

**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

Printing date 23.06.2022

Version number 7.0

Revision: 23.06.2022

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name:** Barium chloride dihydrate, EssentQ®**Article number:** BA0053**CAS Number:**

10326-27-9

**EC number:**

233-788-1

**Index number:**

056-002-00-7

**Registration number**

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.

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

No further relevant information available.

**Application of the substance / the preparation:** Laboratory reagent**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Scharlab, S.L.

C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa

08181 Sentmenat (Barcelona) SPAIN

Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65

email: scharlab@scharlab.com

Internet Web Site: www.scharlab.com

**Regional representation:**

Scharlab, S.L.

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**Further information obtainable from:** technical department**1.4 Emergency telephone number:**

Please contact the regional Scharlab distributor/dealer in your country

During normal opening times: Scharlab, S.L. (+34) 93 715 18 11

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

GHS06 skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

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**• Hazard pictograms**

GHS06

**• Signal word** Danger**• Hazard statements**

H301 Toxic if swallowed.

H332 Harmful if inhaled.

**• Precautionary statements**

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

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

P321 Specific treatment (see on this label).

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**• 2.3 Other hazards****• Results of PBT and vPvB assessment****• PBT:** Not applicable.**• vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****• 3.1 Chemical characterisation: Substances****• CAS No. Description**

10326-27-9 barium chloride, dihydrate

**• Identification number(s)****• EC number:** 233-788-1**• Index number:** 056-002-00-7**SECTION 4: First aid measures****• 4.1 Description of first aid measures****• General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

**• After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

**• After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Seek medical treatment.

**• After eye contact:** Rinse opened eye for several minutes under running water.**• After swallowing:**

Never give anything by mouth to an unconscious person.

Rinse out mouth and then drink plenty of water.

Call a doctor immediately.

**• 4.2 Most important symptoms and effects, both acute and delayed**

The main symptoms are described for different cases of contact: Skin, eyes, inhalation and ingestion.

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- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**
  - The substance is not combustible.  
Barium oxide
- **5.3 Advice for firefighters**
- **Protective equipment:**  
In the work of extinction it is necessary to provide respiratory protection and full chemical protective clothing.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Avoid formation of dust.  
Use respiratory protective device against the effects of fumes/dust/aerosol.  
Ensure adequate ventilation  
Evacuate and restrict access.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Sweep spilled substance into containers.  
Send for recovery or disposal in suitable receptacles.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Thorough dedusting.  
Ensure good ventilation/exhaustion at the workplace.  
Wear an individual protective equipment.  
Wear chemically sealed goggles and / or face shield.  
Avoid contact with eyes and skin.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Store in a cool, dry, well-ventilated place.  
Store only in unopened original receptacles.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

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**SECTION 8: Exposure controls/personal protection**

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:**  
**10326-27-9 barium chloride, dihydrate**  
WEL Long-term value: 0.5 mg/m<sup>3</sup>  
as Ba
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.

**SECTION 9: Physical and chemical properties**

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
  - Form:** Solid
  - Colour:** White
- **Odour:** Odourless
- **Odour threshold:** Not determined.
- **pH-value:** 5-8
- **Change in condition**
  - Melting point/freezing point:** 962 °C
  - Initial boiling point and boiling range:** Undetermined.
- **Flash point:** Not applicable.
- **Flammability (solid, gas):** Product is not flammable.
- **Decomposition temperature:** Not determined.
- **Auto-ignition temperature:** Not determined.
- **Explosive properties:** Product does not present an explosion hazard.

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- **Explosion limits:**
  - Lower:** Not determined.
  - Upper:** Not determined.
- **Vapour pressure:** Not applicable.
- **Density at 20 °C:** 3.1 g/cm<sup>3</sup>
- **Bulk density:** 1300 kg/m<sup>3</sup>
- **Relative density:** Not determined.
- **Vapour density:** Not applicable.
- **Evaporation rate:** Not applicable.
- **Solubility in / Miscibility with water at 20 °C:** 357 g/l
- **Partition coefficient: n-octanol/water:** Not determined.
- **Viscosity:**
  - Dynamic:** Not applicable.
  - Kinematic:** Not applicable.
- **9.2 Other information:** No further relevant information available.

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity:** No further relevant information available.
- **10.2 Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions:** No dangerous reactions known.
- **10.4 Conditions to avoid:** No further relevant information available.
- **10.5 Incompatible materials:** Strong oxidizing agents.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity:**  
Toxic if swallowed.  
Harmful if inhaled.
- **LD/LC50 values relevant for classification:**  
Oral LD50 51 mg/kg (mouse)
- **Primary irritant effect:**
- **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation:** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

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### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**  
This product is not considered harmful to aquatic organisms or that causes long-term adverse effects on the environment.
- **12.2 Persistence and degradability**  
Anorganic product, is not eliminable from water by means of biological cleaning processes.
- **12.3 Bioaccumulative potential** Does not accumulate in organisms
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must be specially treated adhering to official regulations.  
After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste.  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:**  
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

### SECTION 14: Transport information

- |   |  |
|---|--|
| • <b>14.1 UN-Number</b>   | UN1564   |
| • <b>ADR, IMDG, IATA</b>  |  |
| • <b>14.2 UN proper shipping name</b>   |  |
| • <b>ADR</b>  | 1564 BARIUM COMPOUND, N.O.S. (barium chloride, dihydrate)              |
| • <b>IMDG</b>   | BARIUM COMPOUND, N.O.S. (barium chloride, dihydrate), MARINE POLLUTANT |
| • <b>IATA</b>   | BARIUM COMPOUND, N.O.S. (barium chloride, dihydrate)                   |
| • <b>14.3 Transport hazard class(es)</b>  |  |
| • <b>ADR, IATA</b>  |  |
|  |  |
| • <b>Class</b>  | 6.1 Toxic substances.  |

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• **Label**

6.1

• **IMDG**• **Class**

6.1 Toxic substances.

• **Label**

6.1

• **14.4 Packing group**• **ADR, IMDG, IATA**

III

• **14.5 Environmental hazards:**• **Marine pollutant:**

Yes

Symbol (fish and tree)

Warning: Toxic substances.

• **14.6 Special precautions for user**• **Hazard identification number (Kemler code):**

60

• **EMS Number:**

6.1-04

• **Stowage Category**

A

• **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

• **Transport/Additional information:**• **ADR**• **Limited quantities (LQ)**

5 kg

• **Transport category**

2

• **Tunnel restriction code**

E

• **UN "Model Regulation":**

UN 1564 BARIUM COMPOUND, N.O.S. (BARIUM CHLORIDE, DIHYDRATE), 6.1, III

### SECTION 15: Regulatory information

• **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**• **Directive 2012/18/EU**• **Named dangerous substances - ANNEX I -**• **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

Substance is not listed.

• **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• **Classification according to Regulation (EC) No 1272/2008**

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

• **Department issuing SDS:** product safety department• **Contact:** msds@scharlab.com• **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

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IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Acute Tox. 3: Acute toxicity – Category 3  
Acute Tox. 4: Acute toxicity – Category 4