

	CHIMICAL		Supersedes Revision: 05/16/2012					
		cording to Regulation (EC) No. 1907/2006 as amended by						
	Section 1.	Identification of the Substance/Mixture and of the	he Company/Undertaking					
1.1	Product Code:	60910						
	Product Name:	PAF C-18						
	Synonyms:	1-O-octadecyl-2-O-acetyl-sn-glyceryl-3-phosp	horylcholine;					
.2	Relevant identified uses	of the substance or mixture and uses advised ag	ainst:					
	Relevant identified uses	s: For research use only, not for human or veteri	nary use.					
1.3	Details of the Supplier of	the Safety Data Sheet:						
	Company Name:	Cayman Chemical Company						
		1180 E. Ellsworth Rd.						
	Web site address:	Ann Arbor, MI 48108 www.caymanchem.com						
	Information:	Cayman Chemical Company	+1 (734)971-3335					
			+1 (754)971-5555					
1.4	Emergency telephone nu		.1 (200)/104 0000					
	Emergency Contact:	CHEMTREC Within USA and Canada: CHEMTREC Outside USA and Canada:	+1 (800)424-9300					
			+1 (703)527-3887					
		Section 2. Hazards Identific	ation					
2.1	Classification of the Sub	stance or Mixture:						
	Flammable Liquids, Ca	tegory 2						
2.2	Label Elements:							
	GHS Signal Word: GHS Hazard Phrases:	Danger						
	H225: Highly flammable	liquid and vapor						
	GHS Precaution Phrase							
	P210: Keep away from {	heat/sparks/open flames/hot surfaces} No smoking] .					
		oves/clothing and eye/face protection as specified b						
	authority.							
	GHS Response Phrases:							
	P303+361+353: IF ON S water/shower.	KIN (or hair): Remove/take off immediately all conta	minated clothing. Rinse skin with					
	GHS Storage and Dispo	osal Phrases:						
	Please refer to Section 7	for Storage and Section 13 for Disposal information						
2.3	Adverse Human Health	Material may be irritating to the mucous membran	es and upper respiratory tract.					
	Effects and Symptoms:	May be harmful by inhalation, ingestion, or skin ab	osorption.					
		May cause eye, skin, or respiratory system irritation	on.					
		To the best of our knowledge, the toxicological pro	operties have not been thoroughly investigated					



