1 Identification of the substances/ mixture and of the company/ undertaking

1.1 Product Identifiers
Product Number  GRM413
Product Name    Barium nitrate, Hi-LR™
CAS No. : 10022-31-8
EC No. : 233-020-5

1.2 Relevant identified uses of the substance or mixture and uses advised against
1.2.1 Relevant identified uses  Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet
Produced by HiMedia Laboratories Private Limited
Address 23, Vadhani Industrial Estate, LBS Marg, Ghatkopar (W), Mumbai - 400 086 India
Tel. No. +91-22-2500 0970, +91-22-2500 1607 Fax No. : +91-22-25002468
Mail Id info@himedialabs.com Website : www.himedialabs.com

1.4 Emergency Tel. No.
Emergency Tel. No. Please contact the regional HiMedia representation in your country

2 Hazards Identification

2.1 Classification of the substance or mixture
CLP Classification-Regulation (EC) No. 1272/2008[EU-GHS/CLP]
Oxidising solids, (Category 2), H272
Acute toxicity, Oral, (Category 4), H302
Acute toxicity, Inhaled, (Category 4), H332
Serious eye damage or eye irritation, (Category 2A), H319

2.2 Label elements
Labeling according to Regulation (EC) No.1272/2008

Pictogram
Signal word Danger
Hazard Statement(s)
H272 May intensify fire; oxidizer
H302+H332 Harmful if swallowed or if inhaled
H319 Causes serious eye irritation
Precautionary Statement(s)
P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P221 Take any precaution to avoid mixing with combustibles.
Keep/Store away from clothing/combustible materials.

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

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

In case of fire: Use suitable extinguishing media for extinction.

2.3 Other Hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3 Composition/Information On Ingredients

3.1 Substances

Molecular Formula : Ba(NO$_3$)$_2$
Molecular Weight : 261.34
CAS No. : 10022-31-8
EC No. : 233-020-5

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barium nitrate, Hi-LR™</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&lt;= 100%</td>
</tr>
<tr>
<td>CAS No. : 10022-31-8</td>
<td>Ox. Liq. 2; Acute Tox.oral 4; Acute Tox.inhal. 4</td>
<td></td>
</tr>
<tr>
<td>EC No. : 233-020-5</td>
<td>H272; H302+H332; H319</td>
<td></td>
</tr>
</tbody>
</table>

For the full text of the H-Statements and classification mentioned in this Section, see Section 16.

4 First Aid Measures

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Take off contaminated clothing and shoes immediately. Wash with plenty of soap and water. Take victim immediately to hospital. Consult a physician.

In case of eye contact
Rinse immediately with plenty of water for at least 15 minutes. Consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.

4.3 Indication of immediate medical attention and special treatment needed
5 Fire Fighting Measures

5.1 Extinguishing media

_Suitable extinguishing media_
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

_Unsuitable extinguishing media_
No data available.

5.2 Special hazards arising from the substance or mixture
Nitrogen oxides (NOx), Barium oxide

5.3 Precautions for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary

5.4 Further information
No data available

6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into environment must be avoided.

6.3 Methods and materials for containment and cleaning up
Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see Section 13.

7 Handling and Storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of heat and ignition - No smoking. For precautions see section 2.2

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. _Recommended Storage Temperature:_ Below 30°C

7.3 Specific end uses
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8 Exposure Controls/Personal Protection
8.1 Control parameters
Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls
Handle in accordance to general industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Hygiene measure
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with the product.

Eye/face protection
Faceshield and safety goggles.

Skin protection
Handle with gloves.

Body protection
Complete suit protecting against chemicals.

Respiratory protection
Air-purifying respirators.

Environment exposure controls
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colourless or white crystals or powder</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</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 density</td>
<td>No data available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2 Other safety information
No data available
10 Stability and Reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Incompatible material

10.5 Incompatible materials
Acid anhydrides, Acids, Bases, Reducing agents

10.6 Hazardous decomposition products
Other decomposition products - refer section 5.2.
In the event of fire - refer section 5.

11 Toxicological Information

11.1 Information on toxicological effects

Acute toxicity
No data available

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitisation
No data available

Germ cell mutagenicity
No data available

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity
No data available

Specific target organ toxicity- single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
RTECS : CQ9625000

12 Ecological Information
12.1  **Toxicity**  
No data available

12.2  **Persistence and degradability**  
No data available

12.3  **Bioaccumulative potential**  
No data available

12.4  **Mobility in soil**  
No data available

12.5  **PBT and vPvB assessment**  
PBT and vPvB assessment not available Chemical safety assessment is not required

12.6  **Other adverse effects**  
Discharge into the environment must be avoided.

---

13  **Disposal Considerations**

13.1  **Waste treatments methods**
- **Product**
  Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustive solvent and burn in chemical incinerator equipped with an afterburner and scrubber.

13.2  **Contaminated packaging**  
Dispose of as unused product.

---

14  **Transport Information**

14.1  **UN-No**  
ADNR : 1446  ADR : 1446  IATA_C : 1446  IATA_P : 1446  IMDG : 1446  RID : 1446

14.2  **UN proper shipping name**  
- ADNR    : Barium nitrate
- ADR    : Barium nitrate
- IATA_C    : Barium nitrate
- IATA_P    : Barium nitrate
- IMDG    : Barium nitrate
- RID    : Barium nitrate

14.3  **Transport hazard class(es)**  
ADNR : 5.1  ADR : 5.1  IATA_C : 5.1  IATA_P : 5.1  IMDG : 5.1  RID : 5.1

14.4  **Packaging group**  
ADNR : II  ADR : II  IATA_C : II  IATA_P : II  IMDG : II  RID : II

14.5  **Environmental hazards**  
ADNR : No  ADR : No  IMDG : Marine Pollutant : No  IATA_C : No  IATA_P : No

14.6  **Special precautions for use**  
No data available
15 **Regulatory Information**
This safety datasheet complies with the requirements of Regulation(EC) No. 1907/2006.

15.1 **Safety health and environment regulations/legislation specific for the substance or mixture**
No data available

15.2 **Chemical Safety Assessment**
No data available

16 **Other information**
Text of H-Statements and EUH-Phrases mentioned in section 3

- **H272** May intensify fire; oxidizer
- **H302+H332** Harmful if swallowed or if inhaled
- **H319** Causes serious eye irritation
- **Ox. Liq. 2** Oxidising liquids, Category 2
- **Acute Tox. oral 4** Acute toxicity, oral, Category 4
- **Acute Tox. inhal. 4** Acute toxicity, inhaled, Category 4

**Further Information**

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