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Identification of the Substance and the Manufacturer 1. **Product identifiers**

1.1.

Intended uses of the Substance and uses advised against *1.2*.

Product name	<u>Veratridine</u>	Formula	C36H51NO11
Product Code	VER	Molecular weight	673.79 g/mol
CAS#	71-62-5	Mixture?	Substance
<u>ECHA</u> #	<u>200-758-4</u>	<u>PUBCHEM</u>	<u>Veratridine</u>
<u>HSDB</u>	<u>HSDB 4078</u>	<u>RTECS</u>	YX5600000
		<u>T3DB</u> #	<u>T3D4061</u>
Comptox EPA	<u>2058467</u>	<u>CHEBI</u>	<u>CHEBI:28051</u>
Synonyms and	Veratrine	3-Veratroylveracevin	
other names	4,9-Epoxycevane-3-beta,4-beta,12,14,16-beta,17,20-heptol 3-veratrate		
Source	From: Schoenocaulon officinale	(Plant) Vers Date	20 October, 2024

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

1.3. **Contacts**

1.3.1. Details of the supplier of the SDS		
FERMENTEK ltd	Tel: +972 2 5	853953
4 Yatziv street, POB 47120	Fax: +972 2.	5853943
Jerusalem 97800,	eMail:	<u>Fermentek@Fermentek.com</u>
Israel		<u>Safety@Fermentek.com</u>
	Website:	<u>Fermentek.com</u>

This company is the manufacturer of the product and the supplier of the safety data sheet **Emergency Telephone number** 1.3.2.

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)			
Acute Toxicity, Oral	<i>Cat.</i> 2	H300	Fatal if swallowed
Acute Toxicity, Dermal	<i>Cat.</i> 2	H310	Δ Fatal in contact with skin
Acute Toxicity, Inhalation	<i>Cat.</i> 2	H330	Δ Fatal if inhaled
STOT SE	<i>Cat. 3</i>	H335	Δ May cause respiratory irritation
Skin Irritation	<i>Cat.</i> 2	H315	$\Delta Causes$ skin irritation
Eye Irritation	<i>Cat.</i> 2	H319	$\Delta Causes$ serious eye irritation
Δ : Copied from PUBCHEM without any supporting data			

2.2.GHS Label elements, including precautionary statements

2.2.1. 2.2.2.	Pictogram: { Signal word: {Danger} Hazard Statements	
H300	Fatal if swallowed	
H310	Fatal in contact with skin	
H330	Fatal if inhaled	
H335	May cause respiratory irritation	
H315	Causes skin irritation	
H319	Causes serious eye irritation	
2.2.3. GHS	S 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+P330+P331:	IF SWALLOWED: Get emergency medical help immediately.
<i>P316:</i>	Rinse mouth. Do NOT induce vomiting.
<i>P302+P352</i> ,	IF ON SKIN: wash with plenty of water
<i>P316</i> ,	Get emergency medical help immediately.







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P361+P364	P362+P364: Take off contaminated clothing and wash it before reuse.	
P304+P340, P316,	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get emergency medical help immediately.	
P318	If exposed or concerned, get medical advice.	
3. Composition/information on ingredients		
Substance		

Substance	
Substance Name:	Veratridine
Concentration	<=100%
CAS Registry#:	71-62-5
<i>EC#</i> :	200-758-4
Molecular Formula:	C36H51NO11
Molecular Weight:	673.79 g/mol
Classification	Acute Tox. 2 (H300,H310,H330),Irit 2,
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.
Ingestion:	If swallowed: give water to drink (two glasses at most). Seek medical advice immediately.

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

General symptoms	See section 11
4.3. Indication of any imm	ediate medical attention and special treatment needed
Note to physicians	No data available

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, Nitrogene oxides C36H51NO11	







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Advice for firefighters	Wear self-contained breathing apparatus for fire fighting if necessary. Wear protective suit.		
6. Accidental release measures			
6.1. Personal precaution	ns, protective equipment, and emergency procedures		
Personal precautions	Use personal protective equipment as required. Keep people away from and upwind of spill/leak.		
6.2. Environmental pred	cautions		
Environmental precautions	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.		
6.3. Methods and mater	ial 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.		
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.		
7. Handling and sto	prage		
7.1. Precautions for safe	e 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.		
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

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Attiention:

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, the employer/user should perform a risk assessment 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

o.1. Comfoi 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.

