



**BioPher (Pty) Ltd**  
 5 Ednau Small Holdings  
 Abrahamskraal Road  
 Mooiwater  
 Bloemfontein, 9338  
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 E-mail: mail@anngro.com  
 Company reg. no.: 2008/013129/07



**BioPher™**

SECTION 1	PRODUCT			
Identity: ANNGRO® (adjuvant)				
Manufactur	BioPher (Pty) Ltd			
Address:	P.O. Box 38910 Langenhoven Park Bloemfontein 9330		Tel:	+ 27 (0) 51 451 9053
			Fax:	086 584 5659
Web:	www.anngro.com		Email	mail@anngro.com
SECTION 2	INGREDIENTS INFORMATION			
CAS No.	Significant Ingredients	g/l or %	OSHA PEL	ACGIH TLV
-	Fatty acid ethyl esters	25 g/l	-	-
	Water	to 1 litre		
SECTION 3	HAZARDS IDENTIFICATION			
<b>EMERGENCY OVERVIEW: Generally regarded as safe in pharmaceutical or food sector</b>				
Not known to cause eye, skin or respiratory tract irritation. The ingredients are used in several topical pharmaceutical products.				
<b>Target</b>	Possibly the liver	<b>Eye:</b>	Not an irritant, not harmful	
<b>Ingestion:</b>	Unlikely to cause harm	<b>Skin:</b>	Not an irritant, not harmful	
<b>Inhalation:</b>	Not harmful.	<b>Chronic:</b>	Laboratory experiments showed product to have no genotoxic or mutagenic effects. Sub-chronic exposure did not result in adverse effects in mice or rats. No adverse reproductive effects have been reported in mice or rats or human cells.	



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<b>SECTION 4</b>	<b>FIRST AID MEASURES</b>		
<b>Eyes:</b>	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.		
<b>Skin:</b>	No harmful effect on skin. Medical aid required only if unexpected irritation develops or persists.		
<b>Ingestion:</b>	Do not induce vomiting. Get medical aid if irritation or symptoms occur.		
<b>Inhalation:</b>	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.		
<b>Notes to Physician:</b> Treat symptomatically and supportively.			
<b>SECTION 5</b>	<b>FIRE AND EXPLOSION HAZARD DATA</b>		
Flash Point (Method Used):	non-flammable	Flammable Limits:	no information
Extinguishing Media:	water spray, CO <sub>2</sub> , dry chemical (ABC), alcohol foam	LEL:	no information
		UEL:	no information
Special Fire Fighting Procedures:	As in any fire conditions, wear full protective clothing and a NIOSH-approved self-contained breathing apparatus. Use flooding amounts of water in early stages of fire.		
Unusual Fire and Explosion Hazards:	As with most fluids containing an organic phase, fire is unlikely but possible at elevated temperatures.		
<b>SECTION 6</b>	<b>ACCIDENTAL RELEASE MEASURES</b>		
<b>General:</b>	Use proper personal protective equipment as indicated in Section 8. Not harmful		
<b>Spills/Leaks:</b>	Dilute spill with water - flush to sewer with copious amounts of water. Provide ventilation. This liquid is not harmful to the environment.		
<b>SECTION 7</b>	<b>HANDLING AND STORAGE</b>		
<b>Handling:</b>	Use with adequate ventilation. Avoid contact with eyes. Avoid ingestion and inhalation.		
<b>Storage:</b>	Do not store in direct sunlight. Store in a tightly closed container. Store in a dry area. Store at ambient temperature. Keep container closed when not in use.		
<b>SECTION 8</b>	<b>EXPOSURE CONTROLS, PERSONAL PROTECTION</b>		
<b>Engineering Controls:</b>	A safety shower is not required. Use adequate ventilation.		



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Exposure Limits	Mixture: ANNGRO™	ACGIH	NIOSH	OSHA - Final PELs
		none listed	none listed	none listed
<b>OSHA Vacated PELs:</b>	No OSHA Vacated PELs are listed for this mixture.			
<b>Personal Protective Equipment:</b>				
<b>Eyes:</b>	Although not required, appropriate protective eyeglasses may be worn as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.			
<b>Skin:</b>	No gloves are necessary.			
<b>Clothing:</b>	No specific safety wear is required.			
<b>Respirators:</b>	No respiratory protection program is required.			
<b>Other Precautions:</b>	Wash after handling. Use with adequate ventilation. Avoid ingestion of large volumes.			
<b>SECTION 9</b>		<b>PHYSICAL AND CHEMICAL PROPERTIES</b>		
Physical State:	White milky liquid	Odour:	Oily smell	
Vapor Pressure:	Not available	pH:	4.5-7.0	
Vapor Density:	Not available	Evaporation Rate:	Not available	
Viscosity:	Not available	Boiling Point:	90-100 °C @ 1mmHg	
Solubility:	Water soluble	Freezing Point:	2.5 - 3.5 deg C	
Specific Gravity/Density:	0.99 g/cm <sup>3</sup> @ 20 °C	Molecular Weight:	Not applicable	
Ventilation (General):	Adequate local or general exhaust.	Eye Protection:	None required.	
Work / Hygienic Practices:	Wash thoroughly after handling.			
Other Protective Clothing or Equipment:	None required.			
<b>SECTION 10</b>		<b>STABILITY AND REACTIVITY</b>		
<b>Chemical Stability:</b>	Stable under normal temperature and pressures. Air sensitive. Light sensitive.			
<b>Conditions to Avoid:</b>	Incompatible materials, light, exposure to air, excessive heat			
<b>Incompatibilities with Other Materials:</b>	Strong oxidizing agents.			
<b>Hazardous Polymerization:</b>	Will not occur.			
<b>Hazardous Decomposition Products:</b>	None			
<b>SECTION 11</b>		<b>TOXICOLOGICAL INFORMATION</b>		
<b>RTECS#:</b>				



