

Safety Data Sheet

Section 1: Identification

Product Identifier: Hi-Alloy TSA

Recommended Use: Filler metal for welding and thermal spray applications

Manufacturer: Inweld Corporation

Address: 3962 Portland St, Coplay, PA 18037, United States

Phone Number: (800) 346-5368

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

SDS Number: HA-TSA-001

Date Prepared: July 2, 2025

Section 2: Hazard(s) Identification

Classification of the substance or mixture (GHS US):

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

Signal Word: DANGER

Hazard Statements:

- H350: May cause cancer
- H372: Causes damage to organs through prolonged or repeated exposure (inhalation)
- H361: Suspected of damaging fertility or the unborn child
- H332: Harmful if inhaled

- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H317: May cause an allergic skin reaction

Precautionary Statements:

- P201: Obtain special instructions before use
- P260: Do not breathe dust/fume/gas/mist/vapors/spray
- 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
- 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	Classification
Aluminum	7429-90-5	70–90%	Combustible Dust, STOT-RE (Cat 1)
Zinc	7440-66-6	10–30%	Aquatic Acute (Cat 1), Aquatic Chronic
Other Alloying Elements	Proprietary	<1%	Proprietary

Section 4: First-Aid Measures

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

Skin Contact: Wash thoroughly with soap and water. Seek medical attention for irritation or rash.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses if

present and easy to do.

Ingestion: Rinse mouth. Do not induce vomiting unless directed by medical personnel.

Seek medical attention.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media: Dry chemical, CO₂, water spray, or foam

Unsuitable Extinguishing Media: None known

Hazardous Combustion Products: Metal oxides, fumes

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

Section 6: Accidental Release Measures

- Avoid breathing dust/fumes
- Ventilate area
- Wear appropriate protective equipment
- Collect spilled material using a method that minimizes dust generation
- Dispose of in accordance with local regulations

Section 7: Handling and Storage

Handling:

- Avoid breathing dust or fumes
- Use local exhaust ventilation
- Avoid skin and eye contact

Storage:

- Store in a dry, well-ventilated area
- Keep container tightly closed
- Store locked up

Section 8: Exposure Controls/Personal Protection

Exposure Limits:

Substance	OSHA PEL	ACGIH TLV
Aluminum	15 mg/m ³ (total), 5 mg/m ³ (resp)	1 mg/m ³ (resp)
Zinc Oxide	5 mg/m ³ (fume)	2 mg/m ³ (respirable)

Engineering Controls: Local exhaust ventilation

Personal Protective Equipment (PPE):

- Respirator (when exposure limits are exceeded)
- Protective gloves and clothing
- Safety goggles or face shield

Section 9: Physical and Chemical Properties

Property	Value
Appearance	Gray metallic solid
Odor	Odorless
Melting Point	> 450°C
Flash Point	Not applicable
Flammability	Non-flammable solid
Solubility in Water	Insoluble
Vapor Pressure	Not applicable
Density	~2.7–7.1 g/cm ³

Section 10: Stability and Reactivity

Stability: Stable under normal conditions

Reactivity: Non-reactive under normal use

Incompatible Materials: Strong acids, oxidizers

Hazardous Decomposition: Metal oxide fumes

Polymerization: Will not occur

Section 11: Toxicological Information

- **Likely Routes of Exposure:** Inhalation, skin contact, eye contact
- **Symptoms:** Respiratory irritation, metal fume fever, allergic skin reaction
- **Carcinogenicity:** Aluminum and zinc not classifiable; exposure to metal fumes may increase cancer risk
- **Chronic Effects:** Prolonged inhalation of metal fumes may cause lung damage

Section 12: Ecological Information

Ecotoxicity: Harmful to aquatic life with long-lasting effects

Persistence & Degradability: Not readily biodegradable

Bioaccumulative Potential: Low

Mobility in Soil: Low

Section 13: Disposal Considerations

Dispose of contents/container in accordance with federal, state, and local regulations. Do not allow to enter waterways.

Section 14: Transport Information

UN Number: Not regulated

Proper Shipping Name: Not applicable

Hazard Class: Not applicable

Packaging Group: Not applicable

Section 15: Regulatory Information

TSCA: All ingredients are listed

SARA Title III:

- Section 302: No
- Section 313: Zinc (CAS 7440-66-6) is subject to reporting
California Prop 65: This product contains chemicals known to the State of California to cause cancer and/or reproductive harm.

Section 16: Other Information

Date of SDS Preparation: July 2, 2025

Version: 1.0

Disclaimer: This SDS is based on information believed to be accurate but is provided without warranty. Users must determine suitability for their own use.