

Revision: 06/15/2019

		Section 1.	dentification of the Substar	nce/Mixture and o	f the Company/U	ndertaking			
1	Product C	Code:	27064						
	Product N		1,3-Dilinoleoyl-2-Oleoyl-r	•••					
	Synonym	IS:			1-oxo-9-octadecen	yl]oxy]-1,3-propanediyl] este			
			1,2-Linolein-2-Olein; TG(
.2	Relevant identified uses of the substance or mixture and uses advised against:								
	Relevant identified uses: For research use onl			ot for human or vet	erinary use.				
1.3	Details of the Supplier of the Safety Data Sheet:								
	Compar	ny Name:	Cayman Chemical Comp	bany					
			1180 E. Ellsworth Rd. Ann Arbor, MI 48108						
	Web sit	e address:	www.caymanchem.com						
	Informa		Cayman Chemical Comp	any	+1 (73	4)971-3335			
4		cy telephone nur		, any	11 (75	4,011 0000			
.4	-	ency Contact:	CHEMTREC Within USA	and Canada:	±1 (80	0)424-9300			
	Lillerge	ancy contact.	CHEMTREC Outside US			3)527-3887			
			Section 2. Ha	zards Identif	ication				
.1	Classifica	ation of the Subs	tance or Mixture:						
2.2	Label Ele	ments:	Label Elements:						
	GHS Signal Word: None								
	GHS Sig	gnal Word:	None						
	-	gnal Word: azard Phrases:	None						
	GHS Ha	azard Phrases:	None	stance or mixture is	s not classifiable ac	cording to GHS.			
	GHS Ha Based c	azard Phrases:	rrently available data this sub	stance or mixture is	s not classifiable ac	ccording to GHS.			
	GHS Ha Based o GHS Pr	azard Phrases:	rrently available data this sub	stance or mixture is	s not classifiable ac	cording to GHS.			
	GHS Ha Based c GHS Pr No phra	azard Phrases: on evaluation of cu recaution Phrase	rrently available data this sub s:	stance or mixture is	s not classifiable ac	ccording to GHS.			
	GHS Ha Based c GHS Pr No phra GHS Re	azard Phrases: on evaluation of cu recaution Phrases ases apply.	rrently available data this sub s:	stance or mixture is	s not classifiable ac	cording to GHS.			
	GHS Ha Based c GHS Pr No phra GHS Re No phra	azard Phrases: on evaluation of cu recaution Phrases ases apply. esponse Phrases	rrently available data this sub s: :	stance or mixture is	s not classifiable ac	ccording to GHS.			
	GHS Ha Based c GHS Pr No phra GHS Re GHS St	azard Phrases: on evaluation of cu recaution Phrases ases apply. esponse Phrases ases apply.	rrently available data this sub s: : sal Phrases:			cording to GHS.			
2.3	GHS Ha Based c GHS Pr No phra GHS Re No phra GHS St Please r	azard Phrases: on evaluation of cu recaution Phrases ases apply. esponse Phrases ases apply.	rrently available data this sub s: :	Disposal informati	on.	-			
2.3	GHS Ha Based o GHS Pr No phra GHS Re No phra GHS St Please i Adverse	azard Phrases: on evaluation of cu recaution Phrases ases apply. esponse Phrases ases apply. rorage and Dispo refer to Section 7 f Human Health	rrently available data this sub s: sal Phrases: for Storage and Section 13 for	[.] Disposal informati he mucous membra	on. anes and upper res	-			
2.3	GHS Ha Based o GHS Pr No phra GHS Re No phra GHS St Please i Adverse	azard Phrases: on evaluation of cu recaution Phrases ases apply. esponse Phrases ases apply. corage and Dispon refer to Section 7 f	rrrently available data this sub s: sal Phrases: for Storage and Section 13 for Material may be irritating to t	Disposal informati he mucous membra , ingestion, or skin	on. anes and upper res absorption.	-			
3	GHS Ha Based o GHS Pr No phra GHS Re No phra GHS St Please i Adverse	azard Phrases: on evaluation of cu recaution Phrases ases apply. esponse Phrases ases apply. rorage and Dispo refer to Section 7 f Human Health	rrently available data this sub s: sal Phrases: for Storage and Section 13 for Material may be irritating to t May be harmful by inhalation	Disposal informati he mucous membra , ingestion, or skin iratory system irrita	on. anes and upper res absorption. tion.	spiratory tract.			
2.3	GHS Ha Based o GHS Pr No phra GHS Re No phra GHS St Please i Adverse	azard Phrases: on evaluation of cu recaution Phrases ases apply. esponse Phrases ases apply. corage and Dispo- refer to Section 7 f Human Health and Symptoms:	rrrently available data this sub s: sal Phrases: for Storage and Section 13 for Material may be irritating to t May be harmful by inhalation May cause eye, skin, or resp	Disposal informati he mucous membra , ingestion, or skin iratory system irrita e, the toxicological p	on. anes and upper res absorption. tion. properties have not	spiratory tract. t been thoroughly investigate			
2.3	GHS Ha Based o GHS Pr No phra GHS Re O phra GHS St Please o Adverse Effects a	azard Phrases: on evaluation of cu recaution Phrases ases apply. esponse Phrases ases apply. rorage and Dispo refer to Section 7 f Human Health and Symptoms: Sect	rrently available data this sub s: sal Phrases: for Storage and Section 13 for Material may be irritating to t May be harmful by inhalation May cause eye, skin, or resp To the best of our knowledge	Disposal informati he mucous membra , ingestion, or skin iratory system irrita e, the toxicological p	on. anes and upper res absorption. tion. properties have not	spiratory tract. t been thoroughly investigate			
CAS	GHS Ha Based of GHS Pr No phra GHS Re Offerse Complete No phra GHS St Please Complet	azard Phrases: on evaluation of cu recaution Phrases ases apply. esponse Phrases ases apply. rorage and Dispo refer to Section 7 f Human Health and Symptoms: Sect	rrently available data this sub- s: sal Phrases: for Storage and Section 13 for Material may be irritating to t May be harmful by inhalation May cause eye, skin, or resp To the best of our knowledge ion 3. Composition onents (Chemical Name)/	Disposal informati he mucous membra , ingestion, or skin iratory system irrita a, the toxicological p /Information	on. anes and upper res absorption. tion. properties have not on Ingredie	spiratory tract. t been thoroughly investigate nts			
CAS	GHS Ha Based o GHS Pr No phra GHS Re No phra GHS St Please Effects a	azard Phrases: on evaluation of cu recaution Phrases ases apply. esponse Phrases ases apply. rorage and Dispo refer to Section 7 f Human Health and Symptoms: Sect Hazardous Comp	rrently available data this sub- s: sal Phrases: for Storage and Section 13 for Material may be irritating to t May be harmful by inhalation May cause eye, skin, or resp To the best of our knowledge ion 3. Composition onents (Chemical Name)/ ion No.	Disposal informati he mucous membra , ingestion, or skin iratory system irrita a, the toxicological p /Information	on. anes and upper res absorption. tion. properties have not ON INGREDIE	spiratory tract. t been thoroughly investigate nts			

