MetalPowdersUSA.com

SAFETY DATA SHEET

SECTION 1. Identification of the Substance and Manufacturer

Product:	**Tin Powder**
Product Use:	For powder metallurgy applications. Industrial use only
Provider	MetalPowdersUSA, INC Gig Harbor, Washington 98332 USA +1(805) 236-8224

SECTION 2. Hazard Identification

HEALTH HAZARDS
Acute Toxicity, Oral – Category 4
Acute Toxicity, Inhalation – Category 4
Irritant, Eye – Category 2B
Tin Fume: Irritant, Respiratory – Category 3

ENVIRONMENTAL HAZARDS
None Known

PHYSICAL HAZARDS
None Known

HAZARD STATEMENTS:
H302 – Harmful if swallowed.
H335 – May cause respiratory irritation
H335 – May cause respiratory

CLASSIFICATION SYSTEM:
The classification is based on the criteria in the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

GHS LABEL ELEMENTS – HAZARD PICTOGRAM (GHS-US)

Signal Word: Warning

P264 – Wash hands thoroughly after handling.
P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.
P270 – Do not eat, drink or smoke when using this product.
P273 – Avoid release to the environment.
P284 – Wear respiratory protection.
P301 + P330 – IF SWALLOWED: Rinse mouth with water.
P304 + P340 – IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

SECTION 3. Composition/Information of Ingredients

Ingredient	%	EC Number	CAS No.
Tin	>99.9	231-141-8	7440-31-5

SECTION 4. First Aid Measures

INHALATION:	Remove to fresh air. Perform artificial respiration if breathing has stopped. Fume from metallizing, welding or similar processes can cause respiratory irritation and/or metal fume fever (respiratory irritation, chills, nausea).
INGESTION:	Rinse mouth and give large quantities of water to drink. Causes stomach pain, nausea, vomiting and diarrhea.
SKIN CONTACT:	For skin exposure, remove contaminated clothing and wash skin with soap and water.
EYE CONTACT:	If irritated, flush eyes with plenty of water – lifting upper and lower eyelids flush with water.
MEDICAL NOTES:	If any adverse symptoms persist seek immediate medical attention.

SECTION 5. Fire-Fighting Measures

Extinguishing Media:	A Class D fire extinguisher is recommended, do not use Class “A”, “B”, “C”, or halogenated agents. Dry sand or other inert materials may be used to extinguish fires by gently covering the burning mass and allowing it to cool. Do NOT use water.
Unusual Fire and Explosion Hazards:	High dust concentrations have a potential for combustion or explosion.
Personal Protective Equipment:	Wear full bunker gear including a positive pressure self-contained breathing apparatus.
Precautions:	Keep away from ignition sources (e.g. heat and open flames). Keep container closed.
Hazardous Decomposition:	Toxic Fumes

SECTION 6. Accidental Release Measures

Personal Precautions:	Spilled material may produce dust hazard if not handled correctly. Wear appropriate personal protective equipment: coveralls, gloves & eye protection. Do not allow unprotected people into the area until cleanup has been completed
Methods for Clean Up:	Collect the powder in a manner that minimizes further dust generation. Place in a suitable container for recycling or disposal in accordance with local and national waste regulations.
Method of Disposal:	Place in a suitable container for recycling or disposal in accordance with local, state, and/or federal regulations. Do not allow to enter drains or watercourses

SECTION 7. Handling and Storage

Handling:	Only use in a well-ventilated area and prevent the creation of dusts. If concentrations exceed the occupational exposure limits, use suitable respiratory protection.
Storage:	Store in a cool, dry, well-ventilated place. Keep away from food, drink and animal feeding stuffs. Keep lids of container tightly sealed.

