

3.

Sodium chloride

### SAFETY DATA SHEET FABP Assay Buffer (10X)

Revision: 05/28/2013 Supercedes Revision: 01/14/2008

Cayman Chemical Company 1180 E. Ellsworth Rd. Ann Arbor, MI 48108



Section 1. Ident	ification of	the Substa	nce/Mixture a	ind of the	
1.1 Product Code:	10010317				
Product Name:	FABP Assay Buf	fer (10X)			
1.2 Relevant identified uses of the substanc	e or mixture and	uses advised agair	ist		
Relevant identified uses:	For research use of	only, not for human	or veterinary use.		
1.3 Details of the Supplier of the Safety Data		•	-		
	Cayman Chemica	al Company			
	•	thin USA and Canad	la: +1 (800)424-9	9300	
	CHEMTREC Outside USA and Canada: +1 (703)527-3887				
	Cayman Chemical Company $+1$ (734)971-3335				
	www.caymanchem.com				
	-				
Section 2. Hazards Identification					
GHS Classification	Placard	Key word	GHS hazard phrase		
Acute Toxicity: Oral, Category 5 Serious Eye Damage/Eye Irritation, Category	none Exclamation	Warning Warning	May be harmful if sw Causes serious eye		
2A	point	Warning			
GHS Hazard Phrases:	H303: May be ha	rmful if swallowed.	•		
	H319: Causes ser	ious eye irritation.			
GHS Response Phrases:	<ul> <li>P264: Wash hands thoroughly after handling.</li> <li>P280: Wear protective gloves/clothing and eye/face protection as specified by the manufacturer/supplier or the competent authority.</li> <li>P312: Call a POISON CENTER or doctor/physician if you feel unwell.</li> <li>P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P337+313: If eye irritation persists, get medical advice/attention.</li> </ul>				
GHS Storage and Disposal Phrases:	Please refer to Se	ction 7 for Storage a	nd Section 13 for Disp	oosal information.	
Symptoms:	<ul> <li>Please refer to Section 7 for Storage and Section 13 for Disposal information.</li> <li>Causes serious eye irritation.</li> <li>Material may be irritating to the mucous membranes and upper respiratory tract.</li> <li>May be harmful by inhalation, ingestion, or skin absorption.</li> <li>May cause skin or respiratory system irritation.</li> <li>To the best of our knowledge, the toxicological properties have not been thoroughly investigated.</li> </ul>				
Target Organs:	No data available				
LD 50 / LC 50:	Please refer to Se	ction 11.			
Medical Conditions Generally Aggravated By Exposure:					
Section 3.	Compositio	on/Informati	on on Ingredi	ents	
Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases	RTECS #
1. Sodium phosphate, Dibasic	7558-79-4	1.44 %	231-448-7	R36	WC4500000
2. Potassium phosphate, Monobasic	7778-77-0	0.24 %	231-913-4	No phrases apply.	TC6615500

7647-14-5 8.0 %

231-598-3

R36

VZ4725000



Revision: 05/28/2013 Supercedes Revision: 01/14/2008

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Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases	RTECS #	
4. Potassium chloride	7447-40-7	0.2 %	231-211-8	R52	TS8050000	
5. Water	7732-18-5		231-791-2	No phrases apply.	ZC0110000	
S	ection 4.	First Aid Me	asures			
4.1 Description of First Aid Measures:						
		air. If not breathing, mediate medical atte		ation or give oxygen by	v trained	
	Immediately wash skin with soap and plenty of water for at least 20 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.					
		t and flush eyes with ted by medical perso		at least 20 minutes. Ha	ive eyes	
	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.					
4.2 Important Symptoms and Effects, Both Acute and Delayed:	No data available					
<b>4.3</b> Indication of any immediate medical No data available. attention and special treatment needed:						
Section 5. Fire Fighting Measures						
	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.					
Unsuitable Extinguishing Media:	A solid water stre	am may be inefficien	nt.			
5.2 Flammable Properties and Hazards:	No data available					
Flash Pt:	No data.					
Autoignition Pt:	No data available					
Explosive Limits:	LEL: No data.	1	JEL: No data.			
Hazardous Combustion Products:	No data available					
		ear self-contained bre full protective gear to		essure-demand (NIOSI h skin and eyes.	I approved or	
Sectior	n 6. Accid	ental Releas	se Measures	6		
Equipment and Emergency Procedures:	As conditions wa		approved self-conta	ained breathing appara	-	
6.2 Environmental Precautions:	Take steps to avo	id release into the en	vironment, if safe to	do so.		
	-	collect, as appropria nical waste containe		ordance with local regu	ilations.	
Se	ction 7. H	andling and	Storage			
7.1 Precautions To Be Taken in Handling:	Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.					
	Keep container ti Store in accordan	ghtly closed. ce with information	listed on the product	insert.		
Hazard Label Information:	Avoid contact wi Wash thoroughly	th skin and eyes. I	Do not reuse this con		equate ventilatio	
		-			quite ver	



Revision: 05/28/2013 Supercedes Revision: 01/14/2008

Section 8. Exposure Controls/Personal Protection					
Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits	
1. Sodium phosphate, Dibasic	7558-79-4	No data.	No data.	No data.	
2. Potassium phosphate, Monobasic	7778-77-0	No data.	No data.	No data.	
3. Sodium chloride	7647-14-5	No data.	No data.	No data.	
4. Potassium chloride	7447-40-7	No data.	No data.	No data.	
5. Water	7732-18-5	No data.	No data.	No data.	
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe	
1. Sodium phosphate, Dibasic	7558-79-4	No data.	No data.	No data.	
2. Potassium phosphate, Monobasic	7778-77-0	No data.	No data.	No data.	
3. Sodium chloride	7647-14-5	No data.	No data.	No data.	
4. Potassium chloride	7447-40-7	No data.	No data.	No data.	
5. Water	7732-18-5	No data.	No data.	No data.	
Label Information: 8.2.1 Engineering Controls (Ventilation etc.): 8.2.2.1 Eye Protection:	<ul> <li>glasses Safety shower in work area Vent Hood</li> <li>Use process enclosures, local exhaust ventilation, or other engineering controls to control airbornelevels below recommended exposure limits.</li> <li>Safety glasses</li> </ul>				
8.2.2.2 Protective Gloves:	Compatible chem	ical-resistant gloves			
Other Protective Clothing:	Lab coat				
8.2.2.3 Respiratory Equipment (Specify Type):	NIOSH approved	respirator, as conditions warran	.t.		
Work/Hygienic/Maintenance Practices:	Do not take internally. Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower. Wash thoroughly after handling.				
	Wash thoroughly	after handling.			

