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

1.1 Product Identifiers
Product Code: GRM298
Product Name: Ceric ammonium sulphate dihydrate, Hi-AR™/ACS (Ammonium ceric sulphate dihydrate, Hi-AR™/ACS)

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

1.3 Details of the supplier of the safety data sheet
Produced by: HiMedia Laboratories Pvt. Ltd.
Address: 23, Vadhani Indl.Estate, LBS Marg, Mumbai 400 086, India.
Tel. No.: +91-22-2500 0970, +91-22-2500 1607
Fax No.: +91-22-2500 2468

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
Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
Skin corrosion/irritation (Category 2)
Serious eye damage/eye irritation (Category 2A)
Specific target organ toxicity, single exposure; Respiratory tract irritation (Category 3)

Classification according to EU Directives 67/548/EEC or 1999/45/EC
Irritating to eyes, respiratory system and skin.

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram:

Signal word: Warning
Hazard Statement(s):
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.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.


Symbol(s):

R-Phrase(s):
R36/37/38 Irritating to eyes, respiratory system and skin.

S-Phrase(s):
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36 Wear suitable protective clothing.

2.3 Other hazards - none

3. Composition/Information on Ingredients
3.1 Substances
Synonym: Ammonium cerium (IV) sulphate dihydrate; Ammonium ceric sulphate dihydrate

Molecular Formula: \((\text{NH}_4)_4 \text{Ce}(\text{SO}_4)_4 \cdot 2\text{H}_2\text{O}\)
Molecular Weight: 632.55

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceric ammonium sulphate dihydrate, Hi-AR™/ACS (Ammonium ceric sulphate dihydrate, Hi-AR™/ACS)</td>
<td>CAS-No. 10378-47-9</td>
</tr>
</tbody>
</table>

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 thoroughly with plenty of water for at least 15 minutes and 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.

5.2 Special hazards arising from the substance or mixture
Nitrogen oxides (NOx), Sulphur oxides, cerium 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 vapors, 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 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.
7.3 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 : Store below 30°C
7.3 Specific end uses
   No data available

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 product.
   Personal protective equipment
   Hygiene measure
   Immediately change contaminated clothing. Apply preventive skin protection. Wash hands face after working with
   the substance
   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 of 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 work place.
   Respiratory protection
   Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose
   combination (US) or type ABEK(EN 14387) respirator cartridges as a backup to the 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
Appearance  Yellow to orange crystals or powder  
Odour  No data available  
Odour Threshold  No data available  
Odour Threshold  No data available  
 \( \text{pH} \)  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  
Vapour pressure  No data available  
Vapour density  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  

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
Other decomposition products - No data available

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 : Not Available

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
No data available

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 of this material.

13.2 Contaminated packaging
Dispose of as unused product.

14 Transport Information
14.1 UN-No.
ADR/RID: - IMDG: - IATA: -

14.2 UN proper shipping name
ADR/RID: no dangerous goods
IMDG: no dangerous goods
IATA: no dangerous goods

14.3 Transport hazard class(es)
ADR/RID: - IMDG: - IATA: -

14.4 Packaging group
ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards
ADR/RID: No IMDG: Marine Pollutant:No IATA: 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
16 Other Information
Further information
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