

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Bismuth(III) nitrate, 50 g

Print date: 15.04.2015

Product code: 9991993

Page 1 of 8

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Bismuth(III) nitrate, 50 g

CAS No: 10035-06-0

EC No: 233-791-8

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Laboratory chemicals

1.3. Details of the supplier of the safety data sheet**Seller**

Company name: CONATEX-DIDACTIC Lehrmittel GmbH

Street: Im Forstgarten 1

Place: D-66459 Kirkel

Internet: www.conatex.com

Supplier

Company name: Carbolution Chemicals GmbH

Street: Im Stadtwald, Gebäude A1.2

Place: D-66123 Saarbrücken

Contact person: Dr. Michael Bauer Telephone: +49 (0)681 302-71232

e-mail: michael.bauer@carbolution-chemicals.de

Internet: www.carbolution-chemicals.de

1.4. Emergency telephone number: +49 (0)681 302-71232**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: O - Oxidizing, Xi - Irritant

R phrases:

Contact with combustible material may cause fire.

Irritating to eyes, respiratory system and skin.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:

Oxidising solid: Ox. Sol. 2

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

May intensify fire; oxidiser.

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

2.2. Label elements**Hazardous components which must be listed on the label**

Bismuth(III) nitrate

Signal word: Danger

Pictograms: GHS03-GHS07

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Bismuth(III) nitrate, 50 g

Print date: 15.04.2015

Product code: 9991993

Page 2 of 8



Hazard statements

H272 May intensify fire; oxidiser.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula: $\text{BiN}_3\text{O}_9 \cdot 5\text{H}_2\text{O}$
Molecular weight: 485,07

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
233-791-8	Bismuth(III) nitrate	100 %
10035-06-0	O - Oxidizing, Xi - Irritant R08-36/37/38	
	Ox. Sol. 2, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H272 H315 H319 H335	

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. Medical treatment necessary.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Rinse mouth immediately and drink plenty of water.

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

No data available

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Bismuth(III) nitrate, 50 g

Print date: 15.04.2015

Product code: 9991993

Page 3 of 8

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid generation of dust. Do not breathe dust.

Advice on protection against fire and explosion

Only use the material in places where open light, fire and other flammable sources can be kept away.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection

Eye protection: Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): DIN EN 166

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Bismuth(III) nitrate, 50 g

Print date: 15.04.2015

Product code: 9991993

Page 4 of 8

Hand protection

Hand protection: Single-use gloves. Before using check leak tightness / impermeability. Use gloves only once. German Industry Norms (DIN) / European Norms (EN): DIN EN 374

Skin protection

Body protection: Lab apron. Only wear fitting, comfortable and clean protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Suitable respiratory protective equipment: particulates filter device (DIN EN 143).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	solid
Colour:	colourless
Odour:	No data available

Test method

pH-Value: No data available

Changes in the physical state

Melting point:	30 °C
Initial boiling point and boiling range:	75 °C
Sublimation point:	No data available
Softening point:	No data available
Flash point:	No data available

Flammability

Solid:	No data available
Gas:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Ignition temperature:	No data available

Auto-ignition temperature

Solid:	No data available
Gas:	No data available
Vapour pressure:	No data available
Vapour pressure:	No data available
Density:	2,83 g/cm ³
Water solubility:	No data available
Partition coefficient:	No data available
Viscosity / dynamic:	No data available
Viscosity / kinematic:	No data available
Flow time:	No data available
Vapour density:	No data available
Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	No data available

9.2. Other information

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Bismuth(III) nitrate, 50 g

Print date: 15.04.2015

Product code: 9991993

Page 5 of 8

Solid content:

No data available

SECTION 10: Stability and reactivity**10.1. Reactivity**

No data available

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

Oxidizing agents, strong.

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Toxicokinetics, metabolism and distribution**

Toxicological data are not available.

Acute toxicity

Toxicological data are not available.

Irritation and corrosivity

Causes eye irritation. Irritation to respiratory tract, Lung irritation, Cough, Dyspnoea. Causes skin irritation.

Sensitising effects

No data available

Severe effects after repeated or prolonged exposure

No data available

Carcinogenic/mutagenic/toxic effects for reproduction

Due to missing data no statement can be made whether the substance fulfills the criteria of CMR categories 1 or 2. Practical experiences do not give any evidence for CMR activity of categories 1 or 2.

Specific effects in experiment on an animal

No data available

Additional information on tests

This mixture is classified as hazardous according to 1999/45/EC.

Practical experience**Observations relevant to classification**

No data available

SECTION 12: Ecological information**12.1. Toxicity**

No data available

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Bismuth(III) nitrate, 50 g

Print date: 15.04.2015

Product code: 9991993

Page 6 of 8

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
Classified as hazardous waste.

Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

<u>14.1. UN number:</u>	UN 1477
<u>14.2. UN proper shipping name:</u>	NITRATES, INORGANIC, N.O.S.
<u>14.3. Transport hazard class(es):</u>	5.1
<u>14.4. Packing group:</u>	II
Hazard label:	5.1
Classification code:	O2
Special Provisions:	511
Limited quantity:	1 kg
Transport category:	2
Hazard No:	50
Tunnel restriction code:	E

Other applicable information (land transport)

E2

Inland waterways transport (ADN)

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Bismuth(III) nitrate, 50 g

Print date: 15.04.2015

Product code: 9991993

Page 7 of 8

14.1. UN number:	UN 1477
14.2. UN proper shipping name:	NITRATES, INORGANIC, N.O.S.
14.3. Transport hazard class(es):	5.1
14.4. Packing group:	II
Hazard label:	5.1
Classification code:	O2
Special Provisions:	511
Limited quantity:	1 kg

Other applicable information (inland waterways transport)

E2

Marine transport (IMDG)

14.1. UN number:	UN 1477
14.2. UN proper shipping name:	NITRATES, INORGANIC, N.O.S.
14.3. Transport hazard class(es):	5.1
14.4. Packing group:	II
Hazard label:	5.1
Special Provisions:	-
Limited quantity:	1 kg
EmS:	F-A, S-Q

Other applicable information (marine transport)

E2

Air transport (ICAO)

14.1. UN number:	UN 1477
14.2. UN proper shipping name:	NITRATES, INORGANIC, N.O.S.
14.3. Transport hazard class(es):	5.1
14.4. Packing group:	II
Hazard label:	5.1
Special Provisions:	A3
Limited quantity Passenger:	2.5 kg
IATA-packing instructions - Passenger:	558
IATA-max. quantity - Passenger:	5 kg
IATA-packing instructions - Cargo:	562
IATA-max. quantity - Cargo:	25 kg

Other applicable information (air transport)

E2

: Y544

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

2004/42/EC (VOC): 100 % (2830 g/l)

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

National regulatory information

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Bismuth(III) nitrate, 50 g

Print date: 15.04.2015

Product code: 9991993

Page 8 of 8

Water contaminating class (D): 3 - highly water contaminating

SECTION 16: Other information

Relevant R-phrases (Number and full text)

- 08 Contact with combustible material may cause fire.
- 36/37/38 Irritating to eyes, respiratory system and skin.

Relevant H- and EUH-phrases (Number and full text)

- H272 May intensify fire; oxidiser.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.