

## Safety Data Sheet: **Castanospermine**

### 1. Identification of the substance/mixture and of the Company

#### 1.1. Product identifiers

Product name	<u>Castanospermine</u>
Product Code	CAS
CAS #	79831-76-8
EC Number #	616-743-4
Synonyms	<ul style="list-style-type: none"> <li>• 1,6,7,8-Tetrahydroxyoctahydroindolizine</li> <li>• Castinospermine</li> <li>• Octahydro-indolizine-1,6,7,8-tetraol</li> </ul>
Formula	$C_8H_{15}NO_4$
RTECS	Not listed
Molecular weight	189.21
Substance? Mixture?	Substance

#### 1.2. Intended uses of the substance or mixture and uses advised against

Intended use:	<i>Research and development.          Laboratory reagent.          Reference material.          Analytical standard          Starting material for manufacturing of chemicals</i>
Uses advised against:	<i>Not a drug,          Not food additive          Not to be used in humans or animals.</i>

#### 1.3. Contact

##### 1.3.1. Details of the supplier of the safety data sheet

<b>FERMENTEK Ltd</b> 4 Yatziv street, POB 4712 Jerusalem 97800, Israel	Tel: +972 2 5853953 Fax: +972 2 5853943 eMail: <a href="mailto:fermentek@fermentek.com">fermentek@fermentek.com</a> Website: <a href="http://www.fermentek.com">www.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*

#### 1.4. Date of revision

*Monday, 7 October, 2024*

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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.**

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

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

#### 2.3. Other hazards

**This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher**

### 3. Composition/information on ingredients

Substance	
Substance name:	<i>Castanospermine</i>
Concentration	100%
	CAS Registry #: 79831-76-8 EC#: 616-743-4
	Molecular Formula: $C_8H_{15}NO_4$ Molecular Weight: 189.21
Classification	Not hazardous
Mixture?	Substance

### 4. First Aid Measures

#### 4.1. Description of First Aid Measures

**General advice:** Show this safety data sheet to the doctor in attendance.

**Eye contact:** Flush eyes with water as a precaution.

**Skin Contact:** Wash off with soap and plenty of water.

**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water.

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration.

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

**Skin Contact:** No data available

**Eye contact:** No data available

**Ingestion:** No data available

**Inhalation:** No data available

#### 4.3. Indication of any immediate medical attention and special treatment needed

No data available

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### 5. Fire-fighting measures

#### 5.1. Extinguishing media

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

#### 5.2. Other information

<b>Hazardous combustion products</b>	<i>Carbon oxides,</i>
<b>Advice for firefighters</b>	<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

<b>Personal precautions</b>	<i>Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.</i>
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#### 6.2. Environmental precautions

<b>Environmental precautions</b>	<i>No special environmental precautions required.</i>
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#### 6.3. Methods and material for containment and cleaning up

	<i>Sweep up and shovel. Keep in suitable, closed containers for disposal.</i>
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### 7. Handling and storage

#### 7.1. Precautions for safe handling

<b>Advice on safe handling:</b>	<i>Provide appropriate exhaust ventilation at places where dust is formed 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.</i>
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#### 7.2. Conditions for safe storage, including any incompatibilities

<b>Storage Conditions:</b>	<i>Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Reportedly, Light sensitive. Store at -20 °C.</i>
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<b>Incompatible materials:</b>	<i>None known based on information available.</i>
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### 8. Exposure Controls/Personal Protection

#### 8.1. Control parameters

<b>Control parameters</b>	<i>None</i>
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#### 8.2. Exposure controls

<b>Appropriate engineering controls</b>	<i>General industrial hygiene practice Showers, Eyewash stations, Ventilation systems Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.</i>
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Use fumehood for routine work.

### 8.3. Personal protective equipment

<b>[PPE=Personal Protection Equipment]</b>	<i>The employer/end user, prior to use of this product should perform all recommendations below are advisory in nature and a risk assessment. The type of protective equipment must be selected based on the amount and concentration of the dangerous material being used in the workplace.</i>
<b>PPE: Respiratory protection</b>	<i>Respiratory protection is not required. Where protection from nuisance levels of dusts is desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)</i>
<b>PPE: Hand Protection:</b>	<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>
<b>PPE: Eye Protection:</b>	<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>
<b>PPE: Skin and Body Protection:</b>	<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 must satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.</i>

## 9. Physical and chemical properties

### 9.1. Physical / chemical properties

<b>Physical State at room temperature</b>	<i>Powder</i>
<b>Color</b>	<i>White</i>
<b>Odor</b>	<i>Odorless</i>

No further safety relevant data are available

## 10. Stability and reactivity

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

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### 11. Toxicological information

#### 11.1. Information on toxicological effects

**The toxicological effects of this product have not been thoroughly studied.**

11.1.1. Acute Toxicity	No toxicity was observed in studies with animals.
Skin corrosion/irritation:	No data available
Inhalation	No data available
Serious eye damage/eye irritation:	No data available
Respiratory or skin sensitization/corrosion:	No data available
11.1.2. CMR hazards	
Carcinogenicity	No data available
Germ cell mutagenicity:	No data available
Reproductive toxicity / Teratogenicity:	No data available
11.1.3. Other	
STOT-SE – single exposure (GHS):	No data available
STOT-SE – repeated exposure (GHS):	No data available
Aspiration hazard:	No data available

#### 11.2. Additional information

RTECS number	Not listed
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### 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

### 14. Transport information

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

	US DOT	IATA	IMDG	ADR/RID
UN Number UN proper shipping name	Not dangerous goods (Castanospermine)	Not dangerous goods (Castanospermine)	Not dangerous goods (Castanospermine)	Not dangerous goods (Castanospermine)
Transport Hazard Class & Packing Group	Not dangerous goods	Not dangerous goods	Not dangerous goods	Not dangerous goods

#### 14.2. Additional information

			Not marine pollutant	
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### 15. Regulatory information

#### 15.1. Safety, health, and environmental regulations/legislation

<b>USA EPA / TSCA</b>	<i>This product is not listed on the USA EPA TSCA (it is for research)</i>
<b>EU ECHA Status</b>	<i>This product is registered with the EU ECHA: EC number 616-743-4 ANNEX III: REACH: REACH: This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57)</i>
<b>CA: DSL/NDSL Status</b>	<i>This product is not listed on the Canadian DSL/NDSL</i>

#### 15.2. Chemical Safety Assessment

*For this product a chemical safety assessment was not carried out*

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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 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. Abbreviations and acronyms:

- Acute Tox.: Acute toxicity
- CAS: Chemical Abstracts Service (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
- 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
- Skin Irrit: Skin corrosion/irritation
- STOT RE: Specific target organ toxicity (repeated exposure)
- TLV: Threshold Limit Value
- vPvB: very Persistent and very Bioaccumulative

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16.5. Copyright statement



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16.6. End of SDS