

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Tin POWDER
 Product Codes: SM401201R, SM401205R, SM401210R, SM401220R
 Synonyms: Tin, Tin Powder
 Emergency: CONTACT: (908) 273-5401 Mon-Sat 8:00AM - 8:00PM

MSDS Number: Tin Powder
 Product Use: For powder metallurgy applications.
 Restrictions: Industrial use only.
 Manufacturer: EnvironMolds!, LLC
 18 bank St. Suite 1
 Summit, NJ 07901
 (908) 273-5401

2. HAZARDS 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.
 H320 – Causes eye irritation.

Precautionary Statements:

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.

Pictogram:



Signal Word: Warning

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS #</u>	<u>Range % by Wt.</u>	<u>EINECS #</u>
Tin	7440-31-5	100	231-141-8

4. FIRST AID MEASURES

EYES:

Flush eyes with plenty of water, lifting the upper and lower eyelids occasionally. Get medical attention if irritation develops.

SKIN:

Wash the skin using soap or a mild detergent and warm water. Consult a physician.

INHALATION:

Move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Get immediate medical attention. Fume from metallizing, welding or similar processes can cause respiratory irritation and/or metal fume fever (respiratory irritation, chills, nausea).

INGESTION:

If person is conscious, rinse mouth and give large quantities of water to drink. Get medical attention. Causes stomach pain, nausea, vomiting and diarrhea.

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.

FIRE FIGHTING 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.

6. ACCIDENTAL RELEASE MEASURES

1. Restrict the area to those persons wearing respiratory protection. Do not allow unprotected people into the area until cleanup has been completed.
2. Ventilate the area thoroughly.
3. Collect the powder in a manner that minimizes further dust generation.
4. Keep out of sewers and waterways.
5. Recycle or dispose of as a waste (see Section 13).

7. HANDLING AND STORAGE

Avoid dust generation. Wash thoroughly after handling. Eating, drinking, and smoking are prohibited in work areas. Store Bismuth powder in a dry cool area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation Requirements:

Keep dust and fume levels below occupational exposure limits. Local exhaust ventilation with a minimum face velocity of 60 ft/m is recommended.

Personal Protective Equipment:

EYES:

Wear dust-proof safety goggles. Contact lenses are not recommended.

SKIN:

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.

INHALATION:

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.

OCCUPATIONAL EXPOSURE LIMITS:

Tin		
	ACGIH TLV	2.0 mg/m ³
	NIOSH IDLH	100 mg/m ³
	OSHA PEL	2.0 mg/m ³

9. CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE AND ODOR	Silvery; odorless
FLASH POINT	Not applicable
FLAMMABILITY	Not determined
AUTOIGNITION TEMPERATURE	630°C
pH	Not applicable
VAPOR PRESSURE	1mm Hg @ 1492°C
VAPOR DENSITY	Not determined
MELTING POINT	231.9°C
BOILING POINT	2270°C @ 760 mm Hg
SOLUBILITY IN WATER	Not soluble
SOLUBILITY IN FAT	Not determined
OCTANOL/WATER PARTITION COEFFICIENT	Not determined
RELATIVE DENSITY (Water=1)	7.3
VISCOSITY	Not applicable

10. STABILITY AND REACTIVITY

STABILITY:

Stable under normal temperatures and pressures.

INCOMPATIBLE MATERIALS:

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:

None identified.

HAZARDOUS POLYMERIZATION:

Will not occur.

11. TOXICOLOGICAL INFORMATION

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).

12. ECOLOGICAL INFORMATION

No data on the ecological effects of this product have been developed.

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.

14. TRANSPORTATION INFORMATION

DOT: Not regulated.

ADR/RID: Not regulated.

IMO/IMDG: Not regulated.

ICAO/IATA: Not regulated.

15. HAZARDOUS MATERIAL IDENTIFICATION SYSTEM/REGULATORY INFORMATION

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.

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

16. OTHER INFORMATION

Revision: B

June 3, 2015

Format has been updated to meet the new OSHA Hazard Communication Standard (4/30/15); Added grades ACU-150, Additive E, L10, L30-395, 301CR, 301H (6/3/15).

The information in this SDS relates to this specific product group. It may not be valid for this product if used in combination with any other materials or in any process. It is the user's responsibility to satisfy himself as to the suitability and completeness of this information for his own particular use.