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	accordir	ig to Regulation (EC) No. 1907/2006 as amended by (EC) No. 2015/830	0 and US OSHA HCS 2015					
	Section 1.	Identification of the Substance/Mixture and of th	e Company/Undertaking					
.1	Product Code: Product Name: Synonyms:	13185 17(S)-HpDHA 17S-hydroperoxy-4E,7Z,10Z,13Z,15Z,19Z-doc Docosahexaenoic Acid; 17(S)-HpDoHE;	osahexaenoic acid; 17(S)-hydroperoxy					
.2	Relevant identified uses o	f the substance or mixture and uses advised aga	ainst:					
	Relevant identified uses	For research use only, not for human or veterin	nary use.					
1.3	Details of the Supplier of t	he Safety Data Sheet:						
	Company Name:	Cayman Chemical Company 1180 E. Ellsworth Rd. Ann Arbor, MI 48108						
	Web site address:	www.caymanchem.com						
	Information:	Cayman Chemical Company	+1 (734)971-3335					
1.4	Emergency telephone nur							
	Emergency Contact:	CHEMTREC Within USA and Canada:	+1 (800)424-9300					
		CHEMTREC Outside USA and Canada:	+1 (703)527-3887					
		Section 2. Hazards Identification	ation					
2.1	Classification of the Subs	tance or Mixture:						
	Flammable Liquids, Cat	egory 2						
2.2	Label Elements:							
	GHS Signal Word: GHS Hazard Phrases: H225: Highly flammable li	Danger						
	GHS Precaution Phrases:							
	P210: Keep away from {heat/sparks/open flames/hot surfaces} No smoking.							
	P280: Wear {protective gloves/protective clothing/eye protection/face protection}.							
	GHS Response Phrases:							
	P303+361+353: IF ON Sł water/shower.	KIN (or hair): Remove/take off immediately all contar	ninated clothing. Rinse skin with					
	GHS Storage and Dispo							
		for Storage and Section 13 for Disposal information.						
2.3	Adverse Human Health Effects and Symptoms:	Material may be irritating to the mucous membrane May be harmful by inhalation, ingestion, or skin ab May cause eye, skin, or respiratory system irritation	sorption.					
		To the best of our knowledge, the toxicological pro	perties have not been thoroughly investigate					
		To the best of our knowledge, the toxicological pro	peries have not been inoroughly investigate					



<ul> <li>4.1 Description of First Aid Measures: In Case of Inhalation: Remove to fresh air. If not breathing, give artifici Get immediate medical attention. In Case of Skin Contact: Immediately wash skin with soap and plenty of v clothing. Get medical attention if symptoms occu In Case of Eye Contact: Hold eyelids apart and flush eyes with plenty of and tested by medical personnel. In Case of Ingestion: Wash out mouth with water provided person is c unconscious person. Get medical attention. Do I medical personnel.</li> <li>4.2 Important Symptoms and May cause anemia, cough, CNS depression, dro Effects, Both Acute and (weakness, exhaustion), liver damage, narcosis. Delayed:</li> <li>5.1 Suitable Extinguishing Media: Use water spray to cool fire-exposed containers Unsuitable Extinguishing A solid water stream may be inefficient. Media:</li> <li>5.2 Flammable Properties andCan release vapors that form explosive mixture: Hazards: Container explosion may occur under fire conditi Emits toxic fumes under fire conditions. Sensitive to static discharge. Vapors can travel to a source of ignition and flas No data available. Flash Pt:</li> <li>14.00 C Method Used: Closed Cup</li> </ul>	istration No.       0.01 %         0-43       99.99 %         Section 4. First Aid Measu         Aid         Get medical attention.         act: Immediately wash skin with soap and plenty of water         clothing. Get medical attention if symptoms occur.         Aid         Aid tested by medical personnel.         Wash out mouth with water provided person is con         unconscious person. Get medical attention. Do No         medical personnel.         S and May cause anemia, cough, CNS depression, drow         and (weakness, exhaustion), liver damage, narcosis, r         Section 5. Fire Fighting Mea         Ing         Use alcohol-resistant foam, carbon dioxide, water         Use water spray to cool fire-exposed containers.         shing         A solid water stream may be inefficie			1	ion 3. Composition	1		1
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CQG6300000       01-2119457610-43         Section 4. First Aid Measures:         In Case of Inhalation:       Remove to fresh air. If not breathing, give artifici         Get immediate medical attention.       In Case of Skin Contact:         In Case of Skin Contact:       Immediately wash skin with soap and plenty of weather clothing. Get medical attention if symptoms occur.         In Case of Eye Contact:       Hold eyelids apart and flush eyes with plenty of and tested by medical personnel.         In Case of Ingestion:       Wash out mouth with water provided person is connected by medical personnel.         In Case of Ingestion:       Wash out mouth with water provided person is connected by medical personnel.         