

Revision: 08/27/2019

	Section 1. Ic	lentification of the Substar	nce/Mixture and of	the Company/U	ndertaking			
.1	Product Code: 28178							
	Product Name: 1,2-Dilinoleoyl-3-Oleoyl-rac-glycerol							
	Synonyms:	(9Z,12Z)-9,12-octadecad						
				, yl]oxy]methyl]-1,2-ethanediyl] ester; 1,2-Dilinolein-3-Olein				
	TG(18:2/18:1);							
.2	Relevant identified uses of	the substance or mixture a	and uses advised a	against:				
	Relevant identified uses:	For research use only, no	ot for human or vete	erinary use.				
1.3	Details of the Supplier of the Safety Data Sheet:							
	Company Name:	Cayman Chemical Comp	bany					
		1180 E. Ellsworth Rd.						
		Ann Arbor, MI 48108						
	Web site address:	www.caymanchem.com						
	Information:	Cayman Chemical Comp	bany	+1 (73	4)971-3335			
1.4	Emergency telephone num							
	Emergency Contact:	CHEMTREC Within USA			0)424-9300			
		CHEMTREC Outside US	A and Canada:	+1 (70	3)527-3887			
		Section 2. Haz	zards Identifi	cation				
.1	Classification of the Substa	Ince or Mixture:						
2.2	Label Elements:							
	CHC Signal Words	None						
	GHS Signal Word:	None						
	GHS Hazard Phrases:	en de la constituit de la de de la constituit de la constituit de la constituit de la constituit de la constitu		and share if shire a				
		rently available data this sub	stance or mixture is	not classifiable ad	cording to GHS.			
	GHS Precaution Phrases:							
	No phrases apply.							
	No phrases apply.							
	No phrases apply. GHS Response Phrases:							
	GHS Response Phrases:	al Phrases:						
	GHS Response Phrases: No phrases apply. GHS Storage and Dispos	al Phrases: r Storage and Section 13 for	Disposal information	on.				
2.3	GHS Response Phrases: No phrases apply. GHS Storage and Dispose Please refer to Section 7 fo		-		spiratory tract.			
2.3	GHS Response Phrases: No phrases apply. GHS Storage and Dispose Please refer to Section 7 fo Adverse Human Health	r Storage and Section 13 for	he mucous membra	anes and upper res	spiratory tract.			
2.3	GHS Response Phrases: No phrases apply. GHS Storage and Dispose Please refer to Section 7 fo Adverse Human Health Effects and Symptoms:	r Storage and Section 13 for Material may be irritating to t	he mucous membra , ingestion, or skin	anes and upper res absorption.	spiratory tract.			
2.3	GHS Response Phrases: No phrases apply. GHS Storage and Dispose Please refer to Section 7 fo Adverse Human Health Effects and Symptoms:	r Storage and Section 13 for Material may be irritating to t May be harmful by inhalation May cause eye, skin, or resp	he mucous membra , ingestion, or skin iratory system irrita	anes and upper res absorption. tion.	spiratory tract. t been thoroughly investigated			
2.3	GHS Response Phrases: No phrases apply. GHS Storage and Dispose Please refer to Section 7 fo Adverse Human Health Effects and Symptoms:	r Storage and Section 13 for Material may be irritating to t May be harmful by inhalation May cause eye, skin, or resp	he mucous membra , ingestion, or skin iratory system irrita e, the toxicological p	anes and upper res absorption. tion. properties have no	t been thoroughly investigated			
CAS	GHS Response Phrases: No phrases apply. GHS Storage and Dispose Please refer to Section 7 fo Adverse Human Health Effects and Symptoms:	r Storage and Section 13 for Material may be irritating to th May be harmful by inhalation May cause eye, skin, or resp To the best of our knowledge on 3. Composition ments (Chemical Name)/	he mucous membra , ingestion, or skin iratory system irrita e, the toxicological p	anes and upper res absorption. tion. properties have no	t been thoroughly investigated			

