

Safety Data Sheet

Section 1: Identification

Product Identifier: SX947

Recommended Use: Welding electrode/filler metal

Restrictions on Use: For industrial use only

Manufacturer:

Inweld Corporation

3962 Portland St

Coplay, PA 18037

UNITED STATES

Phone Number: (800) 346-5368

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

SDS Date of Preparation: July 1, 2025

Section 2: Hazard(s) Identification

Classification of the Substance or Mixture (GHS):

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

Label Elements

Signal Word: DANGER

Hazard Pictograms:



Hazard Statements:

- H350: May cause cancer
- H361: Suspected of damaging fertility or the unborn child
- H372: Causes damage to organs through prolonged or repeated exposure
- H332: Harmful if inhaled
- H315: Causes skin irritation
- H319: Causes serious eye irritation

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 skin thoroughly after handling
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing
- P308+P313: If exposed or concerned: Get medical advice/attention
- P501: Dispose of contents/container in accordance with local/regional/national regulations

Section 3: Composition/Information on Ingredients

Component	CAS Number	% by Weight	Classification (GHS)
Iron (Fe)	7439-89-6	60–90%	Not classified

Component	CAS Number	% by Weight	Classification (GHS)
Manganese (Mn)	7439-96-5	1–10%	STOT RE 2 (H373)
Chromium (Cr)	7440-47-3	1–5%	Carc. 2 (H351)
Nickel (Ni)	7440-02-0	1–5%	Carc. 1A (H350); STOT RE 1 (H372)
Silicon (Si)	7440-21-3	0.5–3%	Not classified
Other proprietary alloying agents	Proprietary	<2%	May include hazardous elements

Exact percentages and additional proprietary ingredients withheld as trade secrets in accordance with 29 CFR 1910.1200(i)

Section 4: First-Aid Measures

Inhalation:

Remove person to fresh air. Keep at rest in a position comfortable for breathing. Seek medical attention if symptoms persist or develop.

Skin Contact:

Wash with soap and water. Remove contaminated clothing and wash before reuse. Seek medical attention if irritation persists.

Eye Contact:

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

Ingestion:

Rinse mouth. Do NOT induce vomiting. Seek medical attention if you feel unwell.

Most Important Symptoms/Effects (Acute and Delayed):

- Irritation to skin, eyes, and respiratory system
- Symptoms of overexposure include coughing, shortness of breath, headache, dizziness

- Chronic exposure may lead to respiratory issues, cancer (due to nickel and chromium), and reproductive effects

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media:

Use extinguishing media appropriate for surrounding fire (dry chemical, CO₂, foam, or water spray).

Unsuitable Extinguishing Media:

None known.

Specific Hazards Arising from the Product:

Fumes generated during welding may be hazardous. Metal oxide fumes may be released.

Protective Equipment and Precautions for Firefighters:

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

Section 6: Accidental Release Measures

Personal Precautions:

Avoid breathing dust or fume. Ensure adequate ventilation. Wear appropriate protective equipment.

Environmental Precautions:

Prevent entry into sewers, water systems, or soil.

Methods for Containment and Cleanup:

Sweep or vacuum spilled material to avoid dust generation. Collect in appropriate container for disposal.

Section 7: Handling and Storage

Precautions for Safe Handling:

- Use adequate ventilation
- Avoid breathing dust/fumes
- Wear protective gloves and eye/face protection

- Do not eat, drink, or smoke when using this product

Conditions for Safe Storage:

- Store in a dry, well-ventilated area
- Keep container tightly closed
- Keep away from incompatible materials such as strong acids

Section 8: Exposure Controls/Personal Protection

Exposure Limits:

Substance	OSHA PEL (mg/m ³)	ACGIH TLV (mg/m ³)
Iron oxide fume 10 (as Fe)		5 (respirable)
Manganese	5 (ceiling)	0.02 (respirable)
Chromium	1	0.5
Nickel	1	1
Silicon	15 (total dust)	10 (inhalable)

Engineering Controls:

Use local exhaust or general ventilation to keep exposure levels below permissible limits.

Personal Protective Equipment (PPE):

- **Eye/Face Protection:** Safety goggles or face shield
- **Skin Protection:** Protective gloves and clothing
- **Respiratory Protection:** Use NIOSH-approved respirators when exposure limits may be exceeded
- **Hygiene Measures:** Wash hands before eating, smoking, or using the restroom

Section 9: Physical and Chemical Properties

Property	Value
Appearance	Solid wire/rod, metallic gray
Odor	Odorless
Odor Threshold	Not applicable
pH	Not applicable
Melting Point	>1000 °C (varies by alloy)
Boiling Point	Not applicable
Flash Point	Not applicable
Flammability	Not flammable
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Relative Density	~7.8 (varies)
Solubility	Insoluble in water
Partition Coefficient	Not applicable
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not determined
Viscosity	Not applicable

Section 10: Stability and Reactivity

Reactivity: Not reactive under normal conditions

Chemical Stability: Stable under normal temperatures and pressures

Possibility of Hazardous Reactions: None under normal conditions

Conditions to Avoid: Excessive heat, incompatible materials

Incompatible Materials: Strong acids, oxidizers

Hazardous Decomposition Products: Metal oxide fumes including iron, manganese, chromium, and nickel oxides

Section 11: Toxicological Information

Likely Routes of Exposure: Inhalation, eye contact, skin contact

Symptoms:

- Irritation of eyes, skin, and respiratory tract
- Dizziness, headaches
- Chronic exposure may lead to lung damage, cancer, or reproductive harm

Acute Toxicity:

- Inhalation of fumes may cause metal fume fever

Carcinogenicity:

- **Nickel (IARC Group 1)** – Known human carcinogen
- **Chromium (IARC Group 2B)** – Possibly carcinogenic
- **NTP:** Nickel listed as a known carcinogen

Other Effects:

- Prolonged exposure to manganese may cause neurological effects ("manganism")
- Reproductive toxicity possible due to chromium and nickel compounds

Section 12: Ecological Information

Ecotoxicity:

No available data for product as a whole. Individual components may be toxic to aquatic life.

Persistence and Degradability:

Not biodegradable

Bioaccumulative Potential:

Nickel and chromium may bioaccumulate

Mobility in Soil:

Insoluble in water; likely to settle in sediment

Section 13: Disposal Considerations

Dispose of in accordance with local, state, and federal regulations.

Do not release into the environment.

Recycle if possible; otherwise dispose of through licensed waste disposal contractor.

Section 14: Transport Information

UN Number: Not regulated

UN Proper Shipping Name: Not regulated

Transport Hazard Class(es): Not applicable

Packing Group: Not applicable

Environmental Hazards: Not classified as a marine pollutant

Special Precautions: Avoid creating dust/fumes during transport

Section 15: Regulatory Information

U.S. Federal Regulations:

- **OSHA HCS (29 CFR 1910.1200):** Hazardous
- **CERCLA (Superfund):**
 - Nickel: RQ = 100 lbs
 - Chromium: RQ = 5000 lbs
- **SARA 313:** This product contains manganese, chromium, and nickel — listed as reportable
- **TSCA:** All components listed

California Prop 65:

WARNING: This product contains chemicals (Nickel, Chromium) known to the State of California to cause cancer and reproductive harm.

Section 16: Other Information

SDS Revision Date: July 1, 2025

Prepared By: Inweld Corporation – Regulatory Compliance Department

Disclaimer:

The information provided in this SDS is believed to be accurate and reliable as of the date of issue. However, it is the user's responsibility to ensure suitability for their intended use. Inweld Corporation shall not be held liable for any damage resulting from handling or contact with the above product.