


Safety Data Sheet:

Aloe-emodin

1. Identification of the Substance and the Manufacturer

1.1. Product identifiers

Product name	Aloe-emodin	Formula	C ₁₅ H ₁₀ O ₅
Product Code	AEM	RTECS	CB6712200
CAS #	481-72-1	Molecular weight	270.24 g/mol
ECHA#	207-571-7	Substance? Mixture?	Substance
Synonyms	<ul style="list-style-type: none"> • Aloe-emodin • Anthraquinone, 1,8-dihydroxy-3-hydroxymethyl- (chemical name) • Rhabarberone • 9,10-Anthracenedione, 1,8-dihydroxy-3-(hydroxymethyl)- • 1,8-Dihydroxy-3-(hydroxymethyl)-9,10-anthracenedione • 1,8-Dihydroxy-3-hydroxymethylanthraquinone • 3-Hydroxymethylchrysazin 		
Source	Aloe Vera	Version Date	1 February, 2023

1.2. Intended uses of the Substance and uses advised against

1.2.1. Intended use: Research and development. Laboratory reagent. Reference material. Manufacturing of substances. To be used by professionals only	1.2.2. Uses advised against: Not a drug, Not a food additive Not to be used in humans or animals.
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1.3. Contacts

1.3.1. Details of the supplier of the SDS	
FERMENTEK ltd 4 Yatziv street, POB 47120 Jerusalem 97800, Israel	Tel: +972 2 5853953 Fax: +972 2 5853943 eMail: Fermentek@Fermentek.com Safety@Fermentek.com Website: Fermentek.com

This company is the manufacturer of the product and the supplier of the safety data sheet

1.3.2. 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


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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)

Skin Irritation	Cat.2	H315	Causes skin irritation
Eye Irritation	Cat.2	H319	Causes serious eye irritation
STOT/SE Respiration tract irritation	Cat.3	H335	May cause respiratory irritation

2.2. GHS Label elements, including precautionary statements.

2.2.1. Pictogram:  Signal word: {Warning}

2.2.2. Hazard Statements

H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

2.2.3. GHS Precautionary Statements

P203	Obtain, read and follow all safety instructions before use.
P261	Avoid breathing dust or mist.
P264	Wash {hands} thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection

2.2.4. GHS Response Phrases:

P302+P352: IF ON SKIN: wash with plenty of water

P332+P317: IF SKIN IRRITATION OCCURS: Get medical help.

P362+P364: Take off contaminated clothing and wash it before reuse.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P337+P317: If eye irritation persists: Get medical help.

P304+P340 IF INHALED: Get medical help.

P319: Get medical help if you feel unwell.

3. Composition/information on ingredients

Substance	
Substance Name:	Aloe-emodin
Concentration	<=100%
CAS Registry#:	481-72-1
EC#:	207-571-7
Molecular Formula:	C ₁₅ H ₁₀ O ₅
Molecular Weight:	270.24 g/mol
Classification	Irrit 2 (H315,H319,H335)


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<i>Mixture?</i>	<i>Substance</i>
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4. First Aid Measures

4.1. Description of First Aid Measures

<i>General advice:</i>	<i>First-aiders need to protect themselves. If medical attention is required, show this safety data sheet to the doctor in attendance.</i>
<i>Eye contact:</i>	<i>Rinse out with plenty of water. Remove contact lenses.</i>
<i>Skin Contact:</i>	<i>In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.</i>
<i>Ingestion:</i>	<i>If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.</i>
<i>Inhalation:</i>	<i>If inhaled, move the person into fresh air.</i>

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

<i>General symptoms</i>	<i>None 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 data available</i>
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5. Fire-fighting measures

5.1. Extinguishing media

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

5.2. Other information

<i>Hazardous combustion products</i>	<i>Carbon oxides,</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>Use personal protective equipment as required. 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 the powder spill with a plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.</i>
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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 the powder spill with a 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 fume-hood for routine work.

