Section 1. Product and Company Identification

Product Name: Mitomycin C
Product ID: M3377
Chemical Name (Synonyms): MMC; Ametycine; Mitocin-C; Mutamycin
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 2), H300
- Carcinogenicity (Category 2), H351

GHS Label elements including precautionary statements

Pictogram
Signal word: Danger
Hazard and precautionary statements:
- Hazard statement(s):
  - H300 - Fatal if swallowed.
  - H351 - Suspected of causing cancer.
- Precautionary statement(s):
  - P201 - Obtain special instructions before use.
  - P202 - Do not handle until all safety precautions have been read and understood.
  - P264 - Wash skin thoroughly after handling.
  - P270 - Do not eat, drink or smoke when using this product.
  - P281 - Use personal protective equipment as required.
  - P301 + P312 + P330 - IF SWALLOWED: Immediately call a POISON CENTER/doctor if you feel unwell.
  - P308 + P313 - IF exposed or concerned: Get medical advice/attention.
  - P321 - Specific treatment (see supplemental first aid instructions on this label).
  - P405 - Store locked up.
  - P501 - Dispose of contents/container to an approved waste disposal plant.

HMIS Classification:
- Health hazard: 4
- Chronic health hazard: *
- Flammability: 0
- Physical hazard: 0

NFPA Rating:
- Health hazard: 3
- 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>Ingredient: Title Compound</th>
<th>Percent: 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>C15H18N₄O₅</td>
<td>334.33</td>
</tr>
</tbody>
</table>

CAS No. 50-07-7 EC No. 200-008-6

Section 4. First Aid Measures

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

Eye Contact
Flush eyes with plenty of water for at least 15 minutes. Have a physician examine and test eyes.

Skin Contact
Wash off with soap and plenty of water. Have physician examine if symptoms occur. Wash clothing before reuse.

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.

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
Carbon oxides, nitrogen oxides (NOx).

Section 6. Accidental Release Measures

Personal Precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental Precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleanup
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7. Handling and Storage

Handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. 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: -20°C

Hazardous Decomposition Products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), hydrogen chloride gas, sodium oxides.

Other Remarks
Storage class (TRGS 510): Non combustible solids.
Section 8. Exposure Controls/Personal Protection

Personal protective equipment
EXPOSURE CONTROLS
Contains no substances with occupational exposure limit values.
General industrial hygiene practice.

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. Full and Splash contact - Material: Nitrile rubber, Minimum layer thickness: 0.11 mm, Break through time: 460 min., Material tested: Dermatril® (KCL 740 / Aldrich 2677272, Size M).

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).

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>Blue violet crystals.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Boiling Point</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>534°C</td>
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<table>
<thead>
<tr>
<th>Melting Point</th>
<th>Density</th>
</tr>
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<tbody>
<tr>
<td>&gt;360°C</td>
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<table>
<thead>
<tr>
<th>Solubility</th>
<th>pH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble in water (25°C - 0.9 mg/mL), acetone, methanol, or ethanol (1 mg/mL), DMSO (15 mg/mL)</td>
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</table>

<table>
<thead>
<tr>
<th>Flash Point</th>
<th>Ignition temperature</th>
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</thead>
<tbody>
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<td>Not available.</td>
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</table>

<table>
<thead>
<tr>
<th>Lower explosion limit</th>
<th>Autoignition temperature</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Not available.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Upper explosion limit</th>
<th>Vapor pressure</th>
</tr>
</thead>
<tbody>
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<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water solubility</th>
<th>Odor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Partition coefficient: n-octanol/water</th>
<th>Odor Threshold</th>
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</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Relative vapor density</th>
<th>Evaporation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

Stability
Stable under recommended storage conditions.

Materials To Avoid
Strong acids, Strong bases, Strong oxidizing agents

Hazardous Decomposition Products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), hydrogen chloride gas, sodium oxides.
Section 11. Toxicological Information

**Oral LD50**
- Mouse: 23 mg/kg
- Quail: > 100 mg/kg
- Bird (wild): 7.5 mg/kg

**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.

**Additional Information**
RTECS: CN0700000

**Signs and symptoms of exposure**
Nausea, vomiting, diarrhea and alopecia.

**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: Acute toxicity. Fatal if swallowed.
- Carcinogenicity: Suspected of causing cancer.

**Carcinogenicity**
This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

- **IARC:** 2B - Group 2B: Possibly carcinogenic to humans (Mitomycin C)
- **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**
PBT/vPvB assessment not available as chemical safety assessment not required/not
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. Diss!olve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Section 14. Transport Information

DOT (US) UN number: 3462 Class: 6.1 Packing Group: II Proper shipping name: Toxins, extracted from living sources, solid, n.o.s. (Mitomycin C)
IATA UN number: 3462 Class: 6.1 Packing Group: II Proper shipping name: Toxins, extracted from living sources, solid, n.o.s. (Mitomycin C)
IMDG UN number: 3462 Class: 6.1 Packing Group: II Proper shipping name: TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (Mitomycin C)

Section 15. Regulatory Information

Reach No.

SARA 302 Components The following components are subject to reporting levels established by SARA Title III, Section 302: Mitomycin C CAS: 50-07-7 Revision Date: 2007-03-01
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, chronic health hazard

Massachusetts Right To Know Components No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know Components Mitomycin C CAS #: 50-07-7 Revision Date:
New Jersey Right To Know Components Mitomycin C CAS #: 50-07-7 Revision Date:
California Prop 65 Components WARNING! This product contains a chemical known to the State of California to cause cancer. Mitomycin C CAS #: 50-07-7 Revision Date: 1992-11-09

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.