#### Section 9. Physical and Chemical Properties

	<b>y</b> 1
9.1 Information on Basic Physical and Che	mical Properties
Physical States:	[] Gas [X] Liquid [] Solid
Appearance and Odor:	No data available.
pH:	7.2
Melting Point:	No data.
Boiling Point:	No data.
Flash Pt:	No data.
Evaporation Rate:	No data.
Vapor Pressure (vs. Air or mm Hg):	No data.
Vapor Density (vs. Air = 1):	No data.
Specific Gravity (Water = 1):	No data.
Solubility in Water:	No data.
Autoignition Pt:	No data.
Explosive Properties:	No data available.
Oxidizing Properties:	No data available.
9.2 Other Information	



Revision: 05/28/2013 Supercedes Revision: 01/14/2008

Percent Volatile: Se 0.1 Reactivity: 0.2 Stability:	No data. Ction 10. Si No data available		d Reactivity	/	
0.1 Reactivity:			a Reactivity	/	
-	No data available				
0.2 Stability:		-			
	Unstable [ ]	Stable [X]			
0.3 Stability Note(s):	Stable if stored in	accordance with	th information listed	l on the product insert.	
0.4 Conditions To Avoid:	No data available	2.			
0.3 Polymerization:	Will occur [ ]	Will not occu	ur [ X ]		
0.5 Incompatibility - Materials To Avoid:	strong acids strong oxidizing a	agents			
0.6 Hazardous Decomposition Or	hydrogen chloride	e gas			
Byproducts:	phosphorus oxide	es			
	sodium oxides				
Sec	tion 11. To:	xicologica	al Informatio	n	
1.1 Information on Toxicological Effects:	The toxicological	l effects of this p	product have not be	en thoroughly studied.	
	Sodium chloride - Irritation Data: Eyes (rabbit): 100 mg (24h) moderate; Skin (rabbit): 500 mg (24h) mild; Sodium phosphate, Dibasic - Irritation Data: Eyes (rabbit): 500 mg (24h) mild; Skin (rabbit): 500				
Chronic Toxicological Effects:	<ul> <li>mg (24h) mild;</li> <li>Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.</li> <li>See actual entry in RTECS for complete information.</li> <li>Sodium chloride RTECS Number: VZ4725000</li> <li>Sodium phosphate, Dibasic RTECS Number: WC4500000</li> </ul>				
azardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
Sodium phosphate, Dibasic	7558-79-4	n.a.	n.a.	n.a.	n.a.
Potassium phosphate, Monobasic	7778-77-0		n.a.	n.a.	n.a.
Sodium chloride	7647-14-5	1	n.a.	n.a.	n.a.
Potassium chloride Water	7447-40-7		n.a.	n.a.	n.a.
Carcinogenicity:		RC Monograph		Regulated? No	11.d.
				-	
			Information	)	
2.1 Toxicity:	Avoid release into Runoff from fire		ent. on water may cause	pollution.	
Sec	ction 13. Dis	sposal Co	onsideratior	IS	
3.1 Waste Disposal Method:	Dispose in accord	lance with local	, state, and federal	egulations.	
Se	ection 14. T	ransport	Information		
4.1 LAND TRANSPORT (US DOT)					
DOT Proper Shipping Name	Not dangerous go	oods.			
4.1 LAND TRANSPORT (European ADR/RI					
ADR/RID Shipping Name		ode			
	Not dangerous go	Jous.			
4.3 AIR TRANSPORT (ICAO/IATA) ICAO/IATA Shipping Name	Not dangerous go				



Revision: 05/28/2013 Supercedes Revision: 01/14/2008

Supercedes Revision: 01/14/2008 Transport in accordance with local, state, and federal regulations. Additional Transport Information: Section 15. Regulatory Information European Community Hazard Symbol codes Xi: Irritant **European Community Risk and Safety Phrases** R36 - Irritating to eyes. S24/25 - Avoid contact with skin and eyes. - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S26 S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection. **US EPA SARA Title III** Hazardous Components (Chemical Name) Sec.302 (EHS) Sec.313 (TRI) Sec.110 CAS # Sec.304 RQ 7558-79-4 Yes 5000 LB No 1. Sodium phosphate, Dibasic No No 7778-77-0 2. Potassium phosphate, Monobasic No No No No 7647-14-5 No 3. Sodium chloride No No No 4. Potassium chloride 7447-40-7 No No No No 5. Water 7732-18-5 No No No No Other US EPA or State Lists Hazardous Components (Chemical Name) CAS # CAA HAP,ODC **CWA NPDES** TSCA CA PROP.65 1. Sodium phosphate, Dibasic 7558-79-4 No No Inventory No 2. Potassium phosphate, Monobasic 7778-77-0 No No Inventory No Sodium chloride 7647-14-5 No Inventory No 3. No 4. Potassium chloride 7447-40-7 No No Inventory No 5. Water 7732-18-5 No No No Inventory **Regulatory Information Statement:** This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended. Section 16. Other Information **Revision Date:** 05/28/2013 **Company Policy or Disclaimer** DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required



3.

4.

Sodium chloride

Sodium phosphate monobasic, monohydrate

#### SAFETY DATA SHEET FABP4 (human recombinant) Assay Reagent (5X)

Revision: 05/28/2013 Supercedes Revision: 01/14/2008

Cayman Chemical Company 1180 E. Ellsworth Rd. Ann Arbor, MI 48108

#### Section 1. Identification of the Substance/Mixture and of the 1.1 **Product Code:** 10010318 **Product Name:** FABP4 (human recombinant) Assay Reagent (5X) 1.2 Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses: For research use only, not for human or veterinary use. Details of the Supplier of the Safety Data Sheet 1.3 **Company Name:** Cayman Chemical Company **Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300 **Alternate Emergency Contact:** CHEMTREC Outside USA and Canada: +1 (703)527-3887 Information: Cayman Chemical Company +1 (734)971-3335 Web site address: www.caymanchem.com Section 2. Hazards Identification **GHS Classification** Placard Key word GHS hazard phrase Skin Corrosion/Irritation, Category 3 none Warning Causes mild skin irritation Serious Eye Damage/Eye Irritation, Category none Warning Causes eye irritation 2R **GHS Hazard Phrases:** H316: Causes mild skin irritation. H320: Causes eye irritation. **GHS Precaution Phrases:** P264: Wash hands thoroughly after handling. **GHS Response Phrases:** P332+313: If skin irritation occurs, get medical advice/attention. P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+313: If eye irritation persists, get medical advice/attention. **GHS Storage and Disposal Phrases:** Please refer to Section 7 for Storage and Section 13 for Disposal information. Adverse Human Health Effects and 2.3 Causes eye irritation. Symptoms: Causes mild skin irritation. Material may be irritating to the mucous membranes and upper respiratory tract. May be harmful by inhalation, ingestion, or skin absorption. May cause respiratory system irritation. To the best of our knowledge, the toxicological properties have not been thoroughly investigated. **Target Organs:** Eyes, Kidneys, Respiratory system, Skin. LD 50 / LC 50: Please refer to Section 11. Medical Conditions Generally Aggravated By No data available. Exposure: Section 3. Composition/Information on Ingredients EC# Hazardous Components (Chemical Name) CAS # Concentration **Risk Phrases RTECS #** FABP4 (human recombinant) < 1.0 % NA No phrases apply. NA 1. NA 2. Glycerol 56-81-5 20.0 % 200-289-5 R36 MA8050000

