

## SAFETY DATA SHEET

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

#### 1.1 Product identifiers

Product name Barium Chloride 32% w/v

CAS number 1036-37-2

Synonyms Barium dichloride

#### 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  
12501 Pauls Valley Road  
Austin, Texas 78737  
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 4

Acute Inhalation Toxicity - Dusts and Mists Category 4

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

Pictogram



Signal Word

Danger

Hazard statements

Harmful if swallowed.  
Causes skin irritation.  
Harmful if inhaled  
Causes damage to organs  
Causes damage to organs  
Harmful to aquatic life

Precautionary statements

P260 Do not breathe fumes, mist, vapors, or spray.  
P261 Avoid breathing fumes, mist, vapors, or spray.  
P264 Wash arms, hands and face thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves and eye protection.  
P301+P312 IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P307+P311 IF exposed: Call a POISON CENTER or physician.  
P312 Call a POISON CENTER or physician if you feel unwell.  
P314 Get medical attention if you feel unwell.  
P321 Specific treatment (Wash areas of contact with water).  
P330 Rinse mouth.  
P332+P313 If skin irritation occurs: Get medical attention.  
P337+P313 If eye irritation persists: Get medical attention.  
P362 Take off contaminated clothing and wash it before reuse.  
P405 Store locked up.  
P501 Dispose of contents in accordance with local, state, federal and international regulations.

## 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 |
|-----------------|--------------------------|------------|---------------|
| Water           | Aqua;H <sub>2</sub> O    | 7732-18-5  | 74.03%        |
| Barium chloride | Barium dichloride        | 10361-37-2 | 25.97%        |

## 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 air 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>  | In the case of contact with eyes, 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 reasonable foreseeable.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

|                                       |                                                      |
|---------------------------------------|------------------------------------------------------|
| <b>Suitable extinguishing media</b>   | Foam. Dry powder. Carbon dioxide. Water spray. Sand. |
| <b>Unsuitable extinguishing media</b> | Do not use heavy water stream.                       |

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

Non-combustible, substance itself does not burn but may decompose upon heating to product corrosive and/or toxic fumes. 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 released of irritating gases and vapors.

### 5.4 Further information

|                    |                   |
|--------------------|-------------------|
| <b>Flash Point</b> | No data 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 |
|--------|--------------|-------------|------------------|
| 2      | 0            | 0           | N/A              |

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. 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. Do not flush into surface water or sanitary sewer system.

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

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

**6.4 Reference to other sections**

See Heading 8. Exposure controls and personal protection.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling****Precautions on safe handling**

Avoid dust formation. Wear personal protective equipment/face protection. 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 then 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 oxidizers.

## 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 | PEL  | 0.5 mg/m3 |

#### US. ACGIH Threshold Limit Values

| Component       | Type | Value     |
|-----------------|------|-----------|
| Barium chloride | TWA  | 0.5 mg/m3 |

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

| Component       | Type | Value     |
|-----------------|------|-----------|
| Barium chloride | IDLH | 50 mg/m3  |
|                 | TWA  | 0.5 mg/m3 |

#### Biological occupational exposure limits

No information available

### 8.2 Exposure controls

#### Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash station 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 and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

##### Respiratory protection

Follow the OSHA respirator 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.

#### Control of environmental exposure

No information available

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                           |                                           |
|-------------------------------------------|-------------------------------------------|
| Physical State                            | Liquid                                    |
| Appearance                                | Colorless                                 |
| Odor                                      | None                                      |
| Odor Threshold                            | No information available                  |
| pH                                        | 5-7                                       |
| Melting Point/Range                       | No information available                  |
| Boiling Point/Range                       | Approximately 101°C - Approximately 101°C |
| Evaporation Rate                          | No information available                  |
| Flammability (solid)                      | No information available                  |
| Flammability or explosive limit           | No information available                  |
| Upper                                     | No information available                  |
| Lower                                     | No information available                  |
| Vapor Pressure                            | No information available                  |
| Vapor Density                             | No information available                  |
| Density                                   | 1.23                                      |
| Solubility                                | Miscible                                  |
| Partition coefficient;<br>n-octanol/water | No information available                  |
| Autoignition Temp                         | No information available                  |
| Decomposition Temp                        | No information available                  |
| Viscosity                                 | No information available                  |
| Molecular Formula                         | No information available                  |
| Molecular Weight                          | No information available                  |
| 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

None known, based on 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

Excess heat. Incompatible products.

## 10.5 Incompatible materials

Strong oxidizers.

## 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 | -           | <5.0 mg/L 4h    |

#### Skin corrosion/irritation

Causes skin irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. Specific treatment (Wash areas of contact with water). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

#### Serious eye damage/eye irritation

Causes serious eye irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection.

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 attention.

#### Respiratory or skin sensitization

No information available

#### Germ cell mutagenicity

No information available

#### Carcinogenicity

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

#### Specific target organ toxicity - single exposure

Causes damage to organs. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed: Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

#### Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations

**Reproductive toxicity**

No information available

**Chronic effects**

No information available

**11.2 Additional Information**

No information available

**SECTION 12: Ecological information**

**12.1 Toxicity**

Harmful to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

Harmful to aquatic life with long lasting effects. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

| Product         |      | Species                    | Test Results  |
|-----------------|------|----------------------------|---------------|
| Barium chloride | EC50 | Water flea (Daphnia magna) | 21.9 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**

The toxicological properties have not been fully investigated.

**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 Number            | UN3287                                            |
| Proper Shipping name | Toxic Liquid, Inorganic, n.o.s. (Barium Chloride) |
| Hazard Class         | 6.1                                               |
| Packaging Group      | III                                               |

### IMDG

|                      |                                                   |
|----------------------|---------------------------------------------------|
| UN Number            | UN3287                                            |
| Proper Shipping name | Toxic Liquid, Inorganic, n.o.s. (Barium Chloride) |
| Hazard Class         | 6.1                                               |
| Packaging Group      | III                                               |

### IATA

|                      |                                                   |
|----------------------|---------------------------------------------------|
| UN Number            | UN3287                                            |
| Proper Shipping name | Toxic Liquid, Inorganic, n.o.s. (Barium Chloride) |
| Hazard Class         | 6.1                                               |
| Packaging 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 listed

### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed

### SARA 304 Emergency release notification

Not listed

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

### 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)**

List, (BARIUM CHLORIDE (10361-37-2)) 100% weight, Threshold Values%: 1.0

**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

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

Listed

**California Proposition 65**

Not listed

**SECTION 16: Other information**

Date of Issue: 6/16/2020

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**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.