

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Inconel Split Rings -Niranium
Product Number: 808013 - 808016
Chemical Name: Steel (Nickel based alloy)
CAS Number: Blend

Company Identification

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

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Amount</u>	<u>CAS Number</u>
NICKEL	31.0 - 99.0 %	7440-02-0
ALUMINUM	< 5.0 %	7429-90-5
CHROMIUM	< 48.0 %	7440-47-3
COBALT	< 15.0 %	7440-48-4
COPPER , FUME	< 68.0 %	7440-50-8
COPPER, DUST	< 68.0 %	7440-50-8
MANGANESE, FUME	< 5.0 %	7439-96-5
MANGANESE, DUST	< 5.0 %	7439-96-5

(See Section 8 for exposure guidelines)

(See Section 15 for regulatory information)

HAZARDS DISCLOSURE

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.



3. HAZARDS IDENTIFICATION

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***** EMERGENCY OVERVIEW *****
*
*                               DANGER                               *
*
* Prolong & repeated overexposure to dust can lead to
* benign Pneumoconiosis. Nickel fumes may cause
* severe Pneumonitis and/or sensitization. High
* concentrations of Manganese dust can effect the
* central nervous system (apathy, drowsiness,
* weakness & other symptoms resembling Parkinson's
* disease).
*
*****
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NFPA Rating - Health:
Flammability:
Reactivity:
Special Hazard: None

POTENTIAL HEALTH EFFECTS

EYE:

May be slightly irritating.

SKIN:

May cause sensitization.

INHALATION:

May cause irritation of the upper respiratory passages.

INGESTION:

Ingestion is not considered a potential route of exposure.

CHRONIC EFFECTS:

Prolong and repeated overexposure can lead to benign Pneumoconiosis, sensitization and may effect the central nervous system producing symptoms resembling Parkinson's disease).

REPRODUCTIVE HAZARDS:

None.

CARCINOGENICITY INFORMATION:

Nickel and Chromium are listed by IARC and NTP as a carcinogen.

MEDICAL CONDITIONS AGRAVATED BY EXPOSURE:

Not determined.



4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

Flush eye with water for 15 minutes.

SKIN CONTACT FIRST AID:

Wash affected area immediately with large amounts of soap and water.

INHALATION FIRST AID:

Contact a physician. Remove from area of exposure.

INGESTION FIRST AID:

Ingestion is not considered a potential route of exposure.

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

EXTINGUISHING MEDIA:

Non-flammable.

FIRE & EXPLOSION HAZARDS:

The product in the solid state presents no fire or explosion hazard.

FIRE FIGHTING INSTRUCTIONS:

None.

COMBUSTION PRODUCTS:

None.

6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):

If excessive dust is created, wear dust mask or respirator to keep exposure below the Permissible Exposure Level for particulate matter.

LARGE SPILLS PROCEDURE:

Normal precautions for inert or nuisance dust and particulates.



7. HANDLING AND STORAGE

HANDLING (PERSONNEL) :

Use handling procedures that limit exposure to excessive airborne dust.

HANDLING (PHYSICAL ASPECTS) :

Provide appropriate ventilation.

STORAGE PRECAUTIONS:

Keep dry.

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 are recommended to avoid contact with eyes.

SKIN PROTECTION REQUIREMENTS:

Wear protective gloves to minimize skin contamination.

RESPIRATORY PROTECTION REQUIREMENTS:

If airborne concentrations exceed the OSHA TWA, a NIOSH approved dust mask is recommended.



(section 8 continued)

EXPOSURE GUIDELINES:

NICKEL

OSHA PEL: 1 mg/m³

OSHA TWA: 1 mg/m³

ALUMINUM

OSHA PEL: 5 mg/m³

OSHA TWA: 5 mg/m³

CHROMIUM

OSHA PEL: 1 mg/m³

OSHA TWA: .5 mg/m³

COBALT

OSHA PEL: .1 mg/m³

OSHA TWA: .05 mg/m³

COPPER , FUME

OSHA PEL: .1 mg/m³

OSHA TWA: .2 mg/m³

COPPER, DUST

OSHA PEL: 1 mg/m³

OSHA TWA: 1 mg/m³

MANGANESE, FUME

OSHA PEL: 5 mg/m³

OSHA TWA: 1 mg/m³

OSHA Ceiling Limit: 5 mg/m³

MANGANESE, DUST

OSHA PEL: 5 mg/m³

OSHA TWA: 5 mg/m³

OSHA Ceiling Limit: 5 mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Solid
COLOR ...: Grey - Black
ODOR: None

10. STABILITY AND REACTIVITY

STABILITY:

Stable.