CAS # / RTECS # Hazardous Components (Chemical Namely RTECS # Concentration EC Index No. CHS Classification EC Index No. <thchs classification<br="">EC</thchs>			1	tion 3. Composition	1		1	
YK0715000 NA NA Na Na Na 64-17:5 Ethyl alcohol 99.0 % 200-578-6 Flam. Liq. 2: H225 Section 4. First Aid Measures In Case of Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained persore Get immediate medical attention. In Case of Skin Contact: Immediately wash skin with scap and plenty of water for at least 20 minutes. Remove contant clothing. Get medical attention if symptoms occur. Wash clothing before reuse. In Case of Eye Contact: Hold eyelds apart and flush eyes with plenty of water for at least 20 minutes. Have eyes exa and tested by medical personnel. In Case of Ingestion: Wash out mouth with water provided person is conscious. Never give anything by mouth to a unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so medical personnel. Section 5. Fire Fighting Measures Section 5. Fire Fighting Measures Section 5. Fire Fighting Measures Unsuitable Extinguishing Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Media: Use water spray to cool fire-exposed containers. Unsuitable Extinguishing Solid water stream may be inefficient. Media: Use water spray to cool fire conditions. <				· · · ·	Concentration		GHS Classification	
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Note: Flammable as diluted in ethanol.		Media: Flamma Hazard Flash P Explosi Autoigi	able Properties an s: Pt: ive Limits: nition Pt:	dCan release vapors that form Container explosion may occ Emits toxic fumes under fire Sensitive to static discharge. Vapors can travel to a source No data available. 14.00 C Method Used: Cl LEL: 3.3% at 25.0 C 363.00 C s: As in any fire, wear self-cont	n explosive mixtures cur under fire conditi conditions. e of ignition and flas osed Cup UEL: 19.0% ained breathing app	ons. h back. at 25.0 C aratus pressure-d	emand (NIOSH approved or	
		Media: Flamma Hazard Flash P Explosi Autoigi	able Properties an s: Pt: ive Limits: nition Pt:	dCan release vapors that form Container explosion may occ Emits toxic fumes under fire Sensitive to static discharge. Vapors can travel to a source No data available. 14.00 C Method Used: Cl LEL: 3.3% at 25.0 C 363.00 C s: As in any fire, wear self-cont equivalent), and full protective	n explosive mixtures cur under fire conditi conditions. e of ignition and flas osed Cup UEL: 19.0% ained breathing app re gear to prevent co	ons. h back. at 25.0 C aratus pressure-d	emand (NIOSH approved or	
		Media: Flamma Hazard Flash P Explosi Autoigi	able Properties an s: Pt: ive Limits: nition Pt:	dCan release vapors that form Container explosion may occ Emits toxic fumes under fire Sensitive to static discharge. Vapors can travel to a source No data available. 14.00 C Method Used: Cl LEL: 3.3% at 25.0 C 363.00 C s: As in any fire, wear self-cont equivalent), and full protective	n explosive mixtures cur under fire conditi conditions. e of ignition and flas osed Cup UEL: 19.0% ained breathing app re gear to prevent co	ons. h back. at 25.0 C aratus pressure-d	emand (NIOSH approved or	
		Media: Flamma Hazard Flash P Explosi Autoigi	able Properties an s: Pt: ive Limits: nition Pt:	dCan release vapors that form Container explosion may occ Emits toxic fumes under fire Sensitive to static discharge. Vapors can travel to a source No data available. 14.00 C Method Used: Cl LEL: 3.3% at 25.0 C 363.00 C s: As in any fire, wear self-cont equivalent), and full protective	n explosive mixtures cur under fire conditi conditions. e of ignition and flas osed Cup UEL: 19.0% ained breathing app re gear to prevent co	ons. h back. at 25.0 C aratus pressure-d	emand (NIOSH approved or	
		Media: Flamma Hazard Flash P Explosi Autoigi	able Properties an s: Pt: ive Limits: nition Pt:	dCan release vapors that form Container explosion may occ Emits toxic fumes under fire Sensitive to static discharge. Vapors can travel to a source No data available. 14.00 C Method Used: Cl LEL: 3.3% at 25.0 C 363.00 C s: As in any fire, wear self-cont equivalent), and full protective	n explosive mixtures cur under fire conditi conditions. e of ignition and flas osed Cup UEL: 19.0% ained breathing app re gear to prevent co	ons. h back. at 25.0 C aratus pressure-d	emand (NIOSH approved or	
		Media: Flamma Hazard Flash P Explosi Autoigi	able Properties an s: Pt: ive Limits: nition Pt:	dCan release vapors that form Container explosion may occ Emits toxic fumes under fire Sensitive to static discharge. Vapors can travel to a source No data available. 14.00 C Method Used: Cl LEL: 3.3% at 25.0 C 363.00 C s: As in any fire, wear self-cont equivalent), and full protective	n explosive mixtures cur under fire conditi conditions. e of ignition and flas osed Cup UEL: 19.0% ained breathing app re gear to prevent co	ons. h back. at 25.0 C aratus pressure-d	emand (NIOSH approved or	
		Media: Flamma Hazard Flash P Explosi Autoigi	able Properties an s: Pt: ive Limits: nition Pt:	dCan release vapors that form Container explosion may occ Emits toxic fumes under fire Sensitive to static discharge. Vapors can travel to a source No data available. 14.00 C Method Used: Cl LEL: 3.3% at 25.0 C 363.00 C s: As in any fire, wear self-cont equivalent), and full protective	n explosive mixtures cur under fire conditi conditions. e of ignition and flas osed Cup UEL: 19.0% ained breathing app re gear to prevent co	ons. h back. at 25.0 C aratus pressure-d	emand (NIOSH approved or	
		Media: Flamma Hazard Flash P Explosi Autoigi	able Properties an s: Pt: ive Limits: nition Pt:	dCan release vapors that form Container explosion may occ Emits toxic fumes under fire Sensitive to static discharge. Vapors can travel to a source No data available. 14.00 C Method Used: Cl LEL: 3.3% at 25.0 C 363.00 C s: As in any fire, wear self-cont equivalent), and full protective	n explosive mixtures cur under fire conditi conditions. e of ignition and flas osed Cup UEL: 19.0% ained breathing app re gear to prevent co	ons. h back. at 25.0 C aratus pressure-d	emand (NIOSH approved or	



