

Bismuth(III)oxide powder

Revision Date: 7/5/2018

Date Issued: 7/11/2018

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY / UNDERTAKING

Product name Bismuth(III)oxide powder

Product code NO-0052 **CAS:** 1304-76-3

REACH No.: A registration number is not available for this

substance as the substance or its uses are

exempted from registration, the annual tonnage

does not require a registration or the registration is

envisaged for a later registration deadline.

Identified uses Laboratory chemicals, Manufacture of substances

Supplier IoLiTec

Ionic Liquids Technologies GmbH

Salzstrasse 184

D - 74076 Heilbronn

Germany

 Telephone
 +49 (0)7131-89839-0

 Fax
 +49 (0)7131-89839-109

 Emergency telephone
 +49 (0)176-84850874

Email msds@iolitec.de

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture Classification (67/548/EEC or 1999/45/EC)

Irritating to eyes, respiratory system and skin.

Classification (REGULATION (EC) No 1272/2008)

Skin corrosion/irritation, Category 2, H315

NO-0052 Page: 1/9



Bismuth(III)oxide powder

Revision Date: 7/5/2018

Date Issued: 7/11/2018

Serious eye damage/Eye irritation, Category 2, H319 Specific Target Organ Toxicity – Single exposure: Respiratory tract irritation, Category 3, H335

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008, GHS)

Hazard statements

H phrases: Warn

H315: Causes skin irritation.

H319: Causes serious eye irritation. H335: May cause respiratory irritation.

Precautionary statements

P phrases

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302+351: IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

3 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient name Bismuth(III)oxide, 99.9%

CAS No. 1304-76-3

Empirical Formula Bi₂O₃

Molecular weight 465.96 amu

NO-0052 Page: 2/9



Bismuth(III)oxide powder

Revision Date: 7/5/2018

Date Issued: 7/11/2018

4 FIRST AID MEASURES

General Contaminated clothing should be removed

and washed before being reused.

Inhalation Move the exposed person to fresh air at once.

If respiratory problems, artificial

respiration/oxygen.

Ingestion Immediately rinse mouth and provide fresh

air. Do not induce vomiting. Get medical

attention immediately.

Skin Wash the skin immediately with soap and

water.

Eyes Promptly wash eyes with plenty of water while

lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention

immediately. Continue to rinse.

5 FIRE FIGHTING MEASURES

Extinguishing mediaUse fire fighting measures appropriate to the

surrounding fire.

Special fire fighting procedures

Unusual fire & explosion hazards

Protective measures in fire

No special procedures required.

Possible emission of toxic fumes.

Wear self-contained breathing apparatus as

combustion may produce hazardous fumes.

NO-0052 Page: 3/9



Bismuth(III)oxide powder

Revision Date: 7/5/2018

Date Issued: 7/11/2018

6 ACCIDENTAL RELEASE MEASURES

Personal precautions during spill Wear protective clothing and mask. Avoid

inhalation of powder, fume and vapor as well

as skin or eye contact.

Precautions to protect

environment Avoid washing into water courses. Avoid

contaminating public drains or water supply.

Spill cleanup methods Avoid contact with skin or inhalation of

spillage, dust or vapor, Avoid dust formation.

Collect and reclaim or dispose in sealed containers in license waste. Extinguish all

ignition sources. Avoid sparks, flames, heat

and smoking. Ventilate.

7 HANDLING AND STORAGE

Handling precautions Do not breathe dust. Avoid contact with eyes,

skin, and clothing. Avoid prolonged or

repeated exposure.

Storage precautions Keep container closed. Store in a cool, dry

place.

NO-0052 Page: 4/9



Bismuth(III)oxide powder

Revision Date: 7/5/2018

Date Issued: 7/11/2018

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Protective equipment Safety goggles. Chemical resident gloves.

Protective clothing. Protective mask when

high concentrations are present.

Process control measures Provide eyewash station and safety shower.

Use engineering controls to reduce air

contamination to permissible exposure levels.

Ventilation Provide adequate general and local exhaust

ventilation.

RespiratorsUse high efficiency particulate respirator with

appropriate filter.

Exposure limits N/A

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance Solid

Odor/taste No characteristic odor.

PH N/A

Boiling Point 1819°C

Melting Point 822-828°C

Flash Point N/A
Flammability N/A
Autoignition Temp N/A

NO-0052 Page: 5/9



Bismuth(III)oxide powder

Revision Date: 7/5/2018

Date Issued: 7/11/2018

Oxidizing Properties N/A

Explosive Properties N/A

Explosion Limits N/A

Vapor Pressure N/A

SG/Density 8.9 g/cm³ at 20°C

Partition Coefficient N/A

Viscosity N/A

Vapor Density N/A

Saturated Vapor Conc. N/A

Evaporation Rate N/A

Bulk Density N/A

Decomposition Temp. N/A

Solvent Content N/A

Water Content N/A

Surface Tension N/A

Conductivity N/A

Solubility Insoluble in water

10 STABILITY AND REACTIVITY

Stability No particular stability concerns.

Conditions/materials to avoid Oxidizing agents

Hazardous Decomposition hazardous products of decomposition: Metal

oxide fume.

11 TOXICOLOGICAL INFORMATION

Ingestion Harmful if swallowed.

NO-0052 Page: 6/9



Bismuth(III)oxide powder

Revision Date: 7/5/2018

Date Issued: 7/11/2018

Inhalation Harmful if inhaled. Material is irritating to

mucous membranes and upper respiratory

tract.

SkinCauses irritationEyesCauses irritationSensitizationNo effect known

Acute toxicity LD50, oral, rat: 5 mg/kg

12 ECOLOGICAL INFORMATION

Do not allow material to be released to the environment without proper governmental permits.

13 DISPOSAL CONSIDERATIONS

Disposal method Contact specialist disposal companies. Dissolve or mix the

material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Dispose of in accordance with Local Authority requirements.

Recover and reclaim or recycle, if practical.

14 TRANSPORT INFORMATION

General Not classified as dangerous for transport

purposes.

UN No. 0

Road transport notes

Not classified as dangerous for road transport.

Rail transport notes

Not classified as dangerous for rail transport.

NO-0052 Page: 7/9



Bismuth(III)oxide powder

Revision Date: 7/5/2018

Date Issued: 7/11/2018

Sea transport notes

Not classified as dangerous for sea transport.

Air transport notes

Not classified as dangerous for air transport.

15 REGULATORY INFORMATION

Label for supply Xi irritant

R-Phrases

36/37/38 Irritating to eyes, respiratory system and skin

S-Phrases

S26 In case of contact with eyes, rinse immediately

S37 Wear appropriate gloves

16 OTHER INFORMATION

DISCLAIMER

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPOSED TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. IOLITEC SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. THIS INFORMATION RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR ANY PROCESS. IT IS THE USERE'S RESPONISIBILTY TO SATISFY HIMSELF AS TO THE SUITABILITY OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE.

IN NO WAY SHALL IOLITEC BE LIABLE FOR ANY CLAIMS, LOSSES OR DAMAGES OF ANY THIRD PARTY OR FOR THE LOST PROFITS OR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES, HOWSOEVER ARISING, EVEN IF THE COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

NO-0052 Page: 8/9