7647-14-5 0.5 %

0.02 %

10049-21-5

231-598-3

NA

R36

R36

VZ4725000

WA1900000



# SAFETY DATA SHEET FABP4 (human recombinant) Assay Reagent (5X)

Page: 2

ASSAY Reagent (5A) Revision: 05/28/2013

lazar	dous Components (Chemical Name)	CAS #	Concentration	EC#	Supercedes Revis Risk Phrases	RTECS #	
	odium phosphate, Dibasic	7558-79-4	0.33 %	231-448-7	R36	WC4500000	
	ater	7732-18-5		231-791-2	No phrases apply.	ZC0110000	
		Section 4.				I	
				easures			
4.1	Description of First Aid Measures:						
4.1.1	In Case of Inhalation:	Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.					
4.1.2	In Case of Skin Contact:	Immediately wash skin with soap and plenty of water for at least 20 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.					
4.1.3	In Case of Eye Contact:	Hold eyelids apar examined and test	-		For at least 20 minutes. Ha	ive eyes	
4.1.4	In Case of Ingestion:	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.					
4.2 Both	Important Symptoms and Effects, Acute and Delayed:	Exposure may cause: damage to kidneys. Prolonged exposure may cause nausea, headache, and vomiting.					
4.3 atten	Indication of any immediate medical tion and special treatment needed:	No data available.					
	Se	ction 5. Fi	re Fighting	Measures			
5.1	Suitable Extinguishing Media:	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.					
		Use water spray to cool fire-exposed containers.					
	Unsuitable Extinguishing Media:	A solid water stream may be inefficient.					
5.2	Flammable Properties and Hazards:	Emits toxic fumes	s under fire condit	ions.			
	Flash Pt:	No data.					
	Autoignition Pt:	No data available					
	Explosive Limits:	LEL: No data.		UEL: No data.			
	Hazardous Combustion Products:	No data available		ODD. 110 data.			
5.3	Fire Fighting Instructions:	As in any fire, we	ear self-contained		pressure-demand (NIOSI	I approved or	
		equivalent), and f	ull protective gear	to prevent contact	with skin and eyes.		
	Sectio	n 6. Accid	ental Relea	ase Measur	es		
6.1	Protective Precautions, Protective	Avoid breathing v	vapors and provide	e adequate ventilation	on.		
Equi	pment and Emergency Procedures:				ntained breathing appara y goggles, and heavy rub		
6.2	Environmental Precautions:	Take steps to avo	id release into the	environment, if safe	e to do so.		
6.3 Cont	Methods and Material For ainment and Cleaning Up:	Contain spill and			ccordance with local regu	lations	
•					containee with local legt		
		ection 7. H					
7.1	Precautions To Be Taken in Handling:	Avoid breathing of Avoid prolonged					
7.2	Precautions To Be Taken in Storing:	Keep container tig Store in accordan		n listed on the prod	uct insert.		
Haza	rd Label Information:	Avoid contact wit Wash thoroughly	-	Do not reuse this c	container. Use with ade	quate ventilati	



# SAFETY DATA SHEET FABP4 (human recombinant) Assay Reagent (5X)

Revision: 05/28/2013 Supercedes Revision: 01/14/2008

Section 8. Exposure Controls/Personal Protection					
Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits	
1. FABP4 (human recombinant)	NA	No data.	No data.	No data.	
2. Glycerol	56-81-5	15 (dust); 5 (resp.) mg/m3	10 mg/m3	No data.	
3. Sodium chloride	7647-14-5	No data.	No data.	No data.	
4. Sodium phosphate monobasic, monohydrate	10049-21-5	No data.	No data.	No data.	
5. Sodium phosphate, Dibasic	7558-79-4	No data.	No data.	No data.	
6. Water	7732-18-5	No data.	No data.	No data.	
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe	
1. FABP4 (human recombinant)	NA	No data.	No data.	No data.	
2. Glycerol	56-81-5	TWA: 10 mg/m3 () STEL: ()	TWA: 10 mg/m3	No data.	
3. Sodium chloride	7647-14-5	No data.	No data.	No data.	
4. Sodium phosphate monobasic, monohydrate	10049-21-5	No data.	No data.	No data.	
5. Sodium phosphate, Dibasic	7558-79-4	No data.	No data.	No data.	
6. Water	7732-18-5	No data.	No data.	No data.	
Protective Equipment Summary - Hazard Label Information:	glasses Safety	shower in work area Vent Ho		-	
8.2.1 Engineering Controls (Ventilation etc.):	•	osures, local exhaust ventilation, mmended exposure limits.	or other engineering controls to	control airborne	
8.2.2.1 Eye Protection:	Safety glasses				
8.2.2.2 Protective Gloves:	Compatible chem	ical-resistant gloves			
Other Protective Clothing:	Lab coat				
8.2.2.3 Respiratory Equipment (Specify Type):	NIOSH approved	respirator, as conditions warran	t.		
	Do not take internally. Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower. Wash thoroughly after handling.				
8.2.3 Environmental Exposure Controls:	No data available				

# Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties							
Physical States:	[] Gas [X] Liquid [] Solid						
Appearance and Odor:	No data available.						
pH:	7.2						
Melting Point:	No data.						
Boiling Point:	No data.						
Flash Pt:	No data.						
Evaporation Rate:	No data.						
Vapor Pressure (vs. Air or mm Hg):	No data.						
Vapor Density (vs. Air = 1):	No data.						
Specific Gravity (Water = 1):	No data.						
Solubility in Water:	No data.						
Autoignition Pt:	No data.						
Explosive Properties:	No data available.						



