



Safety Data Sheet: *Equisetin*

1. Identification of the Substance and the Manufacturer

1.1. Product identifiers

Product name	Equisetin	Formula	C ₂₂ H ₃₁ NO ₄
Product Code	EQ	RTECS	KD7986000
CAS #	57749-43-6	Molecularweight	373.49
ECHA #	Not listed as of 05-2022	Substance? Mixture?	Substance
Synonyms	<ul style="list-style-type: none"> ▪ (2S)-4-({(1S,2R,4aS,6R,8aR)-1,6-Dimethyl-2-[(1E)-1-propen-1-yl]-1,2,4a,5,6,7,8,8a-octahydro-1-naphthalenyl}carbonyl)-5-hydroxy-2-(hydroxymethyl)-1-methyl-1,2-dihydro-3H-pyrrol-3-one 		
Source		Version Date	25 December, 2022

1.2. Intended uses of the Substance and uses advised against

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

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

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

1.3.2. Emergency Telephone number
<i>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</i>



Safety Data Sheet: *Equisetin*

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)

Acute Toxicity, Ingestion	Cat.4	H302	Harmful if swallowed
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2.2. GHS Label elements, including precautionary statements

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
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2.2.1. Pictogram: {  } Signal word: {DANGER}

2.2.2. Hazard Statements

H300	Harmful if swallowed
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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+P310+P330	IF SWALLOWED: Get medical help. Rinse mouth
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3. Composition/information on ingredients

Substance	
Substance Name:	Equisetin
Concentration	<=100%
CAS Registry#:	57749-43-6
EC#:	Not listed as of 05-2022
Molecular Formula:	C ₂₂ H ₃₁ NO ₄
Molecular Weight:	373.49
Classification	AcTox 4 (H302)
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 out with plenty of water. Remove contact lenses.



Safety Data Sheet: *Equisetin*

<i>Skin Contact:</i>	<i>In case of skin contact: Take off all contaminated clothing. Rinse skin with water/ shower.</i>
<i>Ingestion:</i>	<i>Wash out mouth with water; Do NOT induce vomiting; call a physician.</i>
<i>Inhalation:</i>	<i>If inhaled, move the person into fresh air.</i>
4.2. Most important symptoms and effects, both acute and delayed	
<i>General symptoms</i>	<i>None known</i>
4.3. Indication of any immediate medical attention and special treatment needed	
<i>Note to physicians</i>	<i>No data available</i>
5. Fire-fighting measures	
5.1. Extinguishing media	
<i>Suitable extinguishing media</i>	<i>Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.</i>
<i>Unsuitable extinguishing media</i>	<i>None known</i>
5.2. Other information	
<i>Hazardous combustion products</i>	<i>Formula C₂₂H₃₁NO₄ Carbon oxides, Nitrogen oxides (NO_x)</i>
<i>Advice for firefighters</i>	<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	
<i>Personal precautions</i>	<i>Use personal protective equipment as required. Keep people away from and upwind of spill/leak.</i>
6.2. Environmental precautions	
<i>Environmental precautions</i>	<i>Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.</i>
6.3. Methods and material for containment and cleaning up	
<i>Methods for containment:</i>	<i>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.</i>
<i>Methods for cleaning up:</i>	<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 (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.</i>
7. Handling and storage	
7.1. Precautions for safe handling	
<i>Advice on safe handling:</i>	<i>Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not</i>



Safety Data Sheet:

Equisetin

	<i>breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.</i>
7.2. Conditions for safe storage, including any incompatibilities	
<i>Storage Conditions:</i>	<i>Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Store at -20 °C.</i>
<i>Suitable packaging</i>	<i>Must only be kept in original packaging.</i>
<i>Incompatible materials:</i>	<i>None known based on information available.</i>
8. Exposure Controls/Personal Protection	
8.1. Control parameters	
<i>Control parameters</i>	<i>Components with workplace control parameters</i>
8.2. Exposure controls	
<i>Appropriate engineering controls</i>	<i>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.</i>
8.3. Personal protective equipment	
<i>[PPE=Personal Protection Equipment]</i>	
<i>PPE: Respiratory protection</i>	<i>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).</i>
<i>PPE: Hand Protection:</i>	<i>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</i>
<i>PPE: Eye Protection:</i>	<i>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)</i>
<i>PPE: Skin and Body Protection:</i>	<i>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.</i>



Safety Data Sheet: *Equisetin*

9. Physical and chemical properties

9.1. Physical/chemical properties

Physical State at room temperature	Solid
Appearance	Tan to off white powder or lyophilizate
No further safety-relevant data are available	

10. Stability and reactivity

Reactivity:	No information is 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 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, rat; LD50 = 600 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	KD7986000
General symptoms	No data available

12. Ecological Information

Eco-Toxicity	No data available
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Safety Data Sheet: *Equisetin*

Other adverse effects	No data available
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13. Disposal Considerations

13.1. Waste treatment methods

Waste from residues / unused products	Dispose of in accordance with local regulations
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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	Not hazardous goods (Equisetin)	Not hazardous goods (Equisetin)	Not hazardous goods (Equisetin)	Not hazardous goods (Equisetin)
Transport Hazard Class & Packing Group	Not regulated	Not regulated	Not regulated	Not regulated
Additional information			Not marine pollutant	

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)
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SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
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SARA 313	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
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SARA 311/312 Hazard Categories	No SARA Hazards
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California Proposition 65	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or anyother reproductive harm.
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EU ECHA Status	This product is NOT REGISTERED with the EU ECHA as of 05-2022
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16. Other information

16.1. Department issuing this SDS

Quality systems and regulatory affairs
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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 proces, unless specified in the text.



Safety Data Sheet: *Equisetin*

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

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16.5. Abbreviations and acronyms:

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

16.6. End of SDS