

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Bismuth Stannate

Chemical Formula: Bi₂Sn₂O₇

Manufacturer Item Number: BI-0780

Manufacturer: Lorad Chemical Corporation
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2. HAZARD IDENTIFICATION

Signal Word: Danger

Pictograms:



Hazard Statements: H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements: P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
P264 Wash thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P301+330+331 IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P303+361+353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P310 Immediately call a POISON CENTER or physician.
P363 Wash contaminated clothing before reuse.
P405 Store locked up.
P501 Dispose of contents / container in accordance with local / regional / national / international regulations.

HMIS Health Ratings (0-4)

- Health: 2
- Flammability: 0
- Physical: 0

3. COMPOSITION

Additional Names: Bismuth Tin Oxide

Percentage:	100 wt%
CAS #:	12338-09-9
EC #:	No Data Available.

4. FIRST AID PROCEDURES

General Treatment	Consult a physician. Show this SDS to the doctor in attendance. Move out of dangerous area.
Special Treatment:	Provide general supportive measures and treat symptomatically. If chemical burns present, flush with water immediately, while flushing, remove cloths which do not adhere to the affected area. Call an ambulance. Continue flushing during transportation to the hospital. Keep victim under observation as symptoms may be delayed.
Important Symptoms:	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Inhalation:	Move to fresh air. Call a physician if symptoms develop or persist.
Ingestion:	Call a physician or poison center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach contents do not get into the lungs.
Skin:	Take off immediately all contaminated clothing. Rinse skin with water / shower. Call a physician or poison center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eyes:	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Call a physician or poison center immediately.

5. FIREFIGHTING MEASURES

Flammability:	Not Flammable.
Special Hazards from Substance:	During fire gases of Bismuth Oxides or Tin Oxides may arise.
Extinguishing Media:	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

If Material is Released / Spilled:	Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Sweep up or vacuum up spillage and collect in suitable closed container for disposal. Following product recovery, flush area with water. Dispose of waste in accordance with applicable federal, state, local, and provincial environmental regulations.
Environmental Precautions:	Prevent further leakage or spills if safe to do so. Do not allow to enter drains, sewers, or watercourses. Discharge into the environment must be avoided.

7. HANDLING AND STORAGE

Handling Conditions:	Avoid contact with skin, eyes, and clothing. Avoid prolonged exposure. Avoid formation of dust and aerosols. Provide adequate exhaust ventilation at places where dust is formed. For additional precautions see Section 2.
Storage Conditions:	Store locked up. Keep container tightly closed in a dry and well ventilated place.

Work / Hygienic Maintenance: Do not eat, drink, or smoke when working with this product. Wear protective gloves, protective mask, protective eyewear, and protective clothing and wash skin thoroughly with soap after handling. Keep formation of airborne dusts to a minimum. Guard against dust accumulation. In case of insufficient ventilation, wear suitable respiratory equipment. For additional precautions see Section 2.

Ventilation: Keep in well ventilated area.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible Exposure Limits:	Authority	Basis	Limit	Remarks
	OSHA	PEL	2.0 mg/m ³	Tin, inorganic compounds (except oxides) (as Sn), Table Z-1 Limits for Air Contaminants
	California	PEL	2.0 mg/m ³	Stannosis, California permissible exposure limit for chemical contaminants (Title 8, Article 107)
Threshold Limit Value: (all TWA)	Authority	Basis	Limit	Remarks
	ACGIH	TLV	2.0 mg/m ³	Stannosis
	NIOSH	REL	2.0 mg/m ³	Eye, nose, throat, and skin irritation
Special Equipment:	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineered controls to maintain airborne levels below recommended exposure limits.			
Respiratory Protection:	In case of insufficient ventilation, wear suitable respiratory equipment. For nuisance exposure use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher levels of protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).			
Protective Gloves:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.			
Eye Protection:	Safety glasses with side-shields (or goggles) and face shield. Use equipment for eye protection tested and approved under government standards such as NIOSH (US) or EN 166 (EU).			
Body Protection:	Wear appropriate protective clothing.			

9. PHYSICAL AND CHEMICAL CHARACTERISTICS

Color:	White	Molecular Weight:	767.38 g/mol
Forms:	Powder	Density:	No Data Available.
Odor:	No Data Available.	pH:	No Data Available.
Water Solubility:	No Data Available.	Auto-Ignition Temperature:	No Data Available.
Boiling Point:	No Data Available.	Evaporation Rate:	No Data Available.
Melting Point / Freezing Point:	No Data Available.	Flammability or Explosive Limits:	No Data Available.
Vapor Pressure:	No Data Available.	Partition Coefficient: n-octanol/ water	No Data Available.
Vapor Density:	No Data Available.	Decomposition Temperature:	No Data Available.

Flash Point: No Data Available.

Viscosity: No Data Available.

10. REACTIVITY
Stability: Stable under recommended storage conditions.

Reacts with: Strong oxidizing agents.

Incompatible Conditions: No Data Available.

Hazardous Decomposition Products: No Data Available.

11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: Causes serious eye damage.

Skin: Causes severe skin burns.

Ingestion: Causes digestive tract burns.

Inhalation: May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Chronic: No Data Available.

Signs and Symptoms: Stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Bismuth and its salts can cause kidney damage, although the degree of such damage is usually mild. Large doses can be fatal. Industrially it is considered one of the less toxic of the heavy metals. Serious and sometimes fatal poisoning may occur from the injection of large doses into closed cavities and from extensive application to burns. It is stated that the administration of bismuth should be stopped when gingivitis appears, for otherwise serious ulceration stomatitis is likely to result. Other toxic results may develop, such as a vague feeling of bodily discomfort, presence of albumin or other protein substance in the urine, diarrhea, skin reactions and sometimes serious exodermatitis (Sax, Dangerous Properties of Industrial Materials, 8th Edition)

Aggravate Medical Conditions: No Data Available.

Median Lethal Dose: No Data Available.

Carcinogen:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity: Harmful to aquatic life with long lasting effects.

Persistence and degradability: No Data Available.

Bioaccumulative potential: No Data Available.

Notes: No Data Available.

13. DISPOSAL CONSIDERATIONS

Disposal: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Empty containers should be taken to an appropriate waste handling site for recycling or disposal. Dispose of in accordance with local, state, or national regulations.

14. TRANSPORTATION DATA

Hazardous: **DoT:** Not Dangerous Goods
IMDG: Not Dangerous Goods
IATA: Not Dangerous Goods

Pictogram: NA

Hazard Class: NA

Packing Group: NA

UN Number: NA

Proper Shipping Name: **DoT:** NA
IMDG: NA
IATA: NA

15. REGULATORY INFORMATION

SARA 302 Components No chemical in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components This material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimus) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards Acute Health Hazard

Massachusetts Right to Know Components No components are subject to the Ma. Right to Know Act.

Pennsylvania Right to Know Components Bismuth Stannate (CAS No. 12338-09-9)

New Jersey Right to Know Components Bismuth Stannate (CAS No. 12338-09-9)

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

16. OTHER INFORMATION

Copyright 2018 Lorad Chemical Corporation. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. The information in this sheet does not represent a guarantee of the properties of the product. Lorad Chemical Corporation and its Affiliates make no warranty with respect to the accuracy of the information or the suitability of this product for any particular application, and shall not be held liable for any damage resulting from handling or from contact with the above product.

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