

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: Tin
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 Not considered a hazardous substance as sold.

Hazard Statements: Not a hazardous substance or mixture.

Precautionary Statements:

Prevention: None

Response: None

Appearance/Form:

Form: Solid

Color: Silvery white.

Odor: None

Hazard Summary: Not considered a hazard as sold. Avoid breathing fumes from burning material.

Acute Health Effects

Skin: May cause irritation.

Eyes: May cause irritation.

Ingestion: Risk of ingestion is low but can cause stomachaches, sickness and dizziness, severe sweating, and urination problems if ingested in large quantities.

Inhalation: May cause shortness of breath.

Chronic Exposure: When inhaled as a dust or fume Sn leads to a benign pneumoconiosis without symptoms of interference with pulmonary functions. When ingested may irritate stomach lining and/or cause vomiting, but is a low hazard for permanent injury. May irritate eyes. Can cause depression, liver damage, and damage to immune system. May cause a shortage of red blood cells.

Aggravated Medical Conditions: May aggravate respiratory or GI conditions.

Carcinogenicity: No carcinogenic effect known

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Section 3: Composition/Information on Ingredients

| Chemical Name | CAS-No. | | Reach # | |
|---------------|-----------|---------------|-----------|---------|
| Tin | 7440-31-5 | Not available | 231-141-8 | >99 wt% |

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

Skin Contact: Wash with soap and water. If irritation develops seek medical attention.

Inhalation: Move person to fresh air and if necessary perform artificial respiration. Seek medical attention.

Ingestion: Give large quantities of water and make individual vomit. Do not make unconscious person vomit. Seek medical attention.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing Media: Dry chemical, Class D fire extinguisher, dry sand, dolomite, graphite or soda ash. Do not use water or halogenated extinguishers.

Unsuitable extinguishing media: Water

Specific hazards during firefighting: In case of fire toxic tin oxides may be formed.

Special protective equipment for firefighters: Evacuate enclosed and surrounding areas. 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: Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Avoid breathing dust.

Environmental Precautions: Do not discharge into the drains/surface waters/groundwater.

Methods for Cleaning Up: Remove all sources of ignition. Ventilate the area of the spill or leak. Wear appropriate personal protective equipment. Collect the spilled material and transfer to a clean, dry metal covered container for recovery or disposal.

Section 7: HANDLING AND STORAGE

Handling: Avoid conditions which create fumes or fine dusts. Avoid abnormal temperatures and pressures. Avoid inhalation or ingestion. Practice good housekeeping and personal hygiene procedures.

Storage: Store in tightly closed containers. Store in cool, dry, well-ventilated area away from heat, sparks or flame. Protect from physical damage. Store away from 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 |
|-----------|----------------|-------|
| Tin | USA ACGIH TWA | 2 |
| | USA ACGIH STEL | 4 |
| | USA NIOSH TWA | 2 |
| | USA OSHA TWA | 2 |

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

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 and other protective clothing not required but recommended.

Work Hygienic Practices: Follow normal work hygiene practices.

Comments:

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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Physical State: Solid

Odor: None

Color: Silvery

Melting Point: 449.4° F

Boiling Point: 4118° F

Vapor Pressure: N/A

Vapor Density (air = 1): N/A

Evaporation Rate: N/A

Solubility In Water: Insoluble

Specific Gravity (water = 1): 7.3

Atomic Weight: 118.7

% Volatility By Volume: No information available.

Density: 7.31

Section 10: STABILITY AND REACTIVITY

Stability: Stable under normal conditions and usage.

Incompatible Materials: Strong oxidizing agents, Sulphur compounds, Strong bases, Halogens, Carbon tetrachloride, Chloride trifluoride

Hazardous Decomposition Products: None known.

Products:

Possibility of Hazardous Reactions: No information available.

Reactions:

Section 11: TOXICOLOGICAL INFORMATION

Acute Toxicity: Tin is relatively non-toxic by mouth but may cause fever, stomach cramps, nausea, or diarrhea in large doses.

Chronic Toxicity: Chronic inhalation of tin oxide mist or fume leads to a benign pneumoconiosis without symptoms of interference with pulmonary function.

Reproductive Toxicity: No data available

Mutagenicity: No data available

Carcinogenicity: No known effect.

Other: None

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Tin as single atoms or molecules are not very toxic to any kind of organism, the toxic form is the organic form.

Organic tins are known to cause a great deal of harm to aquatic ecosystems as they are very toxic to fungi, algae and phytoplankton. Organic tins are known to disturb growth, reproduction, enzymatic systems and feeding patterns of aquatic organisms. The exposure mainly takes place in the top layer of the water, as that is where organic tin compounds accumulate. Be cognizant of potential water pollution. Follow all local, state and federal regulations.

Persistence/Degradability: Organic tin components can maintain in the environment for long periods of time. They are very persistent and not fairly biodegradable. Microorganisms have a great deal of trouble breaking down organic tin compounds that have accumulated on water and soils for many years. The concentration of organic tins still rise due to this.

Bioaccumulation/Accumulation: Information not available.

Mobility in Environment: Organic tins can spread through the water systems when absorbed on sludge particles.

Section 13: DISPOSAL CONSIDERATIONS

Waste Classification: Not considered hazardous. Recycle is best option.

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: None

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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: Not regulated

STATE REGULATIONS

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

| Component | CAS # | CA | MA | MN | NJ |
|-----------|-----------|----|----|----|----|
| Tin | 7440-31-5 | No | No | No | No |

California Proposition 65: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

CANADA

WHMIS (Workplace Hazardous Materials Information System): Not regulated

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: | 1 | | |
| Flammability: | 0 | 0 | |
| Reactivity: | 0 | 0 | 0 |
| PPE: | | | |

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