

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name Bismuth oxide

CAS number 1304-76-3

Synonyms Bismuth trioxide

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses Laboratory chemicals

#### 1.3 Details of the supplier of the safety data sheet

Company Lab Alley, LLC  
12501 Pauls Valley Road  
Austin, Texas 78737  
U.S.A.

Telephone 512-668-9918

Fax 512-886-4008

#### 1.4 Emergency telephone

<b>Emergency Phone #</b>	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### 2.2 GHS Label elements, including precautionary statements

Pictogram None

Signal Word                      None

Hazard statements              No information available.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified

## SECTION 3: Composition/information on ingredients

### 3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Bismuth oxide	Bismuth trioxide	1304-76-3	>95%

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

**If inhaled**                              Remove to fresh air. Get medical attention immediately if symptoms occur.

**In case of skin contact**              Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

**In case of eye contact**              Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**If swallowed**                              Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

### 4.2 Most important symptoms and effects, both acute and delayed

None reasonably foreseeable.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media**              Water spray, carbon dioxide, dry chemical, alcohol-resistant foam.

**Unsuitable extinguishing media**              No information available.

### 5.2 Specific hazards arising from the substance or mixture

Keep product and empty container away from heat and sources of ignition.

### 5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 5.4 Further information

**Flash Point** No data available.

**Autoignition Temperature** No information available.

#### Explosion limits

**Upper** No data available.

**Lower** No data available.

**Sensitivity to Mechanical Impact** No information available.

**Sensitivity to Static Discharge** No information available.

#### NFPA

Health	Flammability	Instability	Physical hazards
1	0	0	N/A

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

### 6.2 Environmental precautions

Should not be released into the environment.

### 6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

### 6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Precautions on safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

## 7.2 Conditions for safe storage, including any incompatibilities

### Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible materials.

### Incompatibilities

Strong oxidizing agents.

## SECTION 8: Exposure controls/personal protection

### 8.1 Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

No information available.

#### US. ACGIH Threshold Limit Values

No information available.

#### US. NIOSH: Pocket Guide to Chemical Hazards

No information available.

#### Biological occupational exposure limits

No information available.

### 8.2 Exposure controls

#### Appropriate engineering controls

None under normal use conditions.

#### Personal protective equipment

##### Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 19 CFR 1910.133 or European Standard EN166.

##### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

##### Respiratory protection

No protective equipment is needed under normal use conditions.

##### Control of environmental exposure

No information available.

## SECTION 9: Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	Yellow
Odor	Odorless
Odor Threshold	No information available.
pH	No information available.
Melting Point/Range	825 °C / 1517 °F
Boiling Point/Range	1890 °C / 3434 °F @ 760 mmHg
Evaporation Rate	No information available.
Flammability (solid)	No information available.
Flammability or explosive limit	
Upper	No data available.
Lower	No data available.
Vapor Pressure	No information available.
Vapor Density	No information available.
Density	No information available.
Solubility	Insoluble in water.
Partition coefficient; n-octanol/water	No data available.
Autoignition Temp	No information available.
Decomposition Temp	No information available.
Viscosity	No information available.
Molecular Formula	Bi <sub>2</sub> O <sub>3</sub>
Molecular Weight	465.95
VOC Content(%)	No information available.
Oxidizing properties	No information available.

## 9.2 Other safety information

No information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None known, based on information available.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

None under normal processing.

### 10.4 Conditions to avoid

Incompatible products. Excess heat. Avoid dust formation.

### 10.5 Incompatible materials

Strong oxidizing agents.

### 10.6 Hazardous decomposition products

None under normal use conditions.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

##### Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Bismuth oxide	5 g/kg (rat)	-	>5.07 mg/L (rat) 4h

##### Skin corrosion/irritation

May cause irritation.

##### Serious eye damage/eye irritation

May cause irritation.

##### Respiratory or skin sensitization

May cause irritation.

##### Germ cell mutagenicity

No information available.

##### Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Bismuth oxide	1304-76-3	Not listed	Not listed	Not listed	Not listed	Not listed

##### Specific target organ toxicity - single exposure

None known

##### Specific target organ toxicity - repeated exposure

None known

##### Reproductive toxicity

No information available.

##### Chronic effects

No information available

### 11.2 Additional Information

No information available.

## SECTION 12: Ecological information

### 12.1 Toxicity

No information available.

## 12.2 Persistence and degradability

Insoluble in water.

## 12.3 Bio accumulative potential

No information available.

## 12.4 Mobility in soil

Is not likely mobile in the environment due its low water solubility.

## 12.5 Results of PBT and vPvB assessment

No information available.

## 12.6 Endocrine disrupting properties

No information available.

## 12.7 Other adverse effects

The toxicological properties have not been fully investigated.

## SECTION 13: Disposal considerations

### 13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14: Transport information

### DOT (US)

Not regulated.

### IMDG

Not regulated

### IATA

Not regulated

## SECTION 15: Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not listed.

### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

**SARA 304 Emergency release notification**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous**

See section 2 for more information.

**SARA 313 (TRI reporting)**

Not listed.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not listed.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not listed.

**Safe Drinking Water Act**

Not listed.

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

Not listed

**US state regulations**

**US. Massachusetts RTK - Substance List**

Not listed

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed

**California Proposition 65**

Not listed

**SECTION 16: Other information**

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**SECTION 17: Disclaimer**



The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.