### LKT Laboratories, Inc.

#### Safety Data Sheet

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### Section 1. Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Sulbactam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product ID</td>
<td>S8244</td>
</tr>
<tr>
<td>Chemical Name (Synonyms)</td>
<td>CP 45899</td>
</tr>
<tr>
<td>Supplier</td>
<td>LKT Laboratories, Inc&lt;br&gt;545 Phalen Blvd.&lt;br&gt;St. Paul, MN 55130 USA&lt;br&gt;Ph: 651-644-8424 Fax: 651-644-8357&lt;br&gt;www.lktlabs.com - <a href="mailto:getinfo@lktlabs.com">getinfo@lktlabs.com</a></td>
</tr>
<tr>
<td>Emergency Phone #</td>
<td>1-800-424-9300</td>
</tr>
</tbody>
</table>

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### Section 2. Hazards Identification

| GHS Classification | Acute toxicity, Oral (Category 4), H302 |

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### GHS Label elements including precautionary statements

<table>
<thead>
<tr>
<th><strong>Pictogram</strong></th>
<th><img src="image" alt="Warning Pictogram" /></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signal word</strong></td>
<td>Warning</td>
</tr>
<tr>
<td><strong>Hazard and precautionary statements</strong></td>
<td><strong>Hazard statements</strong>&lt;br&gt;H302 - Harmful if swallowed.&lt;br&gt;<strong>Precautionary statements</strong>&lt;br&gt;P264 - Wash skin thoroughly after handling.&lt;br&gt;P270 - Do not eat, drink or smoke when using this product.&lt;br&gt;P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell.&lt;br&gt;P330 - Rinse mouth.&lt;br&gt;P501 - Dispose of contents / container to an approved waste disposal plant.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th><strong>HMIS Classification</strong></th>
<th>Health hazard: 1&lt;br&gt;Chronic health hazard: *&lt;br&gt;Flammability: 0&lt;br&gt;Physical hazard: 0</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NFPA Rating</strong></td>
<td>Health hazard: 1&lt;br&gt;Fire hazard: 0&lt;br&gt;Reactivity hazard: 0</td>
</tr>
</tbody>
</table>

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| **Potential Health Effects** | Inhalation - May be harmful if inhaled. May cause respiratory irritation.<br>Skin - May be harmful if absorbed through skin. May cause skin irritation.<br>Eyes - May cause eye irritation. |

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Ingestion: Acute toxicity. Harmful if swallowed.

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### Section 3. Composition/Information on Ingredients

**Substances**

**Formula** \( \text{C}_8\text{H}_{11}\text{NO}_5\text{S} \)

**Formula Wt.** 233.25

**CAS No.** 68373-14-8

**EC No.** 269-878-2

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### Section 4. First Aid Measures

**General advice**
Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

**Eye Contact**
Flush eyes with water as a precaution.

**Skin Contact**
Wash off with soap and plenty of water. Consult a physician.

**Inhalation**
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion**
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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### Section 5. Firefighting Measures

**Flash Point**
Not available.

**Extinguishing Media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Firefighting Procedures**
Wear self-contained breathing apparatus for fire fighting if necessary.

**Unusual Fire Hazards**
Not available.

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### Section 6. Accidental Release Measures

**Personal Precautions**
Use personal protective equipment. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation.

**Environmental Precautions**
Do not let product enter drains.

**Methods and materials for containment and cleanup**
Avoid raising dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

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### Section 7. Handling and Storage

**Handling**
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

**Storage Conditions**
Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 4°C.

**Hazardous Decomposition Products**
Hazardous decomposition products formed under fire conditions. Carbon oxides, nitrogen oxides (NOx) and sulfur (sulphur) oxides.

**Other Remarks**
Store with desiccant.
**Section 8. Exposure Controls/Personal Protection**

**Personal protective equipment**

**EXPOSURE CONTROLS**

**Components with workplace control parameters:** Contains no substances with occupational exposure limit values.

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**PERSONAL PROTECTION**

**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:** 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.

**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 workplace.

**Respiratory protection:** For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respiratory. 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).

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**Section 9. Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Color</td>
<td>Light orange powder</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Volatility</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>148°C-151°C</td>
</tr>
<tr>
<td>Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
</tbody>
</table>

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**Section 10. Stability and Reactivity**

**Stability**

Stable under recommended storage conditions.

**Materials To Avoid**

Strong oxidizing agents.

**Hazardous Decomposition Products**

Hazardous decomposition products formed under fire conditions. Carbon oxides, nitrogen oxides (NOx) and sulfur (sulphur) oxides.
Section 11. Toxicological Information

Oral LD50 Not available.

Inhalation LC50 Not available.

Dermal LD50 Not available.

Other information on acute toxicity Not available.

Skin corrosion/irritation Not available.

Serious eye damage/irritation Not available.

Respiratory or skin sensitization Not available.

Germ cell mutagenicity Not available.

Reproductive Toxicity Not available.

Aspiration Hazard Not available.

Synergistic effects Not available.

Specific organ toxicity single exposure (GHS) Not available.

Specific organ toxicity repeated exposure (GHS) Not available.

Additional Information RTECS: Not available. To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

Teratogenicity Not available.

Signs and symptoms of exposure Not available.

Potential Health Effects Inhalation - May be harmful if inhaled. May cause respiratory irritation. Skin - May be harmful if absorbed through skin. May cause skin irritation. Eyes - May cause eye irritation. Ingestion: Acute toxicity. Harmful if swallowed.

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. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Section 12. Ecological Information

Toxicity Not available.

Mobility in soil Not available.

PBT and vPvB assessment not available as chemical safety assessment not required / no
Persistence and degradability: Not available.

Bioaccumulative potential: Not available.

Other adverse effects: Not available.

Section 13. Disposal Considerations

Waste Disposal
Dispose of material according to all federal, state and local regulations.
Offer material to a licensed, professional waste disposal company to dispose of as unused product.

Section 14. Transport Information

DOT (US) Not dangerous goods.

IATA Not dangerous goods.

IMDG Not dangerous goods.

Further Information

Section 15. Regulatory Information

Reach No.

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 Components Acute health hazard

Massachusetts Right To Know Components No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components Sulbactam CAS #: 68373-14-8 Revision Date:

New Jersey Right To Know Components Sulbactam CAS #: 68373-14-8 Revision Date:

California Prop 65 Components This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other reproductive harm.

Section 16. Other Information

Other information The information in this document is believed to be correct but is not necessarily complete. LKT does not guarantee the accuracy of the information. The burden of verifying the information in this document rests solely upon the user.