SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product code: 15140122
Product name: Penicillin-Streptomycin, liquid

Company/undertaking identification

Life Technologies Corporation
5781 Van Allen Way
PO Box 6482
Carlsbad, CA 92008
+1 760 603 7200

Life Technologies
5250 Mainway Drive
Burlington, ONT
CANADA L7L 6A4
800/263-6236

24 hour Emergency Response:
866-536-0631
301-431-8585
Outside of the U.S. +1-301-431-8585

Country specific Emergency Number (if available):
CHEMTREC Brazil (Rio De Janeiro) +(55)-2139581449 (português)

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

SECTION 2: Hazards identification

GHS - Classification

Signal Word
DANGER

Health hazards
Respiratory sensitization Category 1
Skin sensitization Category 1
Reproductive Toxicity Category 2

Physical hazards
Not Hazardous

Hazard Statements
H317 - May cause an allergic skin reaction
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H361 - Suspected of damaging fertility or the unborn child
H402 - Harmful to aquatic life

Precautionary Statements
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P201 - Obtain special instructions before use
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P273 - Avoid release to the environment

Principle Routes of Exposure
Potential Health Effects

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>eyes</td>
<td>May cause eye irritation with susceptible persons.</td>
</tr>
<tr>
<td>Skin</td>
<td>May cause skin irritation in susceptible persons.</td>
</tr>
<tr>
<td>inhalation</td>
<td>May cause irritation of respiratory tract.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No information available.</td>
</tr>
</tbody>
</table>

Specific effects

- Carcinogenic effects: No information available.
- Mutagenic effects: Not Applicable.
- Reproductive toxicity: May impair fertility. May cause harm to the unborn child.
- Sensitization: May cause sensitization by inhalation and skin contact.

Target Organ Effects: None under normal use conditions.

HMIS

<table>
<thead>
<tr>
<th></th>
<th>4 * Chronic Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
</tbody>
</table>

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>EINECS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>STREPTOMYCIN SULFATE</td>
<td>3810-74-0</td>
<td>-</td>
<td>0.5-1.5</td>
</tr>
<tr>
<td>3810-74-0 (0.5-1.5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penicillin G Sodium Salt</td>
<td>69-57-8</td>
<td>-</td>
<td>0.1-1.0</td>
</tr>
<tr>
<td>69-57-8 (0.1-1.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

We recommend handling all chemicals with caution.

SECTION 4: First aid measures

Skin contact
Wash off immediately with plenty of water for at least 15 minutes. Take off all contaminated clothing and wash it before reuse. Immediate medical attention is required.

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Ingestion
Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

Inhalation
Remove to fresh air. If not breathing, give artificial respiration. Call a physician or poison control center immediately.
Most important symptoms and effects, both acute and delayed
H317 - May cause an allergic skin reaction, H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled, H361 - Suspected of damaging fertility or the unborn child, H402 - Harmful to aquatic life

Notes to Physician
Treat symptomatically.

SECTION 5: Firefighting measures

Suitable extinguishing media

Special protective equipment for firefighters
Wear self-contained breathing apparatus and protective suit.

Specific hazards arising from the chemical
Not known

SECTION 6: Accidental release measures

Personal precautions
Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Use personal protection equipment.

Methods for cleaning up
Soak up with inert absorbent material.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

See Section 12 for more information.

SECTION 7: Handling and storage

Handling
Always wear recommended Personal Protective Equipment. No special handling advices are necessary.

Storage
Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

SECTION 8: Exposure controls/personal protection

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA PEL</th>
<th>OSHA PEL (Ceiling)</th>
<th>ACGIH OEL (TWA)</th>
<th>ACGIH OEL (STEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STREPTOMYCIN SULFATE</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Penicillin G Sodium Salt</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment
Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory protection
In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection
Impervious gloves.

Eye protection
Wear safety glasses with side shields (or goggles).

Skin and Body Protection
Lightweight protective clothing.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls
Prevent product from entering drains. Do not allow material to contaminate ground water system.
SECTION 9: Physical and chemical properties

General information

Form: Liquid
Appearance: No information available
Odor: Mixture has not been tested
Odor Threshold: Mixture has not been tested
Boiling point / boiling range: °C No data available  °F No data available
Melting point / melting range: °C No data available  °F No data available
Flash point: °C No data available  °F No data available
Autoignition Temperature: °C No data available  °F No data available
Evaporation rate: No data available
Flammability (solid, gas): No data available
Oxidizing properties: Mixture has not been tested
Water solubility: soluble
Upper explosion limit: No data available
Lower explosion limit: No data available
Partition coefficient: n-octanol/water: No data available
Vapor Pressure: No data available
Vapor density: No data available
Viscosity: Mixture has not been tested
pH value: No data available

SECTION 10: Stability and reactivity

Stability: Stable under normal conditions.
Materials to avoid: No information available.
Possibility of hazardous reactions: Hazardous reaction has not been reported
Hazardous decomposition products: No information available.
polymerization: None under normal processing.
Conditions to avoid: None under normal processing.

SECTION 11: Toxicological information

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 (oral,rat/mouse)</th>
<th>LD50 (dermal,rat/rabbit)</th>
<th>LC50 (inhalation,rat/mouse)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STREPTOMYCIN SULFATE</td>
<td>= 430 mg/kg (Rat)</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>Penicillin G Sodium Salt</td>
<td>= 6916 mg/kg (Rat)</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Principle Routes of Exposure

Potential Health Effects

eyes: May cause eye irritation with susceptible persons.
Skin: May cause skin irritation in susceptible persons.
inhalation  May cause irritation of respiratory tract.
Ingestion  No information available.

Carcinogenic effects  No information available.
Mutagenic effects  No information available.
Reproductive toxicity  May impair fertility. May cause harm to the unborn child.
Sensitization  May cause sensitization by inhalation and skin contact.

Target Organ Effects  None under normal use conditions

SECTION 12: Ecological information

Ecotoxicity  Harmful to aquatic organisms.
Acute aquatic toxicity  Category 3.
Mobility  No information available.
Biodegradation  No information available.
Bioaccumulation  No information available.

SECTION 13: Disposal considerations

Dispose of contents/containers in accordance with local regulations.

SECTION 14: Transport information

IATA
  Proper Shipping Name  No dangerous good in sense of these transport regulations
  Hazard Class  None
  Subsidiary class  None
  Packing group  None
  UN-No  none
  Environmental hazards  None
SECTION 16: Other information

Reason for revision
SDS sections updated.

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End of Safety Data Sheet