




## MSDS- Material Safety Data Sheet for: FK506

<i>Section 1. Product and Company Information</i>									
<b>Company identification</b>	<b>FERMENTEK</b> 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								
<b>Product Name:</b>	FK506								
<b>Catalog Code:</b>	FK								
<b>Intended Uses and Uses advised against</b>	For research only. Not for drug. Not for human use.								
<b>Synonyms</b>	Tacrolimus								
	Molecular Weight: 804.03 Molecular Formula: C <sub>44</sub> H <sub>69</sub> NO <sub>12</sub>								
<i>Section 3. Composition/Information on Ingredient</i>									
<b>EINECS/ELINCS</b>	NA								
<b>Chemical Formula:</b>	C <sub>44</sub> H <sub>69</sub> NO <sub>12</sub>								
<b>RTECS</b>	KD4200000								
<b>CAS Number:</b>	104987-11-3								
	Molecular Weight: 804.03 Molecular Formula: C <sub>44</sub> H <sub>69</sub> NO <sub>12</sub>								
<i>Section 2. Hazards Identification</i>									
<b>Emergency Overview</b>	Hazard Description: potent immunosuppressant; may cause irritation to eyes, skin, mucous membranes  <b>OSHA Hazards</b> Target Organ Effect, Toxic by ingestion Target Organ Immune system <b>Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP] and GHS</b> Acute toxicity, Oral (Category 3) <b>Classification according to EU Directives 67/548/EEC or 1999/45/EC</b> Toxic if swallowed. <b>Labelling according Regulation (EC) No 1272/2008 [CLP] and GHS</b>   <b>Signal word</b> Danger <b>Hazard statement</b> H301 Toxic if swallowed. <b>Precautionary statement(s)</b> P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><b>NFPA Rating</b></td> <td style="text-align: center;">Health Hazard <b>2</b></td> <td style="text-align: center;">Fire <b>0</b></td> <td style="text-align: center;">Reactivity Hazard <b>0</b></td> </tr> <tr> <td style="text-align: center;"><b>HMIS Classification</b></td> <td style="text-align: center;">Health Hazard <b>2</b></td> <td style="text-align: center;">Flammability Hazard <b>0</b></td> <td style="text-align: center;">Reactivity Hazard <b>0</b></td> </tr> </table>	<b>NFPA Rating</b>	Health Hazard <b>2</b>	Fire <b>0</b>	Reactivity Hazard <b>0</b>	<b>HMIS Classification</b>	Health Hazard <b>2</b>	Flammability Hazard <b>0</b>	Reactivity Hazard <b>0</b>
<b>NFPA Rating</b>	Health Hazard <b>2</b>	Fire <b>0</b>	Reactivity Hazard <b>0</b>						
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	<p>According to European Directive 67/548/EEC as amended.</p>  <p><b>Hazard symbol(s):</b> T - Toxique</p> <p><b>R-phrases(s)</b>                  R25 Toxic if swallowed.</p> <p><b>S-phrases(s)</b>                  S45 In case of accident or if you feel unwell, seek medical advice immediately.</p>
	<b>Section 3. Composition/Information on Ingredient</b>
<b>Name</b>	FK506
<b>EINECS/ELINCS</b>	NA
<b>Chemical Formula:</b>	C44H69NO12
<b>RTECS</b>	KD4200000
<b>CAS Number:</b>	104987-11-3
	Molecular Weight: 804.03 Molecular Formula: C44H69NO12
<b>Concentration</b>	100%
	<b>Section 4. First Aid Measures</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>Section 5. Fire and Explosion Data</b>
<b>Flammability</b>	Not Available
<b>Flash Point</b>	Not Available
<b>Combustion products</b>	CO, CO2, NO,NO2,
<b>Extinguishing Media</b>	Carbon Dioxide, Dry chemical powder, polymer foam, water spray
<b>Firefighting</b>	Use self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
<b>Fire/Explosion Hazards</b>	None known
	<b>Section 6 - Accidental Release Measures</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.



	<i>Section 7 - Handling and Storage</i>
<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 stored in a freezer, -22oC to -16oC; . 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
	<i>Section 8 - Exposure Controls / Personal protection</i>
<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>	<b>Respiratory:</b> Routinely, not required. If protection from dust is needed, type N95 (US) or type P1 (EN 143) dust masks may be used. <b>Hand:</b> Compatible chemical-resistant gloves. <b>Eye:</b> Safety glasses. <b>Hygiene measures:</b> General industrial hygiene practice.
	<i>Section 9. Physical and Chemical Data</i>
<b>Appearance</b>	White to off white powder or solid
<b>Molecular Weight</b>	804.03
<b>Solubility</b>	Soluble in DMSO or methanol. Not soluble in water
	<i>Section 10. Stability and Reactivity Data</i>
<b>Stability</b>	This material is stable if stored as directed.
<b>Conditions to Avoid</b>	Excess heat, incompatible materials, strong oxidizers
<b>Incompatibles</b>	Reactive with oxidizing agents, acids, alkalis.
<b>Hazardous polymerization</b>	Will not occur
	<i>Section 11 - Toxicological Information</i>
<b>RTECS#:</b>	KD4200000
<b>Acute toxicity:</b>	Rat, Oral, LD50=134 mg/kg
	<i>Section 12 - Ecological Data</i>
<b>Ecotoxicological Information:</b>	None Available
	<i>Section 13 - Disposal Considerations</i>
<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.



	<i>Section 14 - Transport Information</i>
<b>US DOT</b> <b>IATA</b> <b>ADR/RID</b> <b>IMDG:</b>	<b>Proper Shipping Name:</b> Toxic solids, organic, n.o.s. (FK506) UN#: 2811 Class: 6.1 Packing Group: III <b>Marine Pollutant:</b> No <b>Poison Inhalation Hazard:</b> No <b>Technical Name:</b> Required <b>Marine Pollutant:</b> No
	<i>Section 15-Regulatory Information</i>
	<b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b> no data available <b>15.2 Chemical Safety Assessment</b> no data available <b>OSHA Hazards</b> Target Organ Effect, Toxic by ingestion. Target Organ: Immune system <b>SARA 302 Component:</b> None of the ingredients are listed. <b>SARA 313 Component:</b> None of the ingredients are listed. <b>SARA 311/312 Hazards:</b> Acute Health Hazard, Chronic Health Hazard
	<b>California Prop. 65 Components</b> This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.
	<i>Section 16 -Other Information</i>
<b>Warranty</b>	For R&D use only. Not for drug, household or other uses. For use only by trained personnel.
<b>Disclaimer</b>	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.

### *Section 3. Composition/Information on Ingredient*

<b>EINECS/ELINCS</b>	NA
<b>Chemical Formula:</b>	C44H69NO12
<b>RTECS</b>	KD4200000
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