

Safety Data Sheet: **α -Zearalenol**

1. Identification of the Substance and the Manufacturer

1.1. Product identifiers

Product name	α-Zearalenol	Formula	C ₁₈ H ₂₂ O ₅
Product Code	ZALa	RTECS	Not available
CAS #	36455-72-8	Molecular weight	320.38
EC Number #	828-728-1	Substance? Mixture?	Substance
Synonyms	α-Zearalenol; Trans-Zearalenol; (2E,7R,11S)-7,15,17-trihydroxy-11-methyl-12-oxabicyclo[12.4.0]octadeca-1(14),2,15,17-tetraen-13-one		
Source	Synthetic	Date of version	16 October, 2022

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

1.2.1. Intended use: <ul style="list-style-type: none"> Research and development. Laboratory reagent. To be used by professionals only 	1.2.2. Uses advised against: <ul style="list-style-type: none"> Not for drug, Not to be used in humans or animals. Not food additive
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1.3. 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

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
 Department issuing this SDS: QA and Regulatory affairs

1.5. Reach:

See section 15

2. Hazards' identification

2.1. Classification of the substance or mixture

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

Accute tox-oral	Category 4	H302	Harmful if swallowed
Skin corrosion	Category 2	H315	Causes skin irritation.
Eye irritation	Category 1	H318	Causes serious eye irritation.
STOT SE (respiratory tract)	Category 3	H335	May cause respiration irritation
Reproductive toxicity	Category 2	H361	Suspected of damaging fertility or the unborn child.
Carcinogenicity (oral)	Category 1B	H350	May cause cancer
STOT SE (Central nervous system) (by inhalation, ingestion)	Category 1	H372	Causes damage to <organs: Central nervous system> through prolonged or repeated exposure

2.2. GHS Label elements, including precautionary statements

2.2.1. Pictogram:



2.2.2. Signal word: {Danger}

2.2.3. Hazard Statements

H315+H319	Causes severe skin burns and eye damage.
H360	May damage fertility or the unborn child.

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.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection
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.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P270	Do not eat, drink, or smoke when using this product.

3. Composition/information on ingredients

Substance	
Substance name:	α -Zearalenol
Concentration	<=100%
CAS Registry#:	36455-72-8
EC#:	828-728-1
Molecular Formula:	C ₁₈ H ₂₂ O ₅
Molecular Weight:	320.38
Classification	Repro Tox.(O)2: H301 ; Skin Corr. 2; H315; Eye 1 H318, STOT SE 3; Carc 1B H350; STOT SE (O,Inh)1 H372
Mixture? Substance?	Substance.

4. First Aid Measures

4.1. Description of First Aid Measures

General advice:	Call 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. Get medical attention.
Skin Contact:	Take off immediately all contaminated clothing. Wash skin with soap and plenty of water for 20 minutes at least. Get medical attention if symptoms occur. Wash clothing before reuse.
Eye contact:	Remove contact lenses. Hold eyelids apart and rinse out with plenty of water. Have eyes examined and tested by a doctor.
Ingestion:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

General symptoms	<i>Refer to section 13</i>
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4.3. **Indication of any immediate medical attention and special treatment needed**

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

5.1. **Extinguishing media**

Suitable extinguishing media	Use alcohol-resistant foam, dry chemical, or carbon dioxide.
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	<i>Use personal protective equipment as required. Keep people away from and upwind of spill/leak.</i>
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6.2. **Environmental precautions**

Environmental precautions	<i>Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.</i>
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6.3. **Methods and material for containment and cleaning up**

Methods for containment:	<i>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.</i>
Methods for cleaning up:	<i>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 (Such as 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.</i>

7. **Handling and storage**

7.1. **Precautions for safe handling**

Advice on safe handling:	<i>Thorough dedusting. 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.</i>
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7.2. **Conditions for safe storage, including any incompatibilities**

Storage Conditions:	<i>Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Store at -20 °C.</i>
Suitable packaging	<i>Must only be kept in original packaging.</i>
Incompatible materials:	<i>None known based on information available.</i>

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	<p>Showers, Eyewash stations, Ventilation systems</p> <p>Avoid contact with skin, eyes and clothing.</p> <p>Wash hands before breaks and immediately after handling the product.</p> <p>Use fumehood for routine work.</p>
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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
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 have to 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	White to light yellow
No further safety relevant data are available	

10. **Stability and reactivity**

Reactivity:	No information available.
Chemical stability:	No information available.
Conditions to avoid	No information available.
Incompatible materials	No information available.
Possibility of Hazardous Reactions	No information available.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions: Carbon oxides

11. Toxicological information

11.1. Information on toxicological effects

To the best of our knowledge, the toxicological effects of this product have not been thoroughly studied yet.

