SAFETY DATA SHEET

73342 73344 - Puromycin (Dihydrochloride)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name
Puromycin (Dihydrochloride)

Other means of identification

Catalog Number
73342 73344

Document Number
DX21203

Synonyms
CL 13900; CL 16536; NSC 3055; PDH;

Recommended use of the chemical and restrictions on use

Recommended Use
Laboratory chemicals

Details of the supplier of the safety data sheet

Manufacturer/Supplier
STEMCELL Technologies Canada Inc.
Suite 500 - 1618 Station Street
Vancouver, British Columbia V6A 1B6 Canada

Emergency telephone number

Emergency Telephone
1-800-667-0322

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral
Category 4

Hazard statements

Warning
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Revision Date 18-Aug-2022
Revision Number 2.1

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

Precautionary statements - Response
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
Rinse mouth

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Other Information
Not applicable

Unknown acute toxicity
0 % of the mixture consists of ingredient(s) of unknown toxicity
0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance
Synonyms
CL 13900; CL 16536; NSC 3055; PDH;

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2S)-2-amino-N-[(2S,4R,5R)-5-[6-(dimethylamino)purin-9-yl]-4-hydroxy-2-(hydroxymethyl)oxolan-3-yl]-3-(4-methoxyphenyl)propanamide:dihydrochloride</td>
<td>58-58-2</td>
<td>100</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.*
SAFETY DATA SHEET

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4. FIRST AID MEASURES

Description of first aid measures

General advice
Show this safety data sheet to the doctor in attendance.

Inhalation
Remove to fresh air.

Eye contact
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact
Wash skin with soap and water.

Ingestion
Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

Most important symptoms and effects, both acute and delayed

Symptoms
No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media
CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical
No information available.

Explosion data
Sensitivity to Mechanical Impact
None.

Sensitivity to Static Discharge
None.

Special protective equipment for fire-fighters
Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES
Personal precautions, protective equipment and emergency procedures

Personal precautions
Ensure adequate ventilation.

Environmental precautions

Environmental precautions
See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Pick up and transfer to properly labeled containers.

Prevention of secondary hazards
Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Store in accordance with information listed on the Product Information Sheet (PIS). Keep out of the reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits
The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Appropriate engineering controls

Engineering controls
Showers
SAFETY DATA SHEET

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Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Product is not flammable.</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Water solubility</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>~10 mg/mL in PBS (pH 7.2); ~1 mg/mL in EtOH; ~13 mg/mL in DMSO; ~14 mg/mL in DMF;</td>
<td>None known</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
<td>None known</td>
</tr>
</tbody>
</table>
# SAFETY DATA SHEET

**73342 73344 - Puromycin (Dihydrochloride)**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>544.4</td>
</tr>
<tr>
<td>Molecular formula</td>
<td>C22H29N7O5 • 2HCl</td>
</tr>
<tr>
<td>VOC Content (%)</td>
<td>No information available</td>
</tr>
<tr>
<td>Liquid Density</td>
<td>No information available</td>
</tr>
<tr>
<td>Bulk density</td>
<td>No information available</td>
</tr>
</tbody>
</table>

## 10. STABILITY AND REACTIVITY

- **Reactivity**: No information available.
- **Chemical stability**: Stable under recommended transport or storage conditions.
- **Possibility of hazardous reactions**: None under normal processing.
- **Conditions to avoid**: None known based on information supplied.
- **Incompatible materials**: Strong oxidizing agents.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Route</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Specific test data for the substance or mixture is not available.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Specific test data for the substance or mixture is not available.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Specific test data for the substance or mixture is not available.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Specific test data for the substance or mixture is not available. Harmful if swallowed. (based on components).</td>
</tr>
</tbody>
</table>

### Symptoms related to the physical, chemical and toxicological characteristics

- **Symptoms**: No information available.
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Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document

| ATEmix (oral) | 500.00 mg/kg |

Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown toxicity
0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Product Information

Oral LD50

720 mg/kg (Mouse)

Component Information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2S)-2-amino-N-[(2S,4R,5R)-5-[6-(dimethylamino)purin-9-yl]-4-hydroxy-2-(hydroxymethyl)oxolan-3-yl]-3-(4-methoxyphenyl)propamide; dihydrochloride 58-58-2</td>
<td>720 mg/kg (Mouse)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation

No information available.

Product Information

Serious eye damage/eye irritation

No information available.

Product Information

Respiratory or skin sensitization

No information available.

Product Information

Germ cell mutagenicity

No information available.

Product Information

Carcinogenicity

No information available.

Product Information

Reproductive toxicity

No information available.

Product Information

STOT - single exposure

No information available.

Product Information

STOT - repeated exposure

No information available.
<table>
<thead>
<tr>
<th>Product Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aspiration hazard</strong></td>
</tr>
<tr>
<td>No information available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12. ECOLOGICAL INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ecotoxicity</strong></td>
</tr>
<tr>
<td>The environmental impact of this product has not been fully investigated.</td>
</tr>
<tr>
<td><strong>Persistence and degradability</strong></td>
</tr>
<tr>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Bioaccumulation</strong></td>
</tr>
<tr>
<td>There is no data for this product.</td>
</tr>
<tr>
<td><strong>Other adverse effects</strong></td>
</tr>
<tr>
<td>No information available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13. DISPOSAL CONSIDERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Waste treatment methods</strong></td>
</tr>
<tr>
<td><strong>Waste from residues/unused products</strong></td>
</tr>
<tr>
<td>Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.</td>
</tr>
<tr>
<td><strong>Contaminated packaging</strong></td>
</tr>
<tr>
<td>Do not reuse empty containers.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14. TRANSPORT INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Note:</strong> Transport in accordance with local, state, and federal regulations.</td>
</tr>
<tr>
<td><strong>DOT</strong> Not regulated</td>
</tr>
<tr>
<td><strong>TDG</strong> Not regulated</td>
</tr>
<tr>
<td><strong>MEX</strong> Not regulated</td>
</tr>
<tr>
<td><strong>ICAO (air)</strong> Not regulated</td>
</tr>
<tr>
<td><strong>IATA</strong> Not regulated</td>
</tr>
<tr>
<td><strong>IMDG</strong> Not regulated</td>
</tr>
</tbody>
</table>
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RID
ADR
ADN

15. REGULATORY INFORMATION

International Inventories
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Fire hazard</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Prepared By, Quality Control. STEMCELL Technologies Canada Inc.
Revision Date 18-Aug-2022
Revision Note No information available.

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. STEMCELL Technologies Inc. shall not be held liable for any damage resulting from handling or from contact with the product.

End of Safety Data Sheet