In Case of Ingestion:       Wash out mouth with water provided person is connected by medical personnel.         .1       Important Symptoms and May cause anemia, cough, CNS depression, drog Effects, Both Acute and (weakness, exhaustion), liver damage, narcosis, Delayed:         .2       Important Symptoms and May cause anemia, cough, CNS depression, drog Effects, Both Acute and (weakness, exhaustion), liver damage, narcosis, Delayed:         .1       Suitable Extinguishing Media:       Use water spray to cool fire-exposed containers:         .1       Suitable Extinguishing A solid water stream may be inefficient.         Media:       Container explosion may occur under fire conditions.         .2       Flammable Properties andCan release vapors that form explo	Section 4. First Aid Measures         Aid         Aid         act:       Remove to fresh air. If not breathing, give artificial Get immediate medical attention.         act:       Immediately wash skin with soap and plenty of ware clothing. Get medical attention if symptoms occur.         act:       Hold eyelids apart and flush eyes with plenty of ware and tested by medical personnel.         :       Wash out mouth with water provided person is conunconscious person. Get medical attention. Do Normedical personnel.         s and May cause anemia, cough, CNS depression, drow and (weakness, exhaustion), liver damage, narcosis, r         Mean       Section 5. Fire Fighting Mean         ing       Use alcohol-resistant foam, carbon dioxide, water         Use water spray to cool fire-exposed containers.       Shing         Shing       A solid water stream may be inefficient.         es andCan release vapors that form explosive mixtures a Container explosion may occur under fire condition Emits toxic fumes under fire conditions. Sensitive to static discharge.         Vapors can travel to a source of ignition and flash No data available.       14.00 C Method Used: Closed Cup         LEL:       3.3% at 25.0 C UEL: 19.0% 363.00 C         tions: As in any fire, wear self-contained breathing apparence		73-33-6	17(S)-HpDHA		0.01 %	NA NA	No data available.
<ul> <li>1 Description of First Aid Measures: In Case of Inhalation: Remove to fresh air. If not breathing, give artifici Get immediate medical attention.</li> <li>In Case of Skin Contact: Immediately wash skin with soap and plenty of v clothing. Get medical attention if symptoms occu In Case of Eye Contact: Hold eyelids apart and flush eyes with plenty of and tested by medical personnel.</li> <li>In Case of Ingestion: Wash out mouth with water provided person is of unconscious person. Get medical attention. Do I medical personnel.</li> <li>Important Symptoms and May cause anemia, cough, CNS depression, dro Effects, Both Acute and (weakness, exhaustion), liver damage, narcosis. Delayed:</li> <li>Suitable Extinguishing Media: Use alcohol-resistant foam, carbon dioxide, wat Use water spray to cool fire-exposed containers Unsuitable Extinguishing A solid water stream may be inefficient. Media:</li> <li>Flammable Properties andCan release vapors that form explosive mixtures Hazards: Container explosion may occur under fire conditi Emits toxic fumes under fire conditions. Sensitive to static discharge. Vapors can travel to a source of ignition and flas No data available.</li> <li>Flash Pt: 14.00 C Method Used: Closed Cup Explosive Limits: LEL: 3.3% at 25.0 C UEL: 19.09</li> </ul>	Aid         I:       Remove to fresh air. If not breathing, give artificial Get immediate medical attention.         Gat:       Immediately wash skin with soap and plenty of wa clothing. Get medical attention if symptoms occur.         Gat:       Hold eyelids apart and flush eyes with plenty of wa and tested by medical personnel.         I:       Wash out mouth with water provided person is con unconscious person. Get medical attention. Do NG medical personnel.         I:       May cause anemia, cough, CNS depression, drow and (weakness, exhaustion), liver damage, narcosis, r         I:       Section 5. Fire Fighting Mea         Ing       Use alcohol-resistant foam, carbon dioxide, water Use water spray to cool fire-exposed containers.         Shing       A solid water stream may be inefficient.         Rs       andCan release vapors that form explosive mixtures a Container explosion may occur under fire condition. Sensitive to static discharge.         Vapors can travel to a source of ignition and flash No data available.       14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C         tions: As in any fire, wear self-contained breathing appa					99.99 %	200-578-6 603-002-00-5	Flam. Liq. 2: H225
