

## Safety Data Sheet

### SECTION 1: Identification

**Product Name(s):**

6010, 6010 Plus, 6011, 6012, 6013, 6022, 7010, 7014, 7016, 7018, 7018 H4R, 7018-1, 7018-AC, 7024

**Recommended Use:**

Shielded Metal Arc Welding (SMAW)

**Manufacturer:**

Inweld Corporation  
3962 Portland St  
Coplay, PA 18037  
United States

**Phone Number:** (800) 346-5368

**Emergency Phone Number:**

CHEMTREC (24 Hours): (800) 424-9300

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### SECTION 2: Hazard(s) Identification

**OSHA Hazard Classification (GHS):**

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

**Signal Word:** DANGER

**GHS Hazard Pictograms:**



**Hazard Statements:**

- May cause cancer by inhalation.

- Causes damage to lungs, nervous system, and kidneys through prolonged or repeated exposure.
- Harmful if inhaled.
- Causes eye irritation.

**Precautionary Statements:**

- Do not breathe fumes, gases, or dust.
- Use only with adequate ventilation or respiratory protection.
- Wear protective gloves, clothing, eye, and face protection.
- Obtain special instructions before use.

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**SECTION 3: Composition / Information on Ingredients**

Solid steel electrode with flux coating. Hazardous exposure occurs from welding fumes, not the solid product.

**Typical Weld Metal / Fume Composition by Classification (wt. %):****E6010 / E6010 Plus**

- Iron (Fe): 92–96%
- Manganese (Mn): 0.5–1.5%
- Silicon (Si): 0.1–0.6%
- Carbon (C): ≤0.12%
- Sodium compounds (flux): <2%

**E6011**

- Iron (Fe): 92–96%
- Manganese (Mn): 0.5–1.6%
- Silicon (Si): 0.2–0.7%
- Potassium compounds (flux): <2%

**E6012 / E6013**

- Iron (Fe): 90–95%
- Manganese (Mn): 0.4–1.4%
- Silicon (Si): 0.3–0.9%
- Titanium dioxide (TiO<sub>2</sub>): 3–8%

**E6022**

- Iron (Fe): 90–95%
- Manganese (Mn): 0.4–1.5%
- Silicon (Si): 0.2–0.8%
- Cellulosic compounds: <5%

**E7010**

- Iron (Fe): 93–97%
- Manganese (Mn): 0.8–1.8%
- Silicon (Si): 0.2–0.7%

**E7014**

- Iron (Fe): 88–94%
- Manganese (Mn): 0.6–1.6%
- Silicon (Si): 0.3–0.8%
- Iron powder: 5–10%

**E7016 / E7018 / E7018-1 / E7018-AC / E7018 H4R**

- Iron (Fe): 88–94%
- Manganese (Mn): 1.0–2.0%
- Silicon (Si): 0.3–0.9%
- Calcium carbonate / fluoride (flux): 5–10%
- Iron powder (some variants): 3–8%

**E7024**

- Iron (Fe): 85–92%

- Manganese (Mn): 0.8–1.8%
- Silicon (Si): 0.3–0.9%
- Iron powder: 10–20%

**Trace Fume Constituents (<0.1%):**

Chromium, Nickel, Copper, Fluorides (depending on base metal and welding conditions)

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**SECTION 4: First-Aid Measures****Inhalation:**

Move person to fresh air. If symptoms persist, seek medical attention.

**Eye Contact:**

Flush with water for at least 15 minutes. Remove contact lenses if present.

**Skin Contact:**

Wash with soap and water. Seek medical attention if irritation develops.

**Ingestion:**

Not a normal route of exposure. Seek medical attention if ingested.

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**SECTION 5: Fire-Fighting Measures****Suitable Extinguishing Media:**

Dry chemical, CO<sub>2</sub>, foam, or water spray.

**Specific Hazards:**

Welding fumes may contain toxic metal oxides.

**Protective Equipment:**

Self-contained breathing apparatus (SCBA).

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**SECTION 6: Accidental Release Measures**

Solid product—no special cleanup required. Avoid dust generation from broken coatings.

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**SECTION 7: Handling and Storage**

- Store in dry conditions.
  - Avoid moisture absorption.
  - Use adequate ventilation during welding.
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## **SECTION 8: Exposure Controls / Personal Protection**

### **OSHA PEL / ACGIH TLV (selected):**

- Iron Oxide: 10 mg/m<sup>3</sup> (OSHA)
- Manganese: 5 mg/m<sup>3</sup> (OSHA), 0.1 mg/m<sup>3</sup> (ACGIH)

### **Personal Protective Equipment:**

- Welding helmet with proper shade
  - Respirator when ventilation is inadequate
  - Welding gloves and protective clothing
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## **SECTION 9: Physical and Chemical Properties**

- Appearance: Solid metal electrode with flux coating
  - Odor: None
  - Melting Point: ~2500°F (1370°C)
  - Solubility: Insoluble in water
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## **SECTION 10: Stability and Reactivity**

- Stable under normal conditions
  - Avoid moisture and incompatible metals
  - Hazardous decomposition: Metal oxide fumes
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## **SECTION 11: Toxicological Information**

- Primary route: Inhalation of welding fumes
  - Chronic exposure may cause lung, neurological, or kidney damage
  - Contains substances classified as carcinogenic by IARC
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## **SECTION 12: Ecological Information**

Not expected to be environmentally hazardous in solid form.

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## **SECTION 13: Disposal Considerations**

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

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## **SECTION 14: Transport Information**

Not regulated as hazardous for transport.

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## **SECTION 15: Regulatory Information**

- OSHA HCS 29 CFR 1910.1200
  - California Proposition 65: WARNING – Cancer risk (welding fumes)
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## **SECTION 16: Other Information**

**Preparation Date:** January 2026

**Prepared For:** Inweld Corporation