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		Section 4. First Aid Measures
4.1	Description of First Aid	
	Measures:	
	In Case of Inhalation:	Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
	In Case of Skin Contact:	Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
	In Case of Eye Contact:	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.
	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.
		Section 5. Fire Fighting Measures
5.1	Suitable Extinguishing	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.
	Media:	Use water spray to cool fire-exposed containers.
	Unsuitable Extinguishing Media:	a A solid water stream may be inefficient.
5.2	Flammable Properties an Hazards:	dNo data available.
		No data available.
	Flash Pt:	No data.
	Explosive Limits:	LEL: No data. UEL: No data.
	Autoignition Pt:	No data.
5.3	Fire Fighting Instructions	s: 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.
		Section 6. Accidental Release Measures
6.1	Protective Precautions,	Avoid raising and breathing dust, and provide adequate ventilation.
	Protective Equipment an	d As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,
	Emergency Procedures:	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	Methods and Material Fo	r Contain spill and collect, as appropriate.
	Containment and Cleanir	ng Transfer to a chemical waste container for disposal in accordance with local regulations.
	Up:	
		Section 7. Handling and Storage
7.1	Precautions To Be Taker	Avoid breathing dust/fume/gas/mist/vapours/spray.
	in Handling:	Avoid prolonged or repeated exposure.
7.2	Precautions To Be Taker	Keep container tightly closed.
	in Storing:	Store in accordance with information listed on the product insert.
	Sec	tion 8. Exposure Controls/Personal Protection
8.1	Exposure Parameters:	
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	HEMICAL					
8.2	Exposure Controls:					
8.2.1	Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to control airb					
	(Ventilation etc.):	levels below recommended exposure limits.				
8.2.2	Personal protection equipment:					
	Eye Protection:	/ glasses				
	Protective Gloves:	Compatible chemical-resistant gloves				
	Other Protective Clothing:Lab coat					
	Respiratory Equipment NIOSH approved respirator, as conditions warrant.					
	(Specify Type):					
	Work/Hygienic/Maintenan Do not take internally.					
	ce Practices:	Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.				
	Wash thoroughly after handling.					
	l	No data available.				
	Se	ction 9. Physical and Chemical Properties				
9.1	Information on Basic Physi	cal and Chemical Properties				
	Physical States:	[]Gas [X]Liquid []Solid				
	Appearance and Odor:	A liquid				
	pH:	No data.				
	Melting Point:	No data.				
	Boiling Point:	No data.				
	Flash Pt:	No data.				
	Evaporation Rate:	No data.				
	Flammability (solid, gas):	No data available.				
	Explosive Limits:	LEL: No data. UEL: No data.				
	Vapor Pressure (vs. Air or	mm No data.				
	Hg):					
	Vapor Density (vs. Air = 1):	No data.				
	Specific Gravity (Water = 1): No data.				
	Solubility in Water:	No data.				
	Solubility Notes:	Soluble (slightly) in: MeOH;				
	Octanol/Water Partition	No data.				
	Coefficient:					
	Autoignition Pt:	No data.				
	Decomposition Temperatu	re: No data.				
	Viscosity:	No data.				
9.2	Other Information					
	Percent Volatile:	No data.				
	Molecular Formula & Weig	ht: C57H100O6 881.4				



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			Section 10. Stability and	Reactiv	vity				
10.1	•								
10.2									
10.3 Stabilit		ility Note(s): Stable if stored in accordance with inform			on the product	insert.			
	Polymer	ization:	Will occur [] Will not occur [X]						
10.4	10.4 Conditions To Avoid:		No data available.						
10.5 Incompatibility - Materials strong oxidizing agents			strong oxidizing agents						
	To Avoid	1:							
10.6			carbon dioxide						
			carbon monoxide						
	Byprodu	cts:							
			Section 11. Toxicological	Informa	ation				
11.1	Informat		The toxicological effects of this product ha	ve not beer	n thoroughly st	udied.			
	Toxicolo	gical Effects:							
CAS	#	Hazardous Com	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA		
219	0-21-8		noic acid (9Z,12Z)-,	n.a.	n.a.	n.a.	n.a.		
		1,1'-[1-[[[(9Z)-1-o) ediyl] ester	<pre>ko-9-octadecen-1-yl]oxy]methyl]-1,2-ethan</pre>						
			Section 12. Ecological Ir	nformat	ion				
12.1	Toxicity:		Avoid release into the environment.						
			Runoff from fire control or dilution water ma	ay cause p	ollution.				
12.2	Persiste		No data available.						
	Degrada	bility:							
12.3	Bioaccu		No data available.						
	Potentia								
12.4	Mobility		No data available.						
12.5			No data available.						
	assessm								
12.6	12.6 Other adverse effects:		No data available.						
			Section 13. Disposal Con	siderat	ions				
13.1	Waste D	isposal Method:	Dispose in accordance with local, state, an	nd federal re	egulations.				
			Section 14. Transport Ir	nformat	ion				
14.1	LAND T	RANSPORT (US I	DOT):						
D	OT Prope	r Shipping Name:	Not dangerous goods.						
D	OT Hazaro	d Class:							
U	N/NA Num	nber:							
14.1	LAND T	RANSPORT (Euro	ppean ADR/RID):						
	DR/RID SI	nipping Name:	Not dangerous goods.						
	N Number:								
U									
U	N Number azard Clas	SS:							
U		SS:							
U		SS:							



14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name:

Not dangerous goods.

Additional Transport

Transport in accordance with local, state, and federal regulations.

Information:

Section 15. Regulatory Information

CAS #	Hazardous Components (Chemical Name)		S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
2190-21-8	9,12-Octadecadienoic acid (9Z,12Z)-, 1,1'-[1-[[[(9Z)-1-oxo-9-octadecen-1-yl]oxy]methyl]- 1,2-ethanediyl] ester		No	No	No	
CAS # Hazardous Com		ponents (Chemical Name) Other US EPA or State Lists				
2190-21-8		enoic acid (9Z,12Z)-, xo-9-octadecen-1-yl]oxy]methyl]- ster	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No			
Regulatory Information Statement:		This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.				
		Section 16. Oth	er Informatio	on		
Revision Date:		08/27/2019				
Additional Information About This Product:		No data available.				
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.				