Measures:       In Case of Inhalation:       Remove to fresh air. If not breathing, give artifici         In Case of Skin Contact:       Immediately wash skin with soap and plenty of we clothing. Get medical attention if symptoms occur         In Case of Eye Contact:       Hold eyelids apart and flush eyes with plenty of we and tested by medical personnel.         In Case of Ingestion:       Wash out mouth with water provided person is connected by medical personnel.         In Case of Ingestion:       Wash out mouth with water provided person is connected by medical personnel.         In Case of Ingestion:       Wash out mouth with water provided person is connected by medical personnel.         In Case of Ingestion:       Wash out mouth with water provided person is connected by medical personnel.         In Case of Ingestion:       Wash out mouth with water provided person is connected by medical personnel.         In Case of Ingestion:       Wash out mouth with water provided person is connected by medical personnel.         In Case of Ingestion:       Wash out mouth with water provided person is connected by medical personnel.         In Case of Ingestion:       Wesh out mouth with water provided person is connected by medical personnel.         In Case of Ingestion:       Wesh out mouth with water provided person is connected by medical personnel.         In Case of Ingestion:       Weekness, exhaustion), liver damage, narcosist person.         In Gate atreating ishing       Use water spray to cool fire-exposed	<ul> <li>Remove to fresh air. If not breathing, give artificial Get immediate medical attention.</li> <li>act: Immediately wash skin with soap and plenty of wa clothing. Get medical attention if symptoms occur.</li> <li>act: Hold eyelids apart and flush eyes with plenty of wa and tested by medical personnel.</li> <li>Wash out mouth with water provided person is con unconscious person. Get medical attention. Do No medical personnel.</li> <li>and May cause anemia, cough, CNS depression, drow and (weakness, exhaustion), liver damage, narcosis, responsed containers.</li> <li>and Use alcohol-resistant foam, carbon dioxide, water Use water spray to cool fire-exposed containers.</li> <li>shing A solid water stream may be inefficient.</li> <li>andCan release vapors that form explosive mixtures a Container explosion may occur under fire condition Emits toxic fumes under fire conditions. Sensitive to static discharge.</li> <li>Vapors can travel to a source of ignition and flash No data available.</li> <li>14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C</li> <li>tions: As in any fire, wear self-contained breathing apparation.</li> </ul>			·	Section 4. Fi	rst Aid Meas	ures	
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Media:       Use alcohol-resistant foam, carbon dioxide, wat Use water spray to cool fire-exposed containers         Media:       Use water stream may be inefficient.         Media:       Container explosion may occur under fire conditions.         Sensitive to static discharge.       Vapors can travel to a source of ignition and flas         No data available.       Flash Pt:         Elast Pt:       14.00 C       Method Used: Closed Cup         Explosive Limits:       LEL: 3.3%       at 25.0 C       UEL: 19.09	medical personnel. and May cause anemia, cough, CNS depression, drow and (weakness, exhaustion), liver damage, narcosis, r <u>Section 5. Fire Fighting Mea</u> ng Use alcohol-resistant foam, carbon dioxide, water Use water spray to cool fire-exposed containers. shing A solid water stream may be inefficient. es andCan release vapors that form explosive mixtures a Container explosion may occur under fire condition Emits toxic fumes under fire conditions. Sensitive to static discharge. Vapors can travel to a source of ignition and flash No data available. 14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C tions: As in any fire, wear self-contained breathing appa		In Case	of Ingestion:	•	•	•	
<ul> <li>Important Symptoms and May cause anemia, cough, CNS depression, dro Effects, Both Acute and (weakness, exhaustion), liver damage, narcosis, Delayed:</li> <li>Suitable Extinguishing Media:</li> <li>Use alcohol-resistant foam, carbon dioxide, wat Use water spray to cool fire-exposed containers Unsuitable Extinguishing A solid water stream may be inefficient. Media:</li> <li>Flammable Properties andCan release vapors that form explosive mixtures Hazards:</li> <li>Container explosion may occur under fire conditions. Sensitive to static discharge. Vapors can travel to a source of ignition and flas No data available.</li> <li>Flash Pt:</li> <li>H4.00 C Method Used: Closed Cup Explosive Limits:</li> <li>LEL: 3.3% at 25.0 C UEL: 19.09</li> </ul>	<ul> <li>and May cause anemia, cough, CNS depression, drow and (weakness, exhaustion), liver damage, narcosis, response of the section 5. Fire Fighting Mean Use alcohol-resistant foam, carbon dioxide, water Use water spray to cool fire-exposed containers.</li> <li>ashing A solid water stream may be inefficient.</li> <li>and Can release vapors that form explosive mixtures a Container explosion may occur under fire condition Emits toxic fumes under fire conditions. Sensitive to static discharge.</li> <li>Vapors can travel to a source of ignition and flash No data available.</li> <li>14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C</li> <li>tions: As in any fire, wear self-contained breathing appara</li> </ul>				•	dical attention. Do N	NOT induce vomiti	ng unless directed to do so by
