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

1.1 Product Identifiers
Product Number: GRM1028
Product Name: Hydroxylamine hydrochloride, Hi-AR™/ACS
CAS No.: 5470-11-1
EC No.: 226-798-2

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

Hazards Identification

2.1 Classification of the substance or mixture
CLP Classification - Regulation (EC) No. 1272/2008[EU-GHS/CLP]
Corrosive to metals, (Category 1), H290
Harmful if swallowed or in contact with skin, H302+H312
Skin corrosion or irritation, (Category 2), H315
Sensitisation, Skin, (Category 1), H317
Serious eye damage or eye irritation, (Category 2A), H319
Carcinogenicity, (Category 2), H351
Specific target organ toxicity, repeated exposure, (Category 2), H373
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: Warning
Hazard Statement(s)
H290 May be corrosive to metals
H302+H312 Harmful if swallowed or in contact with skin.
H315 Causes skin irritation
H317  May cause an allergic skin reaction
H319  Causes serious eye irritation
H351  Suspected of causing cancer
H373  May cause damage to organs through prolonged or repeated exposure
H410  Very toxic to aquatic life with long lasting effects

Precautionary Statement(s)
P273  Avoid release to the environment.
P280  Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501  Dispose of contents/container to an approved waste disposal plant.

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 :   NH₂OH.HCl
Molecular Weight :   69.49
CAS No. :   5470-11-1
EC No. :   226-798-2

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydroxylamine hydrochloride, Hi-AR™/ACS</td>
<td>As Per EC Regulation 1272/2008 Met. Corr. 1; Acute Tox. oral, dermal, 4; Skin Irrit. 2; Skin Sens. 1; Eye Irrit. 2A; Carc. 2; STOT RE 2; Aquatic Chronic 1 H290; H302+H312; H315; H317; H319; H351; H373; H410</td>
<td>100%</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**
Nitrogen oxides (NOx), Hydrogen chloride gas
No data available

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colourless to white hygroscopic crystals or powder or chunks 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>
</tbody>
</table>
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**
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 : NC3675000

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 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 : 2923  ADR : 2923  IATA_C : 2923  IATA_P : 2923  IMDG : 2923  RID : 2923

14.2  UN proper shipping name
ADNR : Corrosive solids, toxic, n.o.s.
ADR : Corrosive solids, toxic, n.o.s.
IATA_C : Corrosive solids, toxic, n.o.s.
IATA_P : Corrosive solids, toxic, n.o.s.
IMDG : Corrosive solids, toxic, n.o.s.
RID : Corrosive solids, toxic, n.o.s.

14.3 Transport hazard class(es)
ADNR : 8(6.1) ADR : 8(6.1) IATA_C : 8(6.1) IATA_P : 8(6.1) IMDG : 8(6.1) RID : 8(6.1)

14.4 Packaging group

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 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

H290 May be corrosive to metals
H302+H312 Harmful if swallowed or in contact with skin.
H315 Causes skin irritation
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation
H351 Suspected of causing cancer
H373 May cause damage to organs through prolonged or repeated exposure
H410 Very toxic to aquatic life with long lasting effects
Met. Corr. 1 Corrosive to metals, Category 1
Acute Tox. oral, dermal, 4 Harmful if swallowed or in contact with skin
Skin Irrit. 2 Skin corrosion or irritation, Category 2
Skin Sens. 1 Sensitisation, Skin, Category 1
Eye Irrit. 2A Serious eye damage or eye irritation, Category 2A
Carc. 2 Carcinogenicity, Category 2
STOT RE 2 Specific target organ toxicity, repeated exposure, Category 2
Aquatic Chronic 1 Hazardous to the aquatic environment, long term hazard, Category 1

Further Information

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