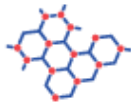


MSDS- Material Safety Data Sheet for: Resiniferatoxin

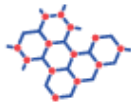
MSDS- Material Safety Data Sheet for: Resiniferatoxin

Section 1. Product and Company Information	
Name:	Resiniferatoxin
CAS Number:	57444-62-9
Catalog Code:	RS
Synonyms	TRX, Reciniferatoxin
Company Identification	Fermentek Ltd, Yatziv 4 st, Atarot industrial zone, Jerusalem Israel 97800. POB 47120 Tel.+97225853953 Fax.+97225853943 Fermentek@fermentek.com
Section 2. Composition/Information on Ingredient	
EINECS	not listed
Chemical Formula:	C37H40O9
Chemical Class:	Diterpene class antibiotic; capsaicin analog
RTECS#:	CY1633700
Section 3. Hazards Identification	
Emergency overview	Toxic if swallowed. Causes severe burns. Lachrymator. Vesicant. Target organ(s): Peripheral nervous system, Central nervous system, skin
HMIS rating	HEALTH: 3 FLAMMABILITY: 0 REACTIVITY: 0
NFPA rating	HEALTH: 3 FLAMMABILITY: 0 REACTIVITY: 0
Section 4. First Aid Measures	
Eye Contact	Check for and remove contact lenses. Flush eyes with running water for at least 15 minutes separating eyelids. Seek medical attention immediately.
Skin Contact	Wash with soap and water for 15 minutes. Remove contaminated clothing and shoes. Seek medical attention immediately
Inhalation	Remove from exposure. If breathing is difficult, administer oxygen. If breathing stops, administer artificial respiration. Seek medical attention immediately. Provide chemical label and MSDS if possible.
Ingestion	Remove dentures and clear mouth. If person is conscious, rinse mouth with water Call physician or poison control immediately. Provide chemical label and MSDS information if possible.
Section 5. Fire and Explosion Data	
Flammability	Not Available
Flash Point	Not Available



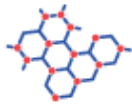
MSDS- Material Safety Data Sheet for: Resiniferatoxin

Combustion Products	CO, CO ₂ , NO, NO ₂ ,
Extinguishing Media	Carbon Dioxide, Dry chemical powder, polymer foam, water spray
Special Fire-fighting Procedures	Use self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Unusual Fire Explosion Hazards	None known
Section 6 - Accidental Release Measures	
Cleanup Procedures	Wearing appropriate protective gear as outlined under "Protective equipment" wipe up spill and place in sealed container and hold for disposal. Avoid raising dust. Ventilate the area and wash spill site after material has been removed
Waste Disposal Method	Observe all Federal, State and Local regulations concerning the disposal of this product. Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete
Section 7 - Handling and Storage	
Protective Equipment	For spill clean-up, wear suitable protective clothing, chemical resistant rubber gloves, rubber boots, and chemical safety goggles. Self-contained breathing apparatus or NIOSH/MSHA approved respirator is recommended.
Storage and Handling	It should be kept in a tightly closed container. This product should be handled only by qualified experienced professionals. Wash thoroughly after handling this material Store at -18oC
Section 8 - Exposure Controls / Personal protection	
General	Use only in a chemical fume hood. Safety shower and eye bath. Use adequate ventilation to keep airborne concentrations low
Personal protective equipment	Respiratory: Government approved respirator. Hand: Compatible chemical-resistant gloves. Eye: Chemical safety goggles.
Section 9. Physical Data	
Appearance	white crystalline powder Odour: Pungent
Molecular Weight	628.7
Melting	175°C-185°C
Solubility	DMSO, Ethanol, petrol ether. Not soluble in water
Section 10. Stability and Reactivity Data	
Stability	This material is stable if stored as directed
Conditions to Avoid	Excess heat, incompatible materials, strong oxidizers
Incompatibles	Reactive with oxidizing agents, acids, alkalis.
Hazardous polymerization	Will not occur
Section 11 - Toxicological Information	
RTECS#:	CY1633700



MSDS- Material Safety Data Sheet for: Resiniferatoxin

Route of exposure	<p>Skin Contact: Causes burns. Potent vesicant. Skin Absorption: May be harmful if absorbed through the skin. Eye Contact: Causes burns. Lachrymator. Inhalation: May be harmful if inhaled. Material is destructive to mucous membranes. Ingestion: Toxic if swallowed. May cause gastrointestinal tract irritation with nausea, vomiting</p>
Target systems	nervous system
Symptoms	<p>Resiniferatoxin is one of the most inflammatory compounds found in nature. The first symptoms of irritation may appear about 2 hours after exposure. Symptoms may completely disappear after 24 hours. No after effects are known. Symptoms may be delayed. Exposure can cause pain or burning sensation at the site of contact. Exposure can cause numbness, tingling, and weakness in extremities, skin rash.</p> <p>The toxicological properties of this substance have not been fully investigated</p>
Toxicity data	Not available
Section 12 - Ecological Data	
Eco toxicological Information:	None Available
Section 13 - Disposal Considerations	
Appropriate method of disposal of substance or preparation	Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
Section 14 - Transport Information	
	<p>UN number: 2811 DOT: Toxic solid, organic, n.o.s. (Resiniferatoxin), Class: 6.1, Packing group: III IMDG: Toxic solid, organic, n.o.s. (Resiniferatoxin), Class: 6.1, Packing group: III IATA: Toxic solid, organic, n.o.s. (Resiniferatoxin), Class: 6.1, Packing group: III</p>
Section 15-Regulatory Information	
European information	<p>Hazard Symbols: XI,T Risk Phrases: 23-25,33-35 23:Toxic by inhalation 24:Toxic in contact with skin 25:Toxic if swallowed 33:Danger of cumulative effects 34:Causes burns 35:Causes severe burns Safety Phrases: 26-36/37/39-45</p>
US classification	<p>Indication of Danger: Toxic. Risk Statements: Toxic if swallowed. Causes severe burns. Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). US Statements: Lachrymator. Vesicant. Target organ (s): Peripheral nervous system. Central nervous system.</p>



MSDS- Material Safety Data Sheet for: Resiniferatoxin

Section 16 -Other Information

Warranty

DISCLAIMER

For R&D and manufacturing use only. Not for drug, household or other uses. For use only by trained personnel.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. The burden of safe use of this material rests entirely with the user. FERMENTEK shall not be held liable or any damage resulting from handling or from contact with the above product.

Review: *MGur*