

MATERIAL SAFETY DATA SHEET

TIN METAL POWDER

C.A.S. Number: 7440-31-5

SECTION I – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT/MATERIAL: TIN POWDER

MANUFACTURER: Metrochem Metal Powders Pvt Ltd

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SECTION II – COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS #</u>	<u>Range % by Wt</u>
Tin	7440-31-5	>99

SECTION III – HAZARDS IDENTIFICATION

EYE CONTACT: Causes mild eye irritation.

SKIN CONTACT: Causes mild skin irritation. Skin discoloration may occur.

INHALATION: Dust and fume are irritating to respiratory system. May cause sensitization by inhalation. No significant health hazards identified.

INGESTION: No significant health hazards identified. Causes stomach pain, nausea, vomiting, and diarrhea.

SECTION IV – FIRST AID MEASURES

EYES: Flush eyes with plenty of water for at least 15 minutes, lifting the upper and lower eyelids occasionally. Get medical attention if irritation develops. Causes mild eye irritation.

SKIN: Wash the skin using soap or a mild detergent and warm water. Get medical attention if irritation develops. Causes mild skin irritation.

INHALATION: Move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Get immediate medical attention.

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

SECTION V – FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Dry chemical, dry sand, graphite, dolomite or sodium chloride. 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). Use with

adequate ventilation. Keep container closed.

HAZARDOUS DECOMPOSITION: None identified.

SECTION VI – 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 (i.e., use wet or HEPA vacuum methods).
4. Keep out of sewers and waterways.
5. Recycle or dispose of as a waste (see Section XIII).

SECTION VII – HANDLING AND STORAGE

Wash thoroughly after handling. Avoid dust generation from dried paste. Store powder in a dry area, -18° to 38°C.

SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation Requirements:

Keep dust and fume levels below occupational exposure limits. Local exhaust ventilation may be necessary for some operations.

Personal Protective Equipment:

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

SKIN: Wear suitable protective clothing and gloves. Do not get on skin. Workers should wash before eating or smoking. If the occupational exposure limits are exceeded, workers should shower and change clothing before leaving work.

INHALATION: Use with adequate ventilation. If fumes are likely to be generated, use certified respirator that will protect against fumes.

OTHER: Eating and smoking should not be permitted in areas where dust or fume is present. Protective clothing and equipment worn at work should remain at work.

SECTION IX – CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE AND ODOR:	Grey metallic powder; odorless
FLASH POINT:	Not determined
FLAMMABILITY:	Not determined
AUTOIGNITION TEMPERATURE:	Not determined
Ph:	Not applicable
VAPOR PRESSURE:	1 mm Hg @ 1492°C

VAPOR DENSITY:	Not determined
MELTING POINT:	232°C
BOILING POINT:	Above 2500°C
SOLUBILITY IN WATER:	Not soluble
SOLUBILITY IN FAT:	Not determined
OCTANOL/WATER PARTITION COEFFICIENT:	Not determined
RELATIVE DENSITY (WATER=1):	2.0 - 4.0
VISCOSITY:	Not applicable
% VOLATILES BY WEIGHT:	Not volatile
EVAPORATION RATE:	Not determined

SECTION X – STABILITY AND REACTIVITY

STABILITY:	Stable.
INCOMPATIBLE MATERIALS:	Tin reacts with concentrated acids. Contact with chlorine may result in ignition.
HAZARDOUS DECOMPOSITION:	None identified.
HAZARDOUS POLYMERIZATION:	Will not occur.

SECTION XI – TOXICOLOGICAL INFORMATION

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 (stanosis), a condition in which there is no distinctive fibrosis, no evidence of disability and no special complicating factors.

SECTION XII – ECOLOGICAL INFORMATION

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

SECTION XIII – 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 XIV – TRANSPORTATION INFORMATION

UN Number:	Not regulated
ADR/RID:	Not regulated
IMO/IMDG:	Not regulated
ICAO/IATA:	Not regulated

SECTION XV – 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.

OCCUPATIONAL EXPOSURE LIMITS:

TIN:

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

IDLH=Immediately dangerous to life and health.

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

SECTION XVI – OTHER INFORMATION

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