Material Safety Data Sheet
Revision: 02/11/2005

Hazard information is provided for compliance with both the UK Chemicals (Hazard Information and Packaging) (CHIP) Regulations and the US Hazard Communication Standard (HCS)

IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

PRODUCT NAME: Leptomycin B
PRODUCT CODE: 25110
EEC NUMBER: None

Emergency Contact:
USB Corporation, 26111 Miles Road, Cleveland, Ohio 44128   Phone: (216) 765-5000
Chemtrec (800) 424-9300
Outside USA & Canada 703 527 3887

Please visit our website at www.usbweb.com for contact information on USB product distributors within your area.

COMPOSITION/HAZARDOUS COMPONENTS

<table>
<thead>
<tr>
<th>HAZARD</th>
<th>CAS NO.</th>
<th>%WT</th>
<th>TLV</th>
<th>CHIP R &amp; S Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leptomycin B (Supplied in 70% Methanol, CAS# 67-56-1)</td>
<td>87081-35-4</td>
<td>~0.1%</td>
<td>See &quot;Regulatory Information&quot; Section</td>
<td>R:11 Highly flammable. R:23/24/25 Toxic by inhalation, in contact with skin and if swallowed. R:39/23/24/26 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. S:7 Keep container tightly closed. S:16 Keep away from sources of ignition - No smoking. S:36/37 Wear suitable protective clothing and gloves. S:45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).</td>
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HAZARDS IDENTIFICATION

CHIP
Highly Flammable, Toxic.

HCS
Flammable, Toxic.

FIRST-AID MEASURES

EYES: Flush with water for 15 minutes. Seek medical advice if irritation persists.
SKIN: Flush with water, then wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Seek medical attention if irritation persists.
INHALATION: Remove the victim from exposure and move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Keep victim quiet and warm. Seek immediate medical attention.
INGESTION: Drink water and seek immediate medical attention. Avoid alcoholic beverages. Never give anything by mouth to an unconscious person.

FIRE-FIGHTING INFORMATION

Use media suitable to extinguish the supporting or surrounding fire. Wear NIOSH (or equivalent) approved self contained breathing apparatus. For small fires only: use carbon dioxide, dry powder or foam. Flammable liquid. Water may be ineffective. Methanol is lighter than water and a fire may be spread by the use of water. Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions. Emits toxic fumes under fire conditions. Explosion Limits for Methanol: Upper = 36%; Lower = 6%. Flash Point for Methanol = 11.1°C (52°F) Closed cup. Autoignition Temperature for Methanol = 464°C.

ACCIDENTAL RELEASE MEASURES

Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH-approved respirator. Eliminate all source of ignition. Cover with dry-lime, sand or soda ash. Collect in a manner that does not create dust using non-sparking tools and place in a suitable waste container. Avoid contact of material with skin or eyes. Use adequate ventilation.

HANDLING AND STORAGE

Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH-approved respirator. Avoid all sources of ignition. Ground all equipment. Avoid contact of material with skin or eyes. Use adequate ventilation. Keep away from heat, sparks and open flame. Protect from moisture and light. Store at -20°C away from incompatible materials.

PERSONAL PROTECTION

Wear appropriate personal protective equipment and clothing including lab coat, safety glasses, gloves and NIOSH-approved respirator. A qualified industrial hygienist should evaluate the need for respiratory protection. Use respiratory protection approved by NIOSH (or equivalent) and appropriate to the hazard. Avoid contact of material with skin or eyes. Mechanical ventilation or local exhaust as needed to control exposure to dust, vapors or mists. Access to a safety shower and eye-wash.

MSDS information may be continued on back of page.
PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid (Supplied in 70% Methanol)  Boiling Point: No data available
Vapor Pressure: No data available  Vapor Density: No data available
Solubility (Water): No data available  Specific Gravity: No data available
Percent Volatile: No data available  Evaporation Rate: No data available
Chemical formula: C₃₃-H₄₈-O₆  Melting Point: No data available

STABILITY AND REACTIVITY

Product is stable. Protect from moisture and light. Hazardous decomposition products include oxides of carbon.
Incompatible with acids, acid chlorides, acid anhydrides, oxidizing agents, alkali metals and reducing agents.
Hazardous polymerization will not occur.

TOXICOLOGICAL INFORMATION

EFFECTS OF OVEREXPOSURE:

EYES: Contact may cause irritation.
SKIN: Toxic if absorbed through skin. Contact may cause irritation. Prolonged and or repeated contact may cause defatting of the skin and dermatitis. Methanol may be absorbed through the skin, producing systemic effects that include visual disturbances.
INHALATION: Toxic if inhaled. Material may be irritating to mucous membranes and upper respiratory tract. Overexposure may result in CNS depression with nausea, headache, vomiting, visual disturbances, blindness, incoordination and dizziness.
INGESTION: Toxic if swallowed. Cannot be made non-poisonous. Aspiration hazard. May be fatal or cause blindness if swallowed. Ingestion of methanol may cause central nervous system depression characterized by excitement, followed by nausea, headache, dizziness, weakness and drowsiness. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.
TARGET ORGAN(S): Eyes and Kidneys.

ADDITIONAL INFORMATION:

Methanol is considered to be a potential developmental hazard based on animal data. In animal experiments, methanol has caused fetotoxic or teratogenic effects without maternal toxicity.
Only select RTECS information is provided here. Please see actual RTECS entries for complete information.

ECOLOGICAL INFORMATION

No information available.

DISPOSAL CONSIDERATIONS

Dispose of material in accordance with applicable local, state, and federal regulations. For Methanol: RCRA U-Series, CAS# 67-56-1, designation U154 (Ignitable waste).

TRANSPORTATION INFORMATION

US DOT / IATA: Methanol, UN1230, Hazard classes: Primary = 3; Subsidiary = 6.1, PG II, Label: Flammable Liquid.

REGULATORY INFORMATION

RCRA - No applicable information.
SARA 302 - For Methanol: Final RQ = 5000 lbs (2270 kg); This material does not have a TPQ.
SARA 313 - This material contains Methanol (CAS# 67-56-1, 99%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
EPA TSCA Section 8(b) - For Methanol: Chemical Inventory. For Leptomycin B: This chemical substance is NOT specifically listed on the EPA TSCA Inventory. It is supplied for research and development use only, by or directly under the supervision of technically qualified individuals. NOT for manufacturing or commercial purposes.
Exposure Limits - For Methanol: ACGIH: TLV-TWA = 262 mg/m³ (200 ppm)(skin).
OSHA: PEL (Gen Indu) = 8H TWA 200 ppm (260 mg/m³).
California Proposition 65 - No applicable information.

This data sheet is based upon information believed to be reliable. The Company makes no statement or warranty as to the accuracy or completeness of the information contained herein which is offered for your consideration, investigation and verification. Any use of the information contained in this data sheet must be determined by the user to be in accordance with appropriate applicable regulations.