



# Barium chloride.2aq a.r.

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830  
Date of issue: 10/31/2018 Version: 1.0

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

#### 1.1. Product identifier

Product form : Substance  
Trade name : Barium chloride.2aq a.r.  
EC Index-No. : 056-004-00-8  
CAS-No. : 10326-27-9  
Product code : CL00.0207  
Type of product : Pure substance  
Formula : BaCl<sub>2</sub>.2H<sub>2</sub>O  
Synonyms : barium chloride, dihydrate / barium dichloride, dihydrate / bariummuriate, dihydrate / chloride of barium, dihydrate / muriate of barium, dihydrate

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

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemical

##### 1.2.2. Uses advised against

No additional information available

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

Chem-Lab nv  
Industriezone "De Arend" 2  
Zedelgem - Belgium  
T +32 50 288320  
[info@chem-lab.be](mailto:info@chem-lab.be) - [www.chem-lab.be](http://www.chem-lab.be)

#### 1.4. Emergency telephone number

Emergency number : +32 50 28 83 20

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Acute toxicity (oral), Category 3 H301

Acute toxicity (inhal.), Category 4 H332

Full text of H statements : see section 16

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS06

Signal word (CLP) : Danger

Hazard statements (CLP) : H301 - Toxic if swallowed.  
H332 - Harmful if inhaled.

Precautionary statements (CLP) : P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor.

#### 2.3. Other hazards

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Barium chloride.2aq a.r.	(CAS-No.) 10326-27-9 (EC Index-No.) 056-004-00-8	100	Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Inhalation), H332

Full text of H-statements: see section 16

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### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Rinse with water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Give nothing to drink. Victim is fully conscious: immediately induce vomiting. Induce vomiting by giving a 0.9 % saline solution. Immediately consult a doctor/medical service. Call Poison Information Centre ( <a href="http://www.big.be/antigif.htm">www.big.be/antigif.htm</a> ). Take the container/vomit to the doctor/hospital. Ingestion of large quantities: immediately to hospital. Doctor: administration of chemical antidote. Doctor: gastric lavage.

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

Symptoms/effects after inhalation	: EXPOSURE TO HIGH CONCENTRATIONS: Dry/sore throat. Coughing.
Symptoms/effects after eye contact	: Redness of the eye tissue.
Symptoms/effects after ingestion	: Vomiting. Nausea. Abdominal pain. Blood in stool. Bleeding of the gastrointestinal tract. Increased salivation. Myasthenia. Cramps/uncontrolled muscular contractions. Paralysis. Disturbances of heart rate. High arterial pressure.

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Adapt extinguishing media to the environment for surrounding fires.

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

Fire hazard : DIRECT FIRE HAZARD: Non combustible.  
Hazardous decomposition products in case of fire : On burning: release of toxic and corrosive gases/vapours (hydrogen chloride).

### 5.3. Advice for firefighters

Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.  
Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.  
Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Protective equipment : Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Reactivity hazard: compressed air/oxygen apparatus. Reactivity hazard: gas-tight suit.  
Emergency procedures : Mark the danger area. Prevent dust cloud formation. No naked flames. Wash contaminated clothes. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.  
Measures in case of dust release : In case of dust production: keep upwind. In case of dust production: consider evacuation. Dust production: have neighbourhood close doors and windows.

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

### 6.3. Methods and material for containment and cleaning up

For containment : Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Dam up the solid spill. Knock down/dilute dust cloud with water spray. If reacting: dilute toxic gas/vapour with water spray. Take account of toxic/corrosive precipitation water.

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Methods for cleaning up : Stop dust cloud by covering with sand/earth. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water and soap solution. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Pulverization rapidly increases toxic concentration.  
Precautions for safe handling : Avoid raising dust. Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep container tightly closed.  
Hygiene measures : Observe strict hygiene.

### 7.2. Conditions for safe storage, including any incompatibilities

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.  
Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) acids.  
Storage area : Store in a dry area. Keep container in a well-ventilated place. Keep locked up. Unauthorized persons are not admitted. Meet the legal requirements.  
Special rules on packaging : SPECIAL REQUIREMENTS: closing. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.  
Packaging materials : SUITABLE MATERIAL: steel. stainless steel. paper with plastic inner lining. cardboard. synthetic material. MATERIAL TO AVOID: aluminium.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Barium chloride.2aq a.r. (10326-27-9)		
EU	IOELV TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup> ((Ba))
Belgium	Limit value (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>
France	VME (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>
Netherlands	Grenswaarde TGG 8H (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup> (als Ba)
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>
USA - ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>

### 8.2. Exposure controls

<b>Materials for protective clothing:</b>
GIVE GOOD RESISTANCE: butyl rubber. chloroprene rubber. chlorinated polyethylene. neoprene. PVC. viton
<b>Hand protection:</b>
Gloves
<b>Eye protection:</b>
Safety glasses. In case of dust production: protective goggles
<b>Skin and body protection:</b>
Protective clothing
<b>Respiratory protection:</b>
Dust production: dust mask with filter type P3. High dust production: self-contained breathing apparatus

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid  
Appearance : Crystalline solid. Powder. Crystalline powder. Grains.  
Molecular mass : 244.28 g/mol  
Colour : Colourless to white.  
Odour : Odourless.

