


 Safety Data Sheet: **Zearalanone**
1. Identification of the Substance and the Manufacturer
1.1. Product identifiers

Product name	Zearalanone	Formula	C ₁₈ H ₂₄ O ₅
Product Code	ZA	RTECS	Not available
CAS #	5975-78-0	Molecular weight	320.4 g/mol
ECHA#	637-367-7	Substance? Mixture?	Substance
Synonyms	<ul style="list-style-type: none"> ▪ Zearalanone ▪ (S)-Zearalanone ▪ Zanone ▪ (4S)-16,18-dihydroxy-4-methyl-3-oxabicyclo[12.4.0]octadeca-1(14),15,17-triene-2,8-dione 		
Source	Synthetic	Version Date	27 December, 2022

1.2. Intended uses of the Substance and uses advised against

1.2.1. Intended use:	1.2.2. Uses advised against:
Research and development. Laboratory reagent. Reference material. Manufacturing of substances. To be used by professionals only	Not a drug, Not a food additive Not to be used in humans or animals.

1.3. Contacts
1.3.1. 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 Safety@Fermentek.com Website: Fermentek.com
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This company is the manufacturer of the product and the supplier of the safety data sheet

1.3.2. 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



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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)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Acute Toxicity, Ingestion	Cat.4	H302	Harmful if swallowed
Acute Toxicity, Inhalation (Dusts/Mists)	Cat.4	H332	Harmful if inhaled
Acute Toxicity, Dermal	Cat.4	H312	Harmful if in contact with skin
Skin corrosion/irritation	Cat.2	H315	Causes skin irritation
Eye Irritation	Cat.2	H319	Causes serious eye irritation
STOT/SE Respiratory tract	Cat.3	H335	May cause respiratory irritation
Carcinogenicity	Cat.2	H351	Suspected of causing cancer

2.2. GHS Label elements, including precautionary statements

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2.1. Pictogram: {   } Signal word: {WARNING}

2.2.2. Hazard Statements

H302	Harmful if swallowed
H332	Harmful if inhaled
H312	Harmful if in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H351	Suspected of causing cancer

2.2.3. GHS Precautionary Statements

P203	Obtain, read and follow all safety instructions before use.
P261	Avoid breathing dust or mist.
P264	Wash {hands} thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection

2.2.4. GHS Response Phrases:

P301+P317: P330	IF SWALLOWED: Get medical help Rinse mouth
P302+P352:	IF ON SKIN: Wash with soap and water.



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P362+P364 P332+P317	Take off contaminated clothing and wash it before reuse If skin irritation occurs: Get medical help.
P304+P340:	IF INHALED: Remove the victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338: P337+P317	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical help.
P317	Get emergency medical help.

3. Composition/information on ingredients

Substance	
Substance Name:	Zearalanone
Concentration	<=100%
CAS Registry#:	5975-78-0
EC#:	637-367-7
Molecular Formula:	$C_{18}H_{24}O_5$
Molecular Weight:	320.4 g/mol
Classification	Ac.Tox. 4 H302, H312, H332 Skin irr.2 H315 Eye Irrit 2 H319 STOT/SE 3 H335 Carc 2 H351
Mixture?	Substance .

4. First Aid Measures

4.1. Description of First Aid Measures

General advice:	First-aiders need to protect themselves. If medical attention is required, show this safety data sheet to the doctor in attendance.
Eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes. Remove contact lenses. Consult a physician.
Skin Contact:	In case of skin contact: Take off immediately all contaminated clothing. Wash off with soap and plenty of water. Consult a physician.
Ingestion:	If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Inhalation:	If inhaled, move the person into fresh air.

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

General symptoms	None known
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4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians	No data available
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5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	None known

5.2. Other information

Hazardous combustion products	Carbon 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	Use personal protective equipment as required. Keep people away from and upwind of spill/leak.
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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 the 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. Keep out of the reach of children. Store at -20 °C.
Suitable packaging	Must only be kept in original packaging.
Incompatible materials:	None known based on information available.



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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 fume-hood 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 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).
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
Appearance	White 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.



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Incompatible materials	Strong reducers and oxidizers
Possibility of Hazardous Reactions	None under normal processing
Hazardous combustion products	See section 5

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

Acute toxicity:	ESTIMATE Oral, LD50 = 500 mg/kg
Skin corrosion/irritation:	No data available
Serious eye damage/eye irritation:	No data available
Respiratory or skin sensitization/corrosion:	No data available

11.1.2. Chronic toxicity

Chronic toxicity	No data available
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11.1.3. CRM (Carcinogene, Mutagene, Reproductive hazards)

Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity / Teratogenicity:	No data available

11.2. Additional information

RTECS number	Not available
General symptoms	

12. Ecological Information

Eco-Toxicity	No data available
Other adverse effects	No data 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


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

	US DOT	ADR/RID	IATA	IMDG
UN Number UN proper shipping name	UN 3462 Toxins, extracted from living sources, solid, n.o.s. (Zearalanone)	UN 3462 Toxins, extracted from living sources, solid, n.o.s. (Zearalanone)	UN 3462 Toxins, extracted from living sources, solid, n.o.s. (Zearalanone)	UN 3462 Toxins, extracted from living sources, solid, n.o.s. (Zearalanone)
Transport Hazard Class & Packing Group	6.1 poison III	6.1 poison III	6.1 poison III	6.1 poison III
Additional information			Not marine pollutant	
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 the does not have to be labeled as Dangerous Goods/Excepted Quantity.			

15. Regulatory information
15.1. Safety, health, and environmental regulations/legislation

USA EPA / TSCA	This product is not listed on the USA EPA TSCA (it is for research)
EU ECHA Status	This product is registered with the EU ECHA, Number 637-367-7 ANNEX III (criteria for 1 - 10 tonne registered substances): Not Listed REACH: Not PreRegistered/Registered



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16. Other information

16.1. Department issuing this SDS

Quality systems and regulatory affairs

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:

A risk assessment should be performed by the employer/user prior to the 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. No-Copyright statement

Fermentek does not claim © copyright on this document.

Fermentek believes that no one can claim copyright on an SDS.

This sort of document is but a compendium of common knowledge and published facts.

Fermentek explicitly releases this document into the public domain.

16.5. Abbreviations and acronyms:

Acute Tox.:	Acute toxicity
CAS:	Chemical Abstracts Service (a 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
HSDB	Hazardous Substances Data Bank
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
RTECS:	Registry of Toxic Effects of Chemical Substances
Skin Irrit:	Skin corrosion/irritation
STOT RE:	Specific target organ toxicity (repeated exposure)
TLV:	Threshold Limit Value
vPvB:	Very Persistent and Very Bioaccumulative

16.6. End of SDS