Effects, Both Acute and Delayed:       (weakness, exhaustion), liver damage, narcosis, Delayed:         5.1       Suitable Extinguishing Media:       Use alcohol-resistant foam, carbon dioxide, wat Use water spray to cool fire-exposed containers Unsuitable Extinguishing A solid water stream may be inefficient.         6.2       Flammable Properties andCan release vapors that form explosive mixture: Hazards:         6.2       Flammable Properties andCan release vapors that form explosive mixture: Hazards:         6.2       Flammable Properties andCan release vapors that form explosive mixture: Hazards:         6.1       Sensitive to static discharge.         Vapors can travel to a source of ignition and flag No data available.         Flash Pt:       14.00 C       Method Used: Closed Cup         Explosive Limits:       LEL: 3.3% at 25.0 C       UEL: 19.09	<ul> <li>and (weakness, exhaustion), liver damage, narcosis, response of the section 5. Fire Fighting Mean</li> <li>Is alcohol-resistant foam, carbon dioxide, water Use water spray to cool fire-exposed containers.</li> <li>and Can release vapors that form explosive mixtures a Container explosion may occur under fire condition Emits toxic fumes under fire conditions. Sensitive to static discharge.</li> <li>Vapors can travel to a source of ignition and flash No data available.</li> <li>14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C</li> <li>tions: As in any fire, wear self-contained breathing appara</li> </ul>		_	_	•			
Delayed:         Section 5. Fire Fighting Meter         Section 5. Fire Fighting Meter         Section 5. Fire Fighting Meter         Media:         Unsuitable Extinguishing       Use alcohol-resistant foam, carbon dioxide, water         Unsuitable Extinguishing       A solid water stream may be inefficient.         Media:       Media:         S.2       Flammable Properties and Can release vapors that form explosive mixtures         Hazards:       Container explosion may occur under fire conditions.         Sensitive to static discharge.       Vapors can travel to a source of ignition and flast         No data available.       Flash Pt:       14.00 C       Method Used:       Closed Cup         Explosive Limits:       LEL:       3.3%       at 25.0 C       UEL:       19.0%	Section 5. Fire Fighting Mea         Ing       Use alcohol-resistant foam, carbon dioxide, water         Use water spray to cool fire-exposed containers.         shing       A solid water stream may be inefficient.         es andCan release vapors that form explosive mixtures a         Container explosion may occur under fire condition         Emits toxic fumes under fire conditions.         Sensitive to static discharge.         Vapors can travel to a source of ignition and flash         No data available.         14.00 C       Method Used:       Closed Cup         LEL:       3.3%       at       25.0 C       UEL:       19.0%         363.00 C       tions: As in any fire, wear self-contained breathing appare	.2	-			-		-
Section 5. Fire Fighting Me         S.1       Suitable Extinguishing Media:       Use alcohol-resistant foam, carbon dioxide, wat Use water spray to cool fire-exposed containers         Unsuitable Extinguishing Media:       Use water spray to cool fire-exposed containers         Unsuitable Extinguishing A solid water stream may be inefficient.         Media:       Media:         S.2       Flammable Properties andCan release vapors that form explosive mixtures         Hazards:       Container explosion may occur under fire conditions.         Sensitive to static discharge.       Vapors can travel to a source of ignition and flas         No data available.       14.00 C       Method Used: Closed Cup         Explosive Limits:       LEL: 3.3% at 25.0 C       UEL: 19.09	<ul> <li>ng Use alcohol-resistant foam, carbon dioxide, water Use water spray to cool fire-exposed containers.</li> <li>shing A solid water stream may be inefficient.</li> <li>es andCan release vapors that form explosive mixtures a Container explosion may occur under fire condition Emits toxic fumes under fire conditions. Sensitive to static discharge.</li> <li>Vapors can travel to a source of ignition and flash No data available.</li> <li>14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C</li> <li>tions: As in any fire, wear self-contained breathing appa</li> </ul>			•	(weakness, exhaustion), liver	damage, narcosis,	reproductive effect	cts, teratogenic effects.
