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

1.1 Product Identifiers
- **Product Number**: M164
- **Product Name**: Antifungal Assay Agar
- **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

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

Composition/Information On Ingredients

3.2 Mixture

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium chloride, anhydrous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS No. :</td>
<td>10043-52-4</td>
<td></td>
</tr>
<tr>
<td>EC No. :</td>
<td>233-140-8</td>
<td></td>
</tr>
<tr>
<td><strong>As Per EC Regulation 1272/2008</strong></td>
<td>Eye Irrit. 2A H319</td>
<td>&gt;=0.1 - &lt;=1.0%</td>
</tr>
</tbody>
</table>
### Component Classification Concentration

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citric acid</td>
<td>As Per EC Regulation 1272/2008 Skin Irrit. 2; Eye Dam. 1 H315; H318</td>
<td>&gt;=1.0 - &lt;=10.0%</td>
</tr>
<tr>
<td>CAS No.:</td>
<td>77-92-9</td>
<td></td>
</tr>
<tr>
<td>EC No.:</td>
<td>201-069-1</td>
<td></td>
</tr>
<tr>
<td>Ferric chloride</td>
<td>As Per EC Regulation 1272/2008 Met. Corr. 1; Acute Tox. oral 4; Skin Irrit. 2; Eye Dam. 1 H290; H302; H315; H318</td>
<td>&gt;=0.001 - &lt;=0.01%</td>
</tr>
<tr>
<td>CAS No.:</td>
<td>7705-08-0</td>
<td></td>
</tr>
<tr>
<td>EC No.:</td>
<td>231-729-4</td>
<td></td>
</tr>
<tr>
<td>Manganese sulphate</td>
<td>As Per EC Regulation 1272/2008 STOT RE 2; Aquatic Chronic 2 H373; H411</td>
<td>&gt;=0.001 - &lt;=0.01%</td>
</tr>
<tr>
<td>CAS No.:</td>
<td>7785-87-7</td>
<td></td>
</tr>
<tr>
<td>EC No.:</td>
<td>232-089-9</td>
<td></td>
</tr>
<tr>
<td>Niacin</td>
<td>As Per EC Regulation 1272/2008 Eye Irrit. 2A H319</td>
<td>&gt;=0.001 - &lt;=0.01%</td>
</tr>
<tr>
<td>CAS No.:</td>
<td>59-67-6</td>
<td></td>
</tr>
<tr>
<td>EC No.:</td>
<td>200-441-0</td>
<td></td>
</tr>
</tbody>
</table>

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

### 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, Sodium oxides, Potassium 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
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 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 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>Cream to beige 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>5.30 - 5.70</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
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

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
11.2 Components

**Calcium chloride**

*Acute oral toxicity*
Rat LD50: 1,000 mg/kg
(As per IUCLID)

*Acute dermal toxicity*
Rat LD50: 2,630 mg/kg
(As per IUCLID)

*Skin irritation*
Rabbit
Result: No irritation
(As per OECD Test Guideline 404)

*Eye irritation*
Rabbit
Result: Eye irritation
(As per OECD Test Guideline 405)
Causes serious eye irritation.

**Citric acid**

*Acute oral toxicity*
Rat LD50: 5,400 mg/kg

*Acute inhalation toxicity*
No data available

*Acute dermal toxicity*
Rat LD50 >2,000 mg/kg

*Skin irritation*
Rabbit Result: Mild skin irritant

*Eye irritation*
Rabbit Result: Irritant

*Sensitisation*
No data available

*Ames test*
No data available

*Mutagenicity (mammal cell test)*
No data available

*Carcinogenicity*
No data available

*Toxicity to Reproduction*
No data available

*Teratogenicity*
No data available
**Additional information:**
RTECS: GE7350000

**Ferric chloride**

*Acute oral toxicity*
Rat LD50: 3,200 mg/kg (As per OECD Guideline 401)

*Acute inhalation toxicity*
No data available

*Acute dermal toxicity*
Rabbit LD50: > 559 mg/kg (As per EPA OPP 81-2)

*Skin irritation*
Rabbit Result: Non Irritant (As per OECD Guideline 404)

*Eye irritation*
Rabbit Result: Irreversible effects on the eye (ECHA)

