Safety Data Sheet: HT2 Toxin | Fermentek

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

Product identifiers	
Product name	**HT2 Toxin | Fermentek**
Product Code	**HT**
CAS #	**26934-87-2**
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		**Emergency Telephone number**
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.	

2. Hazards identification

Classification of the substance

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

(Canada) WHMIS Classification

WHMIS Classification (Canada)

D1A	Very Toxic Material Causing Immediate and Serious Toxic Effects Highly Toxic by Ingestion/Skin Absorption/Inhalation
D2B	Toxic Material Causing Other Toxic Effects Moderate Skin /Eye /Respiratory Tract Irritant

GHS Classification:

Acute toxicity,	Inhalation (Category 1)	H330	Fatal if inhaled.
Acute toxicity,	Dermal (Category 2)	H310	Fatal in contact with skin.
Skin irritation	(Category 2)	H315	Causes skin irritation.
Acute toxicity,	Oral (Category 2),	H300	Fatal if swallowed
Eye irritation	(Category 2)	H319	Causes serious eye irritation
STOT/SE	respiratory tract irritation (Category 3)	H335	May cause respiratory irritation

GHS Label elements, including precautionary statements

Pictogram: 

Signal word **{Danger}**

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Hazard statement(s)

H300 + H310 + H330	Fatal if swallowed, in contact with skin or if inhaled
H315	Causes skin irritation.
H319	Causes serious eye irritation

Precautionary statement(s)

P260	Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P262	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.
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.
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

Synonyms:	HT2; HT-2 toxin; 12,13-Epoxytrichothec-9-ene-3-alpha,4-beta,8-alpha,15-tetrol 15-acetate 8-isovalerate;
Molecular Formula:	$C_{22}H_{32}O_8$
Molecular Weight:	424.48
CAS Registry #:	26934-87-2
Concentration	<=100%

Acute toxicity	Inhalation (Category 1)	H330	Fatal if inhaled.
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Mixture

Not mixture.

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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 firefighting 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.

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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

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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

Physical State at room temperature	Solid / powder
Color	White to off White
Melting/freezing point	151-153°C
Volatility:	Not volatile

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 - Mouse – 3.8 mg/kg
	LD50 Dermal: No data available
	LC50 Inhalation: No data available
Skin corrosion/irritation:	Irritating to skin.
Reproductive toxicity:	No data available.
Additional Information	RTECS: YD0050000
Carcinogenicity	IARC: Not identified as probable, possible or confirmed human carcinogen
Symptoms, signs of poisoning	Dizziness, Nausea, Vomiting
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.

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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 **UN proper shipping name**	UN 3462 Toxins, extracted from living sources, solid, n.o.s (HT2 toxin)			3462 Toxins, extracted from living sources, solid, n.o.s (HT2 toxin)
Transport Hazard Class & Packing Group	Class 6.1 pack. Group I (HT2 toxin)			Class 6.1 pack. Group I (HT2 toxin)

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. (As of October 2016)

End of SDS

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