



1. Identification of the Substance and of the Manufacturer

1.1. Product identifiers

Product name	A23187 Free Acid	Formula	C ₂₉ H ₃₇ N ₃ O ₆
Product Code	Ca	RTECS	DM4676000
CAS #	52665-69-7	Molecular weight	523.6
EC Number #	258-084-1	Substance? Mixture?	Substance
Synonyms	Calcimycin, Calcium Ionophore, Antibiotic A23187	Calimycin A23187	
Source	Streptomyces chartreusis	Date of version	28 November, 2022

1.2. Intended uses of the Substance and uses advised against

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 trained professionals only • For further processing 	<ul style="list-style-type: none"> • Not a drug, • Not food additive • Not to be used in humans or animals.

1.3. Details of the manufacturer	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	

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)

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}

2.2.1. GHS Hazard Statements

	None
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2.2.2. GHS Response Phrases

	None
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2.2.3. GHS Precautionary Statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash {hands} thoroughly after handling.



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P270	<i>Do not eat, drink, or smoke when using this product</i>
P301+P312	<i>IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.</i>
P330	<i>Rinse mouth</i>

2.3. Adverse Human Health Effects and Symptoms:

	<i>None known</i>
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2.4. Other hazards

2.4.1. Other hazards	<i>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.</i>
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3. Composition/information on ingredients

Substance	
Substance name:	<i>A23187 Free Acid</i>
Concentration	<i>100%</i>
CAS Registry#:	<i>52665-69-7</i>
EC#:	<i>258-084-1</i>
Molecular Formula:	<i>C₂₉H₃₇N₃O</i>
Molecular Weight:	<i>523.6</i>
Classification	<i>Not classifiable</i>
Mixture?	<i>Substance .</i>

4. First Aid Measures

4.1. Description of First Aid Measures

General advice:	<i>If medical attention is required, show this safety data sheet to the doctor/physician.</i>
Inhalation:	<i>If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.</i>
Ingestion:	<i>If swallowed, seek medical advice and show this document. Clean mouth with water</i>
Skin Contact:	<i>Seek medical attention if irritation or symptoms occur.</i>
Eye contact:	<i>Hold eyelids apart and flush eyes with plenty of wate.. Have eyes examined and tested by medical personnel.</i>

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

	<i>Unknown Not known</i>
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4.3. Indication of any immediate medical attention and special treatment needed

<i>Note to physicians</i>	<i>No information available</i>
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5. Fire-fighting measures

5.1. Extinguishing media

<i>5.1.1. Suitable extinguishing media</i>	<i>Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.</i>
<i>5.1.2. Unsuitable extinguishing media</i>	<i>Water stream may be ineffective</i>

5.2. Other information

<i>Hazardous combustion products</i>	<i>Carbon oxides</i>
<i>More information</i>	<i>None</i>
<i>Advice for firefighters</i>	<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

<i>Personal precautions</i>	<i>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.</i>
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6.2. Environmental precautions

<i>Environmental precautions</i>	<i>Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.</i>
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6.3. Methods and material for containment and cleaning up

<i>Methods for containment:</i>	<i>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.</i>
<i>Methods for cleaning up:</i>	<i>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.</i>

7. Handling and storage

7.1. Precautions for safe handling

<i>Advice on safe handling:</i>	<i>Avoid contact with skin, eyes, or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe</i>
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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

<i>Storage Conditions:</i>	<i>Keep container tightly closed in a dry and well-ventilated place. Store at -20 °C. Some other manufacturers may advice storing temperature 2-8 °C.</i>
<i>Suitable packaging</i>	
<i>Incompatible materials:</i>	<i>None known based on information available.</i>

8. Exposure Controls/Personal Protection

8.1. Control parameters

<i>Control parameters</i>	<i>No occupational exposure limits are listed for this material.</i>
<i>OSHA Permissible Exposure Limits</i>	<i>No Data Available</i>
<i>NIOSH Recommended Exposure Limits</i>	<i>No Data Available</i>
<i>ACGIH Threshold Limit Values</i>	<i>No Data Available</i>

8.2. Exposure controls

<i>Appropriate engineering controls</i>	<i>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.</i>
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8.3. Personal protective equipment

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



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<i>PPE: Skin and Body Protection:</i>	<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>
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9. Physical and chemical properties

9.1. Physical / chemical properties

<i>Physical State at room temperature</i>	<i>Solid / powder</i>
<i>Color</i>	<i>Off White powder</i>

No further safety relevant data are available

10. Stability and reactivity

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

11. Toxicological information

11.1. Information on toxicological effects

The toxicological effects of this product have not been thoroughly studied. No quantitative data regarding toxicity-by-ingestion or inhalation or dermal contact are available. Some authors consider this compound to be more toxic than the T-2 toxin.

<i>11.1.1. Acute Toxicity</i>	<i>LD50 Mouse, oral/dermal/by inhalation: : No data reported</i>
<i>11.1.2. Information on likely routes of exposure</i>	
<i>Skin corrosion/irritation:</i>	<i>No data available</i>
<i>Serious eye damage/eye irritation:</i>	<i>No data available</i>
<i>Respiratory or skin sensitization/corrosion:</i>	<i>No data available</i>



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11.1.3. CMR hazards (Carcinogenic, mutagenic, reprotoxic)

Mutagenicity	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
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

11.2. Additional information

11.2.1. RTECS number	DM4676000
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12. Ecological Information

Persistence and degradability	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.
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	IATA	IMDG	ADR/RID
UN Number UN proper shipping name	Not hazardous for transportation (A23187 Free Acid)	Not hazardous for transportation (A23187 Free Acid)	Not hazardous for transportation (A23187 Free Acid)	Not hazardous for transportation (A23187 Free Acid)



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Transport Hazard Class & Packing Group	Not regulated	Not regulated	Not regulated	Not regulated
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15. Regulatory information

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

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 on the EU ECHA, Number 258-084-1 REACH: Registered , ANNEX III: Listed.
Canada	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. Copyright statement



Fermentek_Ltd does not claim © copyright on this document.
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This sort of document is but a compendium of common knowledge, published facts, and even the writing style is standard.

16.6. Abbreviations and acronyms:

- Acute Tox.: Acute toxicity
- CAS: Chemical Abstracts Service (division of the American Chemical Society)



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- *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