<ul> <li>Suitable Extinguishing Media: Use alcohol-resistant foam, carbon dioxide, wat Use water spray to cool fire-exposed containers Unsuitable Extinguishing A solid water stream may be inefficient. Media:</li> <li>Flammable Properties andCan release vapors that form explosive mixtures Hazards: Container explosion may occur under fire condit Emits toxic fumes under fire conditions. Sensitive to static discharge. Vapors can travel to a source of ignition and flas No data available.</li> <li>Flash Pt: 14.00 C Method Used: Closed Cup Explosive Limits: LEL: 3.3% at 25.0 C UEL: 19.09</li> </ul>	<ul> <li>ng Use alcohol-resistant foam, carbon dioxide, water Use water spray to cool fire-exposed containers.</li> <li>shing A solid water stream may be inefficient.</li> <li>es andCan release vapors that form explosive mixtures a Container explosion may occur under fire condition Emits toxic fumes under fire conditions. Sensitive to static discharge.</li> <li>Vapors can travel to a source of ignition and flash No data available.</li> <li>14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C</li> <li>tions: As in any fire, wear self-contained breathing appa</li> </ul>		Delaye	d:				
Media:       Use water spray to cool fire-exposed containers         Unsuitable Extinguishing       A solid water stream may be inefficient.         Media:       Media:         5.2       Flammable Properties andCan release vapors that form explosive mixtures         Hazards:       Container explosion may occur under fire conditions.         Sensitive to static discharge.       Vapors can travel to a source of ignition and flas         No data available.       Flash Pt:         Flash Pt:       14.00 C       Method Used:       Closed Cup         Explosive Limits:       LEL:       3.3%       at 25.0 C       UEL:       19.0%	Use water spray to cool fire-exposed containers. shing A solid water stream may be inefficient. es andCan release vapors that form explosive mixtures a Container explosion may occur under fire condition Emits toxic fumes under fire conditions. Sensitive to static discharge. Vapors can travel to a source of ignition and flash No data available. 14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C tions: As in any fire, wear self-contained breathing appa				Section 5. Fire	Fighting Me	asures	
Unsuitable Extinguishing A solid water stream may be inefficient.         Media:         5.2       Flammable Properties andCan release vapors that form explosive mixtures         Hazards:       Container explosion may occur under fire condit         Emits toxic fumes under fire conditions.         Sensitive to static discharge.         Vapors can travel to a source of ignition and flas         No data available.         Flash Pt:       14.00 C         Explosive Limits:       LEL: 3.3%         at 25.0 C       UEL: 19.09	<ul> <li>shing A solid water stream may be inefficient.</li> <li>andCan release vapors that form explosive mixtures a Container explosion may occur under fire condition Emits toxic fumes under fire conditions. Sensitive to static discharge.</li> <li>Vapors can travel to a source of ignition and flash No data available.</li> <li>14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C</li> <li>tions: As in any fire, wear self-contained breathing apparent.</li> </ul>	5.1	Suitabl	e Extinguishing	Use alcohol-resistant foam, o	carbon dioxide, wat	er, or dry chemical	spray.
Media:         5.2       Flammable Properties andCan release vapors that form explosive mixtures         Hazards:       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 flas         No data available.         Flash Pt:       14.00 C         Explosive Limits:       LEL: 3.3%       at 25.0 C         UEL:       19.0%	es andCan release vapors that form explosive mixtures a Container explosion may occur under fire condition Emits toxic fumes under fire conditions. Sensitive to static discharge. Vapors can travel to a source of ignition and flash No data available. 14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C tions: As in any fire, wear self-contained breathing appa		Media:		Use water spray to cool fire-e	exposed containers		
<ul> <li>Flammable Properties andCan release vapors that form explosive mixtures</li> <li>Hazards: 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 flag. No data available.</li> <li>Flash Pt: 14.00 C Method Used: Closed Cup</li> <li>Explosive Limits: LEL: 3.3% at 25.0 C UEL: 19.09</li> </ul>	Container explosion may occur under fire condition Emits toxic fumes under fire conditions. Sensitive to static discharge. Vapors can travel to a source of ignition and flash No data available. 14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C tions: As in any fire, wear self-contained breathing appa		Unsuita	able Extinguishing	A solid water stream may be	inefficient.		
