Inweld
Welding Alloys and Supplies

Safety Data Sheet

Section 1: Identification

Product Identifier:
Hi-Alloy 400

Recommended Use:
Filler metal for welding applications

Restrictions on Use:
For industrial use only

Manufacturer:
Inweld Corporation
3962 Portland St
Coplay, PA 18037
United States

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

Emergency Phone Number (CHEMTREC):
(800) 424-9300

Section 2: Hazard(s) Identification

Classification of the Substance or Mixture:

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

Signal Word:
Danger

Hazard Statements:

- H350: May cause cancer
- H372: Causes damage to organs through prolonged or repeated exposure (lungs, nervous system)
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H317: May cause an allergic skin reaction
- H319: Causes serious eye irritation
- H332: Harmful if inhaled
- H361: Suspected of damaging fertility or the unborn child

Precautionary Statements:

- P201: Obtain special instructions before use
- P202: Do not handle until all safety precautions have been read and understood
- P260: Do not breathe dust/fume/gas/mist/vapors/spray
- P264: Wash hands thoroughly after handling
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P308 + P313: IF exposed or concerned: Get medical advice/attention
- P405: Store locked up
- P501: Dispose of contents/container in accordance with local/regional/national/international regulations

GHS Pictograms:

Section 3: Composition/Information on Ingredients

Chemical Name	CAS Number	% by Weight
Nickel	7440-02-0	60–70%
Copper	7440-50-8	25–35%
Iron	7439-89-6	1–5%
Manganese	7439-96-5	<2%
Cobalt (trace)	7440-48-4	<0.1%

Note: Exact composition is withheld as a trade secret.

Section 4: First-Aid Measures

Inhalation:
Move to fresh air. If symptoms persist or breathing difficulty occurs, get medical attention.

Skin Contact:
Wash thoroughly with soap and water. Seek medical advice if irritation or rash occurs.

Eye Contact:
Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If irritation persists, seek medical attention.

Ingestion:
Not a typical route of exposure. Seek medical attention if swallowed.

Most Important Symptoms/Effects:
May cause respiratory irritation, allergic skin reaction, and potential long-term effects including organ damage and cancer.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media:
Use dry chemical, foam, carbon dioxide, or water spray for surrounding fire.

Specific Hazards Arising from the Product:
Welding fumes may contain toxic or irritating metal oxides and gases.

Protective Equipment for Firefighters:
Wear self-contained breathing apparatus and full protective gear.

Section 6: Accidental Release Measures

Personal Precautions:
Use personal protective equipment. Avoid dust or fume inhalation.

Methods for Clean-up:
Use appropriate tools to collect material and place in suitable containers for disposal.

Environmental Precautions:
Prevent further leakage or spillage if safe to do so.

Section 7: Handling and Storage

Precautions for Safe Handling:
Handle in a well-ventilated area. Avoid breathing fumes or dust. Wear proper PPE.

Conditions for Safe Storage:
Store in a cool, dry, and well-ventilated location away from incompatible materials. Keep container tightly closed when not in use.

Section 8: Exposure Controls/Personal Protection

Substance	OSHA PEL	ACGIH TLV
Nickel	1 mg/m^3	1.5 mg/m^3
Copper	1 mg/m^3 (dust)	0.2 mg/m^3 (fume)
Manganese	5 mg/m^3 (ceiling)	0.02 mg/m^3 (respirable)

Engineering Controls:
Use local exhaust ventilation to control fumes.

Personal Protective Equipment (PPE):

- Eye/Face Protection: Safety glasses or welding helmet
- Skin Protection: Protective gloves and clothing

- Respiratory Protection: Use NIOSH-approved respirator if exposure limits are exceeded
- General Hygiene: Wash hands after handling and before eating or drinking

Section 9: Physical and Chemical Properties

- **Appearance:** Solid rod or wire
- **Color:** Metallic gray
- **Odor:** Odorless
- **Melting Point:** ~1300–1400 °C
- **Boiling Point:** Not applicable
- **Solubility:** Insoluble in water
- **Flash Point:** Not applicable
- **Flammability:** Not flammable

Section 10: Stability and Reactivity

Reactivity:
Non-reactive under normal conditions

Chemical Stability:
Stable under normal use

Incompatible Materials:
Strong acids, strong oxidizers

Hazardous Decomposition Products:
Metal oxides, ozone, and nitrogen oxides during welding

Section 11: Toxicological Information

Routes of Exposure:
Inhalation, skin contact, eye contact

Acute Effects:
Irritation of eyes and respiratory tract

Chronic Effects:
Lung damage, sensitization, potential carcinogenicity (Nickel, Cobalt)

Carcinogenicity:
Nickel compounds – IARC Group 1 (Carcinogenic to humans)

Section 12: Ecological Information

Ecotoxicity:
Toxic to aquatic life in large amounts

Persistence and Degradability:
Not biodegradable

Bioaccumulative Potential:
Potential for bioaccumulation in aquatic organisms

Section 13: Disposal Considerations

Dispose of product and container in accordance with local, regional, national, and international regulations. Do not release into sewers or waterways.

Section 14: Transport Information

UN Number: Not regulated
Proper Shipping Name: Not classified as hazardous for transportation
Hazard Class: Not applicable
Packing Group: Not applicable

Section 15: Regulatory Information

OSHA HCS (29 CFR 1910.1200):
Hazardous

SARA 313 Components:
Nickel, Copper, Manganese – Listed

California Proposition 65:

WARNING: This product can expose you to chemicals including Nickel, which is known to the State of California to cause cancer.

Section 16: Other Information

Prepared By: Inweld Corporation

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Disclaimer:

This SDS is provided in good faith and is believed to be accurate as of the date of issue. However, no warranty is expressed or implied.