# SAFETY DATA SHEET FABP4 (human recombinant) Assay Reagent (5X)

(**5A**) Revision: 05/28/2013 Supercedes Revision: 01/14/2008

Oxidizing Properties:	No data available.				
9.2 Other Information					
Percent Volatile:	No data.				
Sec	tion 10. St	ability and F	Reactivity		
10.1 Reactivity:	No data available				
10.2 Stability:	Unstable [ ]	Stable [ X ]			
10.3 Stability Note(s):	Stable if stored in	accordance with info	ormation listed on the	product insert.	
10.4 Conditions To Avoid:	No data available				
10.3 Polymerization:	Will occur [ ] Will not occur [ X ]				
	strong bases strong oxidizing a	igents			
	carbon dioxide carbon monoxide				
Secti	ion 11. To	xicological Ir	formation		
11.1 Information on Toxicological Effects:	The toxicological	effects of this produ-	ct have not been thore	oughly studied.	
Chronic Toxicological Effects:	<ul> <li>Glycerol - Irritation Data: Eyes (rabbit): 500 mg (24h) mild; Skin (rabbit): 500 mg (24h) mild;</li> <li>Glycerol - Investigated as a mutagen, reproductive effector, and tumorigen.</li> <li>Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.</li> <li>See actual entry in RTECS for complete information.</li> <li>Glycerol RTECS Number: MA8050000</li> </ul>				
Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. FABP4 (human recombinant)	NA	n.a.	n.a.	n.a.	n.a.
2. Glycerol     3. Sodium chloride	56-81-5	n.a.	n.a.	n.a.	n.a.
<ol> <li>Sodium chloride</li> <li>Sodium phosphate monobasic, monohydrate</li> </ol>	7647-14-5	n.a.	n.a. n.a.	n.a. n.a.	n.a. n.a.
5. Sodium phosphate, Dibasic	7558-79-4	n.a.	n.a.	n.a.	n.a.
6. Water	7732-18-5	n.a.	n.a.	n.a.	n.a.
Carcinogenicity:	NTP? No IA	RC Monographs? No	OSHA Regulat	ed? No	,
Sec	tion 12. E	cological Inf	ormation		
		the environment.			
	Runoff from fire	control or dilution wa	ater may cause polluti	on.	
Sect	ion 13. Dis	sposal Cons	iderations		
13.1 Waste Disposal Method:	Dispose in accord	ance with local, state	e, and federal regulation	ons.	
See	ction 14. T	ransport Info	ormation		
14.1 LAND TRANSPORT (US DOT)					
DOT Proper Shipping Name	Not dangerous go	ods.			
14.1 LAND TRANSPORT (European ADR/RID	)				
ADR/RID Shipping Name	Not dangerous go	ods.			
14.3 AIR TRANSPORT (ICAO/IATA)					
ICAO/IATA Shipping Name	Not dangerous go	ods.			
Additional Transport Information:	Transport in accor	rdance with local, sta	te, and federal regulation	tions.	
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# SAFETY DATA SHEET

FABP4 (human recombinant) Assay Reagent (5X)

Revision: 05/28/2013 Supercedes Revision: 01/14/2008

#### Section 15. Regulatory Information

European Community Hazard Symbol codes Xi: Irritant

#### European Community Risk and Safety Phrases

R36 - Irritating to eyes.

#### S24/25 - Avoid contact with skin and eyes.

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

#### US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. FABP4 (human recombinant)	NA	No	No	No	No
2. Glycerol	56-81-5	No	No	No	No
3. Sodium chloride	7647-14-5	No	No	No	No
4. Sodium phosphate monobasic, monohydrate	10049-21-5	No	No	No	No
5. Sodium phosphate, Dibasic	7558-79-4	No	Yes 5000 LB	No	No
6. Water	7732-18-5	No	No	No	No
Other US EPA or State Lists			•		·

zardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
FABP4 (human recombinant)	NA	No	No	No	No
Glycerol	56-81-5	No	No	Inventory	No
Sodium chloride	7647-14-5	No	No	Inventory	No
Sodium phosphate monobasic, monohydrate	10049-21-5	No	No	No	No
Sodium phosphate, Dibasic	7558-79-4	No	No	Inventory	No
Water	7732-18-5	No	No	Inventory	No
	FABP4 (human recombinant) Glycerol Sodium chloride Sodium phosphate monobasic, monohydrate Sodium phosphate, Dibasic	FABP4 (human recombinant)NAGlycerol56-81-5Sodium chloride7647-14-5Sodium phosphate monobasic, monohydrate10049-21-5Sodium phosphate, Dibasic7558-79-4Water7732-18-5	FABP4 (human recombinant)NANoGlycerol56-81-5NoSodium chloride7647-14-5NoSodium phosphate monobasic, monohydrate10049-21-5NoSodium phosphate, Dibasic7558-79-4NoWater7732-18-5No	FABP4 (human recombinant)NANoNoGlycerol56-81-5NoNoSodium chloride7647-14-5NoNoSodium phosphate monobasic, monohydrate10049-21-5NoNoSodium phosphate, Dibasic7558-79-4NoNoWater7732-18-5NoNo	FABP4 (human recombinant)NANoNoNoGlycerol56-81-5NoNoInventorySodium chloride7647-14-5NoNoInventorySodium phosphate monobasic, monohydrate10049-21-5NoNoNoSodium phosphate, Dibasic7558-79-4NoNoInventoryWater7732-18-5NoNoInventory

**Regulatory Information Statement:** 

This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.

### Section 16. Other Information

#### **Revision Date:**

05/28/2013

#### **Company Policy or Disclaimer**

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required



Revision: 05/28/2013 Supercedes Revision: 01/14/2008

Cayman Chemical Company 1180 E. Ellsworth Rd. Ann Arbor, MI 48108



	:fiest!=				
Section 1. Ident	ification of	the Substar	nce/Mixture and of the		
1.1 Product Code:	10010376				
Product Name:	FABP Assay Dete	ection Reagent (5X)			
1.2 Relevant identified uses of the substance	e or mixture and	uses advised again	ist		
Relevant identified uses:	For research use	only, not for human o	or veteringry use		
		Shiry, not for human o	or veterinary use.		
<b>1.3 Details of the Supplier of the Safety Data</b>	a Sheet				
Company Name:	Cayman Chemica	ll Company			
Emergency Contact:	CHEMTREC Wit	thin USA and Canad	la: +1 (800)424-9300		
Alternate Emergency Contact:	CHEMTREC Out	tside USA and Cana	da: +1 (703)527-3887		
Information:	Cayman Chemical Company +1 (734)971-3335				
	Web site address: www.caymanchem.com				
www.caymanchem.com					
Se	ction 2. H	azards Iden	tification		
GHS Classification	Placard	Key word	GHS hazard phrase		
Flammable Liquids, Category 2	Flame	Danger	Highly flammable liquid and vapor		
Skin Corrosion/Irritation, Category 2	Exclamation point	Warning	Causes skin irritation		
Serious Eye Damage/Eye Irritation, Category	Exclamation	Warning	Causes serious eye irritation		
2A	point				
Toxic To Reproduction, Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child		
Target Organ Systemic Toxicity (single	Exclamation	Warning	May cause respiratory irritation, or may cause drowsines		
exposure), Category 3	point		and dizziness		
Target Organ Systemic Toxicity (repeated exposure), Category 1	Health hazard	Danger	Causes damage to { <target organs="">} through prolonged repeated exposure</target>		
	11225. II: -1-1 fl				
	H225: Highly Ha H315: Causes ski	mmable liquid and v	apor.		
		ious eye irritation.			
		•	v or the unborn child.		
		respiratory irritation			
	•	drowsiness or dizzi			
	•		r} through prolonged or repeated exposure.		
			ppen flames/hot surfaces} No smoking.		
		· •			
	P280: Wear protective gloves/clothing and eye/face protection as specified by the manufacturer/supplier or the competent authority.				
	P264: Wash hands thoroughly after handling.				
	P362+364: Take off contaminated clothing and wash it before reuse.				
	P201: Obtain special instructions before use.				
	P202: Do not handle until all safety precautions have been read and understood.				
		al protective equipm			
	P261: Avoid breathing dust/fume/gas/mist/vapours/spray.				
	P260: Do not breathe dust/fume/gas/mist/vapours/spray.				
GHS Response Phrases:	P303+361+353: I	F ON SKIN (or hair	): Remove/take off immediately all contaminated clothin		
	Rinse skin with w	vater/shower.			
			plenty of soap and water.		
			et medical advice/attention.		
	P305+351+338: I	F IN EYES: Rinse c	autiously with water for several minutes. Remove contact		
	lenses, if present and easy to do. Continue rinsing.				



