

Safety Data Sheet: T2 Toxin | Fermentek

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

| | |
|--|---|
| Product identifiers | |
| Product name | T2 Toxin Fermentek |
| Product Code | T |
| CAS # | 21259-20-1 |
| EC/ REACH Number | |
| 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 |
| This company is the manufacturer of the product, and the supplier of the safety data sheet | Emergency Telephone number 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 |
| 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

Classification of the substance

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122)

GHS Classification:

- Acute toxicity, Oral (Category 1), H300
- Acute toxicity, Inhalation (Category 1), H330
- Acute toxicity, Dermal (Category 1), H310
- Skin irritation (Category 2), H315

GHS Label elements, including precautionary statements

Pictogram:



Signal word

{Danger}

Hazard statement(s)

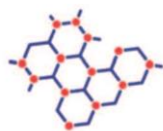
H300 + H310 + H330
H315

Fatal if swallowed, in contact with skin or if inhaled
Causes skin irritation.

Precautionary statement(s)

P260
P262

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Do not get in eyes, on skin, or on clothing.



| | |
|--------------------|--|
| P264 | Wash skin thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves/ protective clothing. |
| P284 | Wear respiratory protection |
| P301 + P310 + P330 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth. |
| P302 + P350 + P310 | IF ON SKIN: Gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/ physician. |
| P302 + P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P304 + P340 + P310 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. |
| P332 + P313 | If skin irritation occurs: Get medical advice/ attention. |
| P362 | Take off contaminated clothing and wash before reuse. |
| P403 + P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P501 | Dispose of contents/ container to an approved waste disposal plant. |

Unclassified Hazards/Hazards Not Otherwise Classified

No data available

3. Composition/information on ingredients

Substance

4β,15-12,13-Epoxytrichothec-9-ene-3,4,8,15-tetrol-4,15-diacetate-8-isovalerate
Diacetoxy-3α-hydroxy-8α-(3-methylbutyryloxy)-12,13- epoxytrichothec-9-ene

(3α,4β,8α)-12,13-epoxytrichothec-9-ene-3,4,8,15-tetrol 4,15-
diacetate 8-(3-methylbutyrate)

Synonyms:

| | |
|--------------------|---|
| Molecular Formula: | C ₂₄ H ₃₄ O ₉ |
| Molecular Weight: | 466.52 |
| CAS Registry #: | 21259-20-1 |
| EC#: | 244-297-7 |
| | Acute Toxicity. Category 1; H300 + H310 + H330: Fatal if swallowed, in contact with skin or if inhaled |
| | Skin Irritation. Category 2;; H315: Causes skin irritation |

Concentration <=100%

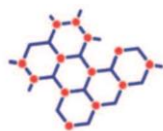
Mixture

Not mixture.

4. First Aid Measures

| | |
|--|---|
| General advice | Consult a physician. Remove to fresh air. Show this safety data sheet to the doctor in attendance |
| Skin Contact | Wash skin with soap and plenty of water. Take victim immediately to hospital. Consult a physician. |
| Eye contact: | Flush with plenty of water |
| Ingestion: | Never give anything by mouth to an unconscious person. Clean mouth with water.Consult a physician |
| Inhalation: | Remove to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration |
| 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 |





Most important symptoms and effects, both acute and delayed

Most important symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

| | |
|--|--|
| Suitable extinguishing media | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Special hazards arising from the substance or mixture | Carbon oxides. |
| Advice for firefighters | Wear self-contained breathing apparatus for fire fighting if necessary. Wear protective suit |
| Further information | No further data available |

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions See part 12

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

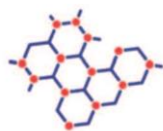
Precautions for safe handling

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

Engineering Controls: Showers;
Eyewash stations;
Ventilation systems

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice.

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]

Eye/face protection

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).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

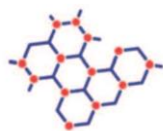
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.



9. Physical and chemical properties

Physical / chemical properties

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|------------------------------------|--------------------|
| Physical State at room temperature | Solid / powder |
| Color | White to off White |
| Melting/freezing point | 151-153°C |

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 |
| Incompatible materials | Strong reducers and oxidizers |
| Possibility of Hazardous Reactions | None under normal processing |
| Hazardous decomposition products: | Carbon monoxide CO, Carbon dioxide (CO ₂). |

11. Toxicological information

Information on toxicological effects

Information on likely routes of exposure

| | |
|-----------------------|---|
| Acute toxicity | LD50 Oral - Rat - 2.7 mg/kg |
| | LD50 Dermal - Rat - 2.56 mg/kg |
| | LC50 Inhalation : Rat - 10 M - 20 mg/m ³ |

| | |
|-----------------------------------|---------------------|
| Skin corrosion/irritation: | Irritating to skin. |
|-----------------------------------|---------------------|

| | |
|-------------------------------|--|
| Reproductive toxicity: | Laboratory experiments have shown teratogenic effects. |
|-------------------------------|--|

| | |
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| Additional Information | RTECS: YD0100000 |
|-------------------------------|------------------|

| | |
|------------------------|--|
| Carcinogenicity | Limited evidence of a carcinogenic effect. IARC Group 3: Not classifiable as to its carcinogenicity to humans |
|------------------------|--|

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|--------------------------------------|-----------------------------|
| Symptoms , signs of poisoning | Dizziness, Nausea, Vomiting |
|--------------------------------------|-----------------------------|

| | |
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| Contact with skin can cause | Dermatitis, Severe irritation |
|------------------------------------|-------------------------------|

To the best of our knowledge, the chemical, physical, and toxicological properties of this material have not been thoroughly investigated.

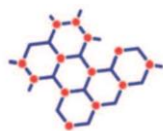
12. Ecological Information

| | |
|------------------------------|--|
| Eco-Toxicity | May cause long lasting harmful effects to aquatic life |
| Other adverse effects | No further relevant information available. |

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

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

| | US DOT | ADR/RID: | IMDG: | IATA |
|--|--|----------|-------|---|
| UN Number | 3462 | | | |
| UN proper shipping name | Toxins, extracted from living sources, solid, n.o.s (T2 toxin) | | | |
| Transport Hazard Class & Packing Group | Class 6.1 pack. Group I (T2 toxin) | | | IATA Passenger: Not permitted for transport |

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 |

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

| | |
|-----------------------------------|----|
| Acute health hazard | No |
| Chronic Health Hazard | No |
| Fire hazard | No |
| Sudden release of pressure hazard | No |
| Reactive hazard | No |

16. Other information

Date of revision: 11 January 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