

15117 Washington Highway
P. O. Box 1055 Ashland VA

Phone: (804) 227-3381
Fax: (804) 227-3404

CHEMTREC: (800) 424-9300
Poison Center: (800) 562-8236

Safety Data Sheet

Section 1: Product and Company Information

Product Name: Titanium
Company: Fine Metals Corporation
15117 Washington Hwy
Ashland, VA 23005

For more information call: 1-804-227-3381
(Monday - Friday 9-4:30)

In case of emergency: Transportation (Chemtrec) 1-800-424-9300
Poison Center: 1-800-562-8236
(24 hours/day, 7 days/week)

Section 2: HAZARD IDENTIFICATION

This material is not considered hazardous and is not classified under GHS

Emergency Overview

Emergency Negligible fire or explosion hazard in bulk form. Powdered material may form explosive dust-air mixtures.

Hazard Statements: Not a hazardous substance or mixture.

Precautionary Statements:

Prevention: None.

Response: None.

Appearance/Form:

Form: Solid

Color: Dark grey crystalline solid

Odor: None.

Hazard Summary: This substance is not considered hazardous in the form supplied. Dusts at sufficient concentrations can form explosive mixtures with air.

Acute Health Effects

Skin: May cause skin irritation.

Eyes: Contact may cause eye irritation.

Ingestion: Low ingestion hazard in normal use.

Inhalation: May cause respiratory irritation.

Chronic Exposure: No known adverse effects due to titanium exposure except for mechanical irritation.

Aggravated Medical Conditions: None expected.

Conditions:

Carcinogenicity: Not listed as a human carcinogen.

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Section 3: Composition/Information on Ingredients

Chemical Name	CAS-No.		Reach #	
Titanium	7440-32-6	Not available	231-142-3	100 wt%

Section 4: FIRST AID MEASURES

Eye Contact: Rinse immediately with plenty of water, including under the eyelids, for at least 15 minutes. Call a physician.

Skin Contact: Wash with soap and water. Get medical attention if irritation develops or persists.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required provided a qualified operator is present. Call a physician.

Ingestion: Rinse mouth. Get medical advice/attention.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing Media: Class D fire extinguisher, dry sand or sodium chloride.

Unsuitable extinguishing media: Do not use water because of violent reaction. Do not use carbon dioxide or graphite.

Specific hazards during firefighting: Toxic metal fumes may form during fire. Airborne dusts of this product in an enclosed space and in the presence

of an ignition source may constitute an explosion hazard. Static charges on powders or powders in liquids may ignite combustible atmospheres. When titanium burns in the absence of moisture, it burns slowly but evolves much heat. The application of water to titanium fires can cause an explosion. If a fire starts in a mass of slightly wet metal fines, the initial fire may be followed by an explosion. Therefore, when in doubt, personnel should retire and not attempt to extinguish the fire. The explosive characteristic of such material is due to steam and hydrogen generated within the burning mass.

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear personal protective equipment. Avoid breathing (dust, vapor, mist, gas). Practice good chemical hygiene during and after use.

Environmental Precautions: Avoid release to the environment.

Methods for Cleaning Up: Collect spilled material in appropriate container. Observe precautions in Protective Equipment section. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Eliminate all ignition sources if safe to do so. Avoid formation of dust. Provide appropriate exhaust ventilation where dust is formed. Avoid breathing (dust, vapor, mist, gas). Practice good chemical hygiene during and after use.

Section 7: HANDLING AND STORAGE

Handling: Do not accumulate large quantities of titanium fines or machining residues: Fire hazard. Dispose of these materials daily. Avoid dust formation.

