

## Safety Data Sheet: Enniatin-A1 | Fermentek

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

#### 1.1 Product identifiers

Product Code: **ENA1-**  
Product name: **Enniatin-A1 | Fermentek**  
CAS number: **4530-21-6**

#### 1.2 Relevant identified uses of the substance and uses advised against

Recommended use: Laboratory chemicals,  
Manufacture of substances,  
Research.  
Uses advised against: Not for drug,  
Not to be used in humans or animals.  
Not food additive.

#### 1.3 Details of the manufacturer and supplier of the safety data sheet

Company **FERMENTEK**  
Street address 4 Yatziv street, POB 47120  
Jerusalem 97800, Israel  
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Tel: +972 2 5853953  
Fax: +972 2 5853943  
eMail fermentek@fermentek.com  
Website: www.fermentek.com  
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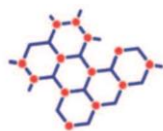
This company is the manufacturer of the product, and the supplier of the safety data sheet

#### 1.4 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

#### 1.5 REACH

A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.



## SECTION 2.: Hazards identification

### 2.1 Classification of the substance

#### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 3), H301 Toxic if swallowed.  
Acute toxicity, Inhalation (Category 3), H331 Toxic if inhaled.  
Acute toxicity, Dermal (Category 3), H311 Toxic in contact with skin

### 2.2 Label elements

#### 2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]:



Pictogram

GHS Signal Word: **Danger**

#### GHS Hazard Phrases:

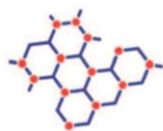
H301: Toxic if swallowed.  
H311: Toxic in contact with skin.  
H331: Toxic if inhaled.

#### GHS Hazard statements

H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled

#### GHS Precautionary statements

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ protective clothing.  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.  
P322 Specific measures (see supplemental first aid instructions on this label).  
P330 Rinse mouth.  
P361 Remove/Take off immediately all contaminated clothing.  
P363 Wash contaminated clothing before reuse.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P501 Dispose of contents/ container to an approved waste disposal plant.



## SECTION 3: Composition/information on ingredients

### 3.1 Substance

This product is a pure compound.

**Synonyms :** 2(N-Methyl-L-valine) Enniatin A  
**Formula :** C<sub>35</sub>H<sub>61</sub>N<sub>3</sub>O<sub>9</sub>  
**Molecular weight :** 667.87 g/mol  
**CAS-No. :** 4530-21-6

Component	Classification	Concentration
Enniatin A1	Acute Tox. 3; H301 + H311 + H331 (Toxic if swallowed, in contact with skin or if inhaled)	<= 100 %

## 4 First Aid Measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

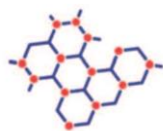
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

Note to physicians Treat symptomatically



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## 5. Fire-fighting measures

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### 5.1 Extinguishing media

#### Suitable extinguishing media

#### Suitable Extinguishing Media

Suitable Extinguishing Media Use extinguishing measures which are appropriate to local circumstances and the surrounding environment, such as water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### Unsuitable Extinguishing Media :

None.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides  
Nitrogen oxides.

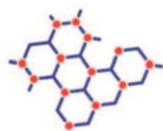
### 5.3 Advice for firefighters

#### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 5.4 Further information

No data available



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## 6 Accidental release measures

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### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust. Evacuate personnel to safe areas.

For personal protection see section 8.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains

### 6.3 Methods and materials for containment and cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal. (see section 13)

#### Methods for containment

Prevent further leakage or spillage if safe to do so.

#### Methods for cleaning up

Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal.

Avoid creating dust.

Clean contaminated surface thoroughly.

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## 7. Handling and storage

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### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Avoid exposure - obtain special instructions before use.

Provide appropriate exhaust ventilation at places where dust is formed.

Normal measures for preventive fire protection.

### 7.2 Conditions for safe storage, including any incompatibilities.

Keep container tightly closed in a dry and well-ventilated place at -20°C

The product is light sensitive.

