







Safety Data Sheet: Aflatoxin Q1

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

1.1. Product identifiers

Product name	Aflatoxin Q1 	Formula	$C_{17}H_{12}O_7$
Product Code	AFQ1	RTECS	GY1800000 
CAS #	52819-96-2 	Molecular weight	328.30
EC Number #	637-071-8 	Substance? Mixture?	Substance
Synonyms	Cyclopenta[c]furo[3',2':4,5]furo[2,3-h][1]benzopyran-1,11-dione, 2,3,6a,9a-tetrahydro-3-hydroxy-4-methoxy-, (3S,6aR,9aS)- 3-Hydroxy-4-methoxy-2,3,6a,9a-tetrahydrocyclopenta[c]furo[3',2':4,5]furo[2,3-h][1]benzopyran-1,11-dione		
Source	Synthetic	Date of version	3 October, 2022

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

1.2.1. Intended use:	1.2.2. Uses advised against:
<ul style="list-style-type: none"> Research and development. Laboratory reagent. To be used by professionals only 	<ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 4 Yatziv street, POB 47120 Jerusalem 97800, Israel 	<ul style="list-style-type: none"> Tel: +972 2 5853953 Fax: +972 2 5853943 eMail: fermentek@fermentek.com Website: www.fermentek.com
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This company is the manufacturer of the product, and the supplier of the safety data sheet

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

1.5. Reach:

See section 15



Safety Data Sheet: Aflatoxin Q1

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 1)	H300	Fatal if swallowed
Acute toxicity, Dermal	(Category 2)	H310	Fatal if on skin
Acute toxicity, Inhal	(Category 2)	H330	Fatal if inhaled
Carcinogene	(Category 1A)	H300	Can cause cancer

2.2. GHS Label elements, including precautionary statements

2.2.1. Pictogram



2.2.2. Signal word {Danger}

2.2.3. GHS Hazard Statements

H300	Fatal if swallowed
H310	Fatal in contact with skin
H330	Fatal if inhaled
H350	May cause 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.
P264	Wash {hands} thoroughly after handling.
P270	Do not eat, drink or smoke when using this product
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.

2.2.5. GHS Response Phrases

P301+P310	If swallowed: Immediately call a poison center/doctor
P302+P310	IF ON SKIN: Immediately call a POISON CENTER or doctor/physician

2.3. Other hazards

	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.
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3. Composition/information on ingredients

Substance	
Substance name:	Aflatoxin Q1
Concentration	100%
CAS Registry#:	52819-96-2
EC#:	637-071-8
Molecular Formula:	C₁₇H₁₂O₇
Molecular Weight:	328.30



Safety Data Sheet: Aflatoxin Q1

Classification	Acute toxicity, Oral (Category 2), H300 Acute toxicity, Dermal (Category 2), H310 Acute inhal (Category 2) H330 Carc 1A H350 ; Repr 1A
Mixture?	<i>Substance.</i>

4. First Aid Measures

4.1. Description of First Aid Measures

General advice:	Consult a physician. Show this safety data sheet to the doctor in attendance.
Inhalation:	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion:	If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.
Skin Contact:	If on skin: Take off immediately all contaminated clothing. Rinse skin with water/shower.
Eye contact:	Rinse eyes with plenty of water. Remove contact lenses if any.

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

	<i>No information available</i>
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4.3. Indication of any immediate medical attention and special treatment needed

	<i>No information available</i>
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5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use water foam Carbon dioxide (CO2) Dry powder
Unsuitable extinguishing media	None known

5.2. Other information

5.2.1. Hazardous combustion products	<i>Carbon oxides;</i>
5.2.2. More information	<i>Combustible.</i>
5.2.3. Advice for firefighters	<i>Wear self-contained breathing apparatus for fire fighting if necessary. Wear protective suit.</i>

6. Accidental release measures

6.1. Personal precautions, protective equipment, and emergency procedures

Personal precautions	<i>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.</i>
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Safety Data Sheet: **Aflatoxin Q1**

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.
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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
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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.
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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



Safety Data Sheet: Aflatoxin Q1

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.

9. Physical and chemical properties

9.1. Physical / chemical properties

Physical State at room temperature	Solid / powder
Color	Purple powder
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 oxidizers
Possibility of Hazardous Reactions	None under normal processing
Hazardous decomposition products	Nitrogen oxides. Carbon oxides.

11. Toxicological information

11.1. Information on toxicological effects

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

No quantitative data are available for this compound. The RTECS record describes it as a mutagen based on experiments with bacteria, but does not mention any toxicity. This SDS document adapted the information presented in the ECHA infocard and corresponding C&L inventory, but we could not find any supporting data.

11.1.1. Acute Toxicity	
Oral	No quantitative data are available
Skin corrosion/irritation:	No quantitative data are available
Serious eye damage/eye irritation:	No quantitative data are available
Respiratory or skin sensitization/corrosion:	No quantitative data are available
11.1.2. CMR hazards (Carcinogenic, mutagenic, reprotoxic) 	
In vitro data	No data available
Germ cell mutagenicity:	No direct data available. This substance causes mutations in bacteria
Carcinogenicity:	May cause cancer
Reproductive toxicity / Teratogenicity:	No data available
STOT-SE – single exposure (GHS):	No data available



Safety Data Sheet: Aflatoxin Q1

STOT-SE – repeated exposure (GHS):	No data available
Aspiration hazard:	No data available

11.1.3. Potential Health Effects and Routes of Exposure

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

11.2. Additional information

RTECS number	GY1800000
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12. Ecological Information

Persistence and degradability	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. (Aflatoxin Q1), 6.1 – toxic substances	UN 2811 TOXIC SOLID, ORGANIC, N.O.S. (Aflatoxin Q1), 6.1 – toxic substances	UN 2811 TOXIC SOLID, ORGANIC, N.O.S. (Aflatoxin Q1), 6.1 – toxic substances	UN 2811 TOXIC SOLID, ORGANIC, N.O.S. (Aflatoxin Q1), 6.1 – toxic substances
Transport Hazard Class & Packing Group	Pack.Grp II (Aflatoxin Q1)	Pack.Grp II (Aflatoxin Q1)	Pack.Grp II (Aflatoxin Q1)	Pack.Grp II (Aflatoxin Q1)
			Not marine pollutant	

14.2. Additional 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	<i>This product is registered with the EU ECHA, Number 637-071-8</i> REACH: Not registered ANNEX III: Listed



Safety Data Sheet: Aflatoxin Q1

Canada

This product is not listed on the Canadian DSL/NDSL

16. Other information

16.1. Date of revision:

- Monday, 3 October, 2022

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.

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:

- Deprecated CAS Registry numbers: **none known**

16.6. Abbreviations and acronyms:

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

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Safety Data Sheet: **Aflatoxin Q1**

16.8. *End of SDS*
