



Safety Data Sheet: **A23187, 4-Bromo**

1. Identification of the Substance and of the Manufacturer

1.1. Product identifiers

Product name	A23187, 4-Bromo	Formula	C ₂₉ H ₃₆ BrN ₃ O ₆
Product Code	BROM	RTECS	Not listed
CAS #	76455-48-6	Molecular weight	602.52
EC Number #	634-762-6	Substance? Mixture?	Substance
Synonyms	<ul style="list-style-type: none"> •6-bromo-5-(methylamino)-2-[[[(2S,3R,5R,8R,9R)-3,5,9-trimethyl-2-[(2S)-1-oxo-1-(1H-pyrrol-2-yl)propan-2-yl]-1,7-dioxaspiro[5.5]undecan-8-yl)methyl]-1,3-benzoxazole-4-carboxylic acid •4-Bromo-calcium Ionophore A23187 		
Source	Synthetic	Date of version	12 December, 2022

1.2. Intended uses of the Substance and uses advised against

1.2.1. Intended use:	1.2.2. Uses advised against:
Research and development. Laboratory reagent. To be used by professionals only	Not for drug, Not to be used in humans or animals. Not food additive

1.3. Contacts

1.3.1. Details of the supplier of the SDS	1.3.2. 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

2.1.1. GHS Classification According to EU Reg. 1272/2008 and US OSHA 1910.1200)

Acute toxicity, Oral	Cat. 4	H302
Acute toxicity, Inhalation	Cat. 4	H332
Acute toxicity, Dermal	Cat. 4	H312
Skin irritation	Cat. 2	H315
Eye irritation	Cat. 2	H319
STOT SE - Respiratory system	Cat. 3	H335



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2.2. GHS Label elements, including precautionary statements

2.2.1. Pictogram: {  } Signal word: { **Warning** }

2.2.2. Hazard Statements

H302+H312+H332	Harmful if swallowed, in contact with skin or if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation

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.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash face, hands and any exposed skin thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

2.2.4. GHS Response Statements

P301+P312	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
P302+P352+P312	IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/doctor if you feel unwell.
P304+P340+P312	IF INHALED: Remove the person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

H302 Harmful if swallowed.

H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation

3. Composition/information on ingredients

Substance	
Substance name:	A23187, 4-Bromo
Concentration	<=100%
CAS Registry#:	76455-48-6
EC#:	634-762-6
Molecular Formula:	C ₂₉ H ₃₆ BrN ₃ O ₆
Molecular Weight:	602.52
Classification	Not classified
Mixture?	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H302, H332, H312, H315, H319, H335



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4. First Aid Measures

4.1. Description of First Aid Measures

General advice:	Immediate medical attention is required.
Eye contact:	Rinse out with plenty of water. Remove contact lenses
Skin Contact:	Take off immediately all contaminated clothing. Rinse skin with water/ shower.
Ingestion:	Drink water (two glasses at most). Consult a doctor if feeling unwell.
Inhalation:	Fresh air.

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

General symptoms	No data available
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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

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).
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.
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6.2. Environmental precautions

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

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.
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.
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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
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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.
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8.3. Personal protective equipment

<i>[PPE=Personal Protection Equipment]</i>	
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	Yellow
<i>No further safety relevant data are available</i>	

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 oxidizers



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Possibility of Hazardous Reactions	None under normal processing
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions.: Carbon oxides,

11. Toxicological information

11.1. Information on toxicological effects

To the best of our knowledge, the toxicological effects of this product have not been thoroughly studied yet.

11.1.1. Acute Toxicity

Oral toxicity estimate:	LD50 Oral 500 mg/kg
Inhalation toxicity estimate:	LC inhalation estimate 1.5 mg/liter, 4 hours
Serious eye damage	No data available
Respiratory or skin sensitization/corrosion:	No data available

11.1.2. CRM (Carcinogene, Mutagene, Reproductive hazards)

Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity / Teratogenicity:	No data available

11.2. Additional information

RTECS number	Not listed
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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 IATA	US IMDG	US ADR/RID
UN Number UN proper shipping name	Not dangerous for transport (A23187, 4-Bromo)	Not dangerous for transport (A23187, 4-Bromo)	Not dangerous for transport (A23187, 4-Bromo)	Not dangerous for transport (A23187, 4-Bromo)
Transport Hazard Class & Packing Group	Not regulated	Not regulated	Not regulated	Not regulated
Additional information			Not marine pollutant	



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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)
SARA 313	This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.
SARA 311/312 Hazard Categories	Acute health hazard: Yes
California Proposition 65	This product does not contain any Proposition 65 chemicals.
EU ECHA Status	This product is registered with the EU ECHA, Number 634-762-6 ANNEX III (criteria for 1 - 10 tonne registered substances): Not Listed REACH: Not listed

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



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Skin Irrit: Skin corrosion/irritation
STOT RE: Specific target organ toxicity (repeated exposure)
TLV: Threshold Limit Value
vPvB: very Persistent and very Bioaccumulative

16.5. No-Copyright statement



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16.6. End of SDS