1. IDENTIFICATION

Product Identifier: Methicillin Sodium
Product Number: M029
Distributor Name: TOKU-E Company
Distributor Address: 715 W Orchard Dr, Suite 3
Bellingham, WA 98225
Phone Number: (360) 734-1789
Emergency Phone Number: 1 (352) 353-3500 (International)
Emergency Phone Number: 1 (800) 535-5053 (US Only)
Safety Data Sheet Issued by: TOKU-E USA
CAS-Number: [132-92-3]
EC/REACH Number: [205-083-9]
Recommended Use: Methicillin sodium is a narrow spectrum β-lactam antibiotic in the penicillin family.
Restrictions on Use: Not for human or animal use.

2. HAZARD(S)

IDENTIFICATION

GHS Classification:
- Skin irritation (Category 2), H315
- Eye irritation (Category 2A), H319
- Respiratory sensitization (Category 1), H334
- Skin sensitization (Category 1), H317
- Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

GHS Label Elements, Including Precautionary statements:
Signal Word: Danger

Hazard Statements:
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation.
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335: May cause respiratory irritation.

Precautionary Statements:
- P261: Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
- P264: Wash skin thoroughly after handling.
- P271: Use only outdoors or in a well-ventilated area.
- P272: Contaminated work clothing should not be
allowed out of the workplace.
P280: Wear protective gloves/ eye protection/ face protection.
P285: In case of inadequate ventilation wear respiratory protection.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321: Specific treatment (see supplemental first aid instructions on this label).
P333 + P313: If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P31:3 If eye irritation persists: Get medical advice/ attention.
P342 + P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.
P362: Take off contaminated clothing and wash before reuse.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.
P501: Dispose of contents/ container to an approved waste disposal plant

<table>
<thead>
<tr>
<th>HMIS Classification</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health hazard: 2</td>
<td></td>
</tr>
<tr>
<td>Chronic Health Hazard: *</td>
<td></td>
</tr>
<tr>
<td>Flammability: 0</td>
<td></td>
</tr>
<tr>
<td>Physical Hazards: 0</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>NFPA Rating</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard: 2</td>
<td></td>
</tr>
<tr>
<td>Fire: 0</td>
<td></td>
</tr>
<tr>
<td>Reactivity Hazard: 0</td>
<td></td>
</tr>
</tbody>
</table>

### 3. COMPOSITION/INFORMATION ON INGREDIENTS
- **Formula**: \( \text{C}_{17}\text{H}_{19}\text{N}_2\text{NaO}_6\text{S} \)
- **Molecular Weight**: 402.4 g/mol
- **CAS-No.**: [132-92-3]
- **EC-No.**: [205-083-9]

### 4. FIRST-AID MEASURES
- **General Advice**: Consult a physician. Show this Safety Data Sheet to the medical provider
- **If Inhaled**: If breathed in, move person to fresh air. If not
breathing, give artificial respiration. Consult a doctor
In Case of Eye Contact
Rinse thoroughly with plenty of water for at least 15 minutes, consult a doctor
If Swallowed
Never give anything by mouth to an unconscious person. Consult a doctor. Rinse mouth with water.

5. FIRE-FIGHTING MEASURES

Conditions of Flammability
Not flammable or combustible
Suitable Extinguishing Media
Water spray, alcohol-resistant foam, dry chemical, carbon dioxide
Special Protective Equipment for Firefighters
Wear self-contained breathing apparatus
Hazardous Combustion Products
Formed under fire conditions: Carbon, Sulfur, Sodium, and Nitrogen oxides

6. ACCIDENTAL RELEASE MEASURES

General
Evacuate personnel to safe location
Personal Precautions
Wear respiratory protection. Avoid dust formation and breathing vapors/mist/dust/gas. Ensure adequate ventilation
Environmental Precautions
Prevent spillage, do not let product enter drains
Methods of Containment and Cleanup
Place in suitable, closed containers for licensed disposal. Avoid dust formation

7. HANDLING AND STORAGE

Precautions for Safe Handling
Avoid contact with skin and eyes. Provide exhaust ventilation in areas where dust if formed
Precautions for Safe Storage
Keep container tightly closed and in a dry, well-ventilated place. Protect from light. Recommended storage temperature: -20°C
Incompatibilities
None known

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values
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 wash and dry hands.

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

When deemed needed according to the concentration and amount of this product, use a complete body suit.

