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

1.1 Product Identifiers

Product Number: TC431
Product Name: Bovine Insulin, Cell Culture Tested
CAS No.: 11070-73-8
EC No.: 234-291-2

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

2 Hazards Identification

2.1 Classification of the substance or mixture

CLP Classification-Regulation (EC) No. 1272/2008[EU-GHS/CLP]
Not a hazardous substance or mixture according to Regulation (EC) No.1272/2008

2.2 Label elements

Labeling according to Regulation (EC) No.1272/2008

2.3 Other Hazards

none

3 Composition/Information On Ingredients

3.1 Substances

Molecular Formula: C_{254}H_{377}N_{65}O_{75}S_{6}
Molecular Weight: 5733.49
CAS No.: 11070-73-8
EC No.: 234-291-2

4 First Aid Measures

4.1 Description of first aid measures

General advice
Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. If skin irritation occurs, get medical advice/attention.

In case of eye contact
Rinse out with plenty of water with the eyelid held wide open. If eye irritation persists, get medical advice/attention.

If swallowed
Rinse mouth with water. Consult a physician if feeling unwell.

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 extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media
5.2 Special hazards arising from the substance or mixture
Carbon oxides, nitrogen oxides (NOx), Sulphur oxides
5.3 Precautions for fire-fighters
No data available.
5.4 Further information
Wear self-contained breathing apparatus for firefighting if necessary.

6 Accidental Release Measures
6.1 Personal precautions, protective equipment and emergency procedures
Use personnel protective equipment. Wear disposable gloves, dust mask and eye protection. Avoid dust formation. For personal protection see section 8.
6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. No special environmental precautions required.
6.3 Methods and materials for containment and cleaning up
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 formation 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. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**Recommended Storage Temperature**: Store at -20°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 immediately after handling the products.

**Personal protective equipment**

**Hygiene measure**

Avoid contact with skin, eyes and clothing. Immediately change contaminated clothing.

**Eye/face protection**

Safety glasses with side-shields conforming to EN 166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

**Skin protection**

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. 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 contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body protection**

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Environment exposure controls**

Do not let product enter drains.

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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 to brown powder.</td>
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<tr>
<td>Odour</td>
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<tr>
<td>Odour Threshold</td>
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<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
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</tr>
<tr>
<td>Initial boiling point and boiling range</td>
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</tr>
<tr>
<td>Property</td>
<td>Value</td>
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<tr>
<td>----------------------------------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Flash point</td>
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<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
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</tr>
<tr>
<td>Flammability (Solid, gas)</td>
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</tr>
<tr>
<td>Vapour pressure</td>
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</tr>
<tr>
<td>Relative density</td>
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</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
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</tr>
<tr>
<td>Autoignition Temperature</td>
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</tr>
<tr>
<td>Decomposition Temperature</td>
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</tr>
<tr>
<td>Viscosity</td>
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<tr>
<td>Explosive properties</td>
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<tr>
<td>Oxidizing properties</td>
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<tr>
<td>Vapour density</td>
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</tr>
<tr>
<td>Thermal decomposition</td>
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</tr>
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</table>

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
No data available
10.5 Incompatible materials
No data available
10.6 Hazardous decomposition products
None under normal use conditions. Other decomposition products. No data available. In 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 : Not available

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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
PBT and vPvB assessment not available Chemical safety assessment is not required

12.6  Other adverse effects
No data available

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13  Disposal Considerations
13.1  Waste treatments methods

**Product**
Offer surplus and non-recyclable solutions to a licenced disposal company. Dispose off waste in accordance with all applicable Federal, state and local laws.

13.2  Contaminated packaging
Dispose in accordance with all applicable federal, state, and local environmental regulations.

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14  Transport Information
14.1  UN-No

<table>
<thead>
<tr>
<th>ADNR</th>
<th>ADR</th>
<th>IATA_C</th>
<th>IATA_P</th>
<th>IMDG</th>
<th>RID</th>
</tr>
</thead>
</table>

14.2  UN proper shipping name

<table>
<thead>
<tr>
<th>ADNR</th>
<th>:</th>
<th>Not dangerous goods</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>:</td>
<td>Not dangerous goods</td>
</tr>
<tr>
<td>IATA_C</td>
<td>:</td>
<td>Not dangerous goods</td>
</tr>
<tr>
<td>IATA_P</td>
<td>:</td>
<td>Not dangerous goods</td>
</tr>
</tbody>
</table>
IMDG : Not dangerous goods
RID : Not dangerous goods

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

14.4 Packaging group
ADNR : ADR : IATA_C : IATA_P : IMDG : RID :

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

Further Information
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