

Safety Data Sheet

Section 1: Identification

- **Product Identifier:** Hardface 50, Hardface 60
- **Other Means of Identification:** Hardfacing welding wire/electrode
- **Recommended Use:** Welding filler metal for wear-resistant hardfacing applications
- **Restrictions on Use:** Use only as directed. 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

Section 2: Hazard(s) Identification

Classification

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

Signal Word: Danger

Hazard Statements:

- H302: Harmful if swallowed
- H317: May cause an allergic skin reaction

- H319: Causes serious eye irritation
- H332: Harmful if inhaled
- H350: May cause cancer (inhalation)
- H372: Causes damage to organs through prolonged or repeated exposure (lungs)

Precautionary Statements:

- P201: Obtain special instructions before use
- P202: Do not handle until all safety precautions have been read and understood
- P261: Avoid breathing dust/fume/gas/mist/vapors/spray
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
- P333+P313: If skin irritation or rash occurs: 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

Iron (Fe)	7439-89-6	Balance
Chromium (Cr)	7440-47-3	5–20%
Manganese (Mn)	7439-96-5	1–5%
Nickel (Ni)	7440-02-0	<1%

Chemical Name CAS Number % by Weight

Silicon (Si) 7440-21-3 0.5–2%

Carbon (C) 7440-44-0 <1%

Note: Composition varies slightly between Hardface 50 and Hardface 60.

Section 4: First-Aid Measures

Inhalation: Remove person to fresh air. Seek medical attention if symptoms persist.

Skin Contact: Wash with plenty of soap and water. Seek medical advice for persistent irritation.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses if present. Continue rinsing. Seek medical attention.

Ingestion: Rinse mouth. Do not induce vomiting. Seek immediate medical attention.

Section 5: Fire-Fighting Measures

- **Suitable Extinguishing Media:** Use water spray, dry chemical, CO₂, or foam.
- **Hazards:** Fumes may contain toxic or irritating metal oxides.
- **Protective Equipment:** Wear self-contained breathing apparatus and full protective gear.

Section 6: Accidental Release Measures

- **Personal Precautions:** Wear appropriate PPE. Avoid inhalation of dust/fumes.
- **Environmental Precautions:** Prevent further leakage or spillage. Avoid discharge to waterways.
- **Methods for Clean-up:** Vacuum or sweep up material and place in a suitable container for disposal.

Section 7: Handling and Storage

- Handle in well-ventilated area. Avoid breathing fumes.

- Store in a cool, dry location. Keep container tightly closed.
- Keep away from incompatible materials (acids, oxidizers).

Section 8: Exposure Controls/Personal Protection

Substance	OSHA PEL (mg/m ³)	ACGIH TLV (mg/m ³)
Chromium	1.0	0.5
Manganese	5.0 (ceiling)	0.02 (respirable)
Nickel	1.0	1.5 (inhalable)
Welding Fumes	N/A	5.0 (inhalable)

Engineering Controls

Use local exhaust ventilation. Provide adequate general ventilation.

Personal Protective Equipment (PPE)

- **Eye/Face:** Safety goggles or face shield
- **Skin:** Protective gloves, flame-resistant clothing
- **Respiratory:** Use NIOSH-approved respirator if exposure limits are exceeded

Section 9: Physical and Chemical Properties

- **Appearance:** Metallic wire/rod
- **Odor:** Odorless
- **Melting Point:** >1300 °C
- **Solubility in Water:** Insoluble
- **Flash Point:** Not applicable
- **Flammability:** Not flammable as supplied

Section 10: Stability and Reactivity

- **Reactivity:** Not reactive under normal conditions
- **Chemical Stability:** Stable under recommended conditions
- **Incompatible Materials:** Acids, oxidizers
- **Hazardous Decomposition:** Welding fumes may contain oxides of iron, chromium, manganese, and nickel

Section 11: Toxicological Information

- **Routes of Exposure:** Inhalation, skin and eye contact
- **Symptoms:** Coughing, shortness of breath, metal fume fever
- **Chronic Effects:** Prolonged exposure to welding fumes may cause lung damage and cancer
- **Carcinogenicity:**
 - **Nickel:** IARC Group 1 (Carcinogenic to humans)
 - **Chromium VI compounds:** Group 1 (not in product, but chromium compounds may form during welding)

Section 12: Ecological Information

- **Persistence and Degradability:** Metals are not biodegradable
- **Bioaccumulative Potential:** Potential for accumulation in aquatic organisms
- **Mobility in Soil:** Low mobility

Section 13: Disposal Considerations

- Dispose of in accordance with local, state, and federal regulations.
- Do not dispose of into environment or waterways.

Section 14: Transport Information

- **UN Number:** Not regulated

- **UN Proper Shipping Name:** Not applicable
- **Transport Hazard Class:** Not applicable
- **Packing Group:** Not applicable

Section 15: Regulatory Information

- **OSHA:** This material is hazardous as defined in 29 CFR 1910.1200
- **SARA 313:** This product contains Chromium, Manganese, and Nickel, which are subject to reporting
- **TSCA:** All ingredients are listed on the TSCA inventory

Section 16: Other Information

- **SDS Revision Date:** July 1, 2025
- **Prepared By:** Inweld Corporation
- **Disclaimer:** The information provided is believed to be accurate and represents the best data available at the time of preparation. No warranty is expressed or implied.