

Safety Data Sheet

Section 1: Identification

Product Name:

Filler Metals: 70S-A1, 80SNi-1, 80SNi-2, 90S-D2

Recommended Use:

Gas metal arc welding (GMAW/MIG) and related welding processes

Restrictions on Use:

Industrial use only. Not for consumer use.

Manufacturer:

Inweld Corporation
3962 Portland St
Coplay, PA 18037
UNITED STATES

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

Manufacturer Phone Number: (800) 346-5368

Section 2 : Hazard(s) Identification

GHS Classification (Fumes generated during welding)

- Carcinogenicity: Category 1A (Nickel compounds, hexavalent chromium in fumes if present)
- Specific Target Organ Toxicity (Repeated Exposure): Category 1
- Skin Irritation: Category 2
- Eye Irritation: Category 2A

Signal Word:

DANGER

Hazard Statements:

- May cause cancer by inhalation of welding fumes

- Causes damage to lungs and respiratory system through prolonged or repeated exposure
- Causes skin and eye irritation
- Welding fumes may contain hazardous metal oxides

GHS Pictograms:



Precautionary Statements:

- Avoid breathing welding fumes
- Use only with adequate ventilation or respiratory protection
- Wear protective gloves, clothing, and eye/face protection
- Wash thoroughly after handling
- Do not eat, drink, or smoke during use

Section 3: Composition/Information on Ingredients

70S-A1 (Mild Steel Filler Wire)

- Iron (Fe): 97–99%
- Manganese (Mn): 0.3–0.6%
- Silicon (Si): 0.3–0.6%
- Carbon (C): $\leq 0.15\%$
- Copper (Cu): $\leq 0.5\%$

80SNi-1 (Nickel Alloy Steel Filler Wire)

- Iron (Fe): Balance
- Nickel (Ni): 0.8–1.2%
- Manganese (Mn): 0.5–1.2%

- Silicon (Si): 0.2–0.6%
- Carbon (C): ≤0.12%
- Copper (Cu): ≤0.3%

80SNi-2 (Nickel Alloy Steel Filler Wire – Higher Nickel Content)

- Iron (Fe): Balance
- Nickel (Ni): 1.8–2.5%
- Manganese (Mn): 0.5–1.2%
- Silicon (Si): 0.2–0.6%
- Carbon (C): ≤0.12%
- Copper (Cu): ≤0.3%

90S-D2 (Low Alloy Steel Filler Wire – High Strength)

- Iron (Fe): Balance
- Manganese (Mn): 1.2–1.8%
- Silicon (Si): 0.4–0.8%
- Carbon (C): 0.08–0.18%
- Molybdenum (Mo): 0.2–0.5%
- Chromium (Cr): ≤0.3%

Section 4: First-Aid Measures

Inhalation (welding fumes):

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

Eye contact:

Rinse with water for at least 15 minutes. Seek medical attention if irritation continues.

Skin contact:

Wash with soap and water. Remove contaminated clothing.

Ingestion:

Not a likely route of exposure. Seek medical attention if ingestion occurs.

Section 5: Fire-Fighting Measures

Suitable extinguishing media:

Use dry chemical, foam, or CO₂ for surrounding fire.

Specific hazards:

Welding consumables are non-flammable but may produce hazardous fumes in fire.

Protective equipment:

Wear self-contained breathing apparatus (SCBA) in fire conditions.

Section 6: Accidental Release Measures

- Collect solid wire for reuse or disposal
- Avoid generating dust or fumes
- Use gloves when handling scrap material

Section 7: Handling and Storage

Handling:

- Use proper welding ventilation
- Avoid inhalation of fumes

Storage:

- Store in dry location
- Keep away from moisture and corrosive environments

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

- Local exhaust ventilation recommended
- Use welding fume extraction systems

Personal Protective Equipment (PPE):

- Respiratory protection (NIOSH-approved respirator if ventilation is inadequate)
- Welding helmet with proper filter shade
- Heat-resistant gloves
- Protective clothing

Section 9: Physical and Chemical Properties

- Appearance: Solid wire
- Odor: None
- Melting Point: >1300°C (varies by alloy)
- Solubility: Insoluble
- Flammability: Non-flammable solid

Section 10: Stability and Reactivity

- Reactivity: None under normal conditions
- Chemical stability: Stable
- Hazardous decomposition: Metal oxides produced during welding
- Conditions to avoid: Moisture, corrosive environments

Section 11: Toxicological Information

Exposure to welding fumes may cause:

- Metal fume fever
- Respiratory irritation
- Long-term lung damage

- Possible carcinogenic effects (nickel compounds)

Section 12: Ecological Information

- Welding consumables in solid form are not hazardous to the environment
- Welding fumes may contain metals harmful to aquatic life

Section 13: Disposal Considerations

- Recycle scrap metal where possible
- Dispose in accordance with federal, state, and local regulations

Section 14: Transport Information

- Not regulated as dangerous goods (DOT/IMDG/IATA)
- Solid metal product

Section 15: Regulatory Information

- OSHA Hazard Communication Standard: Compliant
- SARA Title III: Contains reportable metal components in fume form
- California Proposition 65: May contain chemicals known to cause cancer when welded

Section 16: Other Information

Prepared by: Inweld Corporation

Revision Date: 05/07/2026