

# Safety Data Sheet

## 1. Supplier and Manufacturer

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 Emergency Phone Number: 212-246-9420 or 911  
 Other 24-hour Emergency Response: 800-424-9300 or 703-527-3887  
**Product Codes: Ni-83**  
 Product Use(s): Brazing Filler Metal

## 2. Hazards identification

### Classification(s)

Respiratory and skin sensitization	GHS Category 1
Target organ systems toxicity (single exposure)	GHS Category 2 (respiratory apparatus, kidney)
Target organ systems toxicity (repeated exposure)	GHS Category 1 (respiratory apparatus)
Carcinogenicity	GHS Category 2 (suspected of causing cancer)
Aquatic Toxicity (chronic)	Category 4 (may cause long lasting harmful effects to aquatic life)



**GHS Label Signal Word(s):** Danger

**This product is intended for industrial use by trained individuals. Keep away from children.**

## 3. Composition/information on ingredients

Note: The percentage by weight values for the ingredients in this product represent approximate formulation values.

Ingredient	CAS #	% wt
Nickel	7440-02-0	60 - 100
Iron	7439-89-6	1 - 5
Chromium	7440-47-3	5 - 10
Boron	7440-42-8	1 - 5
Silicon	7440-21-3	3 - 7

This material is a homogenous metallic alloy of the components listed above.

## 4. First aid measures

### Description of First Aid Measures

**Inhalation:** Difficulty breathing, coughing, metal fume fever. Remove exposed person to fresh air. If not breathing administer CPR.

**Skin:** Itching, irritation or rash. Remove contaminated clothing. Wash skin with mild soap and water. If irritation or rash persists seek medical attention.

**Eye:** Eye irritation. Flush with water for 15 minutes or until all particles are removed. If irritation persists seek medical attention.

**Ingestion:** Rinse mouth. If large amount, induce vomiting. Seek medical advice.

**Never give anything by mouth to an unconscious person. Treat symptomatically and supportively.**

## 5. Firefighting measures

### Extinguishing Media

**Suitable Extinguishing Media:** Material is not readily combustible. Do not use water on metal fires, use dry chemical, dry sand or carbon dioxide to smother fire.

**Specific Hazards during a Fire:** Material may break down in fire and may produce toxic decomposition products associated with ingredients. Extreme oxidizing conditions may cause formation of metal oxides. These oxides may be carcinogens.

**Protective Equipment:** SCBA and full protective gear is recommended for firefighting.

## 6. Accidental release measures

- Stay out of spill, floor may be slippery.
- Do not create airborne dust.
- Do not allow spill to enter floor drains or storm drains.
- Wear PPE: Respirator and Safety Goggles.
- Take up with damp sweeping compound or vacuum. Vacuum should be equipped with HEPA filter on exhaust. Transfer into disposal container(s). Dispose by recycling.
- A spill of greater than 100 lbs (Nickel RQ 100 lbs, <106µm) which enters the environment requires reporting per OSHA CFR Title 40 Part 372 paragraph 372.4 CERCLA hazardous substance release.

## 7. Handling and storage

- General and/or point ventilation system with dust collection is recommended to ensure exposure do airborne dust is maintained below allowable exposure limits.
- Wear PPE such as work gloves (or vinyl/latex gloves), safety glasses/goggles. Respiratory protection is recommended, but is required only when exposure limits are exceeded.
- Wash hands after use before eating or smoking.
- Do not eat or smoke in area where material is being used.
- Store in tightly closed container. For best results, keep product above the ambient dew point temperature.
- Not a shelf life limited material.

## 8. Exposure controls/personal protection.

### Ingredients – Exposure Limits

Ingredient	CAS #	ACGIH TLV (mg/m <sup>3</sup> )	OSHA PEL (mg/m <sup>3</sup> )
Nickel	7440-02-0	1.5	1.0
Iron	7439-89-6	5 (as respirable oxide)	10 (as oxide fume)
Chromium	7440-47-3	0.5	1.0
Boron	7440-42-8	10 (as oxide)	15 (5 respirable)
Silicon	7440-21-3	Not listed	15 (total dust), 5 (respirable)

### Engineering Controls:

- Local exhaust ventilation may be necessary to control air contaminants to their exposure limits.
- Provide mechanical ventilation for confined spaces or if method of use warrants.

### Personal Protective Equipment:

- Gloves – work gloves or non-permeable gloves such as vinyl or latex.
- Eyes – safety glasses/goggles or face shield.
- Clothing – Cover-all, lab coat or normal work clothing.
- Respirator – NIOSH N-95 or N-100 filtering face-piece (dust mask) or equivalent alternative is recommended for up to 10 times the exposure limits.

## 9. Physical and chemical properties

Physical state: Solid	Appearance: Finely divided powder
Odor: none	Odor threshold: n/a
pH: n/a	Evaporation rate (nBuAc = 1): None
Melting point: >1500°F(>815°C)	Freezing point: n/a
Boiling point: >3000°F(>1648°C)	Flash point: None
Auto-ignition temperature: n/a	Decomposition temperature: n/a
Flammability (solid, gas): n/a	Lower flammable limit: n/a
Upper flammable limit: n/a	Vapor pressure, mm Hg @ 1810 C: n/a
Relative vapor density at 20°C: n/a	Relative density: n/a
Specific gravity @ 20C (water = 1): 4 g/cm <sup>3</sup>	Solubility in water: Insoluble
Partition coefficient (N-octanol/water): n/a	Viscosity: n/a

## 10. Stability and reactivity

**Chemical Stability:** This material is stable.

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**Conditions to Avoid:** None

**Incompatible Materials:** Strong acids and/or oxidizers.

**Hazardous Decomposition Products:** Intense heat may produce carbon monoxide and/or carbon dioxide and oxidizing conditions may produce oxides of the ingredients shown in Section 3. Oxides of these ingredients may be carcinogenic.

