Safety Data Sheet: Concanamycin_A

1) Identification of the substance/mixture and of the Company

Product identifiers

<table>
<thead>
<tr>
<th>Product name</th>
<th>Concanamycin_A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Code</td>
<td>CO</td>
</tr>
<tr>
<td>CAS #</td>
<td>80890-47-7</td>
</tr>
<tr>
<td>EC Number #</td>
<td>620-709-4</td>
</tr>
</tbody>
</table>

Intended uses of the substance or mixture and uses advised against

<table>
<thead>
<tr>
<th>Intended use</th>
<th>Uses advised against:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only for Research and/or Development</td>
<td>Not for drug,</td>
</tr>
<tr>
<td></td>
<td>Not to be used in humans or animals.</td>
</tr>
<tr>
<td></td>
<td>Not food additive</td>
</tr>
</tbody>
</table>

Details of the supplier of the safety data sheet

<table>
<thead>
<tr>
<th>FERMENTEK ltd</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Yatziv street, POB 47120</td>
</tr>
<tr>
<td>Jerusalem 97800, Israel</td>
</tr>
</tbody>
</table>

Tel: +972 2 5853953  
Fax: +972 2 5853943  
eMail: fermentek@fermentek.com  
Website: www.fermentek.com

For chemical emergency spill, leak, fire, exposure, or accident calls CHEMTREC day or night:  
Within USA and Canada: 1-800-424-9300. Outside USA and Canada: +1 703-527-3887

This company is the manufacturer of the product, and the supplier of the safety data sheet.

REACH

A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

2) Hazards identification

2.1 Classification of the substance or mixture

GHS Classification: Classification according to Regulation (EC) No 1272/2008 [GHS/CLP]

Acute Toxicity, Oral (Category 2)

GHS Label elements, including precautionary statements

Pictogram:  Signal word: (DANGER)

GHS Hazard Statements  Fatal if swallowed

GHS Precautionary Statements

P264  Wash hands thoroughly after handling

P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
3) Composition/information on ingredients

**Substance**

<table>
<thead>
<tr>
<th>Substance name:</th>
<th>Concanamycin_A</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS Registry #:</td>
<td>80890-47-7; EC#: 620-709-4</td>
</tr>
<tr>
<td>Molecular Formula:</td>
<td>C_{46}H_{75}NO_{14}</td>
</tr>
<tr>
<td>Molecular Weight:</td>
<td>866.09</td>
</tr>
</tbody>
</table>

**Mixture**

Not mixture.

4) First Aid Measures

4.1 Description of First Aid Measures

**General advice:** If medical attention is required, show this safety data sheet to the doctor.

**Eye contact:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye open while rinsing. If symptoms persist, call a physician.

**Skin Contact:** Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician.

**Ingestion:** Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Drink plenty of water. Clean mouth with water and drink afterwards plenty of water. Call a physician.

**Inhalation:** Immediate medical attention is required. Remove to fresh air. If not breathing, give artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Artificial respiration and/or oxygen may be necessary. Call a physician. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

**Self-protection of the first aider:** Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

5) Fire-fighting measures

**Extinguishing media**

| Suitable extinguishing media | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media | None |
| Hazardous combustion products | Carbon oxides, Nitrogen oxides. |
| Advice for firefighters | Wear self-contained breathing apparatus for fire fighting if necessary. Wear protective suit. |
6) Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**
Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

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

**Methods and material for containment and cleaning up**

**Methods for containment:**
Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up:**
Cover liquid spill with sand, earth or other non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, and vermiculite). Cover powder spill with plastic sheet or tarp to minimize spreading. Sweep up and shovel into suitable containers for disposal.

7) Handling and storage

**Precautions for safe handling**

Advice on safe handling:
Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions:**
Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Store at -20 °C.

Incompatible materials:
None known based on information available.

8) Exposure Controls/Personal Protection

No occupational exposure limits are listed for this material.

**OSHA Permissible Exposure Limits**
No Data Available

**NIOSH Recommended Exposure Limits**
No Data Available

**ACGIH Threshold Limit Values**
No Data Available

**Exposure controls**

**Appropriate engineering controls**
Showers, Eyewash stations, Ventilation systems

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Use fumehood for routine work.

**Personal protective equipment**
The employer/end user, prior to use of this product should perform all recommendations below are advisory in nature and a risk assessment. The type of protective equipment must be selected based on the amount and concentration of the dangerous material being used in the workplace.

