Inweld
Welding Alloys & Supplies

Safety Data Sheet

Section 1: Identification

Product Identifier:
A3 Aluminum, 1100, 4043, 4047, 5183, 5356, 5554, 5556

Product Use:
Welding and brazing filler metals

Manufacturer:
Inweld Corporation
3962 Portland St
Coplay, PA 18037
United States

Manufacturer Phone: (800) 346-5368

Emergency Phone (24 hours):
CHEMTREC: (800) 424-9300

Section 2: Hazard(s) Identification

Classification in accordance with OSHA HCS (29 CFR 1910.1200):

- Carcinogenicity – Category 2 (welding fumes)
- Specific Target Organ Toxicity (Repeated Exposure) – Category 1
- Acute Toxicity (Inhalation – fumes) – Category 4

Signal Word:
DANGER

Hazard Statements

- May cause cancer by inhalation of welding fumes.
- Causes damage to the respiratory system through prolonged or repeated exposure.
- Harmful if inhaled as fumes, vapors, or dust generated during welding, cutting, or grinding.

Precautionary Statements

- Do not breathe fumes, vapors, gases, or dust.
- Use only outdoors or in a well-ventilated area.
- Wear respiratory protection, eye protection, and protective gloves.
- Wash hands thoroughly after handling.

GHS Hazard Pictograms

Section 3: Composition / Information on Ingredients

Substance: Aluminum alloy filler metals

Product	Typical Composition*
A3 Aluminum / 1100	Aluminum ≥ 99.0%
4043	Aluminum, Silicon (4.5–6.0%)
4047	Aluminum, Silicon (11.0–13.0%)
5183	Aluminum, Magnesium (4.3–5.2%), Manganese
5356	Aluminum, Magnesium (4.5–5.6%), Chromium
5554	Aluminum, Magnesium (2.7–3.6%)
5556	Aluminum, Magnesium (4.7–5.5%), Manganese

*Trace elements may include iron, copper, zinc, manganese, or chromium.

Section 4: First-Aid Measures

Inhalation:
Move exposed person to fresh air. Seek medical attention if symptoms such as coughing, wheezing, or shortness of breath persist.

Skin Contact:
Wash with soap and water. Molten metal contact requires immediate medical attention.

Eye Contact:
Flush eyes with water for at least 15 minutes. Seek medical attention.

Ingestion:
Ingestion is unlikely. Seek medical attention if swallowed.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media:
Dry sand, Class D fire extinguishing agents

Unsuitable Extinguishing Media:
Water, foam, CO_2 on molten metal

Special Hazards:
Molten aluminum may react violently with water and release hydrogen gas.

Protective Equipment:
Self-contained breathing apparatus and full protective gear.

Section 6: Accidental Release Measures

Solid product presents minimal hazard.
Avoid generating dust. Collect mechanically and recycle if possible.

Section 7: Handling and Storage

- Avoid breathing welding fumes.
- Store in a dry, well-ventilated area.
- Keep away from strong acids and oxidizers.

Section 8: Exposure Controls / Personal Protection

Occupational Exposure Limits (OSHA PEL):
Aluminum (as Al): 15 mg/m^3 (total dust)

Engineering Controls:
Local exhaust ventilation during welding operations.

Personal Protective Equipment (PPE):

- Welding helmet with appropriate filter
- Respiratory protection when ventilation is inadequate
- Protective gloves and clothing

Section 9: Physical and Chemical Properties

- Appearance: Solid wire or rod
- Color: Silver-gray
- Odor: Odorless
- Melting Point: ~577–660°C (1070–1220°F)
- Solubility: Insoluble in water

Section 10: Stability and Reactivity

Stability: Stable under normal conditions
Reactivity: Reacts with strong acids and oxidizers
Hazardous Decomposition Products: Aluminum oxide fumes

Section 11: Toxicological Information

- Inhalation of welding fumes may cause metal fume fever
- Prolonged exposure may result in lung damage
- Welding fumes are classified as carcinogenic by IARC

Section 12: Ecological Information

No known significant ecological hazards for solid aluminum products.

Section 13: Disposal Considerations

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

Section 14: Transport Information

Not regulated as hazardous material for transportation.

Section 15: Regulatory Information

- OSHA Hazard Communication Standard: Applicable
- California Proposition 65: Welding fumes contain chemicals known to cause cancer

Section 16: Other Information

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This SDS is intended as a general guide for safe handling, storage, and use of aluminum filler metals.