



# Safety Data Sheet: *Veratridine*

## 1. Identification of the Substance and the Manufacturer

### 1.1. Product identifiers

Product name	<a href="#">Veratridine</a>	Formula	C <sub>36</sub> H <sub>51</sub> NO <sub>11</sub>
Product Code	V	RTECS	<a href="#">YX560000</a>
CAS #	<a href="#">71-62-5</a>	Molecular weight	673.79
EC Number #	<a href="#">200-758-4</a>	Substance? Mixture?	Substance
Synonyms	<ul style="list-style-type: none"> <li>• Veratridine</li> <li>• 3-Veratroylveracevine</li> <li>• 4,9-Epoxycevine-3,4,12,14,16,17,20-heptol 3-(3,4-dimethoxybenzoate)</li> <li>• 4,9-epoxycevine-3β,4α,12,14,16β,17,20-heptol 3-veratrate</li> </ul>		
Source	Schoenocaulon officinale	Version Date	22 December, 2022

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

<b>1.2.1. Intended use:</b>	<b>1.2.2. Uses advised against:</b>
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

<b>FERMENTEK ltd</b> 4 Yatziv street, POB 47120 Jerusalem 97800, Israel	Tel: +972 2 5853953 Fax: +972 2 5853943 eMail: <a href="mailto:Fermentek@Fermentek.com">Fermentek@Fermentek.com</a> <a href="mailto:Safety@Fermentek.com">Safety@Fermentek.com</a> Website: <a href="http://Fermentek.com">Fermentek.com</a>
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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)

Acute Toxicity, Oral	Cat. 2	H300	Fatal if swallowed
Acute Toxicity, Dermal	Cat. 2	H310	Fatal in contact with skin
Acute Toxicity, Inhalation	Cat. 2	H330	Fatal if inhaled
STOT SE	Cat. 3	H335	May cause respiratory irritation
Skin Irritation	Cat. 2	H315	Causes skin irritation
Eye Irritation	Cat. 2	H319	Causes serious eye irritation
Reproductive toxicity	Cat. 2	H361	Suspected of damaging fertility or the unborn child

### 2.2. GHS Label elements, including precautionary statements

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

#### 2.2.2. Hazard Statements

H300+H310+H330	Fatal if swallowed, if in contact with skin or if inhaled
H335	May cause respiratory irritation
H315	Causes skin irritation
H319	Causes serious eye irritation
H361	Suspected of damaging fertility or the unborn child

#### 2.2.3. GHS Precautionary Statements

P203	Obtain, read and follow all safety instructions before use.
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.
P270	Do not eat, drink or smoke when using this product
P280	Wear protective gloves and protective clothing

#### 2.2.4. GHS Response Phrases:

P301+P316+330	IF SWALLOWED: Get emergency medical help immediately. Rinse mouth.
P302+P352+P310+P361	IF ON SKIN: Remove immediately all contaminated clothing. Immediately wash with plenty of soap and water
P305+P351+P338+P337 +P313+P316	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get emergency medical help immediately.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

## 3. Composition/information on ingredients

<b>Substance</b>	
Substance name:	Veratridine



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Concentration	<=100%
CAS Registry#:	71-62-5
EC#:	200-758-4
Molecular Formula:	C <sub>36</sub> H <sub>51</sub> NO <sub>11</sub>
Molecular Weight:	673.79
Classification	Acute Tox. 2 (H300,H310,H330),Irit 2, repro 2(H361)
Mixture?	Substance .

## 4. First Aid Measures

### 4.1. Description of First Aid Measures

General advice:	First-aiders need to protect themselves. Show this safety data sheet to the doctor in attendance.
Eye contact:	Rinse out with plenty of water. Call in an ophthalmologist. Remove contact lenses.
Skin Contact:	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.
Ingestion:	If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.
Inhalation:	If inhaled, move the person into fresh air. Immediately call-in a physician. If breathing stops: immediately apply artificial respiration, if necessary, also oxygen.

### 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, Nitrogen oxides (NO <sub>x</sub> ).
Advice for firefighters	Wear self-contained breathing apparatus for fire fighting if necessary. Wear protective suit.



