1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Tazobactum Sodium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Name</td>
<td>Tazobactum Sodium</td>
</tr>
<tr>
<td>Chemical Name</td>
<td>(2S, 3S, 5R)-3-methyl-7-oxo-3-(1H-1,2,3-triazol-1-ylmethyl)-4-thia-1-azabicyclo-[3.2.0]heptane-2-carboxylate-4,4-dioxide</td>
</tr>
<tr>
<td>Synonyms</td>
<td>Not available</td>
</tr>
<tr>
<td>Product Use</td>
<td>Active pharmaceutical ingredient</td>
</tr>
<tr>
<td>Classification</td>
<td>Anti-infective Agent</td>
</tr>
<tr>
<td>Supplier</td>
<td>Wyeth</td>
</tr>
<tr>
<td>P.O. Box 8299</td>
<td>Philadelphia, PA 19101 USA.</td>
</tr>
<tr>
<td>Telephone:</td>
<td>1-610-688-4400</td>
</tr>
<tr>
<td>Contact E-Mail:</td>
<td><a href="mailto:pfizer-MSDS@pfizer.com">pfizer-MSDS@pfizer.com</a></td>
</tr>
<tr>
<td>Emergency Telephone Number</td>
<td>Chemtrec USA, Puerto Rico, Canada 1-800-424-9300</td>
</tr>
<tr>
<td></td>
<td>Chemtrec International 1-703-527-3887</td>
</tr>
</tbody>
</table>

2. HAZARDS IDENTIFICATION

### Emergency Overview
This contains an active pharmaceutical ingredient that can affect body functions; handle with caution.

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Pharmaceutical powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available</td>
</tr>
</tbody>
</table>

### Potential Physical Hazards
Powders and solids are presumed to be combustible.

### Potential Health Effects

<table>
<thead>
<tr>
<th>Eyes</th>
<th>May cause mechanical eye irritation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>May cause skin irritation.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>May cause irritation of respiratory tract.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Not available</td>
</tr>
<tr>
<td>Other</td>
<td>Hypersensitivity (anaphylactic/anaphylactoid) reactions (including shock) have been reported in patients receiving therapy with penicillins. Individuals with a history of penicillin hypersensitivity or a history of sensitivity to multiple allergens should avoid contact. The most common effects may include pseudomembranous colitis, diarrhea, headache, constipation, nausea, insomnia, rash, vomiting, dyspepsia, pruritus, stool changes, fever, agitation, pain, moniliasis, hypertension, dizziness, abdominal pain, chest pain, edema, anxiety, rhinitis, and dyspnea.</td>
</tr>
</tbody>
</table>

### Therapeutic Target Organ(s)
None.

### Potential Environmental Effects
See Section 12.
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Common Name</th>
<th>CAS-No</th>
<th>EC No.</th>
<th>Composition</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tazobactam Sodium</td>
<td>89785-84-2</td>
<td>Not Applicable</td>
<td>100%</td>
<td>R 36/37/38, S 13/24/25/39</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye Contact
In the case of contact with eyes, rinse immediately with plenty of water for 15 minutes and seek medical advice.

Skin Contact
Wash off with soap and plenty of water

Inhalation
Artificial respiration and/or oxygen may be necessary

Ingestion
Immediate medical attention is required

Aggravated Medical Conditions
Allergy to penicillins.
Serious anaphylactic/anaphylactoid reactions (including shock) require immediate emergency treatment with epinephrine. Oxygen, intravenous steroids, and airway management, including incubation, should also be administered as indicated.

Notes to Physician
Serious anaphylactic/anaphylactoid reactions (including shock) require immediate emergency treatment with epinephrine. Oxygen, intravenous steroids, and airway management, including incubation, should also be administered as indicated.

5. FIRE-FIGHTING MEASURES

Flammable Properties
Not flammable

Extinguishing Media

Suitable Extinguishing Media
Use water spray, foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media
Do NOT use water jet.

Fire Fighting
Evacuate area and fight fire from a safe distance

Hazardous Combustion Products
Carbon oxides, nitrogen oxides.