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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:	g A solid water stream may be inefficient.			
5.2	Flammable Properties an	IdNo data available.			
	Hazards:				
		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 Cleaning 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	NKeep 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	process enclosures, local exhaust ventilation, or other engineering controls to control airborne					
(Ventilation etc.): levels below recommended exposure limits.							
8.2.2	Personal protection equipment:						
	Eye Protection:	y glasses					
	Protective Gloves:	Compatible chemical-resistant gloves					
	Other Protective Clothing:Lab coat						
	Respiratory Equipment	H approved respirator, as conditions warrant.					
	(Specify Type):						
	Work/Hygienic/Maintenan	ot take internally.					
	ce Practices:	Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.					
	I	sh thoroughly after handling.					
	1	No data available.					
	Se	ction 9. Physical and Chemical Properties					
9.1	Information on Basic Physic	cal and Chemical Properties					
	Physical States:	[] Gas [X] Liquid [] Solid					
	Appearance and Odor:	A neat liquid					
	pH:	No data.					
	Melting Point:	No data. No data. No data. No data. No data available.					
	Boiling Point:						
	Flash Pt:						
	Evaporation Rate:						
	Flammability (solid, gas):						
	Explosive Limits:	LEL: No data. UEL: No data.					
	Vapor Pressure (vs. Air or	No data.					
	Hg):						
	Vapor Density (vs. Air = 1):	No data.					
	Specific Gravity (Water = 1)	No data.					
	Solubility in Water:	No data.					
	Solubility Notes:	~0.5 mg/ml in a 1:1 solution of EtOH:PBS (pH 7.2); ~10 mg/ml in EtOH & DMF;					
	Octanol/Water Partition Coefficient:	No data.					
	Autoignition Pt:	No data.					
	Decomposition Temperatu	No data.					
	Viscosity:	No data.					
9.2	Other Information						
	Percent Volatile:	No data.					
	Molecular Formula & Weigl	ht: C57H100O6 881.4					