	HIMICAL				Revision. 03/10/2012		
		Section 6.	Accidenta	I Release Measures			
6.1	Protective Precautions,	Avoid breathing	g vapors and pro	vide adequate ventilation.			
	Protective Equipment and	As conditions v	varrant, wear a N	IIOSH approved self-contained breathing app	aratus, or respirator,		
	Emergency Procedures:	and appropriate	e personal protec	ction (rubber boots, safety goggles, and heavy	/ rubber gloves).		
6.2	Environmental	Take steps to a	avoid release into	the environment, if safe to do so.			
	Precautions:						
6.3	Methods and Material For	•		•			
		g Transfer to a cl	hemical waste co	ntainer for disposal in accordance with local i	egulations.		
	Up:						
		Sectio	n 7. Handl	ing and Storage			
7.1	Precautions To Be Taken	Avoid breathing	g dust/fume/gas/n	nist/vapours/spray.			
	in Handling:		d or repeated exp				
			n sources of ignit				
		•		gainst static discharge.			
7.2	Precautions To Be Taken		-	nd flame.			
	in Storing:	Keep container	• •				
			ance with informa	ation listed on the product insert.			
	Other Precautions:	Hygroscopic					
	Sect	ion 8. Exp	osure Con	trols/Personal Protection			
8.1	Exposure Parameters:						
CAS #	# Chemical Name	Jurisdio	ction	Recommended Exposure Limits	Notations		
64-17	-5 Ethyl alcohol	ACGIH -		TLV: 1000 ppm			
		France	VL	TWA: 1900 mg/m3 (1000 ppm) STEL: 9500 mg/m3 (5000 ppm)			
-		OSHA F	PELs	PEL: 1000 ppm			
		Britain E	H40	TWA: 1920 mg/m3 (1000 ppm)			
				STEL: ()			
8.2	Exposure Controls:						
8.2.1	Engineering Controls	-		xhaust ventilation, or other engineering contro	ols to control airborne		
	(Ventilation etc.):		commended expo	Ssure limits.			
8.2.2	Personal protection equi	-					
	Eye Protection: Protective Gloves:	Safety glasses					
	Other Protective Clothing	-					
	Respiratory Equipment (Specify Type):	NIOSITAPPIOVE	eu respirator, as t				
	(Specify Type): Work/Hygienic/Maintenan Do not take internally.						
	ce Practices:		-	material should be equipped with an eyewash	and a safety showe		
	Wash thoroughly after handling.						
		No data availab					



).1	Se	ection 9. Physical and Chemical Properties
		sical 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):	
	Explosive Limits:	LEL: 3.3% at 25.0 C UEL: 19.0% at 25.0 C
	Vapor Pressure (vs. Air o	
	Hg):	
	Vapor Density (vs. Air = 1): No data.
	Specific Gravity (Water =	
	Solubility in Water:	No data.
	Octanol/Water Partition	No data.
	Coefficient:	
	Autoignition Pt:	363.00 C
	Decomposition Temperate	
	Viscosity:	No data.
9.2	Other Information	
	Percent Volatile:	No data.
	Molecular Formula & Weig	ght: C28H58NO7P 551.7
		Section 10. Stability and Reactivity
10.4	Beestivity	No data available.
10.1 10.2	Reactivity:	Unstable [] Stable [X]
	Stability:	Stable [] Stable [X] Stable if stored in accordance with information listed on the product insert.
10.3	Stability Note(s):	
	Polymerization:	Will occur [] Will not occur [X]
10.4	Conditions To Avoid:	heat, flames, and sparks
10.5	Incompatibility - Materials	
	To Avoid:	ammonia
		peroxides strong oxidizing agents
10.6	Hazardous	carbon dioxide
10.6		carbon monoxide
	Decomposition or	Calbon monoxide
	Byproducts:	



