

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Barium Stannate

Chemical Formula: BaSnO₃

Manufacturer Item Number: BA-0520

Manufacturer: Lorad Chemical Corporation
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2. HAZARD IDENTIFICATION

Signal Word: Danger

Pictograms:



Hazard Statements:

H301 Toxic if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.

Precautionary Statements:

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P301+310 IF SWALLOWED: Immediately call a POISON CENTER or a physician.
P302+352 IF ON SKIN (or hair): Wash with plenty of soap and water.
P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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. Continue rinsing.
P332+313 If skin irritation occurs: Get medical advice / attention.
P403+233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents / container in accordance with local / regional / national / international regulations.

HMIS Health Ratings (0-4)

- Health: 3
- Flammability: 0
- Physical: 0

3. COMPOSITION

Additional Names:	Barium Tin Trioxide
Percentage:	100 wt%
CAS #:	12009-18-6
EC #:	234-545-2

4. FIRST AID PROCEDURES

General Treatment	Consult a physician. Show this SDS to the doctor in attendance. Move out of dangerous area.
Special Treatment:	No Data Available.
Important Symptoms:	No Data Available.
Inhalation:	Remove from exposure, supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek medical attention.
Ingestion:	Do not induce vomiting. Seek medical attention.
Skin:	Immediately wash with soap and warm water and rinse thoroughly. If irritation persists, seek medical attention.
Eyes:	Flush eyes with large amounts of water for 15 minutes. Separate eyelids with fingers. If irritation persists, seek medical attention.

5. FIREFIGHTING MEASURES

Flammability:	Non-flammable
Special Hazards from Substance:	If this product is involved in a fire, may release barium oxide or tin oxide fumes.
Extinguishing Media:	Carbon dioxide, extinguishing powder or water spray. For larger fires, water spray or alcohol resistant foam.
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

If Material is Released / Spilled:	Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Wear personal protective equipment and keep unprotected persons away. Remove from ignition sources if safe to do so. Sweep up or vacuum up spillage and collect in a suitable container for disposal. 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 drain, sewers, or watercourses.

7. HANDLING AND STORAGE

Handling Conditions:	Provide appropriate exhaust ventilation at places where dust is formed. Avoid breathing dust, vapor, mist or gas. Avoid contact with skin and eyes. Avoid prolonged or repeated exposure. Use only under a chemical fume hood or in a well ventilated area. Keep ignition sources away.
Storage Conditions:	Keep in a dry cool place.
Work / Hygienic Maintenance:	Follow personal protection guidelines in Section 8.

Ventilation: Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible Exposure Limits:	Authority	Basis	Limit	Remarks
	OSHA	PEL	0.5 mg/m ³	Barium, soluble compounds (as Ba), Table Z-1 Limits for Air Contaminants
	California	PEL	0.5 mg/m ³	Barium, soluble compounds (as Ba), California permissible exposure limit for chemical contaminants (Title 8, Article 107)
	California	PEL	2.0 mg/m ³	Tin, inorganic compounds (as Sn), California permissible exposure limit for chemical contaminants (Title 8, Article 107)
Threshold Limit Value:	Authority	Basis	Limit	Remarks
	NIOSH	REL	0.5 mg/m ³	Barium, soluble compounds (as Ba), Up to 10-hour time weighted average.
	ACGIH	TLV	0.5 mg/m ³	Barium, soluble compounds (as Ba), 8-hour time weighted-average
	ACGIH	TLV	2.0 mg/m ³	Tin, inorganic compounds (as Sn), 8-hour time weighted-average
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:	304.04 g/mol
Forms:	Powder, Granules	Density:	7.24 g/cm ³
Odor:	Odorless	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.

SAFETY DATA SHEET

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:	Oxidizing agents
Incompatible Conditions:	Heat, flame, sparks, other ignition sources
Hazardous Decomposition Products:	If this product is involved in a fire, may release barium oxide or tin oxide fumes.

11. TOXICOLOGICAL INFORMATION

Potential Health Effects:	Eyes: May cause irritation. Skin: May cause irritation. Ingestion: May cause severe gastroenteritis, including abdominal pain, vomiting and diarrhea, tremors, faintness, paralysis of the arms and legs, and slow or irregular heartbeat. Inhalation: Inhalation of fumes may cause sore throat, coughing, labored breathing, and irritation of the respiratory tract. Chronic: Severe or chronic exposure to barium compounds may produce collapse and death due to respiratory failure.
Signs and Symptoms:	No Data Available.
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:	No Data Available.
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:** Hazardous for Transportation
IMDG: Hazardous for Transportation
IATA: Hazardous for Transportation

Pictogram:



Hazard Class: 6.1 Toxic substances

Packing Group: II

UN Number: UN1564

Proper Shipping Name: **DoT:** Barium compound, n.o.s. (Barium Stannate)

IMDG: BARIUM COMPOUND, N.O.S. (Barium Stannate)
Marine Pollutant: No
EMS-No: F-A, S-A

IATA: Barium compound, n.o.s. (Barium Stannate)

15. REGULATORY INFORMATION

SARA 302 Components No chemicals 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 component with known CAS numbers that exceed the threshold (de minimis) 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 The following product is known to the State of Pennsylvania as an environmental hazard: Barium Compounds (Barium Stannate (CAS No. 12009-18-6)).

New Jersey Right to Know Components Barium Stannate (CAS No. 12009-18-6).

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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