Barium Chloride, 10% w/v
Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 08/13/2014
Revision date: 12/08/2016
Supersedes: 08/13/2014
Version: 1.1

SECTION 1: Identification

1.1. Identification
Product form: Mixture
Product name: Barium Chloride, 10% w/v
Product code: LC11600

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture: For laboratory and manufacturing use only.

1.3. Details of the supplier of the safety data sheet
LabChem Inc
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number
Emergency number: CHEMTREC: 1-800-424-9300 or 011-703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
GHS-US classification
Acute toxicity (oral) Category 4 H302
Full text of H statements: see section 16

2.2. Label elements
GHS-US labeling
Hazard pictograms (GHS-US): GHS07
Signal word (GHS-US): Warning
Hazard statements (GHS-US): H302 - Harmful if swallowed
Precautionary statements (GHS-US):
P264 - Wash exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P330 - If swallowed, rinse mouth
P501 - Dispose of contents/container to comply with local, state and federal regulations

2.3. Other hazards
Other hazards not contributing to the classification: None under normal conditions.

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substance
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>(CAS No) 7732-18-5</td>
<td>90.78</td>
<td>Not classified</td>
</tr>
<tr>
<td>Barium Chloride, Dihydrate</td>
<td>(CAS No) 10326-27-9</td>
<td>9.22</td>
<td>Acute Tox. 3 (Oral), H301, Aquatic Acute 3, H402</td>
</tr>
</tbody>
</table>
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Full text of hazard classes and H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.

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

Symptoms/injuries after ingestion: Swallowing a small quantity of this material will result in serious health hazard.

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

Obtain medical assistance.

SECTION 5: Firefighting measures

5.1. Extinguishing media


Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment: Safety glasses. Gloves.

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for 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 for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Hygiene measures: Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container closed when not in use.
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Incompatible products: Strong oxidizers.
Incompatible materials: Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Barium Chloride, Dihydrate (10326-27-9)</th>
<th>ACGIH TWA (mg/m³)</th>
<th>0.5 mg/m³ (Barium, soluble compounds, as Ba; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>0.5 mg/m³</td>
</tr>
<tr>
<td>OSHA</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>0.5 mg/m³</td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation.


Hand protection: Wear protective gloves.

Eye protection: Chemical goggles or safety glasses.

Respiratory protection: Mist formation: aerosol mask.

Other information: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>None.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non flammable.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Specific gravity / density</td>
<td>1.08 g/ml</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>1.03 cSt</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>
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Oxidizing properties : No data available

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
No additional information available

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
Not established.

10.4. Conditions to avoid
Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials
Strong oxidizers.

10.6. Hazardous decomposition products
Hydrogen chloride. barium.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Skin and eye contact
Acute toxicity : Oral: Harmful if swallowed.

Barium Chloride, 10% w/v
LD50 oral rat 1280 mg/kg
ATE US (oral) 1280.000 mg/kg body weight

Barium Chloride, Dihydrate (10326-27-9)
LD50 oral rat 118 mg/kg (Rat)
ATE US (oral) 118.000 mg/kg body weight

Water (7732-18-5)
LD50 oral rat ≥ 90000 mg/kg
ATE US (oral) 90000.000 mg/kg body weight

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : Not classified
Aspiration hazard : Not classified
Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Harmful if swallowed.
Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information

12.1. Toxicity

Barium Chloride, 10% w/v
EC50 Daphnia 1 238 mg/l
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<table>
<thead>
<tr>
<th>12.2. Persistence and degradability</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Barium Chloride, 10% w/v</strong></td>
<td></td>
</tr>
<tr>
<td>Persistence and degradability</td>
<td>Not established.</td>
</tr>
<tr>
<td><strong>Barium Chloride, Dihydrate (10326-27-9)</strong></td>
<td></td>
</tr>
<tr>
<td>Persistence and degradability</td>
<td>Biodegradability: not applicable.</td>
</tr>
<tr>
<td>Biochemical oxygen demand (BOD)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Chemical oxygen demand (COD)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>ThOD</td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Water (7732-18-5)</strong></td>
<td></td>
</tr>
<tr>
<td>Persistence and degradability</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Barium Chloride, 10% w/v</strong></td>
<td></td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Not established.</td>
</tr>
<tr>
<td><strong>Barium Chloride, Dihydrate (10326-27-9)</strong></td>
<td></td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>No bioaccumulation data available.</td>
</tr>
<tr>
<td><strong>Water (7732-18-5)</strong></td>
<td></td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known effects from this product.
GWPmix comment : No known effects from this product.
Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with local, state and federal regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

**Barium Chloride, 10% w/v**
SARA Section 311/312 Hazard Classes Immediate (acute) health hazard

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.
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| Barium Chloride, Dihydrate (10326-27-9) | SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |

15.2. International regulations

CANADA

Barium Chloride, 10% w/v

WHMIS Classification | Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Barium Chloride, Dihydrate (10326-27-9)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification | Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects

Water (7732-18-5)

WHMIS Classification | Uncontrolled product according to WHMIS classification criteria

EU-Regulations

No additional information available

National regulations

Barium Chloride, Dihydrate (10326-27-9)

Listed on the Canadian IDL (Ingredient Disclosure List)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Revision date : 12/08/2016

Other information : None.

Full text of H-phrases: see section 16:

- **H301** | Toxic if swallowed
- **H302** | Harmful if swallowed
- **H402** | Harmful to aquatic life

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : B

- B - Safety glasses, Gloves

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