Titanium should be kept away from flames or sources of ignition. Do not breath (dust, vapor, mist, gas). Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

Storage: Keep container closed when not in use. Store in a cool dry place. Do not store near incompatible materials.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls: Use process enclosures, local exhaust ventilation or other means to maintain employee exposure as far below limits as possible

Component Exposure Limits

Component	Location	Value
Titanium		100

Engineering Controls: Use process enclosures, local exhaust ventilation or other engineering controls to control airborne levels below recommended exposure limits. COMMENT: There are no established workplace exposure limits for components of this product.

Respiratory Protection: Not normally needed. If ventilation is inadequate and this material is handled at elevated temperatures or dust/fumes/mists are generated a NIOSH/MSHA approved air purifying respirator with a manufacturers approved cartridge or canister may be permissible under certain circumstances.

Eye/Face: Wear safety glasses or goggles as appropriate to the task performed.

Skin Protection: Gloves, safety shoes

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Work Hygienic Practices: Practice good work hygiene.

Comments:

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid

Odor: None.

Color: Grey metallic

Melting Point: 1668° C

Boiling Point: 3287° C

Vapor Pressure: N/A = not applicable

Vapor Density (air = 1): N/A = not applicable

Evaporation Rate: Nonvolatile

Solubility In Water: Insoluble

Specific Gravity (water = 1): 4.5

Atomic Weight: 47.88

% Volatility By Volume: No information available

Density: 4.5

Section 10: STABILITY AND REACTIVITY

Stability: Stable under normal conditions and usage.

Incompatible Materials: Oxygen, Aluminum, Carbon dioxide, Halogens, Chlorinated solvents, Strong acids, Strong oxidizing agents

Hazardous Decomposition Products: Toxic metal fumes

Products:

Possibility of Hazardous Reactions: No information available

Reactions:

Section 11: TOXICOLOGICAL INFORMATION

Acute Toxicity: No data available

Chronic Toxicity: No data available

Reproductive Toxicity: No data available

Mutagenicity: No data available

Carcinogenicity: Not listed by IARC, NTP or OSHA as a carcinogen

Other:

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: No data available

Persistence/Degradability: No data available

Bioaccumulation/Accumulation: No data available

Mobility in Environment: No data available

Section 13: DISPOSAL CONSIDERATIONS

Waste Classification: Recycling is preferred method of disposal.

All disposal activities must comply with federal, state, provincial and local regulations.

Section 14: TRANSPORT INFORMATION

US DOT (ground): Not regulated

ICAO/IATA (air): Not regulated

IMO/IMDG (water): Not regulated

Special Provisions: Not regulated

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Section 15: REGULATORY INFORMATION

UNITED STATES

SARA Title III (Superfund Amendments and Reauthorization Act) 313 Reportable Ingredients: No

TSCA (Toxic Substance Control Act) status: All components of this product are included in inventory, exempt, or notified

STATE REGULATIONS

The following components appear in one or more of the following states hazardous substances

Component	CAS #	CA	MA	MN	NJ
Titanium	7440-32-6	No	No	Yes	No

California Proposition 65: This product is not known to contain any components for which the State of California has found to cause cancer, birth defects or other reproductive harm.

CANADA

WHMIS (Workplace Hazardous Materials Information System): All components of this product are included in inventory, exempt, or notified

Domestic Substance List (Inventory): All components of this product are included in inventory, exempt or notified.

GENERAL COMMENTS

None

Section 16: OTHER INFORMATION

Information Contact: sds@finemetalscorp.com

Issue Date: 7/9/1999

Revision Date: 1/1/2015

HMIS®(II)		NFPA	
Health:	0		
Flammability:	0	1	
Reactivity:	0	0	0
PPE:	B		

Ratings range from 0 (no hazard) to 4 (severe hazard)

The information contained in this SDS is believed to be correct, but is not all inclusive and shall be used only as a guide. Fine Metals Corporation shall not be liable for any damage resulting from handling or from contact with the product listed in the SDS. Any comments or questions should be directed to:

Safety Manager
Fine Metals Corporation
15117 Washington Highway
P O Box 1055
Ashland VA 23005
(804) 227-3381