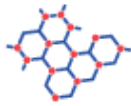


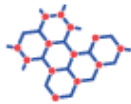
## MSDS- Material Safety Data Sheet for: **Thiostrepton A**

	<b><u>Section 1. Product and Company Information</u></b>
<b>Name:</b>	Thiostrepton
<b>CAS Number:</b>	1393-48-2
<b>Catalog Code:</b>	TS
<b>Synonyms</b>	Alaninamide, Bryamycin , Thiactin
<b>Company Identification</b>	<b>Fermentek Ltd,</b> Yatziv 4 st, Atarot industrial zone, Jerusalem Israel 97800. POB 47120 Tel. +97225853953 Fax. +97225853943 Fermentek@fermentek.com
	<b><u>Section 2. Composition/Information on Ingredient</u></b>
<b>Chemical Formula:</b>	C <sub>72</sub> H <sub>85</sub> N <sub>19</sub> O <sub>18</sub> S <sub>5</sub>
<b>Chemical Class:</b>	Natural oligopeptide antibiotic
<b>RTECS</b>	XN6300100
	<b><u>Section 3. Hazards Identification</u></b>
<b>Emergency overview</b>	May be harmful if swallowed.
<b>HMIS rating</b>	health: 1; Flammability: 1; Reactivity: 0 Personal protection;
	<b><u>Section 4. First Aid Measures</u></b>
<b>Eye Contact</b>	Check for and remove contact lenses. Flush eyes with running water for at least 15 minutes separating eyelids. Seek medical attention immediately.
<b>Skin Contact</b>	Wash with soap and water for 15 minutes. Remove contaminated clothing and shoes. Seek medical attention immediately
<b>Inhalation</b>	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.
<b>Ingestion</b>	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.
	<b><u>Section 5. Fire and Explosion Data</u></b>
<b>Flammability</b>	May be combustible at high temperature.
<b>Flash Point</b>	Not Available
<b>Combustion Products</b>	CO, CO <sub>2</sub> , NO,NO <sub>2</sub> ,
<b>Firefighting Procedures</b>	Use self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
<b>Unusual Fire Hazards</b>	None known
	<b><u>Section 6 - Accidental Release Measures</u></b>
<b>Clean-up Procedures</b>	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
<b>Waste Disposal Method</b>	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



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	<b><i>Section 7 - Handling and Storage</i></b>																		
<b>Protective Equipment</b>	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.																		
<b>Storage and Handling</b>	This product should be kept in a tightly closed container. This product should be handled only by qualified experienced professionals. Wash thoroughly after handling this material Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 8°C																		
	<b><i>Section 8 - Exposure Controls / Personal protection</i></b>																		
<b>General</b>	Use only in a chemical fume hood. Safety shower and eye bath. Use adequate ventilation to keep airborne concentrations low																		
<b>Personal protective equipment</b>	Respiratory: Government approved respirator. Hand: Compatible chemical-resistant gloves. Eye: Chemical safety goggles.																		
	<b><i>Section 9. Physical Data</i></b>																		
<b>Appearance</b>	white to off white powder																		
<b>Molecular Weight</b>	1664.8																		
<b>Melting</b>	decomposes at 246-256°C																		
<b>Solubility</b>	chloroform, dichloromethane, dioxane, pyridine, glacial acetic acid, DMF																		
	<b><i>Section 10. Stability and Reactivity Data</i></b>																		
<b>Stability</b>	This material is stable if stored as directed																		
<b>Conditions to Avoid</b>	Excess heat, incompatible materials, strong oxidizers, direct light																		
<b>Incompatibles</b>	Reactive with oxidizing agents, acids, alkalis.																		
<b>Hazardous polymerization</b>	Will not occur																		
	<b><i>Section 11 - Toxicological Information</i></b>																		
<b>RTECS#:</b>	XN6300100																		
<b>Route of exposure</b>	Skin contact: Not known. Ingestion: may be harmful if swallowed.																		
<b>Chronic toxicity</b>	Repeated or prolonged exposure is not known to aggravate medical condition																		
	Carcinogenic effects: Not available Mutagenic effects: Not available Reproduction toxicity: Not available Teratogenic effects: Not available To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. No specific information is available in our database regarding the other toxic effects of this material for humans																		
<b>Toxity data</b>	<table border="1"> <thead> <tr> <th>Orga-nism</th> <th>Route</th> <th>LD50</th> <th>Source</th> </tr> </thead> <tbody> <tr> <td>mouse</td> <td>intra-muscular</td> <td>1000mg/kg</td> <td>"CRC Handbook of Antibiotic Compounds," Vols.1- , Berdy, J., Boca Raton, FL, CRC Press, 1980Vol. 4(1), Pg. 397, 1980.</td> </tr> <tr> <td>mouse</td> <td>intra-peritoneal</td> <td>2000mg/kg</td> <td>"CRC Handbook of Antibiotic Compounds," Vols.1- , Berdy, J., Boca Raton, FL, CRC Press, 1980Vol. 4(1), Pg. 396, 1980.</td> </tr> <tr> <td>mouse</td> <td>oral</td> <td>1000mg/kg</td> <td>Antibiotics and Chemotherapy Vol. 6, Pg. 63, 1956.</td> </tr> </tbody> </table>			Orga-nism	Route	LD50	Source	mouse	intra-muscular	1000mg/kg	"CRC Handbook of Antibiotic Compounds," Vols.1- , Berdy, J., Boca Raton, FL, CRC Press, 1980Vol. 4(1), Pg. 397, 1980.	mouse	intra-peritoneal	2000mg/kg	"CRC Handbook of Antibiotic Compounds," Vols.1- , Berdy, J., Boca Raton, FL, CRC Press, 1980Vol. 4(1), Pg. 396, 1980.	mouse	oral	1000mg/kg	Antibiotics and Chemotherapy Vol. 6, Pg. 63, 1956.
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	<b><i>Section 12 - Ecological Data</i></b>																		
<b>Ecotoxicological Information:</b>	None Available																		
	<b><i>Section 13 - Disposal Considerations</i></b>																		



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<b>Appropriate method of disposal of substance or preparation</b>	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.
<b><u>Section 14 - Transport Information</u></b>	
<b>US DOT</b>	Non-hazardous for transport
<b>IATA</b>	Not controlled under IATA.
<b><u>Section 15-Regulatory Information</u></b>	
<b>USA classification</b>	<ul style="list-style-type: none"> <li>• Label text indication of danger: harmful.</li> <li>• Risk statements: harmful if swallowed.</li> <li>• Safety statements: wear suitable protective clothing.</li> </ul>
<b>USA regulatory information</b>	SARA not listed TSCA not listed
<b>EU additional classification</b>	This product is not classified according to the EU regulations.

<b><u>Section 16 -Other Information</u></b>	
<b>Disclaimer</b>	For R&D use only. Not for drug, household or other uses
<b>Warranty</b>	<p>DISCLAIMER</p> <p>For R&amp;D 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.</p>
<b>Review:</b>	19.November.2015 MGur