

Safety Data Sheet

Section 1: Identification

Product Identifier: Titanium Wire

Product Use: Filler metal for welding

Manufacturer: Inweld Corporation

Address: 3962 Portland St, Coplay, PA 18037, UNITED STATES

Phone Number: (800) 346-5368

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

Date of Preparation: July 2, 2025

Recommended Use: Welding and fabrication

Restrictions on Use: Use only as directed

Section 2: Hazard(s) Identification

Classification (per 29 CFR 1910.1200):

- Flammable solid (Category 2)
- Specific Target Organ Toxicity – Repeated Exposure (Category 2)
- Carcinogenicity (Category 2)
- Eye Irritation (Category 2B)
- Skin Irritation (Category 2)

Signal Word: DANGER

Pictograms (GHS):



Hazard Statements:

- H228: Flammable solid
- H315: Causes skin irritation
- H320: Causes eye irritation

- H351: Suspected of causing cancer
- H373: May cause damage to organs through prolonged or repeated exposure

Precautionary Statements:

- P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
- P260: Do not breathe 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
- P314: Get medical advice/attention if you feel unwell
- P501: Dispose of contents/container in accordance with local/regional/national regulations

Hazards Not Otherwise Classified (HNOC):

- Fumes generated during welding may be hazardous.
- Molten metal may cause severe burns.
- Dust may pose a risk of explosion in confined areas.

Section 3: Composition/Information on Ingredients

Chemical Name	CAS Number	% by Weight	Notes
Titanium (metal)	7440-32-6	95–100%	As base metal
Possible alloying elements (Al, V, Fe)	Various	<5%	Composition varies by grade

Note: This product is in solid wire form. Hazardous exposures may occur during welding processes when fumes are generated.

Section 4: First-Aid Measures

Inhalation:

Move to fresh air. If breathing is difficult, administer oxygen. Seek medical attention if symptoms persist.

Skin Contact:

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

Eye Contact:

Flush eyes with water for at least 15 minutes. Remove contact lenses if present and continue rinsing. Seek medical attention if irritation persists.

Ingestion:

Not a likely route of exposure. If ingested, seek medical advice.

Most Important Symptoms/Effects, Acute and Delayed:

Exposure to fumes may cause respiratory irritation, metal fume fever, or long-term respiratory issues.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media:

Use Class D extinguishing agents (dry powder for metal fires). DO NOT use water.

Specific Hazards Arising from the Product:

Burning metal may release toxic metal oxide fumes. May react violently with water or moisture in a molten state.

Special Protective Equipment:

Wear self-contained breathing apparatus and full protective gear.

Section 6: Accidental Release Measures

Personal Precautions:

Avoid creating dust. Use protective equipment. Evacuate unnecessary personnel.

Environmental Precautions:

Avoid discharge into sewers or waterways.

Methods for Containment and Cleaning Up:

Sweep or vacuum solid material. Avoid dry sweeping if dust is present. Place in a suitable container for recycling or disposal.

Section 7: Handling and Storage

Handling:

Use proper ventilation when welding. Avoid breathing fumes or dust. Use proper personal protective equipment.

Storage:

Store in a cool, dry place away from oxidizers, moisture, and incompatible materials. Avoid open flames and sparks.

Section 8: Exposure Controls/Personal Protection

Occupational Exposure Limits:

Substance	OSHA PEL	ACGIH TLV
Titanium (metal)	None established	10 mg/m ³ (dust)
Welding fumes	5 mg/m ³ (resp.)	5 mg/m ³ (TLV-TWA)

Engineering Controls:

Use local exhaust ventilation during welding to control exposure to fumes.

Personal Protective Equipment (PPE):

- **Eye/Face:** Safety goggles, welding helmet with proper filter lens
- **Skin:** Flame-resistant gloves and protective clothing
- **Respiratory:** Use NIOSH-approved respirators if exposure limits are exceeded

Section 9: Physical and Chemical Properties

Property	Value
Appearance	Metallic gray wire

Property	Value
Odor	Odorless
Melting Point	~1,668°C (3,034°F)
Boiling Point	~3,287°C (5,949°F)
Solubility	Insoluble in water
Flammability	Flammable in fine form
Density	~4.5 g/cm ³
Vapor Pressure	Not applicable
Flash Point	Not applicable

Section 10: Stability and Reactivity

Reactivity: Not reactive under normal conditions.

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Heat, flame, sparks, moisture

Incompatible Materials: Strong oxidizers, acids, halogens

Hazardous Decomposition Products: Metal oxides, titanium dioxide fumes

Section 11: Toxicological Information

Likely Routes of Exposure: Inhalation, eye and skin contact

Acute Effects:

- Fumes may cause metal fume fever
- Eye/skin irritation

Chronic Effects:

- Long-term overexposure may cause respiratory damage
- Some welding fumes are classified as **Group 2B carcinogens** by IARC

Carcinogenicity:

- **IARC:** Not listed for Titanium metal, but welding fumes may be Group 2B (possibly carcinogenic)
- **NTP/OSHA:** Not listed

Section 12: Ecological Information

Environmental Effects:

Titanium in solid form is not considered hazardous.

Fine particulate may pose environmental hazards in aquatic environments.

Persistence/Degradability: Not biodegradable

Bioaccumulative Potential: Low

Mobility in Soil: Insoluble in water

Section 13: Disposal Considerations

Dispose of in accordance with local, state, and federal regulations. Recycle material if possible. Do not release into sewers or waterways.

Section 14: Transport Information

UN Number: Not regulated as a hazardous material in solid form

DOT Shipping Name: Not regulated

Transport Hazard Class: Not applicable

Packing Group: Not applicable

Section 15: Regulatory Information

TSCA: All components listed or exempt

SARA 313: Not listed

California Proposition 65: Welding fumes may contain chemicals known to the State of California to cause cancer and reproductive harm.

Section 16: Other Information



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Prepared by: Inweld Corporation – EH&S Department

Disclaimer:

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