Protective Equipment and Precautions for Firefighters
In the event of fire, wear self-contained breathing apparatus and special protective equipment for fire fighters.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Safety glasses or goggles when splash potential exists

Environmental Precautions
Local authorities should be advised if a significant spill cannot be contained

Methods for Containment
Not available

Methods for Cleaning up
Take up mechanically and collect in suitable container for disposal
7. HANDLING AND STORAGE

Handling
Ground and bond all bulk transfer equipment. Avoid open handling. Minimize dust generation. Use local exhaust ventilation or perform work under fume hood/fume cupboard. Avoid inhalation and contact with skin, eye, and clothing. When handling, use appropriate personal protective equipment (see Section 8). Wash hands and any exposed skin after removal of PPE. Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.***

Storage
No special safety precautions required

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

OEB Statement
The purpose of the Occupational Exposure Band (OEB) classification system is to separate substances into different Hazard categories when the available data are sufficient to do so, but inadequate to establish an Occupational Exposure Limit (OEL). The OEB given is based upon an analysis of all currently available data; as such, this value may be subject to revision when new information becomes available.***

Tazobactum Sodium
Pfizer Occupational Exposure Band (OEB): OEB1 (control exposure to the range of >1000ug/m³ to < 3000ug/m³)***

Engineering Controls
Engineering controls should be used as the primary means to control exposures. Use process containment, local exhaust ventilation, or other engineering controls to maintain airborne levels within the OEB range. All operations should be fully enclosed. No air recirculation permitted.***

Personal Protective Equipment
Eye/face Protection
Wear safety glasses as minimum protection.***

Skin Protection
Wear impervious gloves as minimum protection. Wear impervious protective clothing when handling this compound.***

Respiratory Protection
If airborne exposures are within or exceed the Occupational Exposure Band (OEB) range, wear an appropriate respirator with a protection factor sufficient to control exposures to the bottom of the OEB range.***

General Hygiene Considerations
Consult a health and safety professional for specific PPE, respirator and risk assessment guidance

Other
Limit access to only personnel trained in the safe handling of this material

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Pharmaceutical powder</td>
</tr>
<tr>
<td>Color</td>
<td>White to off-white</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>C₁₀H₁₁N₄NaO₅S</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>&lt; -2.0</td>
</tr>
<tr>
<td>(n-octanol/water)</td>
<td></td>
</tr>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>322.3</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>17 mg/ml</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Chemical Stability
Stable at room temperature.

Conditions to Avoid
No data available

Materials to Avoid
Oxidizing materials.

Hazardous Decomposition Products
None under normal use.

Possibility of Hazardous Reactions
None under normal use.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Tazobactam Sodium
LD50 Oral  >5000 mg/kg mice
Acute Dermal Irritation  Not applicable
Primary Eye Irritation  Not applicable
Sensitization  Not applicable

Multiple Dose Toxicity
***

Tazobactam Sodium
No Toxicologic Effect  Not available
Dose/Species/Study Length:

Maximum Tolerated Dose (MTD), Oral

Tazobactam Sodium
Carcinogenicity  Long-term animal toxicity studies to evaluate the carcinogenic potential have not been conducted.
Genetic Toxicity  Mutagenic potential was assessed in 5 in vitro and 1 in vivo assay; positive results occurred in one assay (forward mutation assay using mouse lymphoma cells). However, the results were negative when the combination of Piperacillin Sodium and Tazobactam Sodium was assessed in a similar battery of tests.
Reproductive Toxicity  Studies in mice and rats have shown no evidence of impaired fertility.
Developmental Toxicity  Animal reproduction studies have not been conducted.

Tazobactam Sodium
Target Organ(s) of Toxicity  No data available

12. ECOLOGICAL INFORMATION

Chemical Fate Information
13. DISPOSAL CONSIDERATIONS

Waste Disposal Method
Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater. ***

14. TRANSPORT INFORMATION

Transport Information
This material is not regulated for transportation as a hazardous material/dangerous goods.***

15. REGULATORY INFORMATION

According to present data no classification and labeling is required according to Directives 67/548/EEC or 1999/45/EC.

16. OTHER INFORMATION

Prepared By
Wyeth Department of Environment, Health & Safety

Format
This MSDS was prepared in accordance with Directive 2001/58/EC.

List of References
Zosyn MSDS, OEG Rationale June 2000.

Revision Summary
Changes to Section 8, 14******
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End of MSDS