Revision: 05/28/2013 Supercedes Revision: 01/14/2008

	P337+313: If eye irritation persists, get medical advice/attention.
	P308+313: IF exposed or concerned: Get medical attention/advice.
	P309+311: Call a POISON CENTER or doctor/physician if exposed or you feel unwell.
	P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable
	for breathing.
	P314: Get medical attention/advice if you feel unwell.
GHS Storage and Disposal Phrases:	Please refer to Section 7 for Storage and Section 13 for Disposal information.
2.3 Adverse Human Health Effects and	Causes damage to organs {liver} through prolonged or repeated oral exposure.
Symptoms:	Causes serious eye irritation.
	Causes skin or respiratory system irritation.
	Material is irritating to the mucous membranes and upper respiratory tract.
	May be harmful by inhalation, ingestion, or skin absorption.
	Suspected of damaging fertility or the unborn child.
	To the best of our knowledge, the toxicological properties have not been thoroughly investigated.
Target Organs:	Central nervous system, Blood, Eyes, Reproductive system, Heart, Respiratory system, Liver,
	Skin.
LD 50 / LC 50:	Please refer to Section 11.
Medical Conditions Generally Aggravated By	No data available.
Exposure:	

# Section 3. Composition/Information on Ingredients

			0		
Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases	RTECS #
1. FABP Assay Detection Reagent (5X)	NA	0.0 -5.0 %	NA	R36/38	NA
2. Ethyl alcohol	64-17-5	95.0 -100.0 %	200-578-6	R11-36/37/38-48-62	KQ6300000
				-63	
Section 4. First Aid Measures					
4.1 Deceription of Eirot Aid Measures					

4.1	Description of First Aid Measures:	
4.1.1	In Case of Inhalation:	Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
4.1.2	In Case of Skin Contact:	Immediately wash skin with soap and plenty of water for at least 20 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
4.1.3	In Case of Eye Contact:	Hold eyelids apart and flush eyes with plenty of water for at least 20 minutes. Have eyes examined and tested by medical personnel.
4.1.4	In Case of Ingestion:	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
4.2 Both	Important Symptoms and Effects, Acute and Delayed:	Irritating to eyes, skin, nose; may cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects.
4.3 atten	Indication of any immediate medical tion and special treatment needed:	No data available.

	Section 5. Fire Fighting Measures					
5.1	Suitable Extinguishing Media: Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.					
		Use water spray to cool fire-exposed containers.				
	Unsuitable Extinguishing Media:	A solid water stream may be inefficient.				
5.2	Flammable Properties and Hazards:	Can release vapors that form explosive mixtures at temperatures at or above the flashpoint.				
	Container explosion may occur under fire conditions.					
	Emits toxic fumes under fire conditions.					
	Sensitive to static discharge.					
	Vapors can travel to a source of ignition and flash back.					



	Flash Pt:	14.00 C Method Used: Closed Cup						
	Autoignition Pt:	363.00 C						
	Explosive Limits:	LEL: 3.3% at 25.0 C UEL: 19.0% at 25.0 C						
	Hazardous Combustion Products:	No data available.						
5.3	Fire Fighting Instructions:	As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes. Note: Flammable as diluted in ethanol.						
	Sectio	n 6. Accidental Release Measures						
6.1 Equi	Protective Precautions, Protective pment and Emergency Procedures:	Avoid breathing vapors and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).						
6.2	Environmental Precautions:	Take steps to avoid release into the environment, if safe to do so.						
6.3 Cont	Methods and Material For ainment and Cleaning Up:	Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.						
	Se	ection 7. Handling and Storage						
7.1	Precautions To Be Taken in Handling:	Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure. Keep away from sources of ignition. Take precautionary measures against static discharge.						
7.2	Precautions To Be Taken in Storing:	Keep away from heat, sparks, and flame. Keep container tightly closed. Store in accordance with information listed on the product insert.						
	Other Precautions:	Hygroscopic. Light sensitive.						
Hazard Label Information:       Avoid contact with skin and eyes. Do not reuse this container. Use with adequate w         Wash thoroughly after handling.								

Section 8. Exposure Controls/Personal Protection					
Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits	
<ol> <li>FABP Assay Detection Reagent (5X)</li> </ol>	NA	No data.	No data.	No data.	
2. Ethyl alcohol	64-17-5	1000 ppm	1000 ppm	No data.	
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe	
1. FABP Assay Detection Reagent (5X)	NA	No data.	No data.	No data.	
2. Ethyl alcohol	64-17-5	TWA: 1920 mg/m3 (1000 ppm) STEL: ()	TWA: 1900 mg/m3 (1000 ppm) STEL: 9500 mg/m3 (5000 ppm)	No data.	
Protective Equipment Summary - Hazard Label Information:	Compatible chemical-resistant gloves Eye wash station in work area Lab coat Safety glasses Safety shower in work area Vent Hood				
8.2.1 Engineering Controls (Ventilation etc.):	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.				
8.2.2.1 Eye Protection:	Safety glasses				
8.2.2.2 Protective Gloves:	Compatible chemical-resistant gloves				
Other Protective Clothing:	Lab coat				
8.2.2.3 Respiratory Equipment (Specify Type):	NIOSH approved	respirator, as conditions warrant	t.		



ayman	FABP Assay Detection Reagent (5X)       Revision: 05/28/201
	Supercedes Revision: 01/14/200
Work/Hygienic/Maintenance Practices:	Do not take internally.
	Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.
	Wash thoroughly after handling.
8.2.3 Environmental Exposure Controls:	No data available.
Section	9. Physical and Chemical Properties
9.1 Information on Basic Physical and Ch	
Physical States:	[]Gas [X]Liquid []Solid
Appearance and Odor:	Solution
Melting Point:	No data.
Boiling Point:	No data.
Flash Pt:	14.00 C Method Used: Closed Cup
Evaporation Rate:	No data.
Explosive Limits:	LEL: 3.3% at 25.0 C UEL: 19.0% at 25.0 C
Vapor Pressure (vs. Air or mm Hg):	43 MM_HG at 20.0 C
Vapor Density (vs. Air = 1):	No data.
Specific Gravity (Water = 1):	No data.
Solubility in Water:	No data.
-	363.00 C
Autoignition Pt:	
Explosive Properties:	No data available.
Oxidizing Properties:	No data available.
9.2 Other Information	
Percent Volatile:	No data.
S	ection 10. Stability and Reactivity
10.1 Reactivity:	No data available.
10.2 Stability:	Unstable [ ] Stable [ X ]
10.3 Stability Note(s):	Stable if stored in accordance with information listed on the product insert.
10.4 Conditions To Avoid:	No data available.
10.3 Polymerization:	Will occur [ ]   Will not occur [ X ]
10.5 Incompatibility - Materials To Avoid:	alkali metals
	ammonia
	peroxides strong oxidizing agents
10.6 Hazardous Decomposition Or	carbon dioxide
Byproducts:	carbon monoxide
<b>Ç</b> 0	ction 11. Toxicological Information
コート・フロー・コート 11.1 Information on Toxicological Effects:	
	The toxicological effects of this product have not been thoroughly studied.
	Ethanol - Toxicity Data: Oral TDLO (man): 1.14 ml/kg; Oral TDLO (man): 650 mg/kg; Oral
	LD50 (rat): 7,060 mg/kg; Oral LD50 (mouse): 3,450 mg/kg; Oral LD50 (mouse): 10.5 ml/kg;
	Oral LD50 (rabbit): 6,300 mg/kg; Inhalation LC50 (rat): 20,000 ppm (10h); Inhalation TCLO
	(human): 1,800 ppm (30m); Inhalation TCLO (human): 2,500 mg/m3 (20m); Inhalation LC50
	(rat): 5 900 mg/m3 (6h): Inhalation I CI O (mouse): 29 300 ppm (7h):
	(rat): 5,900 mg/m3 (6h); Inhalation LCLO (mouse): 29,300 ppm (7h); Ethanol - Irritation Data: Eves (rabbit): 500 mg (24h) mild: Skin (rabbit): 20 mg (24h) moderat
	(rat): 5,900 mg/m3 (6h); Inhalation LCLO (mouse): 29,300 ppm (7h); Ethanol - Irritation Data: Eyes (rabbit): 500 mg (24h) mild; Skin (rabbit): 20 mg (24h) moderat



