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

1.1 Product Identifiers

Product Number: ML106
Product Name: Bradford Reagent
REACH Registration Number: Reach registration number is not available for this mixture. The annual tonnage does not require a REACH registration or it is envisaged for a later registration deadline.

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

1.2.1 Relevant identified uses

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: mb@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]
Corrosive to metals, (Category 1), H290
Skin corrosion or irritation, (Category 2), H315
Serious eye damage or eye irritation, (Category 2A), H319
Specific target organ toxicity, Single exposure, (Category 2), H371

2.2 Label elements

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

Pictogram
Signal word: Warning

Hazard Statement(s)
H290 May be corrosive to metals
H315 Causes skin irritation
H319 Causes serious eye irritation
H371 May cause damage to organs

Precautionary Statement(s)
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

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ortho-Phosphoric acid, For Molecular Biology</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=5 - &lt;=20%</td>
</tr>
<tr>
<td>CAS No. : 7664-38-2</td>
<td>Skin Corr. 1A H314</td>
<td></td>
</tr>
<tr>
<td>EC No. : 231-633-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molecular Formula : H₃PO₄</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molecular Weight : 98.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethanol</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=1 - &lt;=10%</td>
</tr>
<tr>
<td>CAS No. : 64-17-5</td>
<td>H225; H319</td>
<td></td>
</tr>
<tr>
<td>EC No. : 200-578-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index-No : 603-002-00-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molecular Formula : CH₃CH₂OH</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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
Wash off with soap and plenty of water. Consult a physician.

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

If swallowed
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
Treat symptomatically.
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
Carbon oxides, Oxides of phosphorus

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
Use personnel protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. For personal protection see section 8.

6.2  Environmental precautions
No special environmental precautions required.

6.3  Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. 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 vapour or mist. 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. Storage class (TRGS 510): Non Combustible Liquids

Recommended Storage Temperature : 2 - 8°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
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the products.

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**
Tightly fitting safety goggles; Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

**Skin protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Body protection**
Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Environment exposure controls**
Do not let product enter drains.

---

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>Liquid</td>
</tr>
<tr>
<td></td>
<td>Brown coloured solution</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>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>1.066 g/cm³</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Soluble in water</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**
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
No data available
10.5 Incompatible materials
Strong bases, Powdered metals
10.6 Hazardous decomposition products
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
Aspiration hazard
No data available
Additional Information
RTECS : Not Applicable

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
No data available

12.6 Other adverse effects
No data available

13 Disposal Considerations
13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licenced disposal company.

13.2 Contaminated packaging
Dispose of as unused product.

14 Transport Information
14.1 UN-No

14.2 UN proper shipping name
ADNR : Phosphoric acid
ADR : Phosphoric acid
IATA_C : Phosphoric acid
IATA_P : Phosphoric acid
IMDG : Phosphoric acid
RID : Phosphoric acid

14.3 Transport hazard class(es)
ADNR : 8 ADR : 8 IATA_C : 8 IATA_P : 8 IMDG : 8 RID : 8

14.4 Packaging group

14.5 Environmental hazards
ADR : No IMDG : Marine Pollutant : No IATA_C : No IATA_P : No RID : No

14.6 Special precautions for use
No data available

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

15.2 Chemical Safety Assessment
16 Other information

H225 Highly flammable liquid and vapour
H314 Causes severe skin burns and eye damage
H319 Causes serious eye irritation
Skin Corr. 1A Skin corrosion or irritation, Category 1A

Further Information

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