8.3. Personal protective equipment

[PPE=Personal Protection Equipment]

PPE: 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).

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)


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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

<i>Physical State at room temperature</i>	<i>Solid</i>
<i>Appearance</i>	<i>Powder, White</i>
<i>No further safety relevant data are available</i>	

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 combustion products</i>	<i>See section 5</i>

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

<i>Acute toxicity:</i>	<i>No Acute toxicity relevant data available</i>
<i>Skin corrosion/irritation:</i>	<i>Yes</i>
<i>Serious eye damage/eye irritation:</i>	<i>Yes</i>
<i>Respiratory or skin sensitization/corrosion:</i>	<i>Yes</i>

11.1.2. Chronic toxicity

<i>Chronic toxicity</i>	<i>No data available</i>
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11.1.3. CRM (Carcinogene, Mutagene, Reproductive hazards)

<i>Germ cell mutagenicity:</i>	<i>EPA GENETOX PROGRAM 1988, Weakly Positive: Histidine reversion-Ames test (RTECS November, 2022)</i>
<i>Carcinogenicity:</i>	<i>No data available</i>


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Reproductive toxicity / Teratogenicity:	No data available
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11.2. Additional information

RTECS number	CB6712200
General symptoms	

12. Ecological Information

Eco-Toxicity	No data available
Other adverse effects	No data available

13. Disposal Considerations
13.1. Waste treatment methods

Waste Disposal	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

Not classified as dangerous in the meaning of transport regulations.

	US DOT	ADR/RID	IATA	IMDG
UN Number UN proper shipping name	Not dangerous goods (Aloe-emodin)	Not dangerous goods (Aloe-emodin)	Not dangerous goods (Aloe-emodin)	Not dangerous goods (Aloe-emodin) Not marine pollutant
Transport Hazard Class & Packing Group	Not dangerous goods (Aloe-emodin)	Not dangerous goods (Aloe-emodin)	Not dangerous goods (Aloe-emodin)	Not dangerous goods (Aloe-emodin)

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 207-571-7 REACH: PreRegistered ANNEX III (criteria for 1 - 10 tonne registered substances): Listed Reasons for listing: <ol style="list-style-type: none"> a. Suspected carcinogen b. Suspected hazardous to the aquatic environment. c. Suspected mutagen d. Suspected persistent in the environment



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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 proces, unless specified in the text.

16.3. The users'/employers' responsibility:

A risk assessment should be performed by the employer/user prior to the 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. No-Copyright statement

Fermentek does not claim © copyright on this document.

Fermentek believes that no one can claim copyright on an SDS.

This sort of document is but a compendium of common knowledge and published facts.

Fermentek explicitly releases this document into the public domain.

16.5. Abbreviations and acronyms:

Acute Tox.:	Acute toxicity	NDG	Not dangerous goods (for transport)
CAS:	Chemical Abstracts Service	NFPA:	National Fire Protection Association USA
DOT:	US Department of Transportation	NIOSH:	National Institute for Occupational Safety
EINECS:	European Inventory of Existing Commercial Chemical Substances	OSHA:	Occupational Safety & Health
Eye Dam.:	Serious eye damage/eye irritation	PBT:	Persistent, Bioaccumulative, and Toxic
HSDB	Hazardous Substances Data Bank	PEL:	Permissible Exposure Limit
HMIS:	Hazardous Materials Identification System (USA)	REL:	Recommended Exposure Limit
IATA:	International Air Transport Association	Repr.:	Reproductive toxicity
IMDG:	International Maritime Code for Dangerous Goods	RTECS:	Registry of Toxic Effects of Chemical Substances
LC50:	Lethal concentration, Median	Skin Irrit:	Skin corrosion/irritation
LD50:	Lethal dose median	STOT/SE	Specific target organs toxicity / single exposure
LD50:	Lethal dose, Median	STOT/RE	Specific target organs toxicity / repeated exposure
		TDL0	Toxic dose, least published

16.6. End of SDS