SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier
Product Identifier: Capreomycin sulfate
Product Number: C003
CAS Number: [1405-37-4]
EC Number: [215-776-8]

1.2 Relevant identified uses of the substance or mixture and uses advised against
Recommended Use: Antibacterial research.
Restrictions of Use: Not for human or animal use

1.3 Details of the supplier of the safety data sheet
Distributor Name: TOKU-E Company
Distributor Address: 715 W Orchard Dr. Suite 3
Bellingham, WA 98225
Phone Number: (360)734-1789
E-mail Address: info@toku-e.com
Safety Data Sheet Issued by: TOKU-E Company (USA)

1.4 Emergency telephone number
Emergency Phone Number (International): +1 (352) 353-3500
Emergency Phone Number (US Only): 1 (800) 535-5053

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification:
- Acute toxicity, oral (Category 4)
- Acute toxicity, dermal (Category 4)
- Acute toxicity, inhalation (Category 4)
- Reproductive toxicity (Category 1B)

(Please refer to Section 16 for regulatory information)

2.2 Label elements, including precautionary statements
GHS Label Elements:
Signal Word: Danger

Hazard Statements
H302+H312+ Harmful if swallowed, in contact with skin or if inhaled
H332
H360 May damage fertility or the unborn child

Precautionary Statements
P261 Avoid breathing dust/fumes/gas/mist/vapors/spray.
P264 Wash hands/skin thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P302+P352 IF ON SKIN: Wash with plenty of water/soap
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P321 Specific treatment, see applicable response statements on this label
P330 Rinse mouth
P363 Wash contaminated clothing before reuse.
P501 Dispose of contents/container in accordance with governmental regulation
P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P308+P313 IF exposed or concerned: Get medical advice/attention.
P405 Store locked up.

2.3 Other hazards which do not result in classification
Hazards not otherwise classified (HNOC) by GHS No Data Available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Synonym(s) Capastat sulfate, caprocin
Formula C_{25}H_{44}N_{14}O_{8} \cdot H_{2}SO_{4}
Molecular Weight 766.78
CAS Number [1405-37-4]
EC Number [215-776-8]
Hazardous Ingredients Capreomycin sulfate
Acute toxicity, oral (Category 4)
Acute toxicity, dermal (Category 4)
Acute toxicity, inhalation (Category 4)
Reproductive toxicity (Category 1B)

SECTION 4: FIRST-AID MEASURES

4.1 Description of first-aid measures
General Advice Consult a doctor/physician if exposed - additional medical care may be required. Show this Safety Data Sheet to the medical provider.

If Inhaled If inhaled, move to fresh air. If not breathing, give
artificial respiration and immediately call local emergency telephone number.

In Case of Skin Contact  
Wash skin thoroughly with soap and water.

In Case of Eye Contact  
Flush eye with water. After initial flush, remove any contact lenses and continue flushing for at least 15 minutes.

If Swallowed  
Rinse mouth with water. Immediately call a doctor, physician, or poison control center. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms/effects, acute and delayed
Specific Treatment  
Please see Section 2 and Section 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary
No Data Available

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Suitable Extinguishing Media  
Water spray, alcohol-resistant foam, dry chemical, carbon dioxide

5.2 Special hazards arising from the substance or mixture
Hazardous Combustion Products  
Formed under fire conditions: carbon and nitrogen oxides, carbon monoxide, sulfur dioxide, hydrogen peroxide

5.3 Advice for firefighters
Special Protective Equipment for Firefighters  
Wear self-contained breathing apparatus

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
General  
Evacuate personnel to a safe location. Use appropriate personal protective equipment while in contact with product. Avoid dust formation. Ensure adequate ventilation.

Personal Precautions  
Prevent contamination of skin, eyes and clothing with appropriate protective equipment (Section 8). Wear respiratory protection.

6.2 Environmental precautions
General  
Recover waste, if possible, and place in suitable closed container for licensed disposal. Prevent spillage - do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
The recommended course of action is to treat any incident that involves the spill/release of a chemical substance as if it were hazardous in nature until the appropriate personnel have been consulted. Wear personal protective equipment as necessary. If accessible, use a spill kit. For powder spills, avoid generating dust during cleanup.

6.4 Reference to other sections
Refer to section 8 for exposure control.
Refer to section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
Wear appropriate protective clothing/gear to prevent contact with skin and eyes. Provide exhaust ventilation or respiratory protection in areas where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities
Store in a tightly closed container. Protect from humidity.
Recommended storage temperature: -20°C
Incompatibilities
No Data Available

7.3 Specific end use(s)
Refer to section 1.2

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters
Contains no substance/substances with occupational exposure limit values

OSHA Permissible Exposure Limits
No Data Available
NIOSH Recommended Exposure Limits
No Data Available
ACGIH Threshold Limit Values
No Data Available

8.2 Exposure controls
PPE: Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate, use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to 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)

PPE: Hand Protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal techniques to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices, and
PPE: Eye Protection
Use a face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU)

PPE: Skin and Body Protection
Handle with gloves. Wear protective clothing. Choose body protection according to the amount and concentration of the dangerous substance at the workplace. When deemed needed according to the concentration and amount of this product, use a complete body suit