SECTION 8. Exposure Controls/Personal Protection

Occupational Exposure Standards:

ACGIH TLV	2.0 mg/m³
NIOSH IDLH	100 mg/m³
OSHA PEL	2.0 mg/m³

Occupational Exposure Controls: All personal protective equipment, including respiratory equipment, used to control exposure to hazardous substances must be selected to meet the requirements of national personal protective equipment regulations. Keep dust and fume levels below occupational exposure limits. Local exhaust ventilation with a minimum face velocity of 60 ft/m is recommended

Personal Protection

Respiratory Protection: Do not breathe dust or fume. Use with adequate ventilation. Use NIOSH/MSHA approved respirator. Use supplied air respiratory protection in confined or enclosed spaces if needed.

Hand and Skin Protection: Use protective gloves and clothing to avoid prolonged or repeated skin contact. The use of impervious gloves or barrier cream to protect the skin is recommended.

Eye Protection: Wear dust proof safety glasses or goggles. Contact lenses not recommend.

SECTION 9. Physical and Chemical Properties

Appearance:	Grayish Silver Color	Odor:	None
	Tin		
Boiling Point:	2270°C		
Melting Point:	231.9°C		
Specific Gravity:	7.31		
Flash Point:	Not Applicable		
Flammability:	Not Determined		
Autoignition Temperature:	630°C		
Vapor Pressure:	1mm Hg @1482°C		
Vapor Density:	Not determined		
Evaporation Rate:	NA		
Solubility in water:	Insoluble		
Volatile by Volume, %:	0		
Molecular Weight:	118.7		

SECTION 10. Stability and Reactivity

Stable X Unstable

Conditions & Materials to Avoid: Tin is incompatible with strong oxidizing agents, strong acids, bromates, chlorates, and iodates. Contact with chlorine may result in ignition. A vigorous reaction and incandescence is observed with sulfur. Fires and explosions can result when tin contacts turpentine.

Hazardous Decomposition Products: Metal fumes will be released if heated above melting point

Hazardous Polymerization: Will Not Occur

SECTION 11. Toxicological Information

Signs, symptoms, and effect of over exposure:

Eyes: Redness, tearing, itching, burning and conjunctivitis

Ingestion: Irritation and burning sensations of mouth and throat

Inhalation: Irritation of the mucous membranes, coughing, wheezing, shortness of breath.

Acute Health Effects: Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on information from similar products, the ingredients, technical literature, and/or professional experience. Metallic tin is relatively non-toxic. Exposure to dust or fumes of inorganic tin salts is known to cause benign inflammation of the lung tissue (stenosis), a condition in which there is no distinctive fibrosis, no evidence of disability, and no special complicating factors. No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program, the U.S. Occupational Safety and Health Act, or the International Agency for Research on Cancer (IARC).

SECTION 12. Ecological Information

No Data Available (NA)

SECTION 13. Disposal Considerations

Disposal must be in accordance with applicable local, state and federal regulations (contact local, state, or federal environmental agency for specific rules). Do not dump into sewers, on the ground, or into any body of water..

SECTION 14. Transportation Information

US DOT: Not a hazardous material for transportation.

DOT regulations:
Hazardous Class: Not Regulated

ADR/RID Land transport (cross-border)
Hazardous Class: Not Regulated

IMDG/IMO Maritime transport:
Hazardous Class: Not Regulated
Marine Pollutant: No

IATA/ICAO Air Transport:
Hazardous Class: None

SECTION 15. Regulatory Information

All chemical constituents of these products are listed on the TSCA inventory of chemical substances maintained by the U.S. Environmental Protection Agency (EPA).

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

Health Hazard: 1 – Slight: Slightly Toxic – May cause slight irritation.
Flammability Hazard: 0 – Minimal: Will not burn under normal conditions.
Reactivity Hazard: 0 – Minimal: Normally stable, does not react with water.
Maximum Personal Protection: E – Safety Glasses, Gloves & Dust Respirator.

SECTION 16. Other Information

Keep out of reach of children. Read and follow all label instructions. This information is based on our present knowledge. However, this is not a guarantee of specific product features. It is the user's responsibility to satisfy themselves as to the suitability and completeness of this information for their own particular use.