Revision: 05/28/2013

Chronic Toxicological Effects:	cal Effects:Ethanol - Investigated as a mutagen, reproductive effector, and tumorigen. Only select Registry of Toxic Effects of Chemical Substances (RTECS) data See actual entry in RTECS for complete information. Ethanol RTECS Number: KQ6300000				
Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. FABP Assay Detection Reagent (5X)	NA	n.a.	n.a.	n.a.	n.a.
2. Ethyl alcohol	64-17-5			A4	n.a.
Carcinogenicity:	NTP? No IA	ARC Monograp	phs? No USHA i	Regulated? No	
S	section 12. E	cologica	al Information	۱	
12.1 Toxicity:	Avoid release into				
	Runoff from fire	control or dilu	ition water may cause	pollution.	
Se	ection 13. Dis	sposal C	Consideration	IS	
13.1 Waste Disposal Method:	Dispose in accord	lance with loc	al, state, and federal r	regulations.	
	Section 14. T	ranspor	t Information		
14.1 LAND TRANSPORT (US DOT)					
DOT Proper Shipping Name	Ethyl Alcohol So	lution			
DOT Hazard Class:	3				
DOT Hazard Label:	FLAMMABLE LIQUID				
UN/NA Number:	1170				
Packing Group:	П				
14.1 LAND TRANSPORT (European ADR/	RID)				
ADR/RID Shipping Name	Ethyl Alcohol Solution				
UN Number:	1170				
Hazard Class:	3 - FLAMMABL	.E LIQUID			
Packing Group:	Π				
14.3 AIR TRANSPORT (ICAO/IATA)					
ICAO/IATA Shipping Name	Ethyl Alcohol So	lution			
UN Number:	1170				
Hazard Class:	3 - FLAMMABL	E LIQUID.			
Packing Group:	II				
IATA Classification:	3				
Additional Transport Information:	No data available				

European Community Hazard Symbol codes F: Highly Flammable; Xn: Harmful; Reproductive Hazard: 3

#### European Community Risk and Safety Phrases

R11 - Highly flammable.

- R36/37/38 Irritating to eyes, respiratory system and skin.
- R48 Danger of serious damage to health by prolonged exposure.
- R62 Risk of impaired fertility.
- R63 Possible risk of harm to the unborn child.
- S7 Keep container tightly closed.
- S16 Keep away from sources of ignition.
- S24/25 Avoid contact with skin and eyes.
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.



Revision: 05/28/2013 Supercedes Revision: 01/14/2008

S33 - Take precautionary measures against static discharges.

 $S36/37/39 \quad \ \ \, \text{-Wear suitable protective clothing, gloves and eye/face protection.}$ 

S53 - Avoid exposure - obtain special instructions before use.

#### US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. FABP Assay Detection Reagent (5X)	NA	No	No	No	No
2. Ethyl alcohol	64-17-5	No	No	No	No
Other US EPA or State Lists	ł		•	•	•
Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. FABP Assay Detection Reagent (5X)	NA	No	No	No	No
2. Ethyl alcohol	64-17-5	No	No	Inventory	No
Regulatory Information Statement:	This SDS was pre Directive 67/548/	-	e with Regulation (I	EC) No.1272/2008 and	l European
	Section 16.	Other Info	rmation		
Devision Data	05/00/0010				

**Revision Date:** 

05/28/2013

#### **Company Policy or Disclaimer**

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required



Revision: 05/28/2013 Supercedes Revision: 01/14/2008

Cayman Chemical Company 1180 E. Ellsworth Rd. Ann Arbor, MI 48108



Section 1. Identification of the Substance/Mixture and of the					
1.1 Product Code:	10010377				
Product Name:	Arachidonic Acid Control				
1.2 Relevant identified uses of the substance					
Relevant identified uses:	For research use only, not for human or veterinary use.				
		only, not for numan o	or veterinary use.		
1.3 Details of the Supplier of the Safety Data	a Sheet				
Company Name:	Cayman Chemica	al Company			
Emergency Contact:	CHEMTREC Wi	thin USA and Canad	a: +1 (800)424-9300		
Alternate Emergency Contact:	CHEMTREC Ou	tside USA and Canad	da: +1 (703)527-3887		
Information:	Cayman Chemica	al Company	+1 (734)971-3335		
Web site address:	-				
	www.caymanche	m.com			
Se	ection 2. H	azards Iden	tification		
GHS Classification	Placard	Key word	GHS hazard phrase		
Flammable Liquids, Category 2	Flame	Danger	Highly flammable liquid and vapor		
Skin Corrosion/Irritation, Category 2	Exclamation point	Warning	Causes skin irritation		
Serious Eye Damage/Eye Irritation, Category	Exclamation	Warning	Causes serious eye irritation		
2A	point				
Toxic To Reproduction, Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child		
Target Organ Systemic Toxicity (single	Exclamation	Warning	May cause respiratory irritation, or may cause drowsines and dizziness		
exposure), Category 3 Target Organ Systemic Toxicity (repeated	point Health hazard	Danger	Causes damage to { <target organs="">} through prolonged</target>		
exposure), Category 1	Health hazalu	Danger	repeated exposure		
GHS Hazard Phrases:	H225: Highly fla	I mmable liquid and va			
	H315: Causes ski	-	upor.		
		ious eye irritation.			
		-	v or the unborn child.		
	H335: May cause	respiratory irritation	1.		
	H336: May cause	drowsiness or dizzin	ness.		
	H372: Causes dat	mage to organs {liver	r} through prolonged or repeated exposure.		
GHS Precaution Phrases:	P210: Keep away	from {heat/sparks/o	pen flames/hot surfaces} No smoking.		
	P280: Wear prote	ective gloves/clothing	g and eye/face protection as specified by the		
	-	plier or the competer	-		
		ls thoroughly after ha			
	P362+364: Take off contaminated clothing and wash it before reuse.				
	P201: Obtain special instructions before use.				
	P202: Do not handle until all safety precautions have been read and understood.				
	P281: Use personal protective equipment as required. P261: Avoid breathing dust/fume/gas/mist/vapours/spray.				
GHS Response Phrases:	<ul> <li>P260: Do not breathe dust/fume/gas/mist/vapours/spray.</li> <li>P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.</li> <li>P302+352: IF ON SKIN: Wash with plenty of soap and water.</li> <li>P332+313: If skin irritation occurs, get medical advice/attention.</li> <li>P205+251+229: IF DI EVES: Diage continued with purchase for example minutes. Demonstrates and the second second</li></ul>				
		IF IN EYES: Rinse can and easy to do. Cont	autiously with water for several minutes. Remove co- inue rinsing.		



