERIALS:

Avoid contact with mineral acids and oxidizing agents.

DECOMPOSITION:

Various metals and metal oxides may be generated from melting.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:

May cause eye irritation.

SKIN EFFECTS:

May cause skin irritation. May cause allergic skin reaction(sensitization).

ACUTE INHALATION EFFECTS:

May cause respiratory irritation. May cause allergic respiratory reaction(sensitization). Inhalation of fumes may cause metal fume fever.

CHRONIC EFFECTS /:

May cause respiratory disease.

CHROMIUM

Test Code: Implant TDLO

Species: Rat

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

NICKEL

Test Code: Intravenous LDLO

Species: Dog

Results: 10 mg/kg

Test Code: Oral LD50

Species: Guinea Pig

Results: 5 mg/kg

Test Code: Implant TDLO

Species: Rat

Results: 250 mg/kg

MOLYBDENUM

Test Code: Intraperitoneal LD50

Species: Rat

Results: 114 mg/kg

BERYLLIUM

Test Code: TCLO

Description: Inhalation

Species: Human

Results: 300 mg/m³ produced pulmonary effects.

Test Code: TDLO

Description: Intravenous

Species: Rabbit



Results: 20 mg/kg produced neoplastic effects.

COBALT

Test Code: Oral LD50
Species: Rat
Results: 1500 mg/kg

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

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

14. TRANSPORT INFORMATION

PRODUCT LABEL:	Niranium X3 Non-Precious Ceramic C & B Alloy
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	02 = CA Proposition 65
03 = SARA 302/304	04 = CERCLA 302.4
05 = ACGIH TWA	06 = ACGIH STEL
07 = ACGIH CALC TLV	08 = OSHA PEL
09 = CANADIAN WHMIS	10 = OSHA Ceiling

EEC Symbols and Indications of Danger:

Harmful (Xn), Irritant (Xi)



R-Phrases:

R23 - Toxic by inhalation.
R40 - Possible risks of irreversible effects.
R43 - May cause sensitization by skin contact.
R49 - May cause cancer by inhalation.



S-Phrases:

- S36/37 - Wear suitable protective clothing and gloves.
- S38 - In case of insufficient ventilation, wear suitable respiratory equipment.
- S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S53 - Avoid exposure. Obtain special instructions before use.

WHMIS Hazard Symbols:

Class D2 - Materials Causing Other Toxic Effects



Canadian Disclosure List

- CHROMIUM (7440-47-3)
- NICKEL (7440-02-0)
- MOLYBDENUM (7439-98-7)
- ALUMINUM (7429-90-5)
- BERYLLIUM (7440-41-7)
- COBALT (7440-48-4)

SARA Title III - Section 313

- CHROMIUM (7440-47-3)
- NICKEL (7440-02-0)
- ALUMINUM (7429-90-5)
- BERYLLIUM (7440-41-7)

CERCLA Hazardous Substances

- CHROMIUM (7440-47-3) -- RQ 5000 lb
- NICKEL (7440-02-0) -- RQ 100 lb
- BERYLLIUM (7440-41-7) -- RQ 10 lb

RCRA Hazardous Substances

- CHROMIUM (7440-47-3) -- RCRA Code: D007
- BERYLLIUM (7440-41-7) -- RCRA Code: P015

Title V

- CHROMIUM (7440-47-3)
- NICKEL (7440-02-0)
- MOLYBDENUM (7439-98-7)
- ALUMINUM (7429-90-5)
- BERYLLIUM (7440-41-7)
- COBALT (7440-48-4)

CA Proposition 65

- NICKEL (7440-02-0)
- BERYLLIUM (7440-41-7)
- COBALT (7440-48-4)

SC Toxic Air Pollutants List

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



ALUMINUM (7429-90-5)
BERYLLIUM (7440-41-7)

16. OTHER INFORMATION

REASON FOR ISSUE: Update
PREPARED BY: John Nicpon
APPROVED BY: John Nicpon
TITLE: Quality Manager
APPROVAL DATE: April 12, 2016
SUPERCEDES DATE: April 12, 2016
RTN NUMBER: 00061121 (Official Copy)

HMS Rating:

Health - 2
Flammability - 0
Reactivity - 0

NFPA Rating:

Health -
Flammability -
Reactivity -
Special Hazard - N/A

ABBREVIATIONS USED IN THIS MSDS:

TLV - THRESHOLD LIMIT VALUE	TWA - Time Weighted Average
STEL - SHORT TERM EXPOSURE LIMIT	TPQ - Threshold Planning Quantity
RQ - REPORTABLE QUANTITY	PEL - Permissible Exposure Limit
C - CEILING LIMIT	CAS - Chemical Abstract Service Number
NDA - NO DATA AVAILABLE	N/A - Not Applicable or Not Available

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END OF SAFETY DATA SHEET

