Safety Data Sheet: Fumonisin B2 from FERMENTEK

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

1.1. *Product identifiers*

Product name	*Fumonisin B2*	Formula	$C_{34}H_{59}NO_4$
Product Code	*FB2*	RTECS	*TZ8335000*
CAS #	*116355-84-1*	Molecular weight	*705.8*
EC Number #	*601-424-4*	Substance? Mixture?	*Substance*
Synonyms	*1,2,3-Propanetricarboxylic acid, 1,1'-(1-(2-amino-9,11-dihydroxy-2-methyltridecyl)-2-(1-methylpentyl)-1,2-ethanediyl) ester*		
Source	*Fusarium moniliforme*	Date of version	*7 April, 2021*

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

1.2.1. ***Intended use:***	1.2.2. ***Uses advised against:***
• Research and development. • Laboratory reagent. • To be used by professionals only	• Not for drug, • Not to be used in humans or animals. • Not food additive

1.3. *Details of the supplier of the SDS*

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

1.4. *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

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

1.5. *Reach:*

See section 15

2. *Hazards identification*

2.1. *Classification of the substance*

2.1.1. ***GHS Classification According to EU Reg. 1272/2008 and US OSHA 1910.1200)***

Acute toxicity, Oral	(Category 3)	H301 Toxic if swallowed
Acute toxicity, Dermal	(Category 3)	H311 toxic if on skin
Acute toxicity, inhalation	(Category 2)	H330 fatal if inhalled
Skin irritation	(Category 2)	H315 Causes skin irritation
Eye Irrit.	(Category 2)	H319 causes eye irritation
STOT SE	(Category 3)	H335 May cause respiratory irritation
Carcigenicity	(Category 2)	H351 Suspected of causing cancer

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2.2. *GHS Label elements, including precautionary statements*

2.2.1. ***Pictogram: {***  ***}***

2.2.2. ***Signal word {Danger}***

2.2.3. ***GHS Hazard Statements***

H301	Toxic if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H330	Fatal if inhaled
H335	May cause respiratory irritation
H350	Suspected of causing cancer

2.2.4. ***GHS Precautionary Statements***

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe {dust/fume/gas/mist/vapors/spray}.
P262	: Do not get in eyes, on skin, or on clothing.
P264	Wash {hands} thoroughly after handling.
P270	Do not eat, drink or smoke when using this product
P273	Avoid release to the environment.
P284	Wear respiratory protection

2.2.1.***GHS Response Statements***

P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+313	IF exposed or concerned: Get medical attention/advice
P330:	Rinse mouth
P332+313	If skin irritation occurs, get medical advice/attention.
P361+364	Take off immediately all contaminated clothing and wash it before reuse

2.3. *Other hazards*

3. *Composition/information on ingredients*

Substance		
Substance name:	*Fumonisin B2*	
Concentration	*100%*	
CAS Registry#:	***Error! Reference source not found.***	
EC#:	*601-424-4*	
Molecular Formula:	$C_{34}H_{59}NO$	
Molecular Weight:	*705.8*	

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Classification	Acute toxicity, Oral (Category 2 H300 Acute Tox.(D) 2: H310 Skin Corr. 2: H315 Eye Damage 2: H319 Acute Tox.(I) 1: H330 STOT (SE) 3: H335 Carcinogen 2: H351	
Mixture?	Substance.	

4. *First Aid Measures*

4.1. *Description of First Aid Measures*

4.1.1. ***General advice:***	Consult a physician. Show this safety data sheet to the doctor in attendance.
4.1.2. ***Inhalation:***	If inhalled, move person into fresh air. If not breathing, give artificial respiration.Get immediate medical attention.
4.1.3. ***Ingestion:***	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
4.1.4. ***Skin Contact:***	Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
4.1.5. ***Eye contact:***	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

4.2. *Most important symptoms and effects, both acute and delayed*

	See section 11

4.3. *Indication of any immediate medical attention and special treatment needed*

	No information available

5. *Fire-fighting measures*

5.1. *Extinguishing media*

5.1.1. ***Suitable extinguishing media***	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.1.2. ***Unsuitable extinguishing media***	A solid water stream may be inefficient.

5.2. *Other information*

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*

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

Personal precautions	Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Keep people away from and upwind of spill/leak.

6.2. *Environmental precautions*

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

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6.3. *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:	Clean-up should be dealt with only by qualified personnel familiar with the specific substance. 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***

7.1. *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.

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

Storage Conditions:	Keep container tightly closed in a dry and well-ventilated place. Store at -20 °C. Some other manufacturers may advice storing temperature 2-8°C.
Suitable packaging	
Incompatible materials:	None known based on information available.

8. ***Exposure Controls/Personal Protection***

8.1. *Control parameters*

Control parameters	Components with workplace control parameters

8.2. *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.

