

Safety Data Sheet

Section 1: Identification

- **Product Name:** Stainless Steel Filler Metals
(*Grades: 308, 308H, 308L, 308LSi, 309, 309L, 309LMo, 309LSi, 310, 312, 316, 316L, 316H, 316LSi, 317, 317L, 320, 320CB, 320LR, 330, 347, 347LSi, 348, 385, 409CB, 410, 410NiMo, 430, 430LCb, 420, 630, 2209*)
- **Manufacturer:** Inweld Corporation
- **Address:** 3962 Portland St, Coplay, PA 18037, UNITED STATES
- **Phone:** (800) 346-5368
- **Emergency Phone (CHEMTREC):** (800) 424-9300
- **Recommended Use:** Welding electrode and rod for stainless steel
- **Restrictions on Use:** For industrial use only

Section 2: Hazard(s) Identification

- **Classification:**
 - Carcinogenicity – *Category 1A*
 - Specific target organ toxicity – repeated exposure – *Category 1*
 - Acute toxicity – inhalation – *Category 4*
 - Skin irritation – *Category 2*
 - Eye irritation – *Category 2B*
- **Signal Word:** DANGER
- **Hazard Statements:**
 - May cause cancer.
 - Causes damage to organs through prolonged or repeated exposure (lungs, kidneys).

- Harmful if inhaled.
- Causes skin and eye irritation.
- Fumes and gases from welding can be hazardous to your health.
- **Precautionary Statements:**
 - Do not breathe dust/fume/gas/mist/vapors/spray.
 - Wear protective gloves/protective clothing/eye protection/face protection.
 - Use only outdoors or in a well-ventilated area.
 - Obtain special instructions before use.
 - If exposed or concerned: Get medical advice/attention.

Pictograms:



Section 3: Composition/Information on Ingredients

Ingredient	CAS Number	% Weight
Iron (Fe)	7439-89-6	Balance
Chromium (Cr)	7440-47-3	10–30%
Nickel (Ni)	7440-02-0	5–25%
Manganese (Mn)	7439-96-5	1–10%
Molybdenum (Mo)	7439-98-7	0–5%
Silicon (Si)	7440-21-3	0.3–2.5%
Carbon (C)	7440-44-0	<1%
Phosphorus (P)	7723-14-0	<0.03%
Sulfur (S)	7704-34-9	<0.03%

Exact concentrations are trade secrets and may vary by alloy.

Section 4: First-Aid Measures

- **Inhalation:** Move to fresh air. If breathing difficulty persists, seek medical attention.
- **Skin Contact:** Wash with soap and water. Get medical advice if irritation develops.
- **Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses if present. Get medical attention if irritation persists.
- **Ingestion:** Not a typical route of exposure. Seek medical attention if symptoms develop.

Section 5: Fire-Fighting Measures

- **Suitable Extinguishing Media:** Use extinguishing agents suitable for surrounding fire (e.g., dry chemical, CO₂, water spray).
- **Hazards from Combustion:** Welding fumes may contain oxides of metal and toxic gases including ozone, carbon monoxide, chromium (VI), and nickel compounds.
- **Protective Equipment:** Firefighters should wear full protective gear and self-contained breathing apparatus (SCBA).

Section 6: Accidental Release Measures

- **Personal Precautions:** Avoid breathing dust/fumes. Use proper ventilation and PPE.
- **Environmental Precautions:** Prevent runoff into waterways.
- **Methods for Cleanup:** Sweep or vacuum up material and place in a suitable container. Avoid generating dust.

Section 7: Handling and Storage

- **Handling:** Use in well-ventilated areas. Avoid breathing fumes or dust. Use appropriate PPE.
- **Storage:** Store in dry, cool, well-ventilated area away from incompatible materials.

Section 8: Exposure Controls/Personal Protection

Component	OSHA PEL	ACGIH TLV
Iron Oxide	10 mg/m ³	5 mg/m ³ (as fume)
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)	0.02 mg/m ³ (resp.)

- **Engineering Controls:** Use adequate ventilation, local exhaust, or fume extraction.
- **Respiratory Protection:** Use NIOSH-approved respirators during welding if exposure limits are exceeded.
- **Eye Protection:** Use safety goggles or welding helmet.
- **Skin Protection:** Wear flame-resistant gloves and clothing.

Section 9: Physical and Chemical Properties

- **Appearance:** Solid wire or rod, metallic gray
- **Odor:** None
- **Melting Point:** ~1400–1500°C
- **Solubility:** Insoluble in water
- **Flash Point:** Not applicable
- **Flammability:** Non-flammable

Section 10: Stability and Reactivity

- **Reactivity:** Stable under normal conditions.
- **Incompatible Materials:** Strong acids, oxidizers.
- **Hazardous Decomposition Products:** Metal oxides, ozone, carbon monoxide, chromium (VI), and nickel compounds.

Section 11: Toxicological Information

- **Acute Effects:** May cause respiratory irritation, skin and eye irritation.
- **Chronic Effects:** Prolonged exposure to welding fumes can cause lung damage and may lead to cancer (especially from Cr(VI) and Ni).
- **Carcinogenicity:**
 - Nickel – IARC Group 1 (Carcinogenic)
 - Chromium (VI) – IARC Group 1 (Carcinogenic)

Section 12: Ecological Information

- **Environmental Impact:** Welding byproducts may be harmful to aquatic life.
- **Persistence & Degradability:** Metals are not biodegradable.

Section 13: Disposal Considerations

- **Disposal Method:** Dispose of in accordance with federal, state, and local environmental regulations. Metal scrap may be recyclable.

Section 14: Transport Information

- **UN Number:** Not regulated
- **Hazard Class:** Not classified as dangerous for transport
- **Proper Shipping Name:** Not applicable

Section 15: Regulatory Information

- **OSHA:** Hazardous
- **SARA 313:** Chromium, Nickel, Manganese – subject to reporting
- **California Proposition 65:** This product contains chemicals known to the State of California to cause cancer and reproductive harm (Nickel, Chromium).

Section 16: Other Information

- **Prepared By:** Inweld Corporation
- **Issue Date:** July 1, 2025
- **Revision:** 1.0
- **Disclaimer:** This SDS is based on information available at the time and is believed to be accurate. It is intended for guidance only and not to be considered a warranty or guarantee.