Multi-region format

		a the fit				S	upersedes Revis	ion: 05/16/201
Toxicological Effects: Ethanol - Toxicity Data: Oral TDLO (man): 1.14 ml/g: Oral TDLO (man): 650 mg/kg; Oral LDS0 (mouse): 3,40 mg/kg; Oral LDS0 (mouse): 0,400 mg/kg; Oral LDS0 (mouse): 2,900 mg/m3 (20m); Inhalation LCO (munae): 2,900 mg/m3 (20m); Inhalation LCD (munae): 2,900 mg/m3; Oral LDS0 (mouse): 0,400 mg/kg; Oral LDS0 (mg/kg; Oral LDS0 (mg/k				Section 11. Toxicol	ogical Inform	ation		
74389-69-8 PAF C:18 n.a. D. D. D.	11.1	Toxicolo	ogical Effects: Toxicological	Ethanol - Toxicity Data: Oral TDL (rat): 7,060 mg/kg; Oral LD50 (m (rabbit): 6,300 mg/kg; Inhalation ppm (30m); Inhalation TCLO (hu (6h); Inhalation LCLO (mouse): 2 Ethanol - Irritation Data: Eyes (ra Ethanol - Investigated as a muta PAF C-18 - Investigated as a muta Only select Registry of Toxic Effe See actual entry in RTECS for co Ethanol RTECS Number: KQ630	LO (man): 1.14 ml/kg ouse): 3,450 mg/kg LC50 (rat): 20,000 p man): 2,500 mg/m3 29,300 ppm (7h); abbit): 500 mg (24h) gen, reproductive ef itagen. ects of Chemical Sul pmplete information.	g; Oral TDLO (r ; Oral LD50 (mo opm (10h); Inha (20m); Inhalati mild; Skin (rab fector, and tum bstances (RTE	man): 650 mg/l ouse): 10.5 ml/ alation TCLO (f on LC50 (rat): bit): 20 mg (24 aorigen.	kg; Oral LD50 numan): 1,800 5,900 mg/m3 h) moderate;
64-17-5 Ethyl alcohol n.a. 1 A4 n.a. Section 12. Ecological Information Itel Section of dilution water may cause pollution. Itel Section 10 of dilution water may cause pollution. Itel Section 10 of dilution water may cause pollution. Itel Section 13. Disposal Considerations Itel Section 13. Disposal Considerations. Itel Section 14. Transport Information Itel Section 14. Transport Information Itel LAND TRANSPORT (US DOT): DOT Proper Shipping Name: Ethyl Alcohol Solution DOT Proper Shipping Name: Itel Section Section Itel Section 14. Transport Information	CAS	#	Hazardous Com	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA
Section 12. Ecological Information Section 12. Ecological Information Information Section 12. Ecological Information Information Runoff from fire control or dilution water may cause pollution. Degradability: Bioaccumulative No data available. Degradability: 12.4 Mobility in Soil: No data available. Potential: 12.6 Other adverse effects: No data available. Section 13. Disposal Considerations I3.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations. Section 14. Transport Information 14.1 LAND TRANSPORT (US DOT): DOT Proper Shipping Name: Ethyl Alcohol Solution DOT Proper Shipping Name: Ethyl Alcohol Solution DOT Hazard Class: 3 FLAMMABLE LIQUID UN/NA Number: 1170 Packing Group: II ADR/RID Shipping Name: Ethyl Alcohol Solution UN/NA Number: 1170 Packing Group: II	7438	39-69-8	PAF C-18		n.a.	n.a.	n.a.	n.a.
12.1 Toxicity: Avoid release into the environment. Runoff from fire control or dilution water may cause pollution. 12.2 Persistence and Degradability: No data available. Degradability: 12.3 Bioaccumulative Potential: No data available. 12.4 Mobility in Soil: No data available. 12.5 Results of PBT and vPvB No data available. 12.6 Other adverse effects: No data available. 12.6 Other adverse effects: No data available. 13.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations. 13.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations. 14.1 LAND TRANSPORT (US DOT): DOT Proper Shipping Name: Ethyl Alcohol Solution DOT Hazard Class: 3 11.70 Packing Group: II 11.1 LAND TRANSPORT (European ADR/RID): ADR/RID Shipping Name: Ethyl Alcohol Solution 11.1 LAND TRANSPORT (European ADR/RID): ADR/RID Shipping Name: Ethyl Alcohol Solution	64	-17-5	Ethyl alcohol		n.a.	1	A4	n.a.
12.1 Toxicity: Avoid release into the environment. Runoff from fire control or dilution water may cause pollution. 12.2 Persistence and Degradability: No data available. Degradability: 12.3 Bioaccumulative Potential: No data available. 12.4 Mobility in Soil: No data available. 12.5 Results of PBT and vPvB No data available. 12.6 Other adverse effects: No data available. 12.6 Other adverse effects: No data available. 13.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations. 13.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations. 14.1 LAND TRANSPORT (US DOT): DOT Proper Shipping Name: Ethyl Alcohol Solution DOT Hazard Class: 3 11.70 Packing Group: II 11.1 LAND TRANSPORT (European ADR/RID): ADR/RID Shipping Name: Ethyl Alcohol Solution 11.1 LAND TRANSPORT (European ADR/RID): ADR/RID Shipping Name: Ethyl Alcohol Solution			ł	Section 12. Ecolo	gical Informa	tion	ł	
Degradability: No data available. Potential:		-		Runoff from fire control or dilution		pollution.		
Section 13. Disposal Considerations Section 13. Disposal Considerations. Section 14. Transport Information 14.1 LAND TRANSPORT (US DOT): DOT Proper Shipping Name: Ethyl Alcohol Solution DOT Hazard Class: 3 FLAMMABLE LIQUID UN/NA Number: 1170 Packing Group: II ADR/RID Shipping Name: Ethyl Alcohol Solution UN/NA Number: 1170 Packing Group: II ADR/RID Shipping Name: Ethyl Alcohol Solution UN Number: 1170 Packing Group: II	12.4	Bioaccu Potentia Mobility Results	imulative al: in Soil: of PBT and vPvB	No data available.				
13.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations. Section 14. Transport Information 14.1 LAND TRANSPORT (US DOT): DOT Proper Shipping Name: Ethyl Alcohol Solution DOT Hazard Class: 3 FLAMMABLE LIQUID UN/NA Number: 1170 Packing Group: II 14.1 LAND TRANSPORT (European ADR/RID): ADR/RID Shipping Name: Ethyl Alcohol Solution UN Number: 1170 Packing Group: II	12.6	Other a	dverse effects:	No data available.				
13.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations. Section 14. Transport Information 14.1 LAND TRANSPORT (US DOT): DOT Proper Shipping Name: Ethyl Alcohol Solution DOT Hazard Class: 3 The state of				Section 13. Dispos	al Considera	tions		
14.1 LAND TRANSPORT (US DOT): DOT Proper Shipping Name: Ethyl Alcohol Solution DOT Hazard Class: 3 FLAMMABLE LIQUID UN/NA Number: 1170 Packing Group: II 14.1 LAND TRANSPORT (European ADR/RID): ADR/RID Shipping Name: Ethyl Alcohol Solution UN Number: 1170 Packing Group: II	13.1	Waste D)isposal Method:	•				
DOT Proper Shipping Name: Ethyl Alcohol Solution DOT Hazard Class: 3 FLAMMABLE LIQUID UN/NA Number: 1170 Packing Group: II 1170 Packing Group: II 1171 LAND TRANSPORT (Europear ADR/RID): ADR/RID Shipping Name: Ethyl Alcohol Solution UN Number: 1170 Packing Group: II				Section 14. Trans	sport Informa	tion		
DOT Hazard Class: 3 FLAMMABLE LIQUID UN/NA Number: 1170 Packing Group: II IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	14.1	LAND 1	RANSPORT (US I	DOT):				
UN/NA Number:1170Packing Group:II I I I I I I I I I I I I I I I I I I	D	OT Prope	er Shipping Name:	Ethyl Alcohol Solution				
14.1 LAND TRANSPORT (European ADR/RID): ADR/RID Shipping Name: Ethyl Alcohol Solution UN Number: 1170 Packing Group: II				-				
ADR/RID Shipping Name:Ethyl Alcohol SolutionUN Number:1170Packing Group:	U	N/NA Nur	nber:	1170	Packing Gro	up:	II	
ADR/RID Shipping Name:Ethyl Alcohol SolutionUN Number:1170Packing Group:				FLAMMABLE LIQUID				
UN Number: 1170 Packing Group: II			-					
				-	Packing Gro	up:	II	
	-			-				
							-	



