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

1.1 Product Identifiers
Product Number: MV1164
Product Name: *MRS HiVeg™ Broth, Modified (Lactobacillus Heteroferm Screen HiVeg™ Broth)
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]
Not a hazardous substance or mixture according to Regulation (EC) No.1272/2008.

2.2 Label elements
Labeling according to Regulation (EC) No.1272/2008
The product does not need to be labelled in accordance with EC directives or respective national laws.

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>Phenyl ethanol</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=1 - &lt;=10%</td>
</tr>
<tr>
<td>CAS No.: 60-12-8</td>
<td>Acute Tox. oral 4; Acute Tox. dermal 3; Skin Irrit. 2; Eye Dam. 1</td>
<td>H302; H311; H315; H318</td>
</tr>
<tr>
<td>EC No.: 200-456-2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Page 1 of 9
<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium citrate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS No.:</td>
<td>3012-65-5</td>
<td></td>
</tr>
<tr>
<td>EC No.:</td>
<td>221-146-3</td>
<td></td>
</tr>
<tr>
<td>As Per EC Regulation 1272/2008</td>
<td>Eye Irrit. 2A; STOT SE 3  H319; H335</td>
<td>&gt;=1 - &lt;=10%</td>
</tr>
<tr>
<td>Manganese sulphate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS No.:</td>
<td>10034-96-5</td>
<td></td>
</tr>
<tr>
<td>EC No.:</td>
<td>232-089-9</td>
<td></td>
</tr>
<tr>
<td>Index-No :</td>
<td>025-003-00-4</td>
<td></td>
</tr>
<tr>
<td>As Per EC Regulation 1272/2008</td>
<td>STOT RE 2; Aquatic Chronic 2  H373; H411</td>
<td>&gt;=0.1 - &lt;=1%</td>
</tr>
<tr>
<td>Cycloheximide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS No.:</td>
<td>66-81-9</td>
<td></td>
</tr>
<tr>
<td>EC No.:</td>
<td>200-636-0</td>
<td></td>
</tr>
<tr>
<td>Index-No :</td>
<td>613-140-00-8</td>
<td></td>
</tr>
<tr>
<td>As Per EC Regulation 1272/2008</td>
<td>Acute Tox. oral 1,2; Skin Irrit. 2; Muta. 2; Repr. 1B; Aquatic Chronic 2  H300; H315; H341; H360D; H411</td>
<td>&gt;=0.01 - &lt;=0.1%</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 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
   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, Potassium oxides, Oxides of Phosphorus, Sulphur dioxides, Manganese/manganese oxides, Magnesium oxide, Sodium 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 adsorbent 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. 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 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 2016/425/EEC and the standard EN ISO 374-1/2016 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 blue to bluish grey 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>4.10 - 4.50</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>
<tr>
<td>Autoignition 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
No data available

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
No data available

10.6 Hazardous decomposition products
Refer Section 5.2. Other Decomposition products not known.

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
11.2 Components

2-Phenyl ethanol

Acute oral toxicity
Rat LD50: 2,230 mg/kg

Acute inhalation toxicity
No data available

Acute dermal toxicity
Rabbit LD50: >300-2,000 mg/kg

Skin irritation
Rabbit Result: Non Irritant

Eye irritation
Rabbit Result: Irritant

Sensitisation
Patch test
Human Result: Negative

Ames test
Result: Negative

Mutagenicity (mammal cell test)
No data available

Carcinogenicity
No data available

Toxicity to Reproduction
No data available

Teratogenicity
No data available

Additional information:
RTECS: SG7175000

Ammonium citrate

No toxicological data available

Additional information
RTECS: GE7545000

Manganese sulphate

Acute oral toxicity
Rat LD50: 2,150 mg/kg
(As per IUCLID)

Acute Dermal Toxicity
Rat LD50: Not determined.

Acute Inhalation Toxicity
Rat LC50: > 4.45 mg/l
(As per OECD Test Guideline 403)
**Additional Information**
RTECS: OP1050000

**Cycloheximide**
*Acute oral Toxicity*
Rat LD50: 2mg/kg
*Skin Corrosion/Irritation*
Skin-rabbit Result: Skin irritation: 24 h
*Germ cell mutagenicity*
Lab experiments have shown mutagenic effects.
*Invitro tests showed mutagenic effects.*
*Reproductive toxicity*
May cause congenital malformation in the fetus.
Presumed human reproductive toxicant.
Liver-irregularities-based on human evidence.

**Additional Information**
RTECS:MA4375000

---

12.1 Ecological Information

**Toxicity**
No data available

**Component:**
2-Phenyl ethanol
*Toxicity to fish*
Leuciscus idus (Golden orfe) LC50: 220 -460 mg/l; 96 h
*Toxicity to daphnia and other aquatic invertebrates*
Daphnia magna (Water flea) EC50: 287 mg/l; 48 h
*Toxicity to algae*
Desmodesmus subspicatus (green algae) IC50: 490 mg/l; 72 h
*Toxicity to bacteria*
Pseudomonas putida EC50: 1,320 mg/l; 17 h

**Components**
Manganese sulphate
*Toxicity to Fish*
Onchorhynchus mykiss (Rainbow trout) LC50 :14.5 mg/l; 96h.
Pimephales promelas (fathead minnow) LC50 : 30.6 mg/l; 96 h.
*Toxicity to daphnia and other aquatic invertebrates*
Daphnia magna (Water flea) EC50 : 8.3 mg/l; 48 h.
*Acute Toxicity to Aquatic Plants*
Desmodesmus subspicatus (algae) EC50  61 mg/l; 72 h
(As per OECD Test Guideline  201)

**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 substance or mixture contains no components considered to be persistent, bioaccumulating nor 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 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 data sheet 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**
### 16 Other information

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H300</td>
<td>Fatal if swallowed</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H341</td>
<td>Suspected of causing genetic defects</td>
</tr>
<tr>
<td>H360D</td>
<td>May damage the unborn child</td>
</tr>
<tr>
<td>H373</td>
<td>May cause damage to organs through prolonged or repeated exposure</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects</td>
</tr>
<tr>
<td>Acute Tox. dermal. 3</td>
<td>Acute toxicity, dermal, Category 3</td>
</tr>
<tr>
<td>Acute Tox. oral 1,2</td>
<td>Acute toxicity, oral, Category 1, 2</td>
</tr>
<tr>
<td>Acute Tox. oral 4</td>
<td>Acute toxicity, oral, Category 4</td>
</tr>
<tr>
<td>Aquatic Chronic 2</td>
<td>Hazardous to the aquatic environment, long term hazard, Category 2</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage or eye irritation, Category 1</td>
</tr>
<tr>
<td>Eye Irrit. 2A</td>
<td>Serious eye damage or eye irritation, Category 2A</td>
</tr>
<tr>
<td>Muta. 2</td>
<td>Germ cell mutagenicity, Category 2</td>
</tr>
<tr>
<td>Repr. 1B</td>
<td>Reproductive toxicity, Category 1B</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion or irritation, Category 2</td>
</tr>
<tr>
<td>STOT RE 2</td>
<td>Specific target organ toxicity, repeated exposure, 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

Copyright 2016 HiMedia Laboratories Pvt. Ltd.

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.