[PPE=Personal Protection Equipment]

**PPE: 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).
9) Physical and chemical properties

Physical / chemical properties

<table>
<thead>
<tr>
<th>Physical State at room temperature</th>
<th>Crystalline powder. Solid / powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>175-185 °C</td>
</tr>
</tbody>
</table>

No further safety-relevant information is available

10) Stability and reactivity

Reactivity: No information available.
Chemical stability: Stable under normal conditions.
Conditions to avoid: Heat, flames and sparks. Sunlight.
Incompatible materials: Strong reducers and oxidizers
Possibility of Hazardous Reactions: None under normal processing
Hazardous decomposition products: Carbon oxides, Nitrogen oxides

11) Information on toxicological effects

To the best of our knowledge, the toxicological effects of this product have not been thoroughly studied.

<table>
<thead>
<tr>
<th>Acute Toxicity</th>
<th>LD50 (oral - Mouse)</th>
<th>21 mg/kg</th>
</tr>
</thead>
</table>

Skin corrosion/irritation: No data available
Serious eye damage/eye irritation: No data available
Respiratory or skin sensitization: No data available
Germ cell mutagenicity: No data available
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.

Reproductive toxicity / Teratogenicity: No data available
STOT-SE – single exposure (GHS): No data available
STOT-RE – repeated exposure (GHS): No data available
Aspiration hazard: No data 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: Fatal if swallowed

Signs and Symptoms of Exposure

There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing. Absorption through the lungs can occur causing symptoms similar to those of ingestion. Severe poisoning causes severe shortness of breath and shock, with blueness of the lips, tongue, ears, face, hands and feet. There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. Blood may be vomited. There may be vomiting and diarrhea. There may be loss of consciousness. Severe poisoning can cause unconsciousness and severe and persistent nausea and vomiting.

Additional information: RTECS: CB9732000

12) Ecological Information

Eco-Toxicity: No further relevant information available

Other adverse effects: No further relevant information available.

13) Disposal Considerations

Waste treatment methods

| Waste from residues / unused products | Dispose of in accordance with local regulations |
| Contaminated packaging                | Dispose of as unused product |

14) Transport information

UN number, Proper Shipping Name, Transport Hazard Class, packing group

<table>
<thead>
<tr>
<th>UN Number</th>
<th>US DOT</th>
<th>ADR/RID:</th>
<th>IMDG:</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>3462 Toxins, extracted from living sources, solid, n.o.s. (Concanamycin_A)</td>
<td>3462 Toxins, extracted from living sources, solid, n.o.s. (Concanamycin_A)</td>
<td>3462 Toxins, extracted from living sources, solid, n.o.s. (Concanamycin_A)</td>
<td>3462 Toxins, extracted from living sources, solid, n.o.s. (Concanamycin_A)</td>
</tr>
<tr>
<td>Transport Hazard Class &amp; Packing Group</td>
<td>6.1 Pg II</td>
<td>6.1 Pg II</td>
<td>6.1 Pg II</td>
<td>6.1 Pg II</td>
</tr>
</tbody>
</table>
15) Regulatory information

Safety, health and environmental regulations/legislation

<table>
<thead>
<tr>
<th></th>
<th>USA EPA / TSCA</th>
<th>EU ECHA Status</th>
<th>CA: DSL/NDSL Status</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>This product is not listed on the USA EPA TSCA</td>
<td>This product is not registered with the EU ECHA</td>
<td>This product is not listed on the Canadian DSL/NDSL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>USA TSCA</th>
<th>Hazard Categories</th>
<th>Canada DSL/NDSL</th>
<th>Canada WHMIS</th>
<th>Europe EINECS ELINCS</th>
<th>CLP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>United States Toxic Substances Control Act Section 8(b) Inventory</td>
<td>Acute health hazard Yes</td>
<td>Not listed</td>
<td>D1A Very Toxic Material Causing Immediate and Serious Toxic Effects</td>
<td>European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances</td>
<td>Fatal if swallowed, ingested, adsorbed thru skin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chronic Health Hazard Yes</td>
<td>Not Listed on TSCA inventory. For Research and Development Use only.</td>
<td></td>
<td>Not listed</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Fire hazard No</td>
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<td></td>
<td>Sudden release of pressure hazard No</td>
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<td>Reactive hazard No</td>
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</table>

16) Other information

Date of revision: 28 May 2017

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 here is designed only as 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.

End of SDS-----