FERMENTEK LTD
Making Fine Biochemicals

Safety Data Sheet: *Virginiamycin M1*

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

1.1. Product identifiers

Product name	*Virginiamycin M1*	*Formula*	*$C_{28}H_{35}N_3O_7$*
Product Code	*VC*	*RTECS*	
CAS #	*21411-53-0*	*Molecular weight*	*525.6*
EC Number #	*244-376-6*	*Substance?Mixture?*	*Substance*
Synonyms	*Streptogramin A; Ostreogrycin A; Mikamycin A; Pristinamycin IIA; Virginiamycin Factor M1;*		
Date of version	*3 Dec, 2022*		

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

Intended use:	*Uses advised against:*
Research and development. *Laboratory reagent.* *Reference material.* *Manufacturing of substances.*	*Not for drug,* *Not to be used in humans or animals.* *Not food additive*

1.3. Contacts

Details of the Manufacturer		*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		

2. Hazards identification

2.1. Classification of the substance or mixture

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

Pictogram: {NONE} *Signal word: { NONE}*

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

GHS Hazard Statements

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

GHS Precautionary Statements

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

GHS Response Phrases

3. Composition/information on ingredients

Substance		
Substance name:	*Virginiamycin M1*	
Concentration	*100%*	
	*CAS Registry #:**21411-53-0*** *EC#:**244-376-6***	
	Molecular Formula: $C_{28}H_{35}N_3O_7$ *Molecular Weight: **525.6***	
Classification	*Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008*	
Mixture?	*Substance*	

4. First Aid Measures

4.1. Description of First Aid Measures

General advice:	*If medical attention is required, show this safety data sheet to the doctor.*
Eye contact:	*Flush eyes with water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.*
Skin Contact:	*Wash off with soap and plenty of water. Consult a physician.*

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Ingestion:	*Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink. Consult a physician.*
Inhalation:	*If inhalled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.*

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

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 (NOx), Sulphur 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

Personal precautions	*Use personal protective equipment as required. Keep people away from and upwind of spill/leak.*

6.2. Environmental precautions

Environmental precautions	*Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.*

6.3. Methods and material for containment and cleaning up

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.*

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.*

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.*

8. Exposure Controls/Personal Protection

8.1. Control 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 fumehood for routine work.*

8.3. Personal protective equipment

[PPE=Personal Protection Equipment]

	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.
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*
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 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

Physical State at room temperature	*Solid / powder*
Color	*White*
Melting/freezing point	*Decomposes at 246°C-256°C*
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 decomposition products	*Carbon oxides, Nitrous oxides, Sulfur oxides*

11. Toxicological information

11.1. Information on toxicological effects

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

Acute Toxicity	*LD50 Oral - Mouse - 2.1 gr/kg : (RTECS)*
Skin corrosion/irritation:	*No data available*
Serious eye damage/eye irritation:	*No data available*
Respiratory or skin sensitization/corrosion:	*No data available*
Germ cell mutagenicity:	*No data available*
Carcinogenicity:	*Group 3: Not classified as human carcinogen*

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Reproductive toxicity / Teratogenicity:	*No data available*
STOT-SE – single exposure (GHS):	*Respiratory tract irritation*
STOT-SE – repeated exposure (GHS):	*No data available*
Aspiration hazard:	*No data available*

12. Ecological Information

Eco-Toxicity	*No further relevant information available*
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

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	*Not hazardous for transport. (Virginiamycin M1)*	*Not hazardous for transport. (Virginiamycin M1)*	*Not hazardous for transport. (Virginiamycin M1)*	*Not hazardous for transport. (Virginiamycin M1)*
Transport Hazard Class & Packing Group	*Not regulated*	*Not regulated*	*Not regulated*	*Not regulated*

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 244-376-6* ANNEX III: ***Listed*** REACH: *Preregistered*
CA: DSL/NDSL Status	*This product is not listed on the Canadian DSL/NDSL*

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. Comments:

16.5. 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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16.7. End of SDS