

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Niranium X4 Non-Precious Ceramic C&B Alloy
Product Number: 726-3209,7263208,726-3210
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 1-703-527-3887 (CHEMTREC)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

WARNING: US Hazard Classification: Hazardous.

GHS Classification:

Respiratory or skin Sensitization - Category 1
Carcinogenicity-Category 2B

GHS Hazard Symbols:

Irritant, Health Hazard



GHS Hazard Statements:

H317 - May cause an allergic skin reaction.

H334 - May cause allergy or asthma symptoms of breathing difficulties if inhaled.

GHS Precautionary Statements:

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:

Can cause skin irritation. Allergic reactions are possible.

INHALATION:

Dust may be slightly irritating to respiratory tract.

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:

Cancer hazard (contains material which) can cause cancer. Nickel is listed by IARC as carcinogens. Nickel is listed by NTP as carcinogens.

TARGET ORGAN:

Overexposure may cause lung damage.

MEDICAL CONDITIONS AGRAVATED BY EXPOSURE:

Individuals with pre-existing skin disorders may be more susceptible to severe irritation and possible sensitization.

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT LISTING:

Chemical Name	Amount	CAS Number
NICKEL	64.0 - 66.0 %	7440-02-0
CHROMIUM	19.0 - 21.0 %	7440-47-3
TUNGSTEN	6.5 - 7.5 %	7440-33-7
SILICON	2.5 - 3.5 %	7440-21-3
ALUMINUM	2.0 - 3.0 %	7429-90-5
MOLYBDENUM	1.0 - 2.0 %	7439-98-7
LATHANUM	< 1.0 %	7439-91-0

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:



Flush eye with water for 15 minutes, holding the eyelids apart. Get medical attention if irritation develops or persists.

SKIN CONTACT FIRST AID:

Immediately wash skin with soap and plenty of water. Get medical attention if irritation persists.

INHALATION FIRST AID:

Remove to fresh air. If not breathing, give artificial respiration. 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):

Use recommended protective equipment in the following section.

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.

RESPIRATORY PROTECTION REQUIREMENTS:

NIOSH approved respirators.

MISCELLANEOUS:

Grinding equipment should be provided with adequate exhaust system.

EXPOSURE GUIDELINES:

Nickel

OSHA PEL: $<.1 \text{ mg/m}^3$
OSHA TWA: $<.1 \text{ mg/m}^3$

Chromium

OSHA PEL: 1 mg/m^3
OSHA TWA: 0.5 mg/m^3

Tungsten

OSHA PEL: 5 mg/m^3
OSHA TWA: 5 mg/m^3

Silicon

OSHA PEL: 15 mg/m^3
OSHA TWA: 10 mg/m^3

Aluminum

OSHA PEL: 10 mg/m^3
OSHA TWA: 10 mg/m^3

Molybdenum

OSHA PEL: 15 mg/m^3
OSHA TWA: 5 mg/m^3

Lathanum

OSHA PEL: 15 mg/m^3
OSHA TWA: 5 mg/m^3

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Solid (cylindrical)
COLOR:	Metallic Grey
ODOR:	No odor
SOLUBILITY IN WATER:	Negligible
SPECIFIC GRAVITY:	8.16 (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:

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.

Nickel

Test Code: Intravenous LDLO
Species: Dog
Results: 10 mg/kg

Test Code: Oral LD50
Species: Guinea Pig
Results: 5 mg/kg

Chromium

Test Code: Implant TDLO
Species: Rat
Results: 1200 micrograms/kg of body weight administered intermittently over a six week period.

Tungsten

Test Code: Oral TDLO
Species: Rat
Results: 1210 micrograms/kg

Silicon

Test Code: inhalation
Species: Rat
Results: 1360 mg/kg

Molybdenum



Test Code: Intraperitoneal LD50
Species: Rat
Results: 114 mg/kg

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS:

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 X4 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 = CA PROPOSITION 65	02 = SARA 302/304
03 = ACGIH TWA	04 = ACGIH CALC TLV
05 = CANADIAN WHMIS	06 = CERCLA 302.4
07 = ACGIH STEL	08 = OSHA Ceiling
09 = SARA 313	

EEC Symbols and Indications of Danger:

Harmful (Xn), Irritant (Xi)



R-Phrases:

R36/37/38 - Irritating to eyes, respiratory system, and skin.
R43 - May cause sensitization by skin contact.
R49 - May cause cancer by inhalation.

S-Phrases:

S22 - Do not breathe dust.



WHMIS Hazard Symbols:

None

Canadian Disclosure List

Nickel (7440-02-0)
Chromium (7440-47-3)
Tungsten (7440-33-7)
Aluminum (7429-90-5)
Molybdenum (7439-98-7)

SARA Title III - Section 313

Nickel (7440-02-0)
Chromium (7440-47-3)
Aluminum (7429-90-5)

CERCLA Hazardous Substances

Nickel (7440-02-0) -- RQ 100 lb
Chromium (7440-47-3) -- RQ 5000 lb

RCRA Hazardous Substances

Chromium (7440-47-3) -- RCRA Code: D007

Title V

Nickel (7440-02-0)
Chromium (7440-47-3)
Aluminum (7429-90-5)
Molybdenum (7439-98-7)

CA Proposition 65

Nickel (7440-02-0)

SC Toxic Air Pollutants List

Nickel (7440-02-0)
Chromium (7440-47-3)
Silicon (7440-21-3)
Aluminum (7429-90-5)
Molybdenum (7439-98-7)

16. OTHER INFORMATION

REASON FOR ISSUE:	New MSDS
PREPARED BY:	John Nicpon
APPROVED BY:	John Nicpon
TITLE:	Quality Manager
APPROVAL DATE:	April 12, 2016
SUPERCEDES DATE:	April 12, 2016
RTN NUMBER:	00061120 (Official Copy)

HMIS Rating:

Health - 2
Flammability - 0
Reactivity - 0



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END OF SAFETY DATA SHEET

