

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Bismuth Oxide

Chemical Formula: Bi₂O₃

Manufacturer Item Number: BI-0750

Manufacturer: Lorad Chemical Corporation
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United States of America

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2. HAZARD IDENTIFICATION

Signal Word: Not a hazardous substance or mixture.

Pictograms: N/A

Hazard Statements: N/A

Precautionary Statements: N/A

HMIS Health Ratings (0-4)

- Health: 1*
- Flammability: 0
- Physical: 0

3. COMPOSITION

Additional Names: Bismuth(III) Oxide, Dibismuth Trioxide

Percentage: 100 wt%

CAS #: 1304-76-3

EC #: 215-134-7

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: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Skin: Wash off with soap and plenty of water. Consult a physician.

Eyes: Flush eyes with water as a precaution.

5. FIREFIGHTING MEASURES

Flammability: Not Flammable.

Special Hazards from Substance: Bismuth oxides

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

If Material is Released / Spilled: Use appropriate personal protective equipment. Avoid dust formation. Avoid breathing dust, vapors, mist, or gas. Isolate spill area and provide ventilation. Evacuate personnel to safe areas. Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable closed containers for disposal.

Environmental Precautions: Prevent further leakage or spills if safe to do so. Do not allow to enter drains, sewers, or watercourses.

7. HANDLING AND STORAGE

Handling Conditions: Use appropriate personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing. Avoid formation of dust and aerosols.

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

Work / Hygienic Maintenance: Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.

Ventilation: Provide appropriate exhaust ventilation at places where dust is formed.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible Exposure Limits:	Authority	Basis	Limit	Remarks
	-	-	-	Contains no substances with occupational exposure limit values.

Threshold Limit Value:	Authority	Basis	Limit	Remarks
	-	-	-	Contains no substances with occupational exposure limit values.

Special Equipment: No Data Available.

Respiratory Protection: Respiratory protection is not required. Where protection from nuisance levels of dust are desired, use type N95 (US) or type P1 (EN 143) dust masks. 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 the 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. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Body Protection: Wear appropriate protective clothing.

9. PHYSICAL AND CHEMICAL CHARACTERISTICS

Color:	Light Yellow	Molecular Weight:	465.96 g/mol
Forms:	Powder	Density:	8.9 g/cm ³
Odor:	Odorless	pH:	No Data Available.
Water Solubility:	No Data Available.	Auto-Ignition Temperature:	No Data Available.
Boiling Point:	> 1,890°C (> 3,434°F) @ 760 mmHg	Evaporation Rate:	No Data Available.
Melting Point / Freezing Point:	> 817°C (> 1,503°F)	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:	<p>Eyes: No Data Available.</p> <p>Skin: No Data Available.</p> <p>Ingestion: No Data Available.</p> <p>Inhalation: No Data Available.</p> <p>Chronic: Chronic bismuth toxicity in humans consists of decreased appetite, weakness, rheumatic pain, diarrhea, fever, metal lines on the gums, foul breath, gingivitis and dermatitis. Jaundice and conjunctival hemorrhage are rare, but have been reported. Bismuth nephropathy with proteinuria may occur. The kidney is the site of the highest concentration with the liver being considerably lower. Bismuth does not pass into the amniotic fluid and into the fetus. Kidney or liver injury may occur.</p>
Signs and Symptoms:	<p>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)</p>
Aggravate Medical Conditions:	No Data Available.

Median Lethal Dose:	No Data Available.
Carcinogen:	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

12. ECOLOGICAL INFORMATION

Aquatic Toxicity:	No Data Available.
Persistence and degradability:	Insoluble in water.
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.
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14. TRANSPORTATION DATA

Hazardous:	<p>DoT: Not Dangerous Goods</p> <p>IMDG: Not Dangerous Goods</p> <p>IATA: Not Dangerous Goods</p>
Pictogram:	N/A
Hazard Class:	N/A
Packing Group:	N/A
UN Number:	N/A
Proper Shipping Name:	<p>DoT: N/A</p> <p>IMDG: N/A</p> <p>IATA: N/A</p>

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 components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards	Chronic Health Hazard

Massachusetts Right to Know Components	No components are subject to the Ma. Right to Know Act.
Pennsylvania Right to Know Components	Bismuth Oxide (CAS No. 1304-76-3).
New Jersey Right to Know Components	Bismuth Oxide (CAS No. 1304-76-3).
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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