Hazards: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 flat No data available.Flash Pt:14.00 CMethod Used: LEL:Closed CupExplosive Limits:LEL:3.3%at25.0 CUEL:19.0%	Container explosion may occur under fire condition Emits toxic fumes under fire conditions. Sensitive to static discharge. Vapors can travel to a source of ignition and flash No data available. 14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C tions: As in any fire, wear self-contained breathing appa		Media:					
Emits toxic fumes under fire conditions.Sensitive to static discharge.Vapors can travel to a source of ignition and flagNo data available.Flash Pt:14.00 CLEL:3.3%at25.0 CUEL:19.0%	Emits toxic fumes under fire conditions. Sensitive to static discharge. Vapors can travel to a source of ignition and flash No data available. 14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C tions: As in any fire, wear self-contained breathing appa	5.2	Flamma	able Properties an	dCan release vapors that form	n explosive mixtures	s at temperatures a	at or above the flashpoint.
Sensitive to static discharge. Vapors can travel to a source of ignition and flas No data available. Flash Pt: 14.00 C Method Used: Closed Cup Explosive Limits: LEL: 3.3% at 25.0 C UEL: 19.0%	Sensitive to static discharge. Vapors can travel to a source of ignition and flash No data available. 14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C tions: As in any fire, wear self-contained breathing appa		Hazard	s:	Container explosion may occ	cur under fire condit	ions.	
Vapors can travel to a source of ignition and flas No data available. Flash Pt: 14.00 C Method Used: Closed Cup Explosive Limits: LEL: 3.3% at 25.0 C UEL: 19.0%	Vapors can travel to a source of ignition and flash No data available. 14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C tions: As in any fire, wear self-contained breathing appa				Emits toxic fumes under fire	conditions.		
No data available.Flash Pt:14.00 CMethod Used:Closed CupExplosive Limits:LEL:3.3%at25.0 CUEL:19.0%	No data available. 14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C tions: As in any fire, wear self-contained breathing appa				Sensitive to static discharge.			
Flash Pt:14.00 CMethod Used: Closed CupExplosive Limits:LEL:3.3%at25.0 CUEL:19.0%	14.00 C Method Used: Closed Cup LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C tions: As in any fire, wear self-contained breathing appa				Vapors can travel to a source	e of ignition and flas	sh back.	
Explosive Limits: LEL: 3.3% at 25.0 C UEL: 19.0%	LEL: 3.3% at 25.0 C UEL: 19.0% 363.00 C tions: As in any fire, wear self-contained breathing appa				No data available.			
•	363.00 C tions: As in any fire, wear self-contained breathing appa		Flash P	't:	14.00 C Method Used: Cl	osed Cup		
Autoignition Pt: 363.00 C	tions: As in any fire, wear self-contained breathing appa		Explos	ive Limits:	LEL: 3.3% at 25.0 C	UEL: 19.0%	6 at 25.0 C	
			Autoig	nition Pt:	363.00 C			
5.3 Fire Fighting Instructions: As in any fire, wear self-contained breathing app	equivalent), and full protective gear to prevent cor	5.3	Fire Fig	hting Instructions	As in any fire, wear self-cont	ained breathing app	paratus pressure-d	emand (NIOSH approved or
equivalent), and full protective gear to prevent c					equivalent), and full protectiv	e gear to prevent c	ontact with skin an	d eyes.
Note: Flammable as diluted in ethanol.	Note: Flammable as diluted in ethanol.				Note: Flammable as diluted i	n ethanol.		
								Multi-region fo



	CHEMTCAL			Superse	des Revision: 05/29/2013		
		Section 6. Ac	ccidental	Release Measures			
6.1	Protective Precautions,	Avoid breathing var	pors and prov	ide adequate ventilation.			
	Protective Equipment and	re Equipment and As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirate					
	Emergency Procedures:	and appropriate per	rsonal protect	tion (rubber boots, safety goggles, and h	eavy rubber gloves).		
6.2	Environmental	Take steps to avoid	t release into	the environment, if safe to do so.			
	Precautions:						
6.3		Contain spill and co	ollect as appr	ropriate			
0.0	<ul> <li>Methods and Material For Contain spill and collect, as appropriate.</li> <li>Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations.</li> </ul>						
	Up:						
	ор.		7				
				ing and Storage			
7.1	Precautions To Be Taken	-	-				
	in Handling:	Avoid prolonged or r	• •				
		Keep away from sou	•				
			-	ainst static discharge.			