### 7.3 Incompatibilities:

No incompatibilities are known

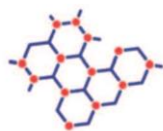
### 7.4 Specific end uses

Specific uses:

See section 1.2

Exposure scenario:

No information available.



## 8. Exposure Controls/Personal Protection

### 8.2 Exposure controls

#### Control parameters

#### Exposure Guidelines

This product, as supplied, does not contain any hazardous materials with occupational Exposure limits established by the region specific regulatory bodies

#### Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice

#### Personal protective equipment

##### Eye/face protection

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).

##### Skin 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 EU Directive 89/686/EEC and the standard EN 374 derived from it.

This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of intended use by our users. It should remain under the responsibility of the users to select the protective equipment according to the nature of the intended use(s)

##### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### 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).

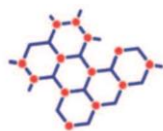
##### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## 9. Physical and chemical properties

### Physical / chemical properties

Physical State	at room temperature	Solid, powder
pH		No information available
Melting/freezing point		No information available
Flash Point		No information available
Flammability (solid, gas)		No information available
Vapor pressure		No information available
Vapor density		No information available



Relative density	No information available
Water solubility	No information available
Partition coefficient: n-octanol/water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Explosive properties	No information available

## 10. Stability and reactivity

Reactivity:	No information available.
Chemical stability:	Stable under normal conditions. May be light-sensitive.
Precautionary Statements:	None under normal processing.
Conditions to avoid	Heat, flames and sparks
Incompatible materials	Strong reducers and oxidizers
Hazardous decomposition products:	Carbon monoxide (CO); Carbon dioxide (CO <sub>2</sub> ); Nitrogen oxides (NO <sub>x</sub> ).

## 11. Toxicological information

### 11.1 Information on toxicological effects

<b>Acute toxicity</b>	No data available
Inhalation:	No data available
Dermal:	No data available
<b>Skin corrosion/irritation</b>	No data available
<b>Eye irritation</b>	No data available
<b>Respiratory/skin sensitization</b>	No data available
<b>Germ cell mutagenicity</b>	No data available
<b>Carcinogenicity</b>	Not identified as carcinogen, known, probable or potential by any of the following : <b>IARC / ACGIH / NTP / OSHA:</b>
<b>Reproductive toxicity:</b>	No data available

***To the best of our knowledge, the toxicological, chemical and physical properties of this substance have not been investigated sufficiently.***

## 12. Ecological Information

**Toxicity** No relevant information available.

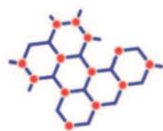
### Behaviour in environmental systems:

Bioaccumulative potential: No relevant information available.  
Mobility in soil: No relevant information available.

### Results of PBT and vPvB assessment

**PBT/ vPvB:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Other adverse effects** No further relevant information 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. Do not reuse containers.

## 14. Transport information

### DOT (US)

UN number: 3462 Class: 6.1 Packing group: III

Proper shipping name: Toxins, extracted from living sources, solid, n.o.s. (Enniatin A1)

Reportable Quantity (RQ):

Poison Inhalation Hazard: No

### IMDG

UN number: 3462 Class: 6.1 Packing group: III EMS-No: F-A, S-A

Proper shipping name: Toxins, extracted from living sources, solid, n.o.s. Enniatin A1)

### IATA

UN number: 3462 Class: 6.1 Packing group: III

Proper shipping name: Toxins, extracted from living sources, solid, n.o.s. (Enniatin A1)

## 15. Regulatory information

### SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313 Components

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.

### SARA 311/312 Hazards

Acute Health Hazard

### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

### Pennsylvania Right To Know Components

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### New Jersey Right To Know Components

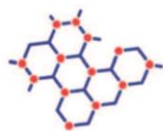
Enniatin A1

CAS-No. 4530-21-6

### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.





## 16: Other information

### 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 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.

End of SDS---

*Date of revision: 26.07.2016* *MGar*