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Odour threshold	: No data available
pH	: 5 - 8 (5 %)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 963 °C
Freezing point	: No data available
Boiling point	: 1560 °C
Flash point	: Not applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: < 0.1 hPa (20 °C)
Relative vapour density at 20 °C	: Not applicable
Relative density	: 3.1
Density	: 3100 kg/m <sup>3</sup>
Solubility	: Soluble in water. Water: 36 g/100ml
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

VOC content : 0 %

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reacts with (strong) oxidizers.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Reacts with (some) acids: release of toxic and corrosive gases/vapours (hydrogen chloride).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Oral: Toxic if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Inhalation: Harmful if inhaled.

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LD50 oral rat	118 mg/kg (Rat, Oral)
Skin corrosion/irritation	: Not classified pH: 5 - 8 (5 %)
Serious eye damage/irritation	: Not classified pH: 5 - 8 (5 %)
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Toxic if swallowed. Harmful if inhaled.

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### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general	: Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.
Ecology - air	: Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water	: Harmful to crustacea. Slightly harmful to fishes. Harmful to aquatic plants. Groundwater pollutant. Mild water pollutant (surface water). Not harmful to bacteria.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

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LC50 fish 1	870 mg/l (Leuciscus idus)
EC50 Daphnia 1	21.9 mg/l (48 h, Daphnia magna, Anhydrous form)

#### 12.2. Persistence and degradability

##### Barium chloride.2aq a.r. (10326-27-9)

Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

#### 12.3. Bioaccumulative potential

##### Barium chloride.2aq a.r. (10326-27-9)

Bioaccumulative potential	No bioaccumulation data available.
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#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Remove to an authorized dump (Class I). Detoxicate.

Additional information : Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

European List of Waste (LoW) code : 15 01 10\* - packaging containing residues of or contaminated by dangerous substances  
16 03 03\* - inorganic wastes containing dangerous substances

### SECTION 14: Transport information






In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
1564	1564	1564	1564	1564
<b>14.2. UN proper shipping name</b>				
Barium compound, n.o.s.	Barium compound, n.o.s.	Barium compound, n.o.s.	Barium compound, n.o.s.	Barium compound, n.o.s.
<b>Transport document description</b>				
UN 1564 Barium compound, n.o.s., 6.1, III, (E)	UN 1564 Barium compound, n.o.s., 6.1, III	UN 1564 Barium compound, n.o.s., 6.1, III	UN 1564 Barium compound, n.o.s., 6.1, III	UN 1564 Barium compound, n.o.s., 6.1, III
<b>14.3. Transport hazard class(es)</b>				
6.1	6.1	6.1	6.1	6.1

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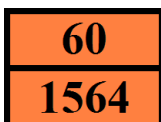
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

				
<b>14.4. Packing group</b>				
III	III	III	III	III
<b>14.5. Environmental hazards</b>				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Transport regulations (ADR) : Subject to the provisions  
Classification code (ADR) : T5  
Hazard identification number (Kemler No.) : 60  
Orange plates :



Tunnel restriction code (ADR) : E  
EAC code : 2Z

#### Transport by sea

Transport regulations (IMDG) : Subject to the provisions  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-A

#### Air transport

Transport regulations (IATA) : Subject to the provisions

#### Inland waterway transport

Classification code (ADN) : T5

#### Rail transport

Transport regulations (RID) : Subject to the provisions  
Classification code (RID) : T5

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions  
Barium chloride.2aq a.r. is not on the REACH Candidate List  
Barium chloride.2aq a.r. is not on the REACH Annex XIV List

VOC content : 0 %  
Directive 2012/18/EU (SEVESO III)

#### 15.1.2. National regulations

##### Germany

Reference to AwSV : Water hazard class (WGK) 1, low hazard to water  
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed  
SZW-lijst van mutagene stoffen : The substance is not listed  
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

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NIET-limitatieve lijst van voor de voortplanting  
giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting  
giftige stoffen – Ontwikkeling : The substance is not listed

### Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
H301	Toxic if swallowed.
H332	Harmful if inhaled.

SDS Zonder Big

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*