7.2	Precautions To Be Taken		•	d flame.			
	in Storing:	Keep container tight	-	tion listed on the product is set			
			with informa	tion listed on the product insert.			
	Other Precautions:	Hygroscopic					
	Sect	ion 8. Exposi	ure Cont	rols/Personal Protection			
8.1	Exposure Parameters:						
CAS	# Chemical Name	Jurisdiction	۱	Recommended Exposure Limits	Notations		
64-17	7-5 Ethyl alcohol	ACGIH TLV		TLV: 1000 ppm			
		France VL		TWA: 1900 mg/m3 (1000 ppm) STEL: 9500 mg/m3 (5000 ppm)			
		OSHA PELs		PEL: 1000 ppm			
		Britain EH40	)	TWA: 1920 mg/m3 (1000 ppm)			
				STEL: ()			
8.2	Exposure Controls:						
8.2.1	Engineering Controls	Use process enclose	ures, local ex	haust ventilation, or other engineering co	ontrols to control airborne		
	(Ventilation etc.):	levels below recomm	mended expo	sure limits.			
8.2.2	Personal protection equi	pment:					
	Eye Protection:	Safety glasses					
	Protective Gloves:	Compatible chemica	al-resistant gle	oves			
	Other Protective Clothing	:Lab coat					
	Respiratory Equipment	NIOSH approved re	spirator, as c	onditions warrant.			
	(Specify Type):		opnator, ao o				
	Work/Hygienic/Maintenan	Do not take internall	lv.				
	ce Practices:		-	naterial should be equipped with an eyev	vash and a safety showe		
	ce Flacilices.	Wash thoroughly aft	-	internal should be equipped with an eyev	vasir and a safety showe		
		No data available.	tor nanoling.				
		NU Uala avaliable.					



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		Supersedes Revision: 05/	29/2013
	S	Section 9. Physical and Chemical Properties	
9.1	Information on Basic Phy	ysical and Chemical Properties	
	Physical States:	[]Gas [X]Liquid []Solid	
	Appearance and Odor:	A solution in ethanol	
	pH:	No data.	
	Melting Point:	No data.	
	Boiling Point:	No data.	
	Flash Pt:	14.00 C Method Used: Closed Cup	
	Evaporation Rate:	No data.	
	Flammability (solid, gas)	): No data available.	
	Explosive Limits:	LEL: 3.3% at 25.0 C UEL: 19.0% at 25.0 C	
	Vapor Pressure (vs. Air o	or mm 43 MM_HG at 20.0 C	
	Hg):		
	Vapor Density (vs. Air =	1): No data.	
	Specific Gravity (Water =	= 1): No data.	
	Solubility in Water:	No data.	
	<b>Octanol/Water Partition</b>	No data.	
	Coefficient:		
	Autoignition Pt:	363.00 C	
	Decomposition Tempera	ature: No data.	
	Viscosity:	No data.	
9.2	Other Information		
	Percent Volatile:	No data.	
	Molecular Formula & We	eight: C22H32O4 360.5	
		Section 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.	
	Polymerization:	Will occur [ ] Will not occur [ X ]	
10.4	Conditions To Avoid:	heat, flames, and sparks	
10.5	Incompatibility - Material		
10.5	To Avoid:	ammonia	
		peroxides	
		strong oxidizing agents	
10.6	Hazardous	carbon dioxide	
	Decomposition or	carbon monoxide	
	Byproducts:		
		NJ14:	ion form
		Multi-reg	ion torm



	HEMICAL				S	upersedes Revis	ion: 05/29/2013	
			Section 11. Toxicolo	ogical Inform	ation			
11.1	Chronic Effects	ogical Effects: c Toxicological	The toxicological effects of this pr Ethanol - Toxicity Data: Oral TDL4 (rat): 7,060 mg/kg; Oral LD50 (mo (rabbit): 6,300 mg/kg; Inhalation L ppm (30m); Inhalation TCLO (hum (6h); Inhalation LCLO (mouse): 29 Ethanol - Irritation Data: Eyes (rat Ethanol - Investigated as a drug, r and tumorigen. Only select Registry of Toxic Effect See actual entry in RTECS for co Ethanol RTECS Number: KQ6300	O (man): 1.14 ml/k puse): 3,450 mg/kg .C50 (rat): 20,000 p nan): 2,500 mg/m3 9,300 ppm (7h); pbit): 500 mg (24h) mutagen, natural p cts of Chemical Su mplete information 0000	g; Oral TDLO (r ;; Oral LD50 (mo ppm (10h); Inha 8 (20m); Inhalati 9 mild; Skin (rabl product, primary 9 lbstances (RTE) -	nan): 650 mg/k buse): 10.5 ml/ lation TCLO (h on LC50 (rat): bit): 20 mg (24 irritant, reprod	kg; Oral LD50 human): 1,800 5,900 mg/m3 h) moderate; uctive effector	
	nogenicit	-	NTP? No IARC Monographs		Regulated? No	400"		
1236	# 573-33-6	Hazardous Com 17(S)-HpDHA	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA	
	-17-5	Ethyl alcohol		n.a. n.a.	n.a.	n.a. A4	n.a.	