Revision: 04/10/2018 Supersedes Revision: 05/16/2012

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	al, state, and federal regulations.	
Information:	When sold in quantities of less th	an or equal to 1 mL, or 1 g, with an	Excepted Quantity Code of
	E1, E2, E4, or E5, this item meets	s the De Minimis Quantities exemp	tion, per IATA 2.6.10.
	Therefore packaging does not ha	ve to be labeled as Dangerous Goo	ods/Excepted Quantity.

Section 15. Regulatory Information

· · ·		nents and Reauthorization Act of ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
74389-69-8	PAF C-18		No	No	No
					-
64-17-5	Ethyl alcohol		No	No	No
CAS #	Hazardous Com	ponents (Chemical Name)	Other US EPA or State Lists		
74389-69-8	PAF C-18		CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No		
64-17-5	Ethyl alcohol		CAA HAP,ODC: Inventory; CA P	No; CWA NPDES: ROP.65: No	No; TSCA: Yes -
Regulatory Inf Statement:	ormation	This SDS was prepared in acco No.1272/2008.	ordance with 29 CFF	R 1910.1200 and R	egulation (EC)
		Section 16. Oth	ner Informatio	on	
Revision Date:	:	04/10/2018			
Additional Info This Product:	ormation About	No data available.			
Company Policy or Disclaimer:		DISCLAIMER: This information currently available to us. Howev express or implied, with respect use. Users should make their of	ver, we make no wa t to such informatior	rranty of merchanta , and we assume n	bility or any other warranty to liability resulting from its
		their particular purposes.			
		their particular purposes.			
		their particular purposes.			
		their particular purposes.			
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		their particular purposes.			