Revision: 05/28/2013 Supercedes Revision: 01/14/2008

	P337+313: If eye	irritation persists,	get medical advice/	attention.		
	P308+313: IF exposed or concerned: Get medical attention/advice.					
	P309+311: Call a	POISON CENTE	R or doctor/physici	an if exposed or you feel u	nwell.	
	P304+340: IF IN	HALED: Remove	victim to fresh air a	nd keep at rest in a position	n comfortable	
	for breathing.					
	P314: Get medica	al attention/advice i	f you feel unwell.			
GHS Storage and Disposal Phrases:	Please refer to Se	ction 7 for Storage	and Section 13 for	Disposal information.		
2.3 Adverse Human Health Effects and	Causes damage to	o organs {liver} thr	ough prolonged or	repeated oral exposure.		
Symptoms:	Causes serious ey	ve irritation.				
	Causes skin or rea	spiratory system iri	itation.			
	Material is irritati	ing to the mucous r	nembranes and upp	er respiratory tract.		
		by inhalation, inges				
	•	aging fertility or th	· ·			
	To the best of our knowledge, the toxicological properties have not been thoroughly investigated					
Target Organs:	Central nervous system, Blood, Eyes, Reproductive system, Heart, Respiratory system, Liver,					
	Skin.	ystelli, Diood, Lye.	s, Reproductive sys	tem, freatt, Respiratory sy	stelli, Liver,	
LD 50 / LC 50:	Please refer to Se	ction 11.				
Medical Conditions Generally Aggravated By Exposure:	• No data available					
Section 3.	Compositio	on/Informat	ion on Ingr	edients		
lazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases	RTECS #	
. Arachidonic acid	506-32-1	< 0.09 %	208-033-4	R19-20/21/22-36/37 /38	CE6675000	
. Ethyl alcohol	64-17-5	>99.91 %	200-578-6	R11-36/37/38-48-62	KQ6300000	
				-63		
	Section 4.	First Aid M	easures			
4.1 Description of First Aid Measures:						

4.1.1 In Case of Inhalation:	Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
4.1.2 In Case of Skin Contact:	Immediately wash skin with soap and plenty of water for at least 20 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
4.1.3 In Case of Eye Contact:	Hold eyelids apart and flush eyes with plenty of water for at least 20 minutes. Have eyes examined and tested by medical personnel.
4.1.4 In Case of Ingestion:	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
4.2 Important Symptoms and Effects, Both Acute and Delayed:	Irritating to eyes, skin, nose; may cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects.
4.3 Indication of any immediate medical attention and special treatment needed:	No data available.
	oction 5 Fire Fighting Measures

Section 5. Fire Fighting Measures						
5.1	5.1       Suitable Extinguishing Media:       Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.         Use water spray to cool fire-exposed containers.       Use water spray to cool fire-exposed containers.					
	Unsuitable Extinguishing Media:	A solid water stream may be inefficient.				
5.2 Flammable Properties and Hazards:		Can release vapors that form explosive mixtures at temperatures at or above the flashpoint. Container explosion may occur under fire conditions. Emits toxic fumes under fire conditions. Sensitive to static discharge.				



Revision: 05/28/2013 Supercedes Revision: 01/14/2008

		Vapors can travel	to a source of ignition and flash	back.			
	Flash Pt:	14.00 C Method Used: Closed Cup					
	Autoignition Pt:	363.00 C					
	Explosive Limits:	LEL: 3.3% at 25.0 C UEL: 19.0% at 25.0 C					
	Hazardous Combustion Products:	No data available.					
5.3	Fire Fighting Instructions:	As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or					
		equivalent), and full protective gear to prevent contact with skin and eyes. Note: Flammable as diluted in ethanol.					
	Sectio	n 6. Accide	ental Release Meas	sures			
6.1	Protective Precautions, Protective		apors and provide adequate vent				
Equipr	ment and Emergency Procedures:		rrant, wear a NIOSH approved se ersonal protection (rubber boots,		-		
6.2	Environmental Precautions:	Take steps to avoi	d release into the environment, i	f safe to do so.			
6.3	Methods and Material For	Contain spill and	collect, as appropriate.				
Contai	inment and Cleaning Up:	Transfer to a chem	nical waste container for disposa	l in accordance with local reg	ulations.		
	Se	ection 7. H	andling and Storag	e			
7.1	Precautions To Be Taken in Handling:	-	lust/fume/gas/mist/vapours/spray	7.			
			or repeated exposure. sources of ignition.				
			y measures against static dischar	rge.			
7.2	Precautions To Be Taken in Storing:	-	neat, sparks, and flame.	0			
		Keep container tig					
	Store in accordance with information listed on the product insert.						
	Other Precautions:	Hygroscopic.					
Hazard Label Information:		Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation Wash thoroughly after handling.					
	Section 8		Controls/Personal I	Protection			
Hazard	lous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits		
	chidonic acid	506-32-1	No data.	No data.	No data.		
2. Ethy	yl alcohol	64-17-5	1000 ppm	1000 ppm	No data.		
Hazard	lous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe		
	ichidonic acid	506-32-1	No data.	No data.	No data.		
2. Ethy	yl alcohol	64-17-5	TWA: 1920 mg/m3 (1000 ppm) STEL: ()	TWA: 1900 mg/m3 (1000	No data.		
			STEL. ()	ppm) STEL: 9500 mg/m3 (5000			
				ppm)			
	ctive Equipment Summary - Hazard Information:		ical-resistant gloves Eye wash shower in work area Vent Hoc	station in work area Lab co	oat Safety		
Label I	Information:	glasses Safety s Use process enclo		station in work area Lab co d	·		
Label I 8.2.1 etc.):	Information:	glasses Safety s Use process enclo	shower in work area Vent Hoo sures, local exhaust ventilation,	station in work area Lab co d	-		
Label I 8.2.1 etc.): 8.2.2.1	Information: Engineering Controls (Ventilation	glasses Safety s Use process enclo levels below recon Safety glasses	shower in work area Vent Hoo sures, local exhaust ventilation,	station in work area Lab co d	-		
Label I 8.2.1 etc.): 8.2.2.1 8.2.2.2	Information: Engineering Controls (Ventilation Eye Protection:	glasses Safety s Use process enclo levels below recon Safety glasses	shower in work area Vent Hoo sures, local exhaust ventilation, mmended exposure limits.	station in work area Lab co d	·		



