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

1.1 **Product Identifiers**

- **Product Code**: AS071
- **Product Name**: Tetrahydrofuran, 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]**
  - Flammable liquids (Category 2)
  - Serious eye damage/eye irritation (Category 2A)
  - Specific target organ toxicity, single exposure; Respiratory tract irritation (Category 3)
  - Carcinogenicity (Category 2)

- **Classification according to EU Directives 67/548/EEC or 1999/45/EC**
  - Highly flammable.
  - May form explosive peroxides.
  - Irritating to eyes and respiratory system.
  - Limited evidence of a carcinogenic effect.

2.2 **Label elements**

- **Labelling according Regulation (EC) No 1272/2008 [CLP]**
  - **Pictogram**
  - **Signal word**: Danger
  - **Hazard Statement(s)**
    - H225: Highly Flammable liquid and vapour
    - H319: Causes serious eye irritation
    - H335: May cause respiratory irritation
    - H351: Suspected of causing cancer
  - **Precautionary Statement(s)**
    - P210: Keep away from heat/sparks/open flames/hot surfaces. # No smoking.
    - P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
    - P281: Use personal protective equipment as required.
    - P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**According to European Directive 67/548/EEC as amended.**
Symbol(s)  
R-Phrase(s)  
R11 Highly flammable.  
R19 May form explosive peroxides.  
R36/37 Irritating to eyes and respiratory system.  
R40 Limited evidence of a carcinogenic effect.  
S-Phrase(s)  
S13 Keep away from food, drink and animal feedingstuffs.  
S16 Keep away from sources of ignition No smoking.  
S29 Do not empty into drains.  
S33 Take precautionary measures against static discharges.  
S36 Wear suitable protective clothing.  
S37 Wear suitable gloves.  
S46 If swallowed, seek medical advice immediately and show this container or label.  
2.3 Other hazards - none  

3. Composition/Information on Ingredients  
3.1 Substances  

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrahydrofuran, Hi-AR™/ACS</td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>109-99-9</td>
</tr>
<tr>
<td>EC-No.</td>
<td>203-726-8</td>
</tr>
<tr>
<td>Index-No.</td>
<td>603-025-00-0</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
Carbon 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.

7.2 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 : Store below 30°C

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

### 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>Clear colourless liquid</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>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>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour density</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>
</tbody>
</table>

#### 9.2 Other safety information
No data available

### 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

### Toxicological Information

#### 11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>No data available</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>No data available</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>No data available</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No data available</td>
</tr>
</tbody>
</table>
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: LU5950000

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### 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.

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

---

### 14 Transport Information

#### 14.1 UN-No.
ADR/RID: 2056  IMDG: 2056  IATA: 2056

#### 14.2 UN proper shipping name

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR/RID</td>
<td>Tetrahydrofuran, Hi-AR™/ACS</td>
</tr>
<tr>
<td>IMDG</td>
<td>Tetrahydrofuran, Hi-AR™/ACS</td>
</tr>
<tr>
<td>IATA</td>
<td>Tetrahydrofuran, Hi-AR™/ACS</td>
</tr>
</tbody>
</table>

#### 14.3 Transport hazard class(es)
ADR/RID: 3  IMDG: 3  IATA: 3

#### 14.4 Packaging group
ADR/RID: 2  IMDG: 2  IATA: 2

#### 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
No data available

16 Other Information
Further information
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