

## SAFETY DATA SHEET

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

#### 1.1 Product identifiers

|              |                             |
|--------------|-----------------------------|
| Product name | Barium chloride dihydrate   |
| CAS number   | 10326-27-9                  |
| Synonyms     | Barium dichloride dihydrate |

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

|                 |                       |
|-----------------|-----------------------|
| Identified uses | Laboratory chemicals. |
|-----------------|-----------------------|

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

|           |  |
|-----------|--|
| Company   | Lab Alley, LLC<br>12501 Pauls Valley Road<br>Austin, Texas 78737<br>U.S.A. |
| Telephone | 512-668-9918   |
| Fax       | 512-886-4008   |

#### 1.4 Emergency telephone

|                   |                              |          |
|-------------------|------------------------------|----------|
| Emergency Phone # | US & Canada: 1-800-535-5053  | INFOTRAC |
|                   | International 1-352-323-3500 | INFOTRAC |

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

|                                   |            |
|-----------------------------------|------------|
| Acute Oral Toxicity               | Category 3 |
| Acute Inhalation Toxicity         | Category 4 |
| Serious Eye Damage/Eye Irritation | Category 2 |

#### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

Toxic if swallowed.  
Causes serious eye irritation.  
Harmful if inhaled.

Precautionary statements

Prevention: Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink, or smoke when using this product. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wear eye/face protection.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

Storage: Store locked up.

Disposal: Dispose of contents/container to an approved waste disposal plant.

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified.

## SECTION 3: Composition/information on ingredients

### 3.1 Components

| Chemical name             | Common name and synonyms    | CAS number | Concentration |
|---------------------------|-----------------------------|------------|---------------|
| Barium chloride dihydrate | Barium dichloride dihydrate | 10326-27-9 | 100%          |
| Barium chloride           | Barium dichloride           | 10361-37-2 | -             |

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

|                                |  |
|--------------------------------|--|
| <b>If inhaled</b>              | Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. |
| <b>In case of skin contact</b> | Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.  |
| <b>In case of eye contact</b>  | Rinse immediately with plenty of water and seek medical advice.  |
| <b>If swallowed</b>            | Do NOT induce vomiting. Call a physician or poison control center immediately.   |

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

None reasonably foreseeable.

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

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

|                                       |   |
|---------------------------------------|---|
| <b>Suitable extinguishing media</b>   | Substance is nonflammable; use agent most appropriate to extinguish surrounding fire. |
| <b>Unsuitable extinguishing media</b> | No information available.   |

#### 5.2 Specific hazards arising from the substance or mixture

Containers may explode when heated. Thermal decomposition can lead to release of irritating gases and vapors.  
Hazardous Combustion Products: Chlorine. Hydrogen chloride gas

#### 5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

#### 5.4 Further information

|                    |                           |
|--------------------|---------------------------|
| <b>Flash Point</b> | No information available. |
|--------------------|---------------------------|

**Autoignition Temperature** No information available.

**Explosion limits**

**Upper** No data available.

**Lower** No data available.

**Sensitivity to Mechanical Impact** No information available.

**Sensitivity to Static Discharge** No information available.

**NFPA**

| Health | Flammability | Instability | Physical hazards |
|--------|--------------|-------------|------------------|
| 3      | 1            | 0           | N/A              |

**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment as required. Avoid dust formation. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

**6.2 Environmental precautions**

Should not be released into the environment. See Section 12 for additional Ecological Information.

**6.3 Methods and materials for containment and cleaning up**

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

**6.4 Reference to other sections**

See Section 2 for full list of hazard and precaution statements.

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

**Precautions on safe handling**

Wear personal protective equipment/face protection. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe (dust,vapor, mist, gas). Do not ingest. If swallowed, seek immediate medical assistance.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

**7.2 Conditions for safe storage, including any incompatibilities**

**Storage conditions**

Keep containers tightly closed in a dry, cool, and well-ventilated place.

## Incompatibilities

Strong oxidizing agents.

## SECTION 8: Exposure controls/personal protection

### 8.1 Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Component                 | Type          | Value                 |
|---------------------------|---------------|-----------------------|
| Barium chloride dihydrate | (Vacated) TWA | 0.5 mg/m <sup>3</sup> |

#### US. ACGIH Threshold Limit Values

| Component                 | Type | Value                 |
|---------------------------|------|-----------------------|
| Barium chloride dihydrate | TWA  | 0.5 mg/m <sup>3</sup> |

#### US. NIOSH: Pocket Guide to Chemical Hazards

| Component                 | Type | Value                 |
|---------------------------|------|-----------------------|
| Barium chloride dihydrate | IDLH | 50 mg/m <sup>3</sup>  |
|                           | TWA  | 0.5 mg/m <sup>3</sup> |

#### Biological occupational exposure limits

No information available.

### 8.2 Exposure controls

#### Appropriate engineering controls

Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Personal protective equipment

##### Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

##### Skin protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

##### Body Protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

##### Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Recommended Filter type: Particulates filter conforming to EN 143.

#### **Control of environmental exposure**

No information available.

