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

1.1 Product Identifiers
Product Number: GRM1381
Product Name: Manganese (II) sulphate monohydrate, Hi-AR™/ACS
CAS No.: 10034-96-5
Index-No.: 025-003-00-4
EC No.: 232-089-9

1.2 Relevant identified uses of the substance or mixture and uses advised against
1.2.1 Relevant identified uses
Laboratory chemicals, Manufacture of substances

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]
Specific target organ toxicity, repeated exposure, (Category 2), H373
Hazardous to the aquatic environment, long term hazard, (Category 2), H411

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

Pictogram
Signal word: Warning
Hazard Statement(s)
H373: May cause damage to organs through prolonged or repeated exposure
H411: Toxic to aquatic life with long lasting effects
Precautionary Statement(s)
P273: Avoid release to the environment.

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

3.1 Substances

Molecular Formula : MnSO₄.H₂O
Molecular Weight : 169.02
CAS No. : 10034-96-5
Index-No : 025-003-00-4
EC No. : 232-089-9

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>MnSO₄.H₂O</td>
<td>As Per EC Regulation 1272/2008</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>STOT RE 2; Aquatic Chronic 2 H373; H411</td>
<td></td>
</tr>
</tbody>
</table>

For the full text of the H-Statements and classification mentioned in this Section, see Section 16

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
Do NOT induce vomiting. 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
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
Sulphur oxides, Manganese/manganese 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. Discharge into environment must be avoided.

6.3 **Methods and materials for containment and cleaning up**
Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). 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 dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. 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. 
**Recommended Storage Temperature**: Below 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**
Handle in accordance to general industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**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**
Faceshield and safety goggles.

**Skin protection**
Handle with gloves.

**Body protection**
Complete suit protecting against chemicals.

**Respiratory protection**
Air-purifying respirators.

**Environment exposure controls**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

---

### 9 Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

- **Appearance**: White to light pink crystals or powder
- **Odour**: No data available
- **Odour Threshold**: No data available
- **pH**: No data available
- **Melting/freezing point**: No data available
- **Initial boiling point and boiling range**: No data available
- **Flash point**: No data available
- **Upper/lower flammability or explosive limits**: No data available
- **Evaporation rate**: 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
- **Autoignition Temperature**: No data available
- **Decomposition Temperature**: No data available
- **Viscosity**: No data available
- **Explosive properties**: No data available
- **Oxidizing properties**: No data available
- **Vapour density**: No data available
- **Thermal decomposition**: 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

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

No data available

#### 10.4 Conditions to avoid

Incompatible material
10.5 Incompatible materials
No data available

10.6 Hazardous decomposition products
Other decomposition products - refer section 5.2.
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

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
RTECS : OP0893500

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
PBT and vPVB assessment not available. Chemical safety assessment is not required.

**12.6 Other adverse effects**
Discharge into the environment must be avoided.

**13 Disposal Considerations**
**13.1 Waste treatment methods**
**Product**
Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustive solvent and burn in chemical incinerator equipped with an afterburner and scrubber.

**13.2 Contaminated packaging**
Dispose of as unused product.

**14 Transport Information**
**14.1 UN-No**
ADNR : 3077  ADR : 3077  IATA_C : 3077  IATA_P : 3077  IMDG : 3077  RID : 3077

**14.2 UN proper shipping name**
ADNR : Environmentally hazardous substance, solid, n.o.s
ADR : Environmentally hazardous substance, solid, n.o.s
IATA_C : Environmentally hazardous substance, solid, n.o.s
IATA_P : Environmentally hazardous substance, solid, n.o.s
IMDG : Environmentally hazardous substance, solid, n.o.s
RID : Environmentally hazardous substance, solid, n.o.s

**14.3 Transport hazard class(es)**
ADNR : 9  ADR : 9  IATA_C : 9  IATA_P : 9  IMDG : 9  RID : 9

**14.4 Packaging group**

**14.5 Environmental hazards**
ADNR :  No ADR :  No IMDG :  Marine Pollutant : Yes 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**
15.2 Chemical Safety Assessment
No data available

16 Other information
Text of H-Statements and EUH-Phrases mentioned in section 3

H373 May cause damage to organs through prolonged or repeated exposure
H411 Toxic to aquatic life with long lasting effects
STOT RE 2 Specific target organ toxicity, repeated exposure, Category 2
Aquatic Chronic 2 Hazardous to the aquatic environment, long term hazard, 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.