11.1.1. Acute Toxicity

Oral toxicity:	Quantitative data not available
Inhalation toxicity	Quantitative data not available
Dermal toxicity	Quantitative data not available

11.1.2. CRM (Carcinogene, Mutagene, Reproductive hazards)

Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available. Not listed in REACH Annex III
Reproductive toxicity	Oral – female Rat - > 52 mg/kg 6-18 days after conception.
Teratogenicity:	No data available

11.1.3. Symptoms

Toxic Effects Symptoms:	Gastrointestinal - hypermotility, diarrhea Behavioral - muscle weakness
Reprotoxicity Symptoms / Effects	Effects on fetus: Fetotoxicity. Stillbirth. Effects on Newborn: Reduced viability; reduced weight gain. Effects on female genitalia: Affected organs: uterus, cervix, vagina. Effects on female fertility: Reduced rate of impregnation. Effects on male genitalia: Affected organs: testes, epididymis, sperm duct Effects on male fertility: Affected spermatogenesis; sperm morphology; count, motility.

11.2. Additional information

RTECS number	N.A.
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12. Ecological Information

Eco-Toxicity	No further relevant information available
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	US IATA	US IMDG	US ADR/RID
UN Number	Not dangerous goods	Not dangerous goods	Not dangerous goods	Not dangerous goods
UN proper shipping name	Not hazardous for transport	Not hazardous for transport	Not hazardous for transport	Not hazardous for transport
Transport Hazard Class & Packing Group	Not regulated	Not regulated	Not regulated	Not regulated

14.2. **Additional regulations**

DOT/ Quantity limitations		<i>Not marine pollutant</i>	
Excepted quantities (EQ)	Not applicable	<i>Not applicable</i>	<i>Not applicable</i>
IATA Remarks:			

15. **Regulatory information**

15.1. **Safety, health, and environmental regulations/legislation**

USA EPA / TSCA	<i>This product needs not to be listed on the USA EPA TSCA (it is for research) Inventory Status: On TSCA Inventory February 2021 TSCA Inventory Commercial Status: Inactive</i>
USA EPA / SARA	<i>Section 355 (extremely hazardous substances): Not Listed S. 313 (Specific toxic chemical listings): Not Listed.</i>
Canada /NDSL	<i>Listed</i>
EU ECHA Status	<i>This product is registered with the EU ECHA Eincs/Elincs, Number 828-728-1 ANNEX III Not listed REACH: Not registered</i>
EU- Substances of very high concern (SVHC)	<i>This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of $\geq 0.1\%$ (w/w).</i>

16. **Other information**

16.1. **Date of revision:**

Sunday, 16 October, 2022 09:10

16.2. **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.

16.3. **The users'/employers' responsibility**

All recommendations below are advisory in nature.

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.

16.4. **Abbreviations and acronyms: (with samples)**

- a. ACGIH: American Conference of Governmental Industrial Hygienists (USA)
- b. Acute Tox: Acute toxicity
- c. Carc.: Carcinogenicity
- d. CAS: Chemical Abstracts Service (division of the American Chemical Society)
- e. DOT: US Department of Transportation (USA)
- f. EINECS: European Inventory of Existing Commercial Chemical Substances (EC)
- g. Eye Dam: Serious eye damage/eye irritation
- h. HMIS: Hazardous Materials Identification System (USA)
- i. IATA: International Air Transport Association
- j. IMDG: International Maritime Code for Dangerous Goods
- k. LC50: Lethal concentration, 50 percent
- l. LD50: Lethal dose, 50 percent
- m. NFPA: National Fire Protection Association (USA)
- n. NIOSH: National Institute for Occupational Safety (USA)
- o. OSHA: Occupational Safety & Health (USA)
- p. PBT: Persistent, Bioaccumulative and Toxic
- q. PEL: Permissible Exposure Limit
- r. REL: Recommended Exposure Limit
- s. Repr.: Reproductive toxicity
- t. Skin Irrit.: Skin corrosion/irritation
- u. STOT RE : Specific target organ toxicity (repeated exposure)
- v. vPvB: very Persistent and very Bioaccumulative

16.5. **End of SDS**