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

1.1 Product Identifiers
Product Number      GM1090
Product Name        Listeria Identification Broth Base (PALCAM), Granulated
REACH Registration  This product is a mixture. Reach registration number is not available for
Number              this mixture.

1.2 Relevant identified uses of the substance or mixture and uses advised against
1.2.1 Relevant identified uses
Laboratory Chemicals, Analytical Purpose, Biochemical Analysis

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]
Acute toxicity, Oral, (Category 4), H302
Skin corrosion or irritation, (Category 2), H315
Serious eye damage or eye irritation, (Category 2A), H319
Specific target organ toxicity, single exposure, Respiratory tract irritation, (Category 3), H335

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

Pictogram
Signal word          Warning
Hazard Statement(s)
H302                Harmful if swallowed
H315                Causes skin irritation
H319                Causes serious eye irritation
H335                May cause respiratory irritation
Precautionary Statement(s)
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.
P302 + P352 IF ON SKIN: wash with plenty of soap and water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other Hazards
None

3 Composition/Information On Ingredients

3.2 Mixture

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ammonium ferric citrate</strong></td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=0.1 - &lt;=1.0%</td>
</tr>
<tr>
<td>CAS No. :  1185-57-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC No. :  214-686-6</td>
<td>Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H315; H319; H335</td>
<td></td>
</tr>
<tr>
<td><strong>Lithium chloride</strong></td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=10.0 - &lt;=25.0%</td>
</tr>
<tr>
<td>CAS No. :  7447-41-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC No. :  231-212-3</td>
<td>Acute Tox.oral 4; Eye Irrit. 2A; STOT SE 3;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin Irrit. 2  H302; H319; H335; H315</td>
<td></td>
</tr>
<tr>
<td><strong>Phenol red</strong></td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=0.1 - &lt;=1.0%</td>
</tr>
<tr>
<td>CAS No. :  143-74-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC No. :  205-609-7</td>
<td>Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H315; H319; H335</td>
<td></td>
</tr>
</tbody>
</table>

Refer Section 16 for complete statement of H codes and its classification

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 with plenty of soap and 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**
No data available.

4.3 **Indication of immediate medical attention and special treatment needed**
No data available.

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, Hydrogen chloride gas, Sodium oxides, Lithium oxides

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.

6.3 **Methods and materials for containment and cleaning up**
Soak up with inert absorbent material. 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. Normal measures for preventive fire protection.

7.2 **Conditions for safe storage, including any incompatibilities**
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

*Recommended Storage Temperature*: On receipt store between 10-30°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
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 empty into drains.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance
Light Yellow to pink coloured granular medium

Odour
No data available

Odour Threshold
No data available

pH
7.20 - 7.60

Melting/freezing point
No data available

Initial boiling point and boiling range
No data available

Flash point
No data available

Flammability (Solid, gas)
No data available

Vapour pressure
No data available

Relative density
No data available

Water Solubility
No data available

Partition coefficient: n-octanol/water
No data available
9.2 Other safety information
No data available

10 Stability and Reactivity
10.1 Reactivity
No data available

10.2 Chemical stability
No data available

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Strong oxidizing agents

10.6 Hazardous decomposition products
Refer Section 5.2

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

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.

Specific target organ toxicity- single exposure
No data available

Aspiration hazard
No data available

Potential Health Effects

Inhalation
11.2 Components

Lithium chloride

Acute oral toxicity
Rat LD50: 526 mg/kg (As per RTECS)

Acute inhalation toxicity
Rat LC50: >5.57 mg/l; 4 h; aerosol
(As per OECD Test Guideline 403)

Acute dermal toxicity
Rat LD50: >2.000 mg/kg
(As per OECD Test Guideline 403)

Skin irritation
Rabbit
Result: Irritations (As per IUCLID)

Eye irritation
Rabbit
Result: Eye irritation (As per IUCLID)

Germ cell mutagenicity
Genotoxicity in vitro
Ames test
Result: Negative

Additional Information:
RTECS: OJ5950000

Ferric ammonium citrate

Acute Oral Toxicity
Rat LD50: >2000 mg/kg

Acute Potential Health Effects

Skin
Contact may cause irritation or rash, particularly with moist skin.