9. PHYSICAL/CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White to off-white powder</td>
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<tr>
<td>pH</td>
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<tr>
<td>Melting Point</td>
<td>196-197°C (dec.)</td>
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<tr>
<td>Boiling Point</td>
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<tr>
<td>Flash Point</td>
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</tr>
<tr>
<td>Ignition Temperature</td>
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<tr>
<td>Autoignition Temperature</td>
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<tr>
<td>Lower Explosion Limit</td>
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<tr>
<td>Upper Explosion Limit</td>
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<tr>
<td>Vapor Pressure</td>
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</tr>
<tr>
<td>Density</td>
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<tr>
<td>Water Solubility</td>
<td>0.3 mg/mL</td>
</tr>
<tr>
<td>Solubility in Other Solvents</td>
<td>Acetone: 0.35 mg/mL</td>
</tr>
<tr>
<td></td>
<td>Ethanol: 40 mg/mL</td>
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<tr>
<td></td>
<td>Water: Freely soluble</td>
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<tr>
<td>Partition Coefficient: n-octanol/water</td>
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<tr>
<td>Relative vapor density</td>
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<tr>
<td>Odor</td>
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</tr>
<tr>
<td>Odor Threshold</td>
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</tr>
<tr>
<td>Evaporation Rate</td>
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</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Stability</td>
<td>Stable under recommended storage conditions</td>
</tr>
<tr>
<td>Possibility of Hazardous Reactions</td>
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</tr>
<tr>
<td>Conditions to Avoid</td>
<td>Light</td>
</tr>
<tr>
<td>Materials to Avoid</td>
<td>Acids</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>Carbon, Sulfur, Sodium, and Nitrogen oxides formed under fire conditions</td>
</tr>
</tbody>
</table>
11. TOXICOLOGICAL INFORMATION

Oral LD$_{50}$  Rat: 2,880 mg/kg
Inhalation LC$_{50}$  No data available
Dermal LD$_{50}$  No data available
Intraperitoneal LD$_{50}$  No data available
Intraperitoneal LD$_{50}$  No data available
Intravenous LD$_{50}$  No data available
Skin Corrosion/Irritation  No data available
Serious Eye Damage/ Eye Irritation  No data available
Respiratory or Skin Sensitization  No data available
Germ Cell Mutagenicity  No data available
Carcinogenicity  This is or contains a component that has been reported to be carcinogenic based on its EPA Classification
Reproductive Toxicity  No data available
Teratogenicity  No data available
Specific Target Organ Toxicity: Single Exposure (Globally Harmonized System)  Inhalation - May cause respiratory irritation.
Specific Target Organ Toxicity: Repeated Exposure (Globally Harmonized System)  No data available
Aspiration Hazard  No data available
Potential Health Effects  See Section 2, Hazard(s) Identification
Signs and Symptoms of Exposure  Nausea, vomiting
Synergistic Effects  No data available
Additional Information  RTECS: XH8950000

12. ECOLOGICAL INFORMATION

Toxicity  No data available
Persistence and Degradability  No data available
Bioaccumulative Potential  No data available
Mobility in Soil  No data available
PBT and vPvB Assessment
No data available
Treat as if harmful if released into environment

13. DISPOSAL CONSIDERATIONS
Product
Dispose of product through a licensed disposal company
Contaminated Packaging
Dispose of as unused product

14. TRANSPORTATION INFORMATION
DOT (US) Not Dangerous Goods
IMDG Not Dangerous Goods
IATA Not Dangerous Goods

15. REGULATORY INFORMATION
SARA 302 Components No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
SARA 313 Components This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313
SARA 311/312 Hazards Acute Health Hazard
Massachusetts Right to Know Components No components are subject to the Massachusetts Right to Know Act
Pennsylvania Right to Know Components Methicillin sodium
CAS-No. [132-92-3]
Revision Date: Not available
New Jersey Right to Know Components Methicillin sodium
CAS-No. [132-92-3]
Revision Date: Not available
California Prop. 65 Components This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm
Canada Information Identifier: [132-92-3]
This substance is not specified on any list. There is no control measure imposed on this substance
EU Information SDS in accordance with REACH 1907/2006
EC Number [205-083-9]
CAS-No. [132-92-3]
This substance is not specified on any list. See GHS Information under Section 2, Hazard Identification
16. OTHER INFORMATION

Date of last revision: 2014-4-15

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. TOKU-E Co. shall not be held liable for any damage resulting from handling or from contact with the above product. Please see reverse side of invoice or packing slip for additional terms and conditions of sale.