Safety Data Sheet: Fusarenon X

Section 1. Identification of the substance/mixture and of the Company

**Product identifiers**

<table>
<thead>
<tr>
<th>Product name</th>
<th>Fusarenon X</th>
<th>EC Number #</th>
<th>N.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Code</td>
<td>FX</td>
<td>Formula</td>
<td>C\textsubscript{17}H\textsubscript{22}O\textsubscript{8}</td>
</tr>
<tr>
<td>CAS #</td>
<td>23255-69-8</td>
<td>RTECS</td>
<td>YD0160000</td>
</tr>
<tr>
<td>MW</td>
<td>354.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Intended uses of the substance or mixture and uses advised against**

**Intended use**

**Uses advised against:**

- Only for Research and/or Development
- Not for drug
- Not to be used in humans or animals
- Not food additive

**Details of the supplier of the safety data sheet**

**FERMENTEK ltd**

4 Yatziv street, POB 47120
Jerusalem 97800, Israel

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.

Section 2. Hazards identification

**Classification of the substance or mixture**

**GHS Classification:**

- Acute Toxicity, Oral: Category 1
- Skin Corrosion/Irritation: Category 2
- Serious Eye Damage/Eye Irritation: Category 2
- STOT/SE: Category 3
- Carcinogenicity: Category 2

**GHS Label elements, including precautionary statements**

**Pictogram:**

- Signal word: (DANGER)

**GHS Hazard Statements**

- **H300:** Fatal if swallowed
- **H315:** Causes skin irritation.
- **H319:** Causes serious eye irritation
- **H335:** May cause respiratory irritation.

**GHS Precautionary Statements**

- **P261:** Avoid breathing (dust/fume/gas/mist/vapors/spray).
- **P264:** Wash (hands) thoroughly after handling.
- **P280:** Wear (protective gloves/protective clothing/eye protection/face protection).
GHS Response Phrases:

<table>
<thead>
<tr>
<th>Phrases</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P301+310</td>
<td>IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.</td>
</tr>
<tr>
<td>P302+352</td>
<td>IF ON SKIN: Wash with plenty of soap and water.</td>
</tr>
<tr>
<td>P304+340</td>
<td>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</td>
</tr>
<tr>
<td>P305+351+338</td>
<td>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.</td>
</tr>
<tr>
<td>P312</td>
<td>Call a POISON CENTER or doctor/physician if you feel unwell.</td>
</tr>
<tr>
<td>P330</td>
<td>Rinse mouth.</td>
</tr>
<tr>
<td>P332+313</td>
<td>If skin irritation occurs, get medical advice/attention.</td>
</tr>
<tr>
<td>P337+313</td>
<td>If eye irritation persists, get medical advice/attention.</td>
</tr>
<tr>
<td>P362+364</td>
<td>Take off contaminated clothing and wash it before reuse.</td>
</tr>
</tbody>
</table>

Section 3. Composition/information on ingredients

Substance

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
<th>CAS Registry#</th>
<th>EC#</th>
<th>Molecular Formula</th>
<th>Molecular Weight</th>
<th>Acute Toxicity, Oral (Category 1)</th>
<th>Skin Corrosion 2</th>
<th>Eye Damage 2</th>
<th>STOT/SE 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fusarenon X</td>
<td>100%</td>
<td>23255-69-8</td>
<td>N.A.</td>
<td>C17H22O8</td>
<td>354.4</td>
<td>H300 Fatal if swallowed.</td>
<td>H315</td>
<td>H319</td>
<td>H335</td>
</tr>
</tbody>
</table>

Mixture

- Not mixture

Section 4. First Aid Measures

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 wide 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.
### Section 5. Fire-fighting measures

**Extinguishing media**

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable extinguishing media</td>
<td>None</td>
</tr>
<tr>
<td>Hazardous combustion products</td>
<td>Carbon oxides,</td>
</tr>
<tr>
<td>Advice for firefighters</td>
<td>Wear self-contained breathing apparatus for fire fighting if necessary.</td>
</tr>
<tr>
<td></td>
<td>Wear protective suit.</td>
</tr>
</tbody>
</table>

### Section 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.

### Section 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.

### Section 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**

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).

PPE: Hand Protection:
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal techniques to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices, and wash and dry hands.

PPE: Eye Protection:
Use a face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

PPE: Skin and Body Protection:
Handle with gloves. Wear protective clothing. Choose body protection according to the amount and concentration of the dangerous substance at the workplace. When deemed needed according to the concentration and amount of this product, use a complete body suit.

Section 9. Physical and chemical properties

Physical / chemical properties

<table>
<thead>
<tr>
<th>Physical State at room temperature</th>
<th>Solid / powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>White</td>
</tr>
</tbody>
</table>

No further safety relevant data are available

Section 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 exidizers
Possibility of Hazardous Reactions: None under normal processing
Hazardous decomposition products: Carbon oxides, Nitrogen oxides

Section 11. Toxicological information

Information on toxicological effects

The toxicological effects of this product have not been thoroughly studied.

Acute Toxicity
LD50 (oral - rat) =4 mg/kg;  LD50 (oral - mouse) =4.5 mg/kg
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:
Investigated as a mutagen, natural product, primary irritant, reproductive effector, and tumorigen.
Reproductive toxicity / Teratogenicity:
No data available
STOT-SE – single 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 | Toxic if swallowed |
| Signs and Symptoms of Exposure | No information available |
| Additional information: | RTECS: YD0160000 |

Section 12. Ecological Information

| Eco-Toxicity | No further relevant information available |
| Other adverse effects | No further relevant information available |

Section 13. Disposal Considerations

| Waste treatment methods | Disposal of in accordance with local regulations |
| Contaminated packaging | Dispose of as unused product |

Section 14. Transport Information

| UN number, Proper Shipping Name, Transport Hazard Class, packing group |
| | US DOT | ADR/RID: | IMDG: | IATA |
| UN Number | 3462 | 3462 | 3462 | 3462 |
| UN proper shipping name | Toxins, extracted from living sources, solid, n.o.s. (Fusarenon X) | Toxins, extracted from living sources, solid, n.o.s. (Fusarenon X) | Toxins, extracted from living sources, solid, n.o.s. (Fusarenon X) | Toxins, extracted from living sources, solid, n.o.s. (Fusarenon X) |
| Transport Hazard Class & Packing Group | 6.1 Pg I | 6.1 Pg I | 6.1 Pg I | 6.1 Pg I |

Section 15. Regulatory Information

| Safety, health and environmental regulations/legislation |
| USA EPA / TSCA | This product is not listed on the USA EPA TSCA |
| EU ECHA Status | This product is not registered with the EU ECHA |
| CA: DSL/NDSL Status | This product is not listed on the Canadian DSL/NDSL |

Section 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