## **SECTION 9: Physical and chemical properties**

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

|   |                                      |
|---|--------------------------------------|
| Physical State                            | Solid                                |
| Appearance                                | White                                |
| Odor                                      | Odorless                             |
| Odor Threshold                            | No information available             |
| pH  | 5 - 8 (5 %)                          |
| Melting Point/Range                       | 962 °C / 1763.6 °F                   |
| Boiling Point/Range                       | 1560 °C / 2840 °F @ 760 mmHg         |
| Evaporation Rate                          | Not applicable                       |
| Flammability (solid)                      | No information available             |
| Flammability or explosive limit           | No data available                    |
| Upper                                     |                                      |
| Lower                                     |                                      |
| Vapor Pressure                            | No information available             |
| Vapor Density                             | Not applicable                       |
| Density                                   | No information available             |
| Solubility                                | Soluble in water                     |
| Partition coefficient;<br>n-octanol/water | No data available                    |
| Autoignition Temp                         | No information available             |
| Decomposition Temp                        | No information available             |
| Viscosity                                 | Not applicable                       |
| Molecular Formula                         | BaCl <sub>2</sub> ·2H <sub>2</sub> O |
| Molecular Weight                          | 244.28 g/mol                         |
| VOC Content(%)                            | No information available             |
| Oxidizing properties                      | No information available             |

### **9.2 Other safety information**

No information available.

## **SECTION 10: Stability and reactivity**

### **10.1 Reactivity**

No information available.

## 10.2 Chemical stability

Stable under normal conditions.

## 10.3 Possibility of hazardous reactions

None under normal processing.

## 10.4 Conditions to avoid

Avoid dust formation. Incompatible products. Excess heat.

## 10.5 Incompatible materials

Strong oxidizing agents.

## 10.6 Hazardous decomposition products

Chlorine, Hydrogen chloride gas.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

##### Acute toxicity

| Component       | LD50 Oral       | LD50 Dermal | LC50 Inhalation         |
|-----------------|-----------------|-------------|-------------------------|
| Barium chloride | 118 mg/kg (Rat) | -           | >1.1 mg/L (Rat) 243 min |

##### Skin corrosion/irritation

No information available.

##### Serious eye damage/eye irritation

No information available.

##### Respiratory or skin sensitization

No information available.

##### Germ cell mutagenicity

Mutagenic effects have occurred in experimental animals.

##### Carcinogenicity

| Component                 | CAS        | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|---------------------------|------------|------------|------------|------------|------------|------------|
| Barium chloride dihydrate | 10326-27-9 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Barium chloride           | 10361-37-2 | Not listed | Not listed | Not listed | Not listed | Not listed |

##### Specific target organ toxicity - single exposure

None known.

##### Specific target organ toxicity - repeated exposure

None known.

**Reproductive toxicity**  
No information available.

**Chronic effects**  
No information available.

**11.2 Additional Information**  
The toxicological properties have not been fully investigated.

## SECTION 12: Ecological information

### 12.1 Toxicity

| Product                   |      | Species       | Test Results   |
|---------------------------|------|---------------|----------------|
| Barium chloride dihydrate | LC50 | Danio rerio   | >152 mg/L, 96h |
| Barium chloride           | EC50 | Daphnia magna | 14.5 mg/L, 48h |

**12.2 Persistence and degradability**  
Soluble in water. Persistence is unlikely based on information available.

**12.3 Bio accumulative potential**  
No information available.

**12.4 Mobility in soil**  
Will likely be mobile in the environment due to its water solubility.

**12.5 Results of PBT and vPvB assessment**  
No information available.

**12.6 Endocrine disrupting properties**  
No information available.

**12.7 Other adverse effects**  
No information available.

## SECTION 13: Disposal considerations

### 13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14: Transport information



**DOT (US)**

|                      |                          |
|----------------------|--------------------------|
| UN-no                | UN1564                   |
| Proper Shipping Name | BARIUM COMPOUNDS, N.O.S. |
| Hazard Class         | 6.1                      |
| Packing Group        | III                      |

**IMDG**

|                      |                          |
|----------------------|--------------------------|
| UN-no                | UN1564                   |
| Proper Shipping Name | BARIUM COMPOUNDS, N.O.S. |
| Hazard Class         | 6.1                      |
| Packing Group        | III                      |

**IATA**

|                      |                          |
|----------------------|--------------------------|
| UN-no                | UN1564                   |
| Proper Shipping Name | BARIUM COMPOUNDS, N.O.S. |
| Hazard Class         | 6.1                      |
| Packing Group        | III                      |

**SECTION 15: Regulatory information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**  
Not applicable.

**CERCLA Hazardous Substance List (40 CFR 302.4)**  
Not listed.

**SARA 304 Emergency release notification**  
Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**  
Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**  
Not listed.

**SARA 311/312 Hazardous**  
See Section 2 for more information.

**SARA 313 (TRI reporting)**  
Listed, Barium chloride dihydrate (CAS #10326-27-9).  
Listed, Barium chloride (CAS #10361-37-2).

## Other federal regulations

### **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

### **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

### **Safe Drinking Water Act**

Not regulated.

### **FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

Not listed.

## US state regulations

### **US. Massachusetts RTK - Substance List**

Not listed.

### **US. New Jersey Worker and Community Right-to-Know Act**

Listed, Barium chloride dihydrate (CAS #10326-27-9).

Listed, Barium chloride (CAS #10361-37-2).

### **US. Pennsylvania Worker and Community Right-to-Know Law**

Listed, Barium chloride dihydrate (CAS #10326-27-9).

Listed, Barium chloride (CAS #10361-37-2).

### **California Proposition 65**

Not listed.

## SECTION 16: Other information

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Revision 1: 12/10/2024

## SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.