8.1. Control parameters

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)









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PPE: Skin and Body	Handle with gloves. Gloves must be inspected prior to use. Use proper
Protection:	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

The information given here does not purport specification of warranty of any kind. It 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.

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.
Incompatible materials	Strong reducers and exidizers
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, Mouse, LD50=15 mg/kg
	Intrapetoneal, Rat, LD50= 3.5 mg/kg
	Intrapetoneal, Mouse, LD50=1.4 mg/kg
	Subcutaneous, Mouse, LD50=6.3 mg/kg
	<i>Oral, Bird(Chicks), LD50= 25 mg/kg</i> \Box
	No other acute toxicity available.
Skin corrosion/irritation:	No data available









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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
11.1.3. CRM (Carcinogene, Mutagene, Reproductive hazards)	
Germ cell mutagenicity:	No data available
Carcinogenicity:	Not classified by IARC
<i>Reproductive toxicity / Teratogenicity:</i>	No data available
11.2. Additional information	
	XXZ < 00000

RTECS number	YX5600000
General symptoms	Signs of poisoning with veratrine and related alkaloids are salivation, purgation, vomiting (even in the cow), diuresis, excitability followed by prostration, weak and irregular pulse, deep and slow respirations, and death in convulsions or consequently upon paralysis. The lethal dose of the fresh root is 1 g/kg in the horse and 2 g/kg in the cow.

12. Ecological Information

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12. Leong	sicar my or manor	V		
Eco-Toxicity	N	No data available		
Other adverse eg	ffects No	No data available		
13. Dispos	13. Disposal Considerations			
13.1. Waste 1	treatment methods			
Waste Disposal	D	Dispose of in accordance with local regulations		
Contaminated p	ackaging D	ging Dispose of as unused product		
14. Trans	14. Transport information			
14.1. UN Nu	14.1. UN Number, Proper Shipping Name, Transport Hazard Class, packing group			
	IATA	IMDG	ADR/RID	US/DOT
UN Number, Proper	UN 3462 Toxins extracted	UN 3462 Toxins extracted	UN 3462 Toxins extracted	UN 3462 Toxins_extracted

On number,	011 5402	011 5402	011 5402	011 5402
Proper	Toxins, extracted	Toxins, extracted	Toxins, extracted	Toxins, extracted
shipment name	from living sources,	from living sources,	from living sources,	from living sources,
	solid, N.O.S.	solid, N.O.S.	solid, N.O.S.	solid, N.O.S.
	(Veratridine)	(Veratridine)	(Veratridine)	(Veratridine)







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Transport hazard Class,	6.1 poison	6.1 poison	6.1 poison	6.1 poison
Packing group	PG2	PG2	PG2	PG2
Comments		Not marine polutant		

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 200-758-4 REACH: PreRegistered. ANNEX III (criteria for 1 - 10 tonne registered substances): Not Listed









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16. Other information

16.1. Version information

Version date:8-2024 General revision.

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 explicitly specified in the text.

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, the employer/user should perform a risk assessment by 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.

16.5. No © copyright



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16.6. End of SDS







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	lix A : Abbreviations and acronyms: This symbol means, the text looking like a hyperlink, is a clickable link indeed. Of course, these are only active
A	on glass screens, not on paper.
	<i>"Synthetic"</i> means this compound has been manufactured by chemical conversion of another product of ours.
Synthetic / From	"From" means the compound was extracted from biomass, whther algal, fungal, microbial or plant material
	Mixture means there are two or more pure substances mixed purposely.
Mixture/Substance	Not including cases of two or more substances which naturally occur together and are sold unseparated
Acute Tox.:	Acute toxicity
CAS:	Chemical Abstracts Service
ChEBI	Chemical Entities of Biological Interest
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
LDLO	Letal dose, leatst published
NDG	Not dangerous goods (for transport)
NFPA:	National Fire Protection Association USA
NIOSH:	National Institute for Occupational Safety
NOAEL	No-Observed-Adverse-Effects-Level. Highest dose which yelded no results at toxisity test
OSHA:	Occupational Safety & Health
PBT:	Persistent, Bioaccumulative, and Toxic
PEL:	Permissible Exposure Limit
PubChem	An open chemistry database at the National Institutes of Health (NIH). "
REL:	Recommended Exposure Limit
Repr.:	Reproductive toxicity, incl. hazards to reproductive systems, and pregnancy and the offspring.
RTECS:	Registry of Toxic Effects of Chemical Substances. Not free.
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
TDLO	Toxic dose, least published