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10.1			Section 10. Stability	and Reactiv	/ity			
	Reactivi	ty:	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.					
	Polymer	ization:	Will occur [] Will not occur [X]				
10.4	Conditio	ns To Avoid:	No data available.					
10.5 Incompatibility - Materials To Avoid:			oxidizing agents					
10.6	Hazardous		carbon dioxide					
	Decomp	osition or	carbon monoxide					
	Byprodu	cts:						
			Section 11. Toxicolog	ical Informa	ition			
11.1	Informat Toxicolo	ion on gical Effects:	The toxicological effects of this prod	uct have not been	thoroughly st	udied.		
CAS	#	Hazardous Com	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA	
219	0-22-9	1,3-Dilinoleoyl-2-(Dleoyl-rac-glycerol	n.a.	n.a.	n.a.	n.a.	
		I	Section 12. Ecologic	al Informati	on			
12.1	Toxicity		Avoid release into the environment.		011			
	. exiety		Avoid release into the environment. Runoff from fire control or dilution water may cause pollution. No data available.					
12.2	Persiste	nce and						
	Degrada							
12.3	-	mulative	No data available.					
	Potentia	I:						
12.4	Mobility	in Soil:	No data available.					
12.5	Results	of PBT and vPvB	No data available.					
	assessm	nent:						
12.6	Other ad	verse effects:	No data available.					
			Section 13. Disposal	Considerati	ons			
	Waste D	isposal Method:	Dispose in accordance with local, st					
13.1			Castian 11 Transm	ort Informati	on			
13.1			Section 14. Transpo	on mornau	-			
13.1	LAND T	RANSPORT (US I			_			
14.1		RANSPORT (US I r Shipping Name:	DOT):		_			
14.1		r Shipping Name:	DOT):		-			
14.1 D	OT Prope	r Shipping Name: d Class:	DOT):	on mornau	-			
14.1 D	OT Prope OT Hazar IN/NA Nun	r Shipping Name: d Class:	D OT): Not dangerous goods.	on mornau	-			
14.1 D U 14.1	OT Prope OT Hazard IN/NA Nun LAND T	r Shipping Name: d Class: nber:	DOT): Not dangerous goods.	on mornau	-			
14.1 D U 14.1 A	OT Prope OT Hazard IN/NA Nun LAND T	r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name:	DOT): Not dangerous goods. Opean ADR/RID):		_			
14.1 D U 14.1 A	OOT Prope OOT Hazard IN/NA Nun LAND T LAND S	r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name: r:	DOT): Not dangerous goods. Opean ADR/RID):		_			
14.1 D U 14.1 A	OOT Prope OOT Hazard IN/NA Nun LAND T LOR/RID Si IN Number	r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name: r:	DOT): Not dangerous goods. Opean ADR/RID):		_			
14.1 D U 14.1 A	OOT Prope OOT Hazard IN/NA Nun LAND T LOR/RID Si IN Number	r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name: r:	DOT): Not dangerous goods. Opean ADR/RID):		_			
14.1 D U 14.1 A	OOT Prope OOT Hazard IN/NA Nun LAND T LOR/RID Si IN Number	r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name: r:	DOT): Not dangerous goods. Opean ADR/RID):					
14.1 D U 14.1 A U	OOT Prope OOT Hazard IN/NA Nun LAND T LOR/RID Si IN Number	r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name: r:	DOT): Not dangerous goods. Opean ADR/RID):					



14.3	AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name:

Not dangerous goods. Transport in accordance with local, state, and federal regulations.

Additional Transport Information:

Section 15. Regulatory Information

CAS #	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
2190-22-9	1,3-Dilinoleoyl-2-Oleoyl-rac-glycerol		No	No	No	
CAS # Hazardous Components (Che		ponents (Chemical Name)	Other US EPA or State Lists			
2190-22-9	1,3-Dilinoleoyl-2-Oleoyl-rac-glycerol		CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No			
Regulatory In Statement:	formation	This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.				
		Section 16. Oth	ner Informatio	n		
Revision Date:		06/15/2019				
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.				