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## 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.
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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 powder spill with 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.
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Suitable packaging	Must only be kept in original packaging.
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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 fumehood for routine work.
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### 8.3. Personal protective equipment

[PPE=Personal Protection Equipment]	
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<i>PPE: Respiratory protection</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>PPE: Hand Protection:</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>PPE: Eye Protection:</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>PPE: Skin and Body Protection:</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.

## 9. Physical and chemical properties

### 9.1. Physical/chemical properties

<i>Physical State at room temperature</i>	Solid / powder
<i>Color</i>	White
<i>No further safety relevant data are available</i>	

## 10. Stability and reactivity

<i>Reactivity:</i>	No information available.
<i>Chemical stability:</i>	Stable under normal conditions.
<i>Conditions to avoid</i>	Heat, flames and sparks. Sunlight.
<i>Incompatible materials</i>	Strong reducers and oxidizers
<i>Possibility of Hazardous Reactions</i>	None under normal processing
<i>Hazardous combustion products</i>	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.



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## 11.1.1. Acute Toxicity

Acute toxicity:	Oral, rat; LD50=7 mg/kg – Estimate based on available experimental information for subcutaneous intraperitoneal, and intravenous LD50 data.
Skin corrosion/irritation:	No quantitative data available
Serious eye damage/eye irritation:	No quantitative data available
Respiratory or skin sensitization/corrosion:	No quantitative 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	YX5600000
General symptoms	[RTECS] Lungs, Thorax, or Respiration - cyanosis Lungs, Thorax, or Respiration - respiratory depression Gastrointestinal - changes in structure or function of salivary glands Cardiac - arrhythmias (including changes in conduction)  [Clarke, M. L., D. G. Harvey and D. J. Humphreys. Veterinary Toxicology. 2nd ed. London: Bailliere Tindall, 1981., p. 240] ...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

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	US DOT	US DOT	US DOT
UN Number UN proper shipping name	UN 3462 Toxins, extracted from living sources, solid, n.o.s. (Veratridine)	UN 3462 Toxins, extracted from living sources, solid, n.o.s. (Veratridine)	UN 3462 Toxins, extracted from living sources, solid, n.o.s. (Veratridine)	UN 3462 Toxins, extracted from living sources, solid, n.o.s. (Veratridine)
Transport Hazard Class & Packing Group	6.1 (poison) pg II	6.1 (poison) pg II	6.1 (poison) pg II	6.1 (poison) pg II
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, the packaging 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 200-758-4 ANNEX III (criteria for 1 - 10 tonne registered substances): Not Listed REACH: Preregistered

## 16. Other information

### 16.1. Department issuing this SDS

Quality systems and regulatory affairs
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### 16.2. General Disclaimer

<p>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.</p> <p>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.</p> <p>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.</p>
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### 16.3. The users'/employers' responsibility:

<p>A risk assessment should be performed by the employer/user prior to use of this product.</p> <p>All recommendations included in this document, are advisory in nature.</p> <p>The type of protective equipment must be selected based on the amount and concentration of all dangerous materials being used in the workplace.</p>
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### 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 (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>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 &amp; 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**





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[hsdb 4078](#)

## RTECS

### \*\* ACUTE TOXICITY DATA \*\*

TYPE OF TEST : LD50 - Lethal dose, 50 percent kill

ROUTE OF EXPOSURE : Intraperitoneal

SPECIES OBSERVED : Rodent - rat

DOSE/DURATION : 3500 ug/kg

#### TOXIC EFFECTS :

Lungs, Thorax, or Respiration - cyanosis

Lungs, Thorax, or Respiration - respiratory depression

Gastrointestinal - changes in structure or function of salivary glands

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TYPE OF TEST : LD50 - Lethal dose, 50 percent kill

ROUTE OF EXPOSURE : Subcutaneous

SPECIES OBSERVED : Rodent - mouse

DOSE/DURATION : 6300 ug/kg

Behavioral - convulsions or effect on seizure threshold

Behavioral - ataxia

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Lungs, Thorax, or Respiration - cyanosis

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Cardiac - arrhythmias (including changes in conduction)

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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.

Clarke, M. L., D. G. Harvey and D. J. Humphreys. Veterinary Toxicology. 2nd ed. London: Bailliere Tindall, 1981., p. 240