			Section 12 Ecolor					
10.4	Tank		Section 12. Ecolog	,				
12.1	Toxicity	/:	Avoid release into the environmer Runoff from fire control or dilution		pollution			
12.2	Persist	ence and	No data available.	water may cause	policion.			
	Degrad							
12.3	-	umulative	No data available.					
12.J	Potenti		יזט עמנמ מימוומטוס.					
12.4		/ in Soil:	No data available.					
12.5	-	of PBT and vPvB						
. 2.0	assessment:							
12.6		dverse effects:	No data available.					
			Section 13. Dispose	al Considera	tions			
13.1	Waste I	Disposal Method:	Dispose in accordance with local,					
			Section 14. Trans	port Informa	ition			
14.1	LAND	TRANSPORT (US I	DOT):					
D	OT Prop	er Shipping Name:	Ethyl Alcohol Solution					
D	OT Haza	rd Class:	3 FLAMMABLE	E LIQUID				
U	N/NA Nu	mber:	UN1170	Packing Gro	oup:	II		
14.1		TRANSPORT (Euro						
		Shipping Name:	Ethyl Alcohol Solution	<b>_</b>				
-	N Numbe			Packing Gro	oup:	II		
Н	lazard Cla	ass:	3 - FLAMMABLE LIQUID					
						-	Aulti namia - fr	
						N	Iulti-region form	



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### 14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name:	Ethyl Alcohol Solution		
UN Number:	1170	Packing Group:	II
Hazard Class:	3 - FLAMMABLE LIQUID	IATA Classification:	3
Additional Transport	Transport in accordance with loca	l, state, and federal regulations.	
Information:	When sold in quantities of less that	an or equal to 1 mL, or 1 g, with an	Excepted Quantity Code of
	E1, E2, E4, or E5, this item meets	the De Minimis Quantities exemp	tion, per IATA 2.6.10.
	Therefore packaging does not have	ve to be labeled as Dangerous Go	ods/Excepted Quantity.

# Section 15. Regulatory Information

S)-HpDHA yl alcohol zardous Com S)-HpDHA yl alcohol ttion	ponents (Chemical Name) This SDS was prepared in acco	PROP.65: No	No; CWA NPDES:	No No No; TSCA: No; CA	
zardous Com S)-HpDHA Iyl alcohol		Other US EPA of CAA HAP,ODC: PROP.65: No CAA HAP,ODC:	<b>State Lists</b> No; CWA NPDES:		
S)-HpDHA		CAA HAP,ODC: PROP.65: No CAA HAP,ODC:	No; CWA NPDES:	No; TSCA: No; CA	
yl alcohol	This SDS was prepared in acco	PROP.65: No CAA HAP,ODC:		No; TSCA: No; CA	
	This SDS was prepared in acco				
ition	This SDS was prepared in acco			No; TSCA: Yes -	
		ordance with 29 CFF	R 1910.1200 and R	egulation (EC)	
	No.1272/2008.				
	Section 16. Oth	ner Informatio	on		
	11/07/2018				
ion About	No data available.				
Disclaimer:	currently available to us. Howev express or implied, with respect	ver, we make no wat to such information	rranty of merchanta , and we assume n	bility or any other warrant o liability resulting from its	
	ion About Disclaimer:	tion About No data available. Disclaimer: DISCLAIMER: This information currently available to us. However express or implied, with respect use. Users should make their of	<ul> <li>No data available.</li> <li>Disclaimer: DISCLAIMER: This information is believed to be ac currently available to us. However, we make no wal express or implied, with respect to such information use. Users should make their own investigations to</li> </ul>	<ul> <li>No data available.</li> <li>Disclaimer: DISCLAIMER: This information is believed to be accurate and represe currently available to us. However, we make no warranty of merchanta express or implied, with respect to such information, and we assume n use. Users should make their own investigations to determine the suit</li> </ul>	

Multi-region format