Section 1. Product and Company Identification

Product Name: Microcystin LR, desmethyl ("Asp3-MCLR")
Product ID: M3408
Chemical Name: desmethyl microcystin LR, Asp3-MCLR

Supplier: LKT Laboratories, Inc
545 Phalen Blvd.
St. Paul, MN 55130 USA
Ph: 651-644-8424 Fax: 651-644-8357
www.lktlabs.com - getinfo@lktlabs.com

Emergency Phone #: 1-800-424-9300

Section 2. Hazards Identification

GHS Classification:
- Acute toxicity, Oral (Category 1) H300
- Acute toxicity, Skin (Category 1) H310
- Acute toxicity, Inhalation (Category 1) H330
- Causes skin irritation (Skin Irrit. 2) H315
- May cause an allergic skin reaction (Skin Sens. 1) H317
- Causes serious eye irritation (Eye Irrit. 2) H319
- May cause respiratory irritation (STOT SE3) H335

GHS Label elements including precautionary statements

Pictogram: Danger

Signal word: Danger

Hazard and precautionary statements:
- Hazard statements:
  - H300 - Fatal if swallowed.
  - H310 - Fatal in contact with skin.
  - H330 - Fatal if inhaled.
  - H315 - Causes skin irritation.
  - H319 - Causes serious eye irritation.
  - H317 - May cause an allergic skin reaction.
  - H335 - May cause respiratory irritation.

Precautionary statements:
- P260 - Do not breath dust, fume, gas, mist, vapors and spray.
- P301+ P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 - Immediately call a POISON CENTER or doctor/physician.
- P320 - Specific treatment is urgent.
- P361 - Remove/Take off immediately all contaminated clothing.
- P405 - Store locked up.
- P501 - Dispose of contents/container in accordance with local, regional, national and international orders.

HMIS Classification:
- Health hazard: 4
- Flammability: 0
- Physical hazard: 0

NFPA Rating:
- Health hazard: 4
- Fire hazard: 0
- Reactivity hazard: 0

Potential Health Effects:
- Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
- Skin: May be harmful if absorbed through skin. May cause skin irritation.
- Eyes: May cause eye irritation.
Section 3. Composition/Information on Ingredients

Substances

<table>
<thead>
<tr>
<th>Formula</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C₄₈H₇₂N₁₀O₁₂</td>
<td>120011-66-7</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

General advice
Immediately remove any clothing soiled by the product. Remove breathing equipment only after contaminated clothing have been completely removed.

Eye Contact
Flush with water for several minutes. If symptoms persist, consult a doctor.

Skin Contact
Immediately wash with soap and water for 15 minutes and rinse thoroughly. Remove contaminated clothing. If symptoms persist, consult a doctor.

Inhalation
If breathed in, move person into fresh air. In case of irregular breathing or respiratory arrest, provide artificial respiration. Contact a physician. In case of unconsciousness, place patient stably in side position for transportation.

Ingestion
After ingesting, DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person. Rinse mouth with water. Call for medical help immediately.

Section 5. Firefighting Measures

Flash Point
Not available.

Extinguishing Media
Fight larger fires with water spray or alcohol resistant foam. CO₂, dry chemical powder or water spray.

Firefighting Procedures
Wear self-contained breathing apparatus and protective clothing. Wear a fully protective suit. Mouth respiratory protective device. Do not inhale explosion gases or combustion gases.

Unusual Fire Hazards
May emit toxic fumes.

Section 6. Accidental Release Measures

Personal Precautions
Avoid formation of dust. Wear protective clothing.

Environmental Precautions
No special measures required.

Methods and materials for containment and cleanup
Use appropriate tools to collect material and dispose of in waste container. Avoid raising dust. Ventilate the area and wash spill site after material has been removed. Ensure adequate ventilation.

Section 7. Handling and Storage

Handling
Wear gloves, goggles, and lab coat when handling this material. Open and handle receptacle with care. Use in a well ventilated area. Use only in a chemical fume hood. Wash thoroughly after handling material.

Storage Conditions
Store in a dry place in a tightly closed container in a well ventilated room at -20°C. Keep away from heat, sources of ignition and incompatibles such as oxidizing agents. Keep under lock and key and with access restricted to technical experts or their assistants only.

Hazardous Decomposition Products
Not available.

Other Remarks
Ships with blue ice.
## Section 8. Exposure Controls/Personal Protection

**Personal protective equipment**

**EXPOSURE CONTROLS**

Contains no substances with occupational exposure limit values.

**PERSONAL PROTECTION**

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (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).

**Hand 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.

**Eye protection:** Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Skin and 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.

**Hygiene measures:** Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product.

## Section 9. Physical and Chemical Properties

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<th>Physical State</th>
<th>Color</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
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<td>Melting Point</td>
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<td>Solubility</td>
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<td>Flash Point</td>
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<tr>
<td>Lower explosion limit</td>
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<td>Upper explosion limit</td>
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<td>Water solubility</td>
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<tr>
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</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>Density</td>
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<tr>
<td>Vapor pressure</td>
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<tr>
<td>Odor</td>
<td>Characteristic</td>
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<tr>
<td>Odor Threshold</td>
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</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

## Section 10. Stability and Reactivity

**Stability**

Stable. Avoid strong oxidizing agents.

**Materials To Avoid**

Not available.

**Hazardous Decomposition Products**

Not available.
Section 11. Toxicological Information

**Oral LD50**  Rat (intraperitoneal) 0,05 mg/kg

**Inhalation LC50**  Not available.

**Dermal LD50**  Danger through skin absorption.

**Other information on acute toxicity**  Not available.

**Reproductive Toxicity**  Not available.

**Specific organ toxicity single exposure (GHS)**  Not available.

**Specific organ toxicity repeated exposure (GHS)**  Not available.

**Teratogenicity**  Not available.

**Germ cell mutagenicity**  Not available.

**Skin corrosion/irritation**  Irritant to skin and mucous membranes.
Sensitization possible through skin contact.
Danger through skin absorption.

**Serious eye damage/irritation**  Irritating effect.

**Respiratory or skin sensitization**  May cause sensitisation by skin contact.

**Aspiration Hazard**  Not available.

**Synergistic effects**  Not available.

**Additional Information**  Not available.

**Signs and symptoms of exposure**  Not available.

**Potential Health Effects**
Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Skin: May be harmful if absorbed through skin. May cause skin irritation.
Eyes: May cause eye irritation.
Ingestion: May be 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.
### 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. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Dispose of as unused product.

#### Section 14. Transport Information

**DOT (US)**
- UN number: 3462
- Class: 6.1
- Packing group: I
- Proper shipping name: Toxins, extracted from living sources, solid, n.o.s. ([D-Asp3]-Microcystin-LR)

**IATA**
- UN number: 3462
- Class: 6.1
- Packing group: I
- Proper shipping name: Toxins, extracted from living sources, solid, n.o.s. ([D-Asp3]-Microcystin-LR)

**IMDG**
- UN number: 3462
- Class: 6.1
- Packing group: I
- Proper shipping name: Toxins, extracted from living sources, solid, n.o.s. ([D-Asp3]-Microcystin-LR)

### Further Information

#### Section 15. Regulatory Information

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

**SARA 313 Components**
SARA 313: 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 and chronic health hazard.

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

**Pennsylvania Right To Know Components**
- [D-Asp3]-Microcystin-LR
  - CAS: 120011-66-7

**New Jersey Right To Know Components**
- [D-Asp3]-Microcystin-LR
  - CAS: 120011-66-7

**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.

#### 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.