POLYMERIZATION:

Product will not undergo polymerization.

INCOMPATIBILITY WITH OTHER MATERIALS:

Avoid strong acids.



(section 10 continued)

DECOMPOSITION:

Decomposition will not occur.

MISCELLANEOUS:

Metallic dust and fumes may be produced during welding, burning, grinding and machining. A reaction will occur with the evolution of hydrogen gas on contact with acids.

11. TOXICOLOGICAL INFORMATION

NICKEL

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

Test Code: LDlo
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.

COBALT

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

COPPER , FUME

Test Code: Oral TDLO
Species: Human
Results: 120 micrograms/ kg affects the gastrointestinal tract (may produce nausea and vomiting).

COPPER, DUST

Test Code: Oral TDLO
Species: Human
Results: 120 micrograms/ kg affects the gastrointestinal tract (may produce nausea and vomiting).

COPPER

Test Code: Implant TDLO
Species: Rat
Results: 250 mg/kg



12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

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

14. TRANSPORTATION INFORMATION

PRODUCT LABEL: Inconel Split Rings -Niranium
D.O.T. SHIPPING NAME: N/A
TECHNICAL SHIPPING NAME ...: N/A
D.O.T. HAZARD CLASS: N/A
UN NUMBER: N/A

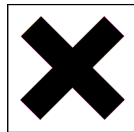
15. REGULATORY INFORMATION

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:

Irritant (Xi)



R-Phrases:

R36/38 - Irritating to eyes and skin.
R37 - Irritating to respiratory system.

S-Phrases:

S28 - After contact with skin, wash immediately with plenty of soap and water.
S36 - Wear suitable protective clothing.

WHMIS Hazard Symbols:

Class D2 - Materials Causing Other Toxic Effects





Canadian Disclosure List

NICKEL (7440-02-0)
ALUMINUM (7429-90-5)
CHROMIUM (7440-47-3)
COBALT (7440-48-4)
COPPER , FUME (7440-50-8)
COPPER, DUST (7440-50-8)
MANGANESE, FUME (7439-96-5)
MANGANESE, DUST (7439-96-5)

SARA Title III - Section 313

NICKEL (7440-02-0)
ALUMINUM (7429-90-5)
CHROMIUM (7440-47-3)
COBALT (7440-48-4)
COPPER , FUME (7440-50-8)
COPPER, DUST (7440-50-8)
MANGANESE, FUME (7439-96-5)
MANGANESE, DUST (7439-96-5)

CERCLA Hazardous Substances

NICKEL (7440-02-0) -- RQ 100 lb
CHROMIUM (7440-47-3) -- RQ 5000 lb
COPPER , FUME (7440-50-8) -- RQ 5000 lb
COPPER, DUST (7440-50-8) -- RQ 5000 lb

RCRA Hazardous Substances

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

Title V

NICKEL (7440-02-0)
ALUMINUM (7429-90-5)
CHROMIUM (7440-47-3)
COBALT (7440-48-4)
COPPER , FUME (7440-50-8)
COPPER, DUST (7440-50-8)
MANGANESE, FUME (7439-96-5)
MANGANESE, DUST (7439-96-5)

CA Proposition 65

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



(section 15 continued)

SC Toxic Air Pollutants List

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

16. OTHER INFORMATION

PREPARED BY: Regina Lane
APPROVED BY: Abdul Khan
TITLE: Q. C. Manager
APPROVAL DATE: April 17, 2003
SUPERCEDES DATE ...: September 16, 1999
MSDS NUMBER: 808013-808016
RTN NUMBER: 00000018 (Official Copy)

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 MSDS

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