## 11. Toxicological information

**Likely Routes of Exposure:** Skin contact, inhalation of dust.

**Skin Contact:** May cause sensitivity, dermatitis or allergic reaction.

Contact toxicity data not available. GHS Category 1

**Inhalation of Dust:** Prolonged inhalation of dust may cause pulmonary irritation, asthma, coughing, shortness of breath.

**Ingestion of Dust or powder:** Ingestion of dust or powder is an unlikely route of exposure.

### Information on Toxicological Effects - Product

Acute Toxicity: Not classified	LD50 and LC50 Data: Not available
Skin Corrosion/Irritation: Not classified	Serious Eye Damage/Irritation: Not classified
Respiratory or Skin Sensitization: Not classified	Germ Cell Mutagenicity: Not classified
Teratogenicity: Not available	Carcinogenicity: Not classified.
Specific Target Organ Toxicity (Repeated Exposure): Not classified	Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified.	Aspiration Hazard: Not classified

**Irritancy of product:** Dusts or fumes of these products may be irritating to contaminated skin and eyes. Fumes may be irritating to the respiratory system.

**Sensitization to the product:** These products may cause skin or respiratory irritancy.

**Reproductive toxicity information:** Listed below is information concerning the effects of this product and its components on the human reproductive system.

**Mutagenicity:** These components are not reported to produce mutagenic effects in humans. Animal mutation data are available for constituents of some of these products.

**Embryotoxicity:** These products are not reported to produce embryotoxic effects in humans.

**Teratogenicity:** These components are not reported to cause teratogenic effects in humans. Clinical studies on test animals exposed to relatively high doses of certain constituents, including Copper and Nickel components, of some of these products indicate teratogenic effects.

**Reproductive Toxicity:** These components are not reported to cause reproductive effects in humans. Clinical studies on test animals exposed to relatively high doses of certain constituents, including Copper components, of some of these products indicate adverse reproductive effects

**Biological exposure indices:** Fluorides: 2 mg/L (urine, prior to shift), 3 mg/L (urine, end of shift).

### Information on Toxicological Effects - Ingredient(s)

Ingredient	Oral Toxicity (LD50)	Inhalation Toxicity (LC50)
Iron	Oral, rat 30,000 mg/kg	*
Silicon	Oral rat 3,160 mg/kg	*
Nickel	Oral rat > 5000 mg/kg	*
Boron	Oral rat 650 mg/kg	*
Chromium	*	*

\*This product contains a chemical known to the State of California to cause cancer.

**Suspected Cancer Agents:** The components of this product are listed as follow:

Iron (as oxide)	ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen; agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of lack of data), IARC-3 (Unclassifiable as to Carcinogenicity in Humans)
Nickel	IARC-2B (Possibly Carcinogenic to Humans), ACGIH-A5 (Not suspected as a Human Carcinogen), NTP-R (Reasonably Anticipated to be a Human Carcinogen). EPA-A (Human carcinogen)
Silicon (as dioxide)	IARC 1 (Carcinogenic to humans), ACGIH-A2 (Suspected human carcinogen)
Chromium	IARC 3 (Not classifiable as to carcinogenicity to humans), ACGIH-A4 (Not classifiable as a human carcinogen).

Other components of these products that are not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, and CAL/OSHA therefore are not considered to be, nor suspected to be, cancer-causing agents by these agencies.

## 12. Ecological information

**Aquatic Toxicity:** Acute - None, Chronic - GHS Category 4

### 13. Disposal considerations

- Material should be recycled to reclaim scrap metal value.
- If recycling is not possible dispose of in accordance with local, state, and federal regulations for industrial

### 14. Transport information

DOT Classification: Not regulated unless greater than 45.4 kg (100 lbs) per inner container.

UN Identification Number (IMDG/IATA/DOT): Not regulated unless greater than 45.4 kg (100 lbs) per inner container.

Shipping Description: Not applicable unless greater than 45.4 kg (100 lbs) per inner container.

### 15. Regulatory information

**Toxic Substances Control Act (TSCA):** All ingredients are listed on the TSCA inventory of chemical substances.

**Superfund Amendments & Reauthorization Act (SARA):** This product contains Nickel and Chromium.

**This product contains Nickel and Chromium:** This product contains Nickel and Chromium.

**RoHS & REACH:** None.

#### Hazard Codification & Labeling Requirements

H317 – May cause an allergic skin reaction (nickel).

H351 – Suspected of causing cancer (nickel, chromium).

H371 – Target organ (acute), respiratory apparatus, kidney.

H372 – Target organ (chronic), respiratory apparatus.

### 16. Other information including information on preparation and revision of the SDS

NFPA Health Hazard: 2 NFPA Reactivity: 0 NFPA Flammability: 0	WHMIS Category: Class D, Division 2: Nickel and Chromium
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#### Disclaimer

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**Aufhauser Corporation**