

Safety Data Sheet

Section 1: Identification

Product Identifier:

Hi-Alloy 129

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:

Filler metal for welding – industrial use only.

Uses advised against: Any use other than the intended.

Manufacturer:

Inweld Corporation

3962 Portland St

Coplay, PA 18037

UNITED STATES

Telephone (General Information): (800) 346-5368

Emergency Telephone Number (24 hr CHEMTREC): (800) 424-9300

Section 2: Hazard(s) Identification

Classification of the Substance or Mixture:

- Carcinogenicity – Category 1A
- Reproductive Toxicity – Category 1B
- Specific Target Organ Toxicity – Repeated Exposure (Respiratory system) – Category 2
- Acute Toxicity – Inhalation – Category 4
- Skin Sensitization – Category 1
- Eye Irritation – Category 2B

Label Elements (GHS):

Signal Word:

DANGER

Hazard Pictograms:



Hazard Statements:

- H332: Harmful if inhaled
- H317: May cause an allergic skin reaction
- H320: Causes eye irritation
- H350: May cause cancer
- H360: May damage fertility or the unborn child
- H373: May cause damage to organs through prolonged or repeated exposure (respiratory)

Precautionary Statements:

- P201: Obtain special instructions before use
- P260: Do not breathe dust/fume/gas/mist/vapors/spray
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P302+P352: IF ON SKIN: Wash with plenty of water
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
- P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing
- P405: Store locked up
- P501: Dispose of contents/container in accordance with local/regional/national/international regulations

Section 3: Composition/Information on Ingredients

Chemical Name CAS Number % by Weight Classification

Iron	7439-89-6	>60%	Not classified
Chromium	7440-47-3	10–30%	Carcinogen Cat 1A
Nickel	7440-02-0	5–20%	Carcinogen Cat 1A, Skin Sensitizer
Molybdenum	7439-98-7	1–5%	Not classified
Manganese	7439-96-5	1–5%	STOT RE 2 (Neurological)

Exact percentages withheld as trade secret.

Section 4: First-Aid Measures

Inhalation:

Move person to fresh air. Get medical attention if symptoms persist.

Skin Contact:

Wash with soap and water. Remove contaminated clothing. Seek medical advice if irritation develops.

Eye Contact:

Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention.

Ingestion:

Unlikely route of exposure. Rinse mouth. Do not induce vomiting. Seek medical advice.

Most Important Symptoms and Effects:

May cause respiratory irritation, allergic skin reactions, and long-term organ damage from repeated exposure. Risk of cancer with prolonged exposure.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media:

Use dry chemical, foam, carbon dioxide, or water spray.

Unsuitable Extinguishing Media:

None known.

Hazards During Firefighting:

Fumes and metal oxides may be released. Avoid inhalation.

Protective Equipment for Firefighters:

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

Section 6: Accidental Release Measures

Personal Precautions:

Avoid contact with skin and eyes. Wear personal protective equipment. Ventilate area.

Environmental Precautions:

Prevent entry into sewers or waterways.

Methods for Cleanup:

Collect spilled material and place in appropriate container. Dispose of in accordance with local regulations.

Section 7: Handling and Storage

Precautions for Safe Handling:

Use with adequate ventilation. Avoid breathing fumes. Avoid skin and eye contact.

Conditions for Safe Storage:

Store in a dry, cool, and well-ventilated place. Keep container tightly closed when not in use.

Section 8: Exposure Controls/Personal Protection

Exposure Limits (OSHA PEL / ACGIH TLV):

Substance	OSHA PEL	ACGIH TLV
Chromium	1 mg/m ³	0.5 mg/m ³
Nickel	1 mg/m ³	1.5 mg/m ³ (inhalable)
Manganese	5 mg/m ³ (Ceiling)	0.1 mg/m ³ (respirable)

Substance	OSHA PEL	ACGIH TLV
Iron oxide fumes	10 mg/m ³	5 mg/m ³ (respirable)

Engineering Controls:

Use local exhaust ventilation or fume extraction during welding.

Personal Protective Equipment (PPE):

- **Eye/Face Protection:** Safety glasses or welding helmet
- **Skin Protection:** Flame-resistant gloves and clothing
- **Respiratory Protection:** If ventilation is inadequate, wear NIOSH-approved respirator

Section 9: Physical and Chemical Properties

Property	Value
Appearance	Metallic rod or wire
Odor	Odorless
Odor Threshold	Not applicable
pH	Not applicable
Melting Point	~1,400–1,500°C
Boiling Point	Not determined
Flash Point	Not applicable
Flammability	Not flammable
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Solubility in Water	Insoluble
Specific Gravity	~7.8

Property	Value
Partition Coefficient	Not applicable
Auto-ignition Temp	Not applicable
Decomposition Temp	Not applicable
Viscosity	Not applicable

Section 10: Stability and Reactivity

Reactivity:

Stable under normal conditions.

Chemical Stability:

Stable.

Conditions to Avoid:

Incompatible with strong acids. Avoid excessive heat.

Incompatible Materials:

Strong acids, oxidizers.

Hazardous Decomposition Products:

Fumes containing metal oxides, including iron, chromium, manganese, and nickel compounds.

Section 11: Toxicological Information

Likely Routes of Exposure:

Inhalation, skin contact, eye contact

Acute Effects:

- Eye/skin irritation
- Respiratory irritation

Chronic Effects:

- Lung damage

- Metal fume fever
- Possible reproductive harm
- Cancer (due to nickel and chromium)

Carcinogenicity:

- Nickel and Chromium compounds: **IARC Group 1** – Carcinogenic to humans

Section 12: Ecological Information

- **Ecotoxicity:** Avoid release to the environment
- **Persistence and Degradability:** Not readily biodegradable
- **Bioaccumulative Potential:** Components may bioaccumulate in aquatic organisms

Section 13: Disposal Considerations

- Dispose in accordance with federal, state, and local environmental control regulations.
- Recycle metal scrap when possible.

Section 14: Transport Information

- **UN Number:** Not regulated
- **DOT Classification:** Not hazardous
- **Packing Group:** Not applicable

Section 15: Regulatory Information

- **TSCA:** All components listed
- **SARA 313:** This product contains Chromium, Nickel, and Manganese
- **California Prop 65:** Contains substances known to the State of California to cause cancer

Section 16: Other Information

Prepared by: Inweld Corporation

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Supersedes: Previous versions

Disclaimer:

The information provided is based on data believed to be accurate. However, no warranty is expressed or implied regarding its accuracy or completeness. It is the user's responsibility to ensure safe conditions and proper use.