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

1.1 Product Identifiers
Product Number     MV1090
Product Name       Listeria Identification HiVeg™ Broth Base (PALCAM)
REACH Registration Number
This product is a mixture. Reach registration number is not available for 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>Ferric ammonium citrate</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=1.0 - &lt;=10.0%</td>
</tr>
<tr>
<td>CAS No.: 1185-57-5</td>
<td>Eye Irrit. 2; STOT SE 3 H315; H319; H335</td>
<td></td>
</tr>
<tr>
<td>EC No.: 214-686-6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Lithium chloride           | As Per EC Regulation 1272/2008             | >=10.0 - <=100.0%   |
| CAS No.: 7447-41-8         | Eye Irrit. 2A; STOT SE 3; Skin Irrit. 2 H302; H319; H335; H315 |                     |
| EC No.: 231-212-3          |                                            |                     |

| Phenol red                 | As Per EC Regulation 1272/2008             | >=0.1 - <=1.0%      |
| CAS No.: 143-74-8          | Eye Irrit. 2A; STOT SE 3 H315; H319; H335 |                     |
| EC No.: 205-609-7          |                                            |                     |

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, Iron 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Light yellow to pink coloured homogeneous free flowing 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>7.20 - 7.60</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>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>
</tbody>
</table>
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

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
Potential Health Effects

Inhalation
REFER SECTION 2

Skin
REFER SECTION 2

Eyes
REFER SECTION 2

Ingestion
REFER SECTION 2

Additional Information
RTECS : No data available

11.2 Components

Ferric ammonium citrate
Acute Oral Toxicity
RatLD50: >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:

RTECS: GE7540000

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

Phenol Red
Acute Oral Toxicity
LD50 Rat: >600 mg/Kg
Intravenous Rat LD50: 752 mg/Kg
Intravenous Mouse LD50: 1368 mg/Kg

Inhalation:
May cause respiratory irritation.

Additional Information:
RTECS SJ7490000

12  Ecological Information
12.1  Toxicity
No data available

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
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
H315  Causes skin irritation
H319  Causes serious eye irritation
H335  May cause respiratory irritation
Acute Tox.oral 4  Acute toxicity, oral, Category 4
Eye Irrit. 2A  Serious eye damage or eye irritation, Category 2A
Skin Irrit. 2  Skin corrosion or irritation, Category 2
STOT SE 3  Specific target organ toxicity, single exposure, Respiratory tract irritation, Category 3

Further Information

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