

Safety Data Sheet

Section 1: Identification

Product Identifier:

Hi-Alloy Super Hard

Manufacturer:

Inweld Corporation

3962 Portland St, Coplay, PA 18037

UNITED STATES

Emergency Phone Number:

(800) 424-9300 (CHEMTREC)

Information Phone Number:

(800) 346-5368

Recommended Use:

Filler metal for welding and brazing applications

Restrictions on Use:

Use only as recommended. Follow all safety guidelines during welding.

Section 2: Hazard(s) Identification

Classification (GHS):

- Acute Toxicity, Inhalation (Category 4)
- Skin Irritation (Category 2)
- Eye Irritation (Category 2A)
- Respiratory Sensitization (Category 1)
- Carcinogenicity (Category 1B)
- Specific Target Organ Toxicity – Single Exposure (Category 3, Respiratory tract irritation)
- Specific Target Organ Toxicity – Repeated Exposure (Category 2)

Signal Word:

Danger

Hazard Statements:

- Harmful if inhaled.
- Causes skin irritation.
- Causes serious eye irritation.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- May cause cancer.
- May cause respiratory irritation.
- May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements:

- Avoid breathing dust/fume/gas/mist/vapors/spray.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves/protective clothing/eye protection/face protection.
- If inhaled: Remove person to fresh air and keep comfortable for breathing.
- If exposed or concerned: Get medical advice/attention.
- Wash skin thoroughly after handling.
- In case of inadequate ventilation, wear respiratory protection.
- Store locked up.
- Dispose of contents/container in accordance with local regulations.

GHS Hazard Pictograms:

Section 3: Composition/Information on Ingredients

Chemical Name	CAS Number	% by Weight	Classification
Iron	7439-89-6	60-80%	Not classified
Chromium	7440-47-3	10-20%	Carcinogen, Category 1B
Nickel	7440-02-0	5-10%	Carcinogen, Category 1B
Manganese	7439-96-5	1-5%	STOT RE Category 2
Other alloying elements	Proprietary	Balance	Not classified

Section 4: First-Aid Measures

Inhalation:

Remove to fresh air immediately. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Seek medical attention.

Skin Contact:

Wash affected area with soap and water. Remove contaminated clothing. If irritation develops, seek medical attention.

Eye Contact:

Rinse immediately with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion:

Rinse mouth. Do NOT induce vomiting. Seek medical attention immediately.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media:

Dry chemical, CO₂, foam, or water spray.

Specific Hazards:

Product may emit toxic fumes (metal oxides) during welding.

Protective Equipment:

Wear full protective gear and self-contained breathing apparatus (SCBA) during firefighting.

Section 6: Accidental Release Measures

Personal Precautions:

Avoid breathing dust and fumes. Use personal protective equipment as described in Section 8.

Environmental Precautions:

Prevent dust from entering drains, watercourses, or soil.

Methods for Cleanup:

Collect spilled material and place in suitable containers for disposal according to local regulations.

Section 7: Handling and Storage

Handling:

Use in well-ventilated areas. Avoid inhalation of dust/fumes. Avoid skin and eye contact. Wear appropriate PPE.

Storage:

Store in a cool, dry, well-ventilated place. Keep container tightly closed. Keep away from incompatible materials.

Section 8: Exposure Controls/Personal Protection

Exposure Limits:

- Chromium (Cr): OSHA PEL 1 mg/m³ (as Cr VI)
- Nickel (Ni): OSHA PEL 1 mg/m³
- Manganese (Mn): OSHA PEL 5 mg/m³ (respirable fraction)

Engineering Controls:

Local exhaust ventilation to control fumes and dust exposure.

Personal Protective Equipment:

- Respiratory Protection: Use NIOSH-approved respirator when ventilation is inadequate.
- Skin Protection: Chemical-resistant gloves and protective clothing.

- Eye Protection: Safety goggles or face shield.

Section 9: Physical and Chemical Properties

Property	Value
Appearance	Solid wire or rod, metallic gray
Odor	Odorless
Odor Threshold	Not applicable
pH	Not applicable
Melting Point	1450 - 1550 °C (approx.)
Boiling Point	Not applicable
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability	Non-flammable
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Relative Density	7.5 - 8.0 g/cm ³
Solubility	Insoluble in water
Auto-ignition Temp	Not applicable

Section 10: Stability and Reactivity

Reactivity:

Stable under normal conditions.

Chemical Stability:

Stable under recommended storage and handling conditions.

Possibility of Hazardous Reactions:

None known.

Conditions to Avoid:

Avoid excessive heat and incompatible materials.

Incompatible Materials:

Strong acids, strong bases, and oxidizing agents.

Hazardous Decomposition Products:

Metal oxides and fumes during welding or thermal processing.

Section 11: Toxicological Information

Likely Routes of Exposure:

Inhalation, skin contact, eye contact.

Acute Toxicity:

Harmful if inhaled. May cause respiratory irritation.

Skin Corrosion/Irritation:

Causes skin irritation.

Serious Eye Damage/Irritation:

Causes serious eye irritation.

Respiratory or Skin Sensitization:

May cause allergic respiratory reaction.

Carcinogenicity:

Contains chromium and nickel, classified as carcinogens (IARC Group 1).

Specific Target Organ Toxicity:

May cause damage to lungs and respiratory tract through prolonged or repeated exposure.

Section 12: Ecological Information

Ecotoxicity:

May be harmful to aquatic life due to metal content.

Persistence and Degradability:

Not biodegradable.

Bioaccumulative Potential:

Potential to bioaccumulate.

Mobility in Soil:

Low mobility expected.

Section 13: Disposal Considerations

Dispose of in accordance with local, state, and federal regulations. Avoid release to the environment.

Section 14: Transport Information

UN Number: Not regulated for transport as supplied.

Proper Shipping Name: Not applicable.

Hazard Class: Not applicable.

Packing Group: Not applicable.

Section 15: Regulatory Information

TSCA Inventory: Components are listed or exempt.

SARA 313: Contains chromium and nickel which are subject to reporting.

California Proposition 65: Contains chemicals known to the State of California to cause cancer.

Section 16: Other Information

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Disclaimer: The information contained herein is based on the data available at the time of preparation and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy or completeness of the information.

