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

1.1 Product Identifiers

Product Code    CMS6136
Product Name    D-Penicillamine

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

Labeling 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.
2.3 Other hazards - none

3. Composition/Information on Ingredients

3.1 Substances
Synonym: 3,3-Dimethyl-D-cysteine; 3-Mercapto-D-valine

Molecular Formula: $\text{C}_5\text{H}_{11}\text{NO}_2\text{S}$
Molecular Weight: 149.21

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-Penicillamine</td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>52-67-5</td>
</tr>
<tr>
<td>EC-No.</td>
<td>200-148-8</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, nitrogen oxides (NOx), Sulphur 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
### Appearance
White to off-white crystals or powder

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour Threshold</td>
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</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>
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</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

- Acute and subacute toxicity
- Chronic toxicity
- Irritation
- Allergic sensitisation
- Skin absorption
- Inhalation
- Dermatitis
- Ocular irritation
- Cardiovascular effects
- Gastrointestinal effects
- Hepatotoxicity
- Neurotoxicity
- Renal effects
- Nephrotoxicity
- Other systemic effects
- Others

It is suggested to consider additional monitoring and evaluation in specific cases.

### Notes

- Additional information on safety and handling practices should be obtained from the manufacturer or supplier.
- Personal protective equipment (PPE) should be used as necessary based on the specific hazards present.
- It is recommended to consult with a qualified professional for guidance on safe handling and disposal.
- Storage in a cool, dry, well-ventilated area.
- Keep away from heat, sparks, and open flames.
- Avoid contact with skin, eyes, and mucous membranes.
- For emergency contact, refer to the Material Safety Data Sheet (MSDS) provided by the supplier.
Refer Section 2

Skin
Refer Section 2

Eyes
Refer Section 2

Ingestion
Refer Section 2

Additional Information
RTECS : YV9425000

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
16 Other Information

Further information
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