Revision: 05/28/2013

Nork/Hygienic/Maintenance Practice	Do not take internally.			
	Facilities storing or utilizing this material should be equipped with an eyewash and a safety			
	shower.			
	Wash thoroughly after handling.			
3.2.3 Environmental Exposure Cont	rols: No data available.			
	ction 9. Physical and Chemical Properties			
0.1 Information on Basic Physical	and Chemical Properties			
Physical States:	[ ] Gas [ X ] Liquid [ ] Solid			
Appearance and Odor:	Solution			
Melting Point:	No data.			
Boiling Point:	No data.			
Flash Pt:	14.00 C Method Used: Closed Cup			
Evaporation Rate:	No data.			
Explosive Limits:	LEL: 3.3% at 25.0 C UEL: 19.0% at 25.0 C			
/apor Pressure (vs. Air or mm Hg):	43 MM_HG at 20.0 C			
/apor Density (vs. Air = 1):	No data.			
Specific Gravity (Water = 1):	No data.			
Solubility in Water:	No data.			
Autoignition Pt:	363.00 C			
Explosive Properties:	No data available.			
Dxidizing Properties:	No data available.			
0.2 Other Information				
Percent Volatile:	No data.			
	Section 10. Stability and Reactivity			
0.1 Reactivity:	No data available.			
0.2 Stability:	Unstable [ ] Stable [ X ]			
0.3 Stability Note(s):	Stable if stored in accordance with information listed on the product insert.			
0.4 Conditions To Avoid:	heat, flames and sparks			
0.3 Polymerization:	Will occur [ ] Will not occur [ X ]			
0.5 Incompatibility - Materials To				
	ammonia			
	peroxides			
	strong oxidizing agents			
0.6 Hazardous Decomposition Or Byproducts:	carbon dioxide carbon monoxide			
1.1 Information on Taviasian's -!!	Section 11. Toxicological Information			
1.1 Information on Toxicological I	Effects: The toxicological effects of this product have not been thoroughly studied.			
	Ethanol - Toxicity Data: Oral TDLO (man): 1.14 ml/kg; Oral TDLO (man): 650 mg/kg; Oral			
	LD50 (rat): 7,060 mg/kg; Oral LD50 (mouse): 3,450 mg/kg; Oral LD50 (mouse): 10.5 ml/kg;			
	Oral LD50 (rabbit): 6,300 mg/kg; Inhalation LC50 (rat): 20,000 ppm (10h); Inhalation TCLO			
	(human): 1,800 ppm (30m); Inhalation TCLO (human): 2,500 mg/m3 (20m); Inhalation LC50 (mt): 5,000 mg/m2 ((h)) labeleting LCLO (meased): 20,200 mg/m2 (7h);			
	(rat): 5,900 mg/m3 (6h); Inhalation LCLO (mouse): 29,300 ppm (7h); Ethanol Irritation Data: Eves (rabbit): 500 mg (24h) mild: Skin (rabbit): 20 mg (24h) moderat			
	Ethanol - Irritation Data: Eyes (rabbit): 500 mg (24h) mild; Skin (rabbit): 20 mg (24h) moderat			



Cayman	Arachi	idonic Acid (	Control		Revision: 05/28/201
Chronic Toxicological Effects:	Arachidonic Acio	d - Investigated as a 1	nutagen. reproductiv	•	evision: 01/14/200
	Arachidonic Acid - Investigated as a mutagen, reproductive effector, and tumorigen. Ethanol - Investigated as a mutagen, reproductive effector, and tumorigen.				
	-		of Chemical Substan	-	a is presented here.
	-	n RTECS for comple			
		l RTECS Number: C			
		Number: KQ630000	1	4000	
Hazardous Components (Chemical Name) 1. Arachidonic acid	CAS # 506-32-1	NTP n.a.	IARC n.a.	ACGIH n.a.	OSHA n.a.
2. Ethyl alcohol	64-17-5		1	A4	
Carcinogenicity:	NTP? No IA	ARC Monographs? N	o OSHA Regula	nted? No	<b>I</b>
Se	ection 12. E	cological Inf	ormation		
12.1 Toxicity:		o the environment.			
	Runoff from fire	control or dilution w	ater may cause pollu	tion.	
Sec	tion 13. Di	sposal Cons	iderations		
13.1 Waste Disposal Method:	Dispose in accord	lance with local, stat	e, and federal regulat	ions.	
Se	ection 14. T	ransport Inf	ormation		
14.1 LAND TRANSPORT (US DOT)					
DOT Proper Shipping Name	Ethyl Alcohol So	lution			
DOT Hazard Class:	3				
DOT Hazard Label:	FLAMMABLE I	LIQUID			
UN/NA Number:	1170				
Packing Group:	II				
14.1 LAND TRANSPORT (European ADR/RI	D)				
ADR/RID Shipping Name	Ethyl Alcohol So	lution			
UN Number:	1170				
Hazard Class:	3 - FLAMMABL	E LIOUID			
Packing Group:	II				
14.3 AIR TRANSPORT (ICAO/IATA)	-				
ICAO/IATA Shipping Name	Ethyl Alcohol So	lution			
UN Number:	1170				
Hazard Class:	3 - FLAMMABL	E LIQUID			
Packing Group:	II	-			
IATA Classification:	3				
Additional Transport Information:	Transport in acco	ordance with local, st	ate, and federal regul	ations.	
Se	ction 15. R	egulatory In	formation		
European Community Hazard Symbol codes		<u> </u>		3	
European Community Risk and Safety Phrase			-		
<ul> <li>R11 - Highly flammable.</li> <li>R36/37/38 - Irritating to eyes, respiratory sy</li> <li>R48 - Danger of serious damage to heal</li> <li>R62 - Risk of impaired fertility.</li> </ul>	stem and skin.	sure.			
R62 - Risk of impaired fertility.	m ahild				

- R63 Possible risk of harm to the unborn child.
- S7 Keep container tightly closed.



S16 - Keep away from sources of ignition.

S24/25 - Avoid contact with skin and eyes.

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S33 - Take precautionary measures against static discharges.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

S53 - Avoid exposure - obtain special instructions before use.

#### US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110	
1. Arachidonic acid	506-32-1	No	No	No	No	
2. Ethyl alcohol	64-17-5	No	No	No	No	
Other US EPA or State Lists						
Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65	
1 Arashidania agid	506 22 1	No	No	No	No	

nazaraous components (onennou name)	6A6 #	CAA HAI ,ODO		IUUA	OAT NOT 100
1. Arachidonic acid	506-32-1	No	No	No	No
2. Ethyl alcohol	64-17-5	No	No	Inventory	No
Regulatory Information Statement: This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European					

Directive 67/548/EEC as amended.

### Section 16. Other Information

**Revision Date:** 

05/28/2013

#### **Company Policy or Disclaimer**

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required