8.3. *Personal protective equipment*

[PPE=Personal Protection Equipment]	
PPE: Respiratory protection	Where risk assessment shows air-purifying respirators are appropriate use a fullface 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. 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. The selected protective gloves must satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

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9. *Physical and chemical properties*

9.1. *Physical / chemical properties*

Physical State at room temperature	Solid / powder
Color	White

No further safety relevant data are 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 exidizers
Possibility of Hazardous Reactions	None under normal processing
Hazardous decomposition products	Carbon oxides. Nitrogene oxides.

11. *Toxicological information*

11.1. *Information on toxicological effects*

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

11.1.1. ***Acute Toxicity***	
Oral	No quantitative information is available
Skin corrosion/irritation:	No quantitative information is available
Serious eye damage/eye irritation:	No quantitative information is available
Respiratory or skin sensitization/corrosion:	No quantitative information is available

11.1.2. ***CMR hazards***  ***(Carcinogenic, mutagenic, reprotoxic)***

In vitro data	
Germ cell mutagenicity:	
Carcinogenicity:	IARC: Group 2B: Possibly carcinogenic to humans (Fumonisin B2)
Reproductive toxicity / Teratogenicity:	No data available
STOT-SE – single exposure (GHS):	
STOT-SE – repeated exposure (GHS):	
Aspiration hazard:	

11.1.3. ***Potential Health Effects and Routes of Exposure***

If Inhaled	No data available
If on skin	No data available
If in Eyes	No data available

11.2. *Additional information*

RTECS number	*TZ8335000*

12. *Ecological Information*

Eco-Toxicity	No further relevant information available

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PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Other adverse effects	No further relevant information available.

13. *Disposal Considerations*

13.1. *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*

14.1. *UN number, Proper Shipping Name, Transport Hazard Class, packing group*

	US DOT	**IATA**	**IMDG**	**ADR/RID**
UN Number **UN proper shipping name**	UN 2811 Toxic solid, organic, n.o.s. (Fumonisin B2) 6.1 – toxic substances	UN 2811 Toxic solid, organic, n.o.s. (Fumonisin B2) 6.1 – toxic substances	UN 2811 Toxic solid, organic, n.o.s. (Fumonisin B2) 6.1 – toxic substances	UN 2811 Toxic solid, organic, n.o.s. (Fumonisin B2) 6.1 – toxic substances
Transport Hazard Class & Packing Group	Pack.Grp II (Fumonisin B2)	Pack.Grp II (Fumonisin B2)	Pack.Grp II (Fumonisin B2)	Pack.Grp II (Fumonisin B2)
			Not marine polutant	

14.2. *Addional information*

Excepted quantities (EQ)	
De Minimis exemption	When sold in quantities of less than or equal to 1 mL, or 1 g, with an Excepted Quantity Code of E1, E2, E4, or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore, packaging does not have to be labeled as Dangerous Goods/Excepted Quantity

15. *Regulatory information*

15.1. *Product-specific safety, health, and environmental regulations/legislation*

USA EPA / TSCA	This product is not listed on the USA EPA TSCA (it is for research)
California proposit. 65	This product is not listed on California proposit. 65 as on Jan 3, 2020
EU ECHA Status	This product is registered with the EU ECHA, Number 601-424-4 REACH: **Pre-registred** ANNEX III: **Listed**
Canada	This product is not listed on the Canadian DSL/NDSL

16. *Other information*

16.1. *Date of revision:*

- Wednesday, 7 April, 2021 21:04

16.2. *Department issuing this SDS*

- Quality systems and regulatory affairs

16.3. *General 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.

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16.4.*The users'/employers' responsibility:*

- A risk assessment should be performed by the employer/user prior to use of this product.
- All recommendations included in this document, are advisory in nature.
- The type of protective equipment must be selected based on the amount and concentration of all dangerous materials being used in the workplace.

16.5.*Comments:*

16.6.*Abbreviations and acronyms:*

a. *Acute Tox.: Acute toxicity*
b. *CAS: Chemical Abstracts Service (division of the American Chemical Society)*
c. *DOT: US Department of Transportation*
d. *EINECS: European Inventory of Existing Commercial Chemical Substances*
e. *Eye Dam.: Serious eye damage/eye irritation*
f. *HMIS: Hazardous Materials Identification System (USA)*
g. *IATA: International Air Transport Association*
h. *IMDG: International Maritime Code for Dangerous Goods*
i. *LC50: Lethal concentration, Median*
j. *LD50: Lethal dose, Median*
k. *NFPA: National Fire Protection Association (USA)*
l. *NIOSH: National Institute for Occupational Safety*
m. *OSHA: Occupational Safety & Health*
n. *PBT: Persistent, Bioaccumulative and Toxic*
o. *PEL: Permissible Exposure Limit*
p. *REL: Recommended Exposure Limit*
q. *Repr.: Reproductive toxicity*
r. *Skin Irrit: Skin corrosion/irritation*
s. *STOT RE: Specific target organ toxicity (repeated exposure)*
t. *TLV: Threshold Limit Value*
u. *vPvB: very Persistent and very Bioaccumulative*

16.7.*End of SDS*

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