

Safety Data Sheet: Okadaic acid

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

Product identifiers			
Product name	Okadaic acid	Formula	C₄₄H₆₈O₁₃
Product Code	OA	RTECS	AA8227800
CAS #	78111-17-8	Molecular weight	805
EC Number #	616-589-8		
Intended uses of the substance or mixture and uses advised against			
Intended use		Uses advised against:	
Only for Research and/or Development		Not for drug, Not to be used in humans or animals. Not food additive	
Details of the supplier of the safety data sheet		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			
Reach: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.			

Section 2. Hazards identification

Classification of the substance or mixture

GHS Classification:

Acute toxicity - Oral	Category 3	H301	Toxic if swallowed
Acute toxicity - Inhalation	Category 3	H331	Toxic if inhaled
Acute toxicity - Dermal	Category 3	H311	Toxic if in contact with skin
Skin irritation -	Category 2	H315	Causes skin irritation

GHS Label elements, including precautionary statements

Signal word: **{danger}** Pictogram: { }

Hazard statements

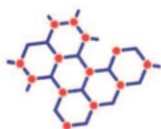
H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled
 H315 Causes skin irritation

Precautionary statements

P280 Wear protective gloves/ protective clothing
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water
 P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician

Section 3. Composition/information on ingredients

Substance	
Substance name:	Okadaic acid



	CAS Registry #: 78111-17-8	EC#: 616-589-8
	Molecular Formula: C₄₄H₆₈O₁₃ ; Molecular weight 805	
	Concentration: ≤ 100%	
	Acute toxicity - Oral, Category 3, H301 Toxic if swallowed	
	Acute toxicity - Inhalation Category 3, H331 Toxic if in contact with skin	
	Acute toxicity - Dermal Category 2, H311 Toxic if inhaled	
	Skin irritation - Category 2, H315, Causes skin irritation	
Mixture:	Not mixture.	

Section 4. *First Aid Measures*

Description of First Aid Measures

General advice:	First aider needs to protect himself.
Self-protection of the first aider:	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.
Inhalation:	Immediate medical attention is required. If breathing stops, immediately apply artificial respiration, if necessary also oxygen. Call a physician immediately.
Eye contact:	Wash with plenty of water.
Skin Contact:	Take off immediately all contaminated clothing. Rinse skin with soap and water or shower. Call a physician immediately.
Ingestion:	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.

Section 5. *Fire-fighting measures*

Extinguishing media

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	None
Hazardous combustion products	Carbon oxides, Nitrogen oxides.
Advice for firefighters	Wear self-contained breathing apparatus for fire fighting if necessary. Wear protective suit.

Section 6. *Accidental release measures*

Personal precautions, protective equipment and emergency procedures

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

Environmental precautions

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

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: 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.



Section 7. Handling and storage

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.

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, Protect from sunlight. Protect from moisture

Incompatible materials: None known based on information available.

Section 8. Exposure Controls/Personal Protection

No occupational exposure limits are listed for this material.

OSHA Permissible Exposure Limits	No Data Available
NIOSH Recommended Exposure Limits	No Data Available
ACGIH Threshold Limit Values	No Data Available

Exposure controls

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

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.

Personal protective 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.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

[PPE=Personal Protection Equipment]

PPE Eye/face protection	Wear safety glasses with side shields (or goggles).
PPE Skin and Body Protection	Wear protective gloves and protective clothing.
PPE Respiratory Protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Section 9. Physical and chemical properties

Physical / chemical properties

Physical State at room temperature	Solid / powder
Color	White
Melting/freezing point	185°C -195°C
No further safety relevant data are available	



Section 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
Possibility of Hazardous Reactions	None under normal processing
Hazardous decomposition products:	Carbon oxides, Nitrogen oxides

Section 11. Toxicological information

Information on toxicological effects

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

Acute Toxicity	
Ingestion	Estimated LD50 oral, 100 mg/kg,
Inhalation	Estimated LC50 Inhal, 0.6 mg/l; 4 h; dust/mist;
Serious eye damage/eye irritation:	No data available
Skin corrosion/irritation:	No data available
Respiratory or skin sensitization:	No data available
Germ cell mutagenicity:	No data available
Reproductive toxicity / Teratogenicity:	No data available
Aspiration hazard:	No data available
Additional information:	RTECS: AA8227800

Section 12. Ecological Information

Toxicity	No data available
PBT and vPvB assessment	No data available
Environmental hazards	This product is not classified as environmentally hazardous according to the UN Model Regulations, nor a marine pollutant according to the IMDG Code.

Section 13. Disposal Considerations

Waste treatment methods	
Waste from residues / unused products	Dispose of in accordance with local regulations
Contaminated packaging	Dispose of as unused product

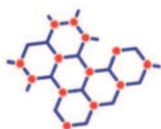
Section 14. Transport information

UN number, Proper Shipping Name, Transport Hazard Class, packing group

	US DOT	ADR/RID:	IMDG:	IATA
UN Number	UN 3462	UN 3462	UN 3462	UN 3462
UN proper shipping name	Toxins extracted from living sources, n.o.s. (Okadaic acid)	Toxins extracted from living sources, n.o.s. (Okadaic acid)	Toxins extracted from living sources, n.o.s. (Okadaic acid)	Toxins extracted from living sources, n.o.s. (Okadaic acid)
Transport Hazard Class & Packing Group	6.1 Pg III	6.1 Pg III	6.1 Pg III	6.1 Pg III

Section 15. Regulatory information

Safety, health and environmental regulations/legislation	
USA EPA / TSCA	This product is not listed on the USA EPA TSCA



EU ECHA Status	This product is not registered with the EU ECHA
CA: DSL/NDSL Status	This product is not listed on the Canadian DSL/NDSL
Chemical safety assessment	Chemical safety assessment has not been made for this product

Section 16. *Other information*

Date of revision: 28 May 2017

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.

This material must only be handled by suitably qualified experienced scientists in appropriately equipped and authorized facilities. The absence of warning must not, under any circumstance, be taken to mean that no hazard exists.

End of SDS

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