


 Safety Data Sheet: **Sinefungin from FERMENTEK**
1. Identification of the substance/mixture and of the Company
1.1. Product identifiers

| | | | |
|---------------------|--|----------------------------|---------------------------|
| Product name | Sinefungin | Formula | $C_{15}H_{23}N_7O_5$ |
| Product Code | SN | RTECS | HE3140000 |
| CAS # | 58944-73-3 | Molecular weight | 381.39 |
| EC Number # | 637-385-5 | Substance? Mixture? | Substance |
| Synonyms | <ul style="list-style-type: none"> • 6,9-Diamino-1-(6-amino-9H-purin-9-yl)-1,5,6,7,8,9-hexadeoxydecofuranuronic acid • 5'-Deoxy-5'-(1,4-diamino-4-carboxybutyl)adenosine • Adenosyl-Ornithine | | |
| Source | <i>Streptomyces sp.</i> | Date of version | 15 March, 2021 |

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

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|--|--|
| 1.2.1. Intended use: | 1.2.2. Uses advised against: |
| <ul style="list-style-type: none"> • Research and development. • Laboratory reagent. • To be used by professionals only | <ul style="list-style-type: none"> • Not for drug, • Not to be used in humans or animals. • Not food additive |

1.3. Details of the supplier of the SDS
1.4. Emergency Telephone number

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

1.5. Reach:

See section 15

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 | (Category 4) | H302 Harmful if swallowed |
|----------------------|--------------|---------------------------|

2.2. GHS Label elements, including precautionary statements
2.2.1. Pictogram: {  }

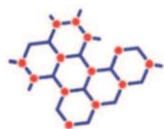
2.2.2. Signal word { Warning }

2.2.3. GHS Hazard Statements

| | |
|-----------------------|--|
| H301+H311+H331 | Toxic if swallowed, on skin or inhaled |
|-----------------------|--|

2.2.4. GHS Precautionary Statements

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|-------------|---|
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |



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| P260 | Do not breathe dust/fume/gas/mist/vapors/spray. |
| P264 | Wash {hands} thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product |

2.2.5.GHS Response Phrases

| | |
|-----------|---|
| P301+P312 | If swallowed: Call a poison center/doctor |
|-----------|---|

2.3.Other hazards

| | |
|--|------|
| | None |
|--|------|

3. Composition/information on ingredients

| Substance | |
|--------------------|---|
| Substance name: | <i>Sinefungin</i> |
| Concentration | <100% |
| CAS Registry#: | 58944-73-3 |
| EC#: | 637-385-5 |
| Molecular Formula: | <i>C₁₅H₂₃N₇O₅</i> |
| Molecular Weight: | 381.39 |
| Classification | Acute toxicity, Oral (Category 4), |
| Mixture? | <i>Substance.</i> |

4. First Aid Measures

4.1.Description of First Aid Measures

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|------------------------|--|
| General advice: | If medical attention is required, consult a doctor. Show this safety data sheet to the doctor |
| Inhalation: | If inhaled, move person into fresh air. If not breathing, give artificial respiration. |
| Ingestion: | Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting unless advised to do so by a physician or Poison Control Center. Seek medical attention. |
| Skin Contact: | Wash affected area with soap and water. Consult a physician if any exposure symptoms are observed |
| Eye contact: | Rinse eyes with plenty of water as a precaution. |

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

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|--|--------------------------|
| | No information available |
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4.3.Indication of any immediate medical attention and special treatment needed

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| | No information available |
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5. Fire-fighting measures

5.1.Extinguishing media

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| Suitable extinguishing media | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media | None known |

5.2.Other information

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| Hazardous combustion products | Carbon oxides; Nitrogen oxides |
| 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

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| Personal precautions | Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Keep people away from and upwind of spill/leak. |
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6.2. Environmental precautions

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|----------------------------------|---|
| 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

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| Methods for containment: | Prevent further leakage or spillage if safe to do so. Cover 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

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|---------------------------------|--|
| 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