Eyes
May cause eye irritation with redness, tearing, and abrasion.

Inhalation
Inhalation of high concentrations of dust may cause nasal, throat or lung irritation. Symptoms may include coughing and wheezing.
**Ingestion**

Ingestion can produce gastrointestinal tract irritation with hyper motility, diarrhea.

**Chronic Potential Health Effects**

**Eyes**

Prolonged eye contact may cause a brownish discoloration of the eyes.

**Skin**

Prolonged skin contact may cause skin irritation.

**Additional information:**

<table>
<thead>
<tr>
<th>RTECS</th>
<th>GE7540000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phenol Red</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Acute Oral Toxicity**

- Rat LD50: >600 mg/Kg
- Rat Intravenous LD50: 752 mg/Kg
- Mouse Intravenous LD50: 1368 mg/Kg

**Inhalation**

May cause respiratory irritation.

**Additional Information:**

<table>
<thead>
<tr>
<th>RTECS</th>
<th>SJ7490000</th>
</tr>
</thead>
</table>

### 12 Ecological Information

#### 12.1 Toxicity

No data available for this mixture

**Components**

**Lithium Chloride**

**Toxicity to Fish**

LC50 Oncorhynchus mykiss (rainbow trout): 158 mg/l; 96 h

(Static test, As per OECD Test Guideline 203)

**Toxicity to Daphnia**

EC50 Daphnia magna (water flea): 249 mg/l; 48 h

(Static test, As per OECD Test Guideline 202)

**Toxicity to Algae**

EC50 Desmodesmus subspicatus (green algae):

Static test > 400 mg/l; 72 h

(Static test, As per OECD Test Guideline 201)

#### 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
This preparation contains no substance considered to be persistent, bioaccumulating or toxic (PBT) at levels of 0.1% or higher.

12.6 Other adverse effects
No data available

13 Disposal Considerations
13.1 Waste treatments methods
Product
Offer surplus and non-recyclable solutions to a licenced disposal company. Contact a licenced professional waste disposal service to dispose off this material.

13.2 Contaminated packaging
Dispose of as unused product.

14 Transport Information
14.1 UN-No
ADNR : ADR : IATA_C : IATA_P : IMDG : RID :
14.2 UN proper shipping name
ADNR : Not dangerous goods
ADR : Not dangerous goods
IATA_C : Not dangerous goods
IATA_P : Not dangerous goods
IMDG : Not dangerous goods
RID : Not dangerous goods
14.3 Transport hazard class(es)
ADNR : - ADR : - IATA_C : - IATA_P : - IMDG : - RID :
14.4 Packaging group
ADNR : ADR : IATA_C : IATA_P : IMDG : RID :
14.5 Environmental hazards
ADNR : No 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
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 codes and classification mentioned in section 3
H302 Harmful if swallowed
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
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<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>Acute Tox. oral 4</td>
<td>Acute toxicity, oral, Category 4</td>
</tr>
<tr>
<td>Eye Irrit. 2A</td>
<td>Serious eye damage or eye irritation, Category 2A</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion or irritation, Category 2</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity, single exposure, Respiratory tract irritation, Category 3</td>
</tr>
</tbody>
</table>

**Further Information**

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The information given in this safety data sheet is believed to be correct yet does not claim to be all inclusive. This document is intended only as a guide for appropriate precautionary handling of the material by properly trained individuals, information here being commensurate with the present state of our knowledge regarding the manner and conditions of use, handling, storage or disposal. The information provided herein shall not be considered as guarantee of the properties of the product. HiMedia Laboratories, shall not be held liable for any damage resulting from improper handling or contact with the above product. Unless explicitly stated on the product or in any of the documentation accompanying the product, it is intended for research or testing purpose only and is not to be used for any other purpose.