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

1.1 Product Identifiers
Product Code: CMS3690
Product Name: Piperacillin sodium salt

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]

Classification according to EU Directives 67/548/EEC or 1999/45/EC

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

2.3 Other hazards - none

3. Composition/Information on Ingredients

3.1 Substances
Molecular Formula: C_{23}H_{26}N_{5}NaO_{7}S
Molecular Weight: 539.54
CAS No.: 59703-84-3
European Commission No.: 261-868-6

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, nitrogen oxides (NOx), Sulphur oxides, Sodium 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 at 2-8°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
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White to off-white hygroscopic crystals or powder</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

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: XI0180000

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
14 Transport Information

14.1 UN-No.
ADR/RID: N/A  IMDG: N/A  IATA: N/A

14.2 UN proper shipping name
ADR/RID
UN-Number: N/A  Class:  Packing group:
Proper shipping name:
IMDG
UN-Number: N/A  Class:  Packing group:
Proper shipping name:
IATA
UN-Number: N/A  Class:  Packing group:
Proper shipping name:

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:  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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