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

1.1 Product Identifiers
Product Number: GRM3979
Product Name: Zinc sulphate heptahydrate, Hi-AR™/ACS
CAS No.: 7446-20-0
Index-No.: 030-006-00-9
EC No.: 231-793-3

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]
Acute toxicity, Oral, (Category 4), H302
Serious eye damage or eye irritation, (Category 1), H318
Hazardous to the aquatic environment, long term hazard, (Category 1), H410

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

Pictogram
Signal word: Danger

Hazard Statement(s)
H302 Harmful if swallowed
H318 Causes serious eye damage
H410 Very toxic to aquatic life with long lasting effects

Precautionary Statement(s)
P273 Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Dispose of contents/container to an approved waste disposal plant.

2.3 Other Hazards

none

3 Composition/Information On Ingredients

3.1 Substances

Molecular Formula: ZnSO₄·7H₂O
Molecular Weight: 287.56
CAS No.: 7446-20-0
Index-No: 030-006-00-9
EC No.: 231-793-3

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc sulphate heptahydrate, Hi-AR™/ACS</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&lt;= 100%</td>
</tr>
<tr>
<td>CAS No. : 7446-20-0</td>
<td>Acute Tox.oral 4; Eye Dam. 1; Aquatic Chronic 1</td>
<td></td>
</tr>
<tr>
<td>EC No. : 231-793-3</td>
<td>H302; H318; H410</td>
<td></td>
</tr>
<tr>
<td>Index-No : 030-006-00-9</td>
<td></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
Take off contaminated clothing and shoes immediately. Wash with plenty of soap and water. Take victim immediately to hospital. 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, Borane/boron oxides, Zinc/zinc 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
   Hygroscopic
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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colourless or white crystals or crystals with chunks or powder or solid</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>No data available</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>Upper/lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</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>Decomposition 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
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
Strong oxidizing agents
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: ZH5300000

12 Ecological Information
12.1 Toxicity
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 treatments 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. (Zinc sulphate heptahydrate)
ADR : Environmentally hazardous substance, solid, n.o.s. (Zinc sulphate heptahydrate)
IATA_C : Environmentally hazardous substance, solid, n.o.s. (Zinc sulphate heptahydrate)
IATA_P : Environmentally hazardous substance, solid, n.o.s. (Zinc sulphate heptahydrate)
IMDG : Environmentally hazardous substance, solid, n.o.s. (Zinc sulphate heptahydrate)
RID : Environmentally hazardous substance, solid, n.o.s. (Zinc sulphate heptahydrate)
14.3 **Transport hazard class(es)**
- ADNR: 9
- ADR: 9
- IATA_C: 9
- IATA_P: 9
- IMDG: 9
- RID: 9

14.4 **Packaging group**
- ADNR: III
- ADR: III
- IATA_C: III
- IATA_P: III
- IMDG: III
- RID: III

14.5 **Environmental hazards**
- ADNR: Yes
- ADR: Yes
- IMDG: Marine Pollutant: No
- IATA_C: Yes
- IATA_P: Yes
- RID: Yes

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-Statements and EUH-Phrases mentioned in section 3
- H302: Harmful if swallowed
- H318: Causes serious eye damage
- H410: Very toxic to aquatic life with long lasting effects
- Acute Tox.oral 4: Acute toxicity, oral, Category 4
- Eye Dam. 1: Serious eye damage or eye irritation, Category 1
- Aquatic Chronic 1: Hazardous to the aquatic environment, long term hazard, Category 1

**Further Information**

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