Barium Chloride, 20% w/v
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of issue: 04/30/2014  Version: 1.0

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

1.1. Product identifier
Product form : Mixture
Product name : Barium Chloride, 20% w/v
Product code : LC11605

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: Hazards identification

2.1. Classification of the substance or mixture
GHS-US classification
Acute Tox. 4 (Oral)  H302

2.2. Label elements
GHS-US labelling
Hazard pictograms (GHS-US) : !

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)
No data available

SECTION 3: Composition/information on ingredients

3.1. Substance
Not applicable
Full text of H-phrases: see section 16

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>82.52</td>
<td>Not classified</td>
</tr>
<tr>
<td>Barium Chloride, Dihydrate</td>
<td>(CAS No) 10326-27-9</td>
<td>17.48</td>
<td>Acute Tox. 3 (Oral), H301 Aquatic Acute 3, H402</td>
</tr>
</tbody>
</table>
**Barium Chloride, 20% w/v**

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### 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

- Assure fresh air breathing. 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/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.

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable 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.

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### 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.

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### 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 vapour.

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.

Incompatible products

- Strong oxidizers.

Incompatible materials

- Sources of ignition. Direct sunlight.
7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th></th>
<th>Barium Chloride, Dihydrate (10326-27-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA ACGIH</td>
<td>ACGIH TWA (mg/m³)</td>
</tr>
<tr>
<td>USA OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</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.
- Personal protective equipment: Avoid all unnecessary exposure.
- Hand protection: Wear protective gloves.
- Eye protection: Chemical goggles or safety glasses.
- Respiratory protection: Wear appropriate 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

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless.</td>
</tr>
<tr>
<td>Odour</td>
<td>None.</td>
</tr>
<tr>
<td>Odour threshold</td>
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</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate</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>Self ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density</td>
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</tr>
<tr>
<td>Relative density</td>
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</tr>
<tr>
<td>Density</td>
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<tr>
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</tr>
<tr>
<td>Log Pow</td>
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</tr>
<tr>
<td>Log Kow</td>
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</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>1.04 cSt</td>
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<tr>
<td>Viscosity, dynamic</td>
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</tr>
<tr>
<td>Explosive properties</td>
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</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

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
Acute toxicity: Harmful if swallowed.

**Barium Chloride, 20% w/v**
LD50 oral rat: 590 mg/kg

**Barium Chloride, Dihydrate (10326-27-9)**
LD50 oral rat: 118 mg/kg (Rat)

**Water (7732-18-5)**
LD50 oral rat: ≥ 90000 mg/kg

Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Not classified
Respiratory or skin sensitisation: Not classified
Germ cell mutagenicity: 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.
Likely routes of exposure: Skin and eye contact

SECTION 12: Ecological information

12.1. Toxicity

**Barium Chloride, 20% w/v**
EC50 Daphnia 1: 109.5 mg/l

**Barium Chloride, Dihydrate (10326-27-9)**
LC50 fishes 1: 158 - 500 mg/l (Piscaces; Lethal)
EC50 Daphnia 1: 21.9 mg/l (48 h; Daphnia magna; Anhydrous form)
LC50 fish 2: 870 mg/l (Leuciscus idus)
Threshold limit algae 1: 15 mg/l (Scenedesmus subspicatus; Anhydrous form)
Threshold limit algae 2: 34 mg/l (Algae)

12.2. Persistence and degradability

**Barium Chloride, 20% w/v**
Persistence and degradability: Not established.

**Barium Chloride, Dihydrate (10326-27-9)**
Persistence and degradability: Biodegradability: not applicable.
Biochemical oxygen demand (BOD): Not applicable
<table>
<thead>
<tr>
<th><strong>Barium Chloride, Dihydrate (10326-27-9)</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical oxygen demand (COD)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>ThOD</td>
<td>Not applicable</td>
</tr>
<tr>
<td>BOD (% of ThOD)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

**Water (7732-18-5)**

Persistence and degradability | Not established.

### 12.3. Bioaccumulative potential

**Barium Chloride, 20% w/v**

Bioaccumulative potential | Not established.

**Barium Chloride, Dihydrate (10326-27-9)**

Bioaccumulative potential | No bioaccumulation data available.

**Water (7732-18-5)**

Bioaccumulative potential | Not established.

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

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

In accordance with DOT

No dangerous good in sense of transport regulations

**Additional information**

Other information | No supplementary information available.

### ADR

Transport document description | :

**Transport by sea**

No additional information available

**Air transport**

No additional information available

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

**Barium Chloride, 20% w/v**

SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard

**Barium Chloride, Dihydrate (10326-27-9)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard

**Water (7732-18-5)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

**CANADA**

**Barium Chloride, 20% w/v**

WHMIS Classification | Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects
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<tbody>
<tr>
<td>Listed on the Canadian DSL (Domestic Sustances List) inventory.</td>
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<tr>
<td>WHMIS Classification: Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects</td>
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</tbody>
</table>

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<tbody>
<tr>
<td>Listed on the Canadian DSL (Domestic Sustances List) inventory.</td>
</tr>
<tr>
<td>WHMIS Classification: Uncontrolled product according to WHMIS classification criteria</td>
</tr>
</tbody>
</table>

EU-Regulations
No additional information available

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

Classification according to Directive 67/548/EEC or 1999/45/EC
Not classified

15.2.2. National regulations

<table>
<thead>
<tr>
<th>Barium Chloride, Dihydrate (10326-27-9)</th>
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<tbody>
<tr>
<td>Listed on the Canadian Ingredient Disclosure List</td>
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</table>

<table>
<thead>
<tr>
<th>Water (7732-18-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not listed on the Canadian Ingredient Disclosure List</td>
</tr>
</tbody>
</table>

15.3. US State regulations
No additional information available

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Aquatic Acute 3 | Hazardous to the aquatic environment — AcuteHazard, Category 3 |
| 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
Physical : 0 Minimal Hazard
Personal Protection : B

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