

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Barium chloride, 100 g**

Print date: 14.04.2015

Product code: 9991112

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

Barium chloride, 100 g

CAS No: 10361-37-2  
Index No: 056-004-00-8  
EC No: 233-788-1

**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: T - Toxic, Xn - Harmful  
R phrases:  
Toxic if swallowed.  
Harmful by inhalation.

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

Hazard categories:  
Acute toxicity: Acute Tox. 3  
Acute toxicity: Acute Tox. 4  
Hazard Statements:  
Toxic if swallowed.  
Harmful if inhaled.

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

Signal word: Danger  
Pictograms: GHS06

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#### Hazard statements

H301 Toxic if swallowed.  
H332 Harmful if inhaled.

#### Precautionary statements

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Sum formula: BaCl<sub>2</sub> · 2H<sub>2</sub>O  
Molecular weight: 244,26

#### 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]	
233-788-1	barium chloride	100 %
10361-37-2	T - Toxic, Xn - Harmful R25-20	
056-004-00-8	Acute Tox. 3, Acute Tox. 4; H301 H332	

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. In all cases of doubt, or when symptoms persist, seek medical advice.

##### After contact with skin

Wash with plenty of water. Change contaminated clothing. Medical treatment necessary.

##### After contact with eyes

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

##### After ingestion

Rinse mouth immediately and drink plenty of water. Induce vomiting when the affected person is not unconscious. Call a physician immediately.

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

No data available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

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

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#### **5.2. Special hazards arising from the substance or mixture**

The product itself does not burn.

#### **5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

#### **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. Wear 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. 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. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

### SECTION 8: Exposure controls/personal protection

#### **8.1. Control parameters**

##### **Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
-	Barium compounds, soluble (as Ba)	-	0.5		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

#### **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. Protect skin by using skin protective cream. After work, wash hands and face. 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

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#### 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 (at 25 °C):	6,5 50 g/l
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#### Changes in the physical state

Melting point:	0000000 °C
Initial boiling point and boiling range:	No data available
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:	3,1 g/cm <sup>3</sup>
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

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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

Toxic. Acute toxicity, inhalant. Acute toxicity, dermal.

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
10361-37-2	barium chloride				
	oral	LD50	118 mg/kg	Ratte	
	inhalative vapour	ATE	11 mg/l		
	inhalative aerosol	ATE	1,5 mg/l		

###### Irritation and corrosivity

No data available

###### 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

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

###### Practical experience

###### Observations relevant to classification

No data available

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## SECTION 12: Ecological information

### 12.1. Toxicity

No data available

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h]   [d]	Species	Source
10361-37-2	barium chloride					
	Acute fish toxicity	LC50	870 mg/l	96 h	Leuciscus idus	
	Acute crustacea toxicity	EC50	21,9 mg/l	48 h	Daphnia magna	

### 12.2. Persistence and degradability

No data available

### 12.3. Bioaccumulative potential

No data available

### 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

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Advice on disposal

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)

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**14.1. UN number:** UN1564  
**14.2. UN proper shipping name:** BARIUM COMPOUND, N.O.S.  
**14.3. Transport hazard class(es):** 6.1  
**14.4. Packing group:** III  
 Hazard label: 6.1  
 Classification code: T5  
 Special Provisions: 177 274 513 587  
 Limited quantity: 5 kg  
 Transport category: 2  
 Hazard No: 60  
 Tunnel restriction code: E

**Other applicable information (land transport)**

E1

**Inland waterways transport (ADN)**

**14.1. UN number:** UN1564  
**14.2. UN proper shipping name:** BARIUM COMPOUND, N.O.S.  
**14.3. Transport hazard class(es):** 6.1  
**14.4. Packing group:** III  
 Hazard label: 6.1  
 Classification code: T5  
 Special Provisions: 177 274 513 587 802  
 Limited quantity: 5 kg

**Other applicable information (inland waterways transport)**

E1

**Marine transport (IMDG)**

**14.1. UN number:** UN1564  
**14.2. UN proper shipping name:** BARIUM COMPOUND, N.O.S.  
**14.3. Transport hazard class(es):** 6.1  
**14.4. Packing group:** III  
 Hazard label: 6.1  
 Marine pollutant: •  
 Special Provisions: 177, 223, 274  
 Limited quantity: 5 kg  
 EmS: F-A, S-A

**Air transport (ICAO)**

**14.1. UN number:** UN1564  
**14.2. UN proper shipping name:** BARIUM COMPOUND, N.O.S.  
**14.3. Transport hazard class(es):** 6.1  
**14.4. Packing group:** III  
 Hazard label: 6.1  
 Special Provisions: A3 A82  
 Limited quantity Passenger: 10 kg  
 IATA-packing instructions - Passenger: 670  
 IATA-max. quantity - Passenger: 100 kg  
 IATA-packing instructions - Cargo: 677  
 IATA-max. quantity - Cargo: 200 kg

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#### Other applicable information (air transport)

E1  
: Y645

#### 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

##### Additional information

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

##### National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

### SECTION 16: Other information

#### Relevant R-phrases (Number and full text)

20 Harmful by inhalation.  
25 Toxic if swallowed.

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

H301 Toxic if swallowed.  
H332 Harmful if inhaled.