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Appearance
White or almost white powder
Odor
No Data Available
Odor Threshold
No Data Available
pH
4.5 – 7.5
Melting Point/Freezing Point
No Data Available
Initial Boiling Point and Range
No Data Available
Flash Point
No Data Available
Evaporation rate
No Data Available
Flammability (solid, gas)
No Data Available
Upper Flammability/Explosion Limit
No Data Available
Lower Flammability/Explosion Limit
No Data Available
Vapor Pressure
No Data Available
Vapor Density
No Data Available
Relative Density
No Data Available
Water Solubility
No Data Available
Solubility in Other Solvents
No Data Available
Partition Coefficient: n-octanol/water
No Data Available
Auto-Ignition Temperature
No Data Available
Decomposition Temperature
No Data Available
Viscosity
No Data Available
Explosive Properties
No Data Available
Oxidizing Properties
No Data Available
Optical Rotation
No Data Available
Absorbance (290nm, 5% in H₂O)
No Data Available
Water Content (Loss on Drying)
Not more than 10.0%

SECTION 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  
Strong oxidizing agents

10.6 Hazardous decomposition products  
Formed under fire conditions: carbon and nitrogen oxides, carbon monoxide, sulfur dioxide, hydrogen peroxide

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD$_{50}$</td>
<td>No Data Available</td>
<td></td>
</tr>
<tr>
<td>Inhalation LC$_{50}$</td>
<td>No Data Available</td>
<td></td>
</tr>
<tr>
<td>Dermal LD$_{50}$</td>
<td>No Data Available</td>
<td></td>
</tr>
<tr>
<td>Intraperitoneal LD$_{50}$</td>
<td>No Data Available</td>
<td></td>
</tr>
<tr>
<td>Intravenous LD$_{50}$</td>
<td>Rat: 325 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Subcutaneous LD$_{50}$</td>
<td>Rat: 1191 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Skin Corrosion/Irritation</td>
<td>No Data Available</td>
<td></td>
</tr>
<tr>
<td>Serious Eye Damage/ Eye Irritation</td>
<td>No Data Available</td>
<td></td>
</tr>
<tr>
<td>Respiratory or Skin Sensitization</td>
<td>No Data Available</td>
<td></td>
</tr>
<tr>
<td>Germ Cell Mutagenicity</td>
<td>No Data Available</td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>This substance has not been identified as a potential carcinogen within the National Toxicology Program Report on Carcinogens or within the International Agency for Research on Cancer Monograph.</td>
<td></td>
</tr>
<tr>
<td>Reproductive Toxicity</td>
<td>No Data Available</td>
<td></td>
</tr>
<tr>
<td>Specific Target Organ Toxicity: Single Exposure (GHS)</td>
<td>No Data Available</td>
<td></td>
</tr>
<tr>
<td>Specific Target Organ Toxicity: Repeated Exposure (GHS)</td>
<td>No Data Available</td>
<td></td>
</tr>
<tr>
<td>Aspiration Hazard</td>
<td>No Data Available</td>
<td></td>
</tr>
<tr>
<td>Potential Heal Effects</td>
<td>See Section 2, Hazard(s) Identification</td>
<td></td>
</tr>
<tr>
<td>Signs and Symptoms of Exposure</td>
<td>To the best of our knowledge, the chemical, physical, and toxicological properties of this material have not been thoroughly investigated</td>
<td></td>
</tr>
<tr>
<td>Synergistic Effects</td>
<td>No Data Available</td>
<td></td>
</tr>
<tr>
<td>Additional Information</td>
<td>No Data Available</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 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

In the absence of complete ecological information, treat product as environmentally hazardous. Use proper storage, handling, and disposal to prevent unintentional release into the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Dispose unused/spoiled product in accordance with local and federal regulations. Sewering is not an acceptable form of waste disposal.
Product  Dispose of product through a licensed disposal company.
Contaminated Packaging  Dispose of as unused product.

SECTION 14: TRANSPORTATION INFORMATION

DOT (US)  Not a Dangerous Good
IMDG  Not a Dangerous Good
IATA  Not a Dangerous Good

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture

Section 2/3: Hazards identification/labelling in accordance with OSHA 29 CFR 1910.1200
Section 2/3: Hazards identification/labelling in accordance with Regulation (EC) 1272/2008
SDS in accordance with Regulation (EC) 1907/2006

SARA 302 Components  No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components  No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313.

SARA 311/312 Hazards  No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 311/312

Massachusetts Right to Know  No components are subject to the Massachusetts Right to Know Act
Pennsylvania Right to Know  
No components are subject to the Pennsylvania Right to Know Act

New Jersey Right to Know  
No components are subject to the New Jersey Right to Know Act

California Prop. 65 Components  
No  
This product does not contain any chemicals known to the State of California to cause birth defects, cancer, or any other reproductive harm

EU Information  
SDS in accordance with Regulation (EC) 1907/2006  
Identification, classification and labelling in accordance with Regulation (EC) 1272/2008  
EC Number [215-776-8]  
CAS Number [1405-37-4]  
Name: Capreomycin sulfate  
Envisaged Registration Deadline: 31/05/2013

15.2 Chemical safety assessment

EU Information  
For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

Revision Date: 2017-03-06

This safety data sheet represents TOKU-E Company’s current understanding of the hazards associated with this product. The stated hazard information is based on existing experimental data and is not guaranteed to be all-inclusive. TOKU-E Company strives to maintain current and comprehensive safety information but recognizes that this safety data sheet may require revision as new information becomes available. TOKU-E Company shall not be held liable for damage or injury resulting from contact, handling, or storage of this product.