

MATERIAL SAFETY DATA SHEET (MSDS)

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EM SCIENCE

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer.....:

EM SCIENCE

A Division of EM Industries

P.O. Box 70

480 Democrat Road

Gibbstown, N.J. 08027

Preparation Date.: 6/7/93

Information Phone Number.: 856-423-6300

Hours: Mon. to Fri. 8:30-5

Chemtrec Emergency Number: 800-424-9300

Hours: 24 hrs a day

Catalog Number(s):

1889 BX0835

Product Name:

Bismuth Trioxide

Synonyms:

Bismuth (III) Oxide

Chemical Family:

Inorganic

Formula:

Bi_2O_3

Molecular Weight.:

465.96

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS #	Appr %
Bismuth Trioxide	1304-76-3	100%

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Handling care generally in keeping with safe laboratory practices is recommended.

Appearance:

White to pale yellow powder

POTENTIAL HEALTH EFFECTS (ACUTE AND CHRONIC)

Symptoms of Exposure:

May be harmful if swallowed in large quantities.

Medical Cond. Aggravated by Exposure:

Data not available.

Routes of Entry:

Inhalation, ingestion

Carcinogenicity:

The material is not listed (IARC, NTP, OSHA) as cancer causing agent.

4. FIRST AID MEASURES

Emergency First Aid:

GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.

Skin: Wash thoroughly with soap and water.

Eyes: Immediately flush thoroughly with water for at least 15 minutes.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped.

Ingestion: Get immediate medical attention; if conscious, give water freely.

5. FIRE FIGHTING MEASURES

Flash Point (F): Noncombustible

Flammable Limits LEL (%): N/A

Flammable Limits UEL (%): N/A

Extinguishing Media:

Use any suitable for adjacent material.

Fire Fighting Procedures:

Wear self-contained breathing apparatus.

Fire & Explosion Hazards:

None

6. ACCIDENTAL RELEASE MEASURES

Spill Response:

Evacuate the area of all unnecessary personnel. Wear suitable protective equipment listed under Exposure / Personal Protection. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate its source, if this can be done without risk. Take up and containerize for proper disposal as described under Disposal. Comply with Federal, State, and local regulations on reporting releases. Refer to Regulatory Information for reportable quantity and other regulatory data.

7. HANDLING AND STORAGE

Handling & Storage:

Keep container closed. Store at controlled room temperature. Do not breathe dust. Do not get in eyes, on skin, or on clothing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT:

Ventilation, Respiratory Protection, Protective Clothing, Eye Protection:

Material should be handled or transferred in an approved fume hood or with adequate ventilation. Protective gloves should be worn to prevent skin contact (Neoprene or equivalent) Safety glasses with side shields should be worn at all times.

Work/Hygenic Practices:

Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

EXPOSURE GUIDELINES

OSHA - PEL:

Component	TWA		STEL		CL		Skin
	PPM	MG/M3	PPM	MG/M3	PPM	MG/M3	
Bismuth Trioxide							

ACGIH - TLV:

Component	TWA		STEL		CL		Skin
	PPM	MG/M3	PPM	MG/M3	PPM	MG/M3	
Bismuth Trioxide							

If there are no exposure limit numbers listed in the Exposure Guidelines chart, this indicates that no OSHA or ACGIH exposure limits have been established.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (C 760 mmHg) : N/A

Melting Point (C) : 820C

Specific Gravity (H₂O = 1) : 8.8

Vapor Pressure (mm Hg) : N/A

Percent Volatile by vol (%) : N/A

Vapor Density (Air = 1) : N/A

Evaporation Rate (BuAc = 1) : N/A

Solubility in Water (%) : Insoluble

Appearance :

White to pale yellow powder

10. STABILITY AND REACTIVITY

Stability: Yes

Hazardous Polymerization:

Does not occur

Hazardous Decomposition:

None indicated

Conditions to Avoid:

None indicated

Materials To Avoid:

- Water
- Acids
- Bases
- Corrosives
- Oxidizers
- Other: none indicated

11. TOXICOLOGICAL INFORMATION

Toxicity Data

orl-rat LD50: 5 gm/kg

Toxicological Findings:

None

Cited in Registry of Toxic Effects of Chemical Substances (RTECS)

12. DISPOSAL CONSIDERATIONS

EPA Waste Numbers:

Treatment:

13. TRANSPORT INFORMATION

DOT Proper Shipping Name:

non-regulated

DOT ID Number :

none

14. REGULATORY INFORMATION

TSCA Statement:

Component	SARA EHS (302)	SARA EHS TPQ (lbs)	CERCLA RQ (lbs)
Bismuth Trioxide			

Component	OSHA Floor List	SARA 313	DeMinimis for SARA 313 (%)
Bismuth Trioxide			

If there is no information listed on the regulatory information chart, this indicates that the chemical is not covered by the specific regulation listed.

15. OTHER INFORMATION

Comments:

None

NFPA Hazard Ratings:

Health : 0
Flammability : 0
Reactivity : 0
Special Hazards :

Revision History: 11/1/83 1/23/91 3/1/91

| = Revised Section

N/A = Not Available

N/E = None Established

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