



Safety
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Thapsigargin

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1. Identification of the Substance and the Manufacturer

1.1. Product identifiers

Product name	Thapsigargin	Formula	C34H50O12
Product Code	THP	Molecular weight	670.75 g/mol
CAS#	67526-95-8	Mixture?	Substance
ECHA#	614-076-3	PUBCHEM	446378
HSDB	---	RTECS	-RH0352700
Comptox EPA	5040621	CHEBI	CHEBI:9516
Synonyms and other names	<ul style="list-style-type: none"> Thapsigargin Octanoic acid, (3S,3aR,4S,6S,6aR,7S,8S,9bS)-6-(acetyloxy)-2,3,3a,4,5,6,6a,7,8,9b-decahydro-3,3a-dihydroxy-3,6,9-trimethyl-8-(((2Z)-2-methyl-1-oxo-2-butenyl)oxy)-2-oxo-4-(1-oxobutoxy)azuleno(4,5-b)furan-7-yl ester 		
Source	From:Thapsia Garganica (Plant)	Vers Date	15 August, 2024

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.

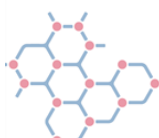
1.3. Contacts

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

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 .

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

To our judgement, hazards of this substance have not been thoroughly investigated. Other suppliers have classified this substance as H300, H310, H330 (Fatal if swallowed, inhaled or in contact with skin, and H350 may cause cancer. To our opinion, these claims are not proven sufficiently. Some closely related substances are highly hazardous. Therefore, we recommend handling all chemicals with caution.

Accute toxicity: Oral	Category 2	H300	Fatal if swallowed
Skin corrosion/irritation	Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation	Category 1	H318	Causes serious eye damage

2.2. GHS Label elements, including precautionary statements

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

2.2.2. Hazard Statements

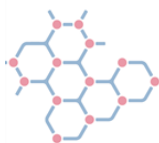
H300	Fatal if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage

2.2.3. GHS Precautionary Statements

P201	Obtain, read and follow all safety instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
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:

H300	Fatal if swallowed
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/
P330	Rinse mouth.
P302+P352,	IF ON SKIN: wash with plenty of water.
P332+P313	IF SKIN irritation occurs: Get medical advice/attention.
P362	Take off contaminated clothing.





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P305+P351+P338	<i>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.</i>
P337+P313	<i>IF eye irritation persists: Get medical advice/attention.</i>

3. Composition/information on ingredients

Substance	
Substance Name:	Thapsigargin
Concentration	<=100%
CAS Registry#:	67526-95-8
EC#:	614-076-3
Molecular Formula:	C34H50O12
Molecular Weight:	670.75 g/mol
Classification	Acc O:3 (H301)
Mixture?	Substance

4. First Aid Measures.

4.1. Description of First Aid Measures.

General advice:	<i>First-aiders need to protect themselves. If medical attention is required, show this safety data sheet to the doctor in attendance.</i>
Eye contact:	<i>Rinse out with plenty of water. Remove contact lenses.</i>
Skin Contact:	<i>In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.</i>
Ingestion:	<i>If swallowed: give water to drink (two glasses at most). Seek medical advice immediately.</i>
Inhalation:	<i>If inhaled, move the person into fresh air.</i>

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

General symptoms	See section 11
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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	<i>Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.</i>
Unsuitable extinguishing media	<i>None known</i>





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5.2. Other information⁷

Hazardous combustion products	Carbon oxides, Nitrogene oxides, Sulfur oxides, Sulfur dihydrogene, Formula C34H50O12
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 a plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.
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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 the powder spill with a plastic sheet or tarp to minimize spreading. Sweep up and shovel into suitable containers for disposal.
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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.

8. Exposure Controls/Personal Protection

Attention:





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Usually, the product of concern would be present at the intended workplace in miniscule amounts, while surrounded by considerable amounts of other flammable, toxic or otherwise hazardous substances. Therefore, a risk assessment should be performed by the employer/user prior to the use of this product.

The type of protective equipment must be selected based on the amount and concentration of all dangerous materials being used in the workplace.

All recommendations included in this document are advisory in nature

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 fume-hood 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 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:

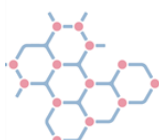
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal techniques to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices, and wash and dry hands

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.





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9. Physical and chemical properties

9.1. Physical/chemical properties

Physical State at room temperature	Solid
Appearance	Powder, 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 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:	Subcutaneous, Mouse, LD50= 2 mg/kg; Oral, mouse, LD50 10 to 20 mg/kg Estimated from subcutaneous datum No other acute toxicity available.
Skin corrosion/irritation:	Irritation reported by manufacturer
Serious eye damage/eye irritation:	Irritation reported by manufacturer
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:	Not classified by IARC
Reproductive toxicity / Teratogenicity:	No data available

11.2. Additional information

RTECS number	-RH0352700
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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 Disposal 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

UN Number UN 3462: Toxins, Extracted from Living Sources, Solid, N.O.S.
UN proper shipping name (Thapsigargin)

Transport Hazard Class & Packing Group Class 6.1 (Poison) ; Packing group II

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 **Error! Reference source not found.**
REACH: PreRegistered
ANNEX III (criteria for 1 - 10 tonne registered substances): Listed
Reasons for listing:
a) Suspected hazardous to the aquatic environment.
b) Suspected persistent in the environment.

16. Other information

16.1. Version information

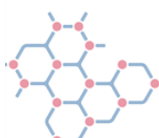
Version date: 8-2024 New Toxicity information obtained. Packing group updated

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.





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16.4. The users'/employers' responsibility:

Usually, the product of concern would be present at the intended workplace in miniscule amounts, while surrounded by considerable amounts of other flammable, toxic or otherwise hazardous substances. Therefore, a risk assessment should be performed by the employer/user prior to the use of this product.

The type of protective equipment must be selected based on the amount and concentration of all dangerous materials being used in the workplace.

All recommendations included in this document are advisory in nature.

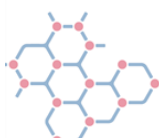
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16.6. Abbreviations and acronyms:

Acute Tox.:	Acute toxicity
CAS:	Chemical Abstracts Service
Comptox	CompTox Chemicals Dashboard Resource Hub (EPA)
DOT:	US Department of Transportation
ECHA	European Chemicals Agency
EINECS:	European Inventory of Existing Commercial Chemical Substances
EPA	United States Environmental Protection Agency
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
LDL0	Letal dose, least published
NDG	Not dangerous goods (for transport)
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/SE	Specific target organ toxicity/Single exposure
STOT/RE	Specific target organ toxicity/Repeated exposure
T3DB	Toxin and Toxin Target Database
TDL0	Toxic dose, least published

16.7. End of SDS