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|--------------------------------|--|
| Storage Conditions: | Keep container tightly closed in a dry and well-ventilated place. Store at -20°C. Some other manufacturers may advise storing temperature 2-8°C. |
| Suitable packaging | Store in the original package. |
| Incompatible materials: | None known based on information available. |

8. Exposure Controls/Personal Protection

8.1. Control parameters

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| Control parameters | Components with workplace control parameters |
|---------------------------|--|

8.2. Exposure controls

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| 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

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| [PPE=Personal Protection Equipment] | |
| PPE: Respiratory protection | Where risk assessment shows air-purifying respirators are appropriate use a fullface 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 |



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| 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 must 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

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|---|-----------------|
| Physical State at room temperature | Solid / powder |
| Color | White to Yellow |
| No further safety relevant data are available | |

10. Stability and reactivity

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|------------------------------------|-------------------------------------|
| 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 decomposition products | Carbon oxides, Nitrogen oxides |

11. Toxicological information

11.1. Information on toxicological effects

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

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|--|--|
| 11.1.1. Acute Toxicity | |
| Oral | Rodent – mouse Oral 1 gm/kg |
| Skin corrosion/irritation: | No data available |
| Skin corrosion/irritation: | No data available |
| Serious eye damage/eye irritation: | No data available |
| Respiratory or skin sensitization/corrosion: | No data available |
| 11.1.2. CMR hazards | |
| In vitro data | Causes mutations in bacteria in vitro |
| Germ cell mutagenicity: | No data available |
| Carcinogenicity: | No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| Reproductive toxicity / Teratogenicity: | No data available |
| STOT-SE – single exposure (GHS): | No data available |
| STOT-SE – repeated exposure (GHS): | No data available |
| Aspiration hazard: | No data available |
| 11.1.3. Potential Health Effects and Routes of Exposure | |
| If Inhaled | No data available |
| If swallowed | No data available |
| If on skin | No data available |
| If in Eyes | No data available |



11.2. Additional information

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|--------------|---------------------------|
| RTECS number | HE3140000 |
|--------------|---------------------------|

12. Ecological Information

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|-----------------------|--|
| Eco-Toxicity | No further relevant information available |
| Other adverse effects | No further relevant information available. |

13. Disposal Considerations

13.1. Waste treatment methods

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| 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 regulated | Not regulated | Not regulated | Not regulated |
| Transport Hazard Class & Packing Group | Not hazardous for shipment (Sinefungin) | Not hazardous for shipment (Sinefungin) | Not hazardous for shipment (Sinefungin) | Not hazardous for shipment (Sinefungin) |
| | | | Not marine pollutant | |

14.2. Additional information

| | |
|--------------------------|---|
| Excepted quantities (EQ) | |
| 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, packaging does not have to be labeled as Dangerous Goods/Excepted Quantity |

15. Regulatory information

15.1. Product-specific safety, health, and environmental regulations/legislation

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|-------------------------|--|
| USA EPA / TSCA | This product is not listed on the USA EPA TSCA (it is for research) |
| California proposit. 65 | This product is not listed on California proposit. 65 as on Jan 3, 2020 |
| EU ECHA Status | This product is registered with the EU ECHA, Number 637-385-5 REACH: Not registered ANNEX III: Not Listed |
| Canada | This product is not listed on the Canadian DSL/NDSL |

16. Other information

16.1. Date of revision:

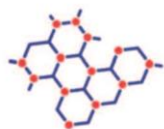
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| <ul style="list-style-type: none"> Monday, 15 March, 2021 11:03 |
|--|

16.2. Department issuing this SDS

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| <ul style="list-style-type: none"> Quality systems and regulatory affairs |
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16.3. General Disclaimer

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| <ul style="list-style-type: none"> 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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- 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.

16.4. 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.

16.5. Comments:

Deprecated CAS Registry numbers:

- 39315-74-7
- 66771-93-5
- 66807-50-9

16.6. 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

16.7. End of SDS