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<b>CAS#</b>	A mixture; no single CAS#	
<b>LD50/LC50:</b>	> 4 390 mg/kg	
<b>Carcinogenicity:</b>	Not carcinogenic according to AEMES testing. Not listed by ACGIH, IARC, NTP, or CA Prop 65	
<b>Epidemiology:</b>	No information found	
<b>Teratogenicity:</b>	Not teratogenic effects in experimental animals (mice/rats).	
<b>Reproductive Effects:</b>	No adverse reproductive effects have occurred in experimental animals.	
<b>Mutagenicity:</b>	No mutagenic effects have occurred in experimental animals and not mutagenic according to AEMES test.	
<b>Neurotoxicity:</b>	No information found	
<b>Other Studies:</b>		
<b>SECTION 12</b>	<b>ECOLOGICAL INFORMATION</b>	
<b>Ecotoxicity:</b>	The toxicological properties of this material, in terms of the environment, have not fully been investigated. No formal or hard data are available but it is unlikely to be ecotoxic.	
<b>Environmental:</b>	Expected to be environmentally friendly, including fish and bees, based on ingredients but no formal data available.	
<b>Physical:</b>	No information available.	
<b>Other:</b>	Can be emptied into drains.	
<b>SECTION 13</b>	<b>DISPOSAL CONSIDERATIONS</b>	
The ingredients of the products are not listed amongst chemicals classified for disposal of hazardous waste. 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>RCRA P-Series:</b>	None listed.	
<b>RCRA U-Series:</b>	None listed.	
<b>Other:</b>		
<b>SECTION 14</b>	<b>TRANSPORT INFORMATION</b>	
<b>Shipping Name:</b>		
<b>Hazard Class:</b>	Not regulated as Hazardous	Non-dangerous goods
<b>UN Number:</b>	Non-dangerous, therefore no UN number	
<b>Packing Group:</b>	N1	



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<b>SECTION 15</b>	<b>ACCIDENTAL RELEASE MEASURES</b>
US Federal	Not listed on the US Federal inventory.
TSCA	Not listed on the TSCA inventory.
<b>Health &amp; Safety</b>	None of the ingredients /chemicals are on the Health & Safety Reporting
<b>Chemical Test Rules</b>	None of the chemicals in this product are under a Chemical Test Rule.
<b>Section 12b</b>	None of the chemicals are listed under TSCA Section 12b.
<b>TSCA Significant New Use Rule</b>	None of the chemicals in this material have a SNUR under TSCA.
<b>CERCLA Hazardous Substances and corresponding RQs</b>	None of the chemicals in this material have an RQ.
<b>SARA Section 302 Extremely Hazardous Substances</b>	None of the chemicals in this product have a TPQ.
<b>Section 313</b>	No chemicals are reportable under Section 313.
<b>Clean Air Act:</b>	This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.
<b>Clean Water Act:</b>	None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
<b>OSHA:</b>	None of the chemicals in this product are considered highly hazardous by OSHA.
<b>STATE</b>	Not present on state lists from CA, PA, MN, MA, FL, or NJ.
<b>California Prop 65</b>	California No Significant Risk Level: None of the chemicals in this product are listed.
<b>European/International Regulations European Labeling in Accordance with EC Directives Hazard Symbols:</b>	Not available.
<b>Risk Phrases:</b>	
<b>Safety Phrases:</b>	S 24/25 Avoid contact with skin and eyes.
<b>WGK (Water Danger/Protection)</b>	
<b>Canada - DSL/NDSL</b>	Not listed on Canada's DSL List.
<b>Canada - WHMIS</b>	This product has a WHMIS classification of Not Controlled.. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.



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**SECTION  
16**

**ADDITIONAL INFORMATION**

**MSDS Creation Date:** 9/02/2007

**Revision #2 Date:** 13/11/2009

**Revision #3 Date:** 15/03/2012

**Revision #4 Date:** 16/04/2014

**Revision #5 Date:** 30/03/2015

**Revision #6 Date:** 17/07/2015

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