*Sensitisation*
Guinea pig Result: Not sensitising

*Genetic toxicity (in-vitro)*
Mammalian cell gene mutation assay

*Mouse lymphoma cells Result*: Negative

*Genetic toxicity (in-vivo)*
Mouse Result: Positive (ECHA)

*Carcinogenicity*
No data available

*Toxicity to Reproduction*
No data available

*Teratogenicity*
No data available

**Additional information:**
RTECS: LJ9100000

**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

**Niacin (Nicotinic acid)**

*Acute oral toxicity*
Rat LD50: > 5000 mg/kg; 24h (ECHA)
Acute dermal toxicity
Rat LD50: >2000 mg/kg; 24h (ECHA)

Acute inhalation toxicity
Rat LD50: >3.8 mg/L; 4h (ECHA)

Skin irritation
Rabbit: Does not cause irritation to skin (ECHA)

Eye irritation
Rabbit: May cause slight to mild irritation to eyes (ECHA)

Sensitisation
Nonsensitizer (ECHA)
Repeated Exposures
No significant effect seen on rats (ECHA)

Germ cell mutagenicity
Genotoxicity invitro
Chinese hamster Ovary (CHO)
Result: Negative (ECHA)
Genotoxicity invivo
Mammalian Bone Marrow Chromosome Aberration Test
Result: Negative (ECHA)

Mutagenicity (mammal cell test): micronucleus
No data available
Carcinogenicity
No data available
Reproductive toxicity
No data available
Teratogenicity
Rats, 20 d
Result: Negative (ECHA)

Additional information
RTECS QT0525000

12 Ecological Information
12.1 Toxicity
No data available
Components
Calcium chloride
Toxicity to fish
Lepomis macrochirus (Bluegill sunfish) LC50 : 10,650 mg/L; 96 h
(As per IUCLID)
Toxicity to daphnia and other aquatic invertebrates
Daphnia magna (Water flea) EC50 : 144 mg/L; 48 h
(As per IUCLID)
Toxicity to algae
Algae IC50 : 3,130 mg/L; 120 h
(As per IUCLID)
Components:
Ferric chloride
Toxicity to microorganisms
Activated sludge IC50: ca. 170 mg/L (ECHA)

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)

Components
Niacin(Nicotinic acid)
Toxicity to fish
Brown trout (Salmo Trutta Fario) LC50: 520 mg/l; 96 h(ECHA)
Toxicity to daphnia and other aquatic invertebrates
Daphnia magna EC50: 77 mg /L; 48 h(ECHA)
Toxicity to algae
Desmodesmus subspicatus Scenedesmus subspicatus) EC50: 89.93 mg/L 72 h(ECHA)
Toxicity to microorganisms
Pseudomonas putida EC50: 120 mg /L; 16 h(ECHA)
Pseudomonas putida EC10: 88 mg /L; 16 h(ECHA)

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 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 of this material.

13.2 **Contaminated packaging**

Dispose of as unused product.

---

### 14 Transport Information

#### 14.1 UN-No

<table>
<thead>
<tr>
<th>ADNR</th>
<th>ADR</th>
<th>IATA_C</th>
<th>IATA_P</th>
<th>IMDG</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 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)

<table>
<thead>
<tr>
<th>ADNR</th>
<th>ADR</th>
<th>IATA_C</th>
<th>IATA_P</th>
<th>IMDG</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 14.4 Packaging group

<table>
<thead>
<tr>
<th>ADNR</th>
<th>ADR</th>
<th>IATA_C</th>
<th>IATA_P</th>
<th>IMDG</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 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

No data available

---

### 16 Other information

- **H290**: May be corrosive to metals
- **H302**: Harmful if swallowed
- **H315**: Causes skin irritation
- **H318**: Causes serious eye damage
- **H319**: Causes serious eye irritation
- **H373**: May cause damage to organs through prolonged or repeated exposure
- **H411**: Toxic to aquatic life with long lasting effects
- **Acute Tox.oral 4**: Acute toxicity, oral, Category 4
- **Aquatic Chronic 2**: Hazardous to the aquatic environment, long term hazard, Category 2
Eye Dam. 1  Serious eye damage or eye irritation, Category 1
Eye Irrit. 2A Serious eye damage or eye irritation, Category 2A
Met. Corr. 1 Corrosive to metals, Category 1
Skin Irrit. 2 Skin corrosion or irritation, Category 2
STOT RE 2 Specific target organ toxicity, repeated exposure, Category 2

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.