

Revision: 05/04/2018 Supersedes Revision: 02/14/2014

		accor	ding to Regulation (EC) No. 190					
			entification of the Substar	-				
.1	Product		62510					
••	Product		C-2 Ceramide					
	Synony			-1-(hydroxymethyl)-3	3-heptadecen-1-v	I]-acetamide; C2 Ceramide;		
	-,,		Ceramide (d18:1/2:0); Ce			-		
.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.							
.3	Details	of the Supplier of the	e Safety Data Sheet:					
	Comp	any Name:	Cayman Chemical Comp	bany				
			1180 E. Ellsworth Rd.					
				Ann Arbor, MI 48108				
	Web s	ite address:	www.caymanchem.com					
	Inform	nation:	Cayman Chemical Comp	bany	+1 (734	4)971-3335		
.4	-	ncy telephone numb						
	Emerg	gency Contact:	CHEMTREC Within USA			0)424-9300		
			CHEMTREC Outside US	A and Canada:	+1 (70	3)527-3887		
			Section 2. Ha	zards Identific	cation			
.1	Classifi	cation of the Substa	nce or Mixture:					
		cation of the Substa lements:	nce or Mixture:					
	Label E		nce or Mixture: None					
	Label E GHS S	lements:						
	Label E GHS S GHS H	lements: Signal Word: Hazard Phrases:		stance or mixture is	not classifiable ac	cording to GHS.		
	Label El GHS S GHS H Based	lements: Signal Word: Hazard Phrases:	None rently available data this sub-	stance or mixture is	not classifiable ac	cording to GHS.		
	Label E GHS S GHS I Based GHS I	lements: Signal Word: Hazard Phrases: I on evaluation of curr	None rently available data this sub-	stance or mixture is	not classifiable ac	cording to GHS.		
	Label E GHS S GHS H Based GHS H No ph	lements: Signal Word: Hazard Phrases: I on evaluation of curr Precaution Phrases:	None rently available data this sub-	stance or mixture is	not classifiable ac	cording to GHS.		
	Label E GHS S GHS H Based GHS F No ph GHS F	lements: Signal Word: Hazard Phrases: I on evaluation of curr Precaution Phrases: rases apply.	None rently available data this sub-	stance or mixture is	not classifiable ac	cording to GHS.		
	Label El GHS S GHS H Based GHS H No ph GHS H	lements: Signal Word: Hazard Phrases: I on evaluation of curr Precaution Phrases: rases apply. Response Phrases: rases apply.	None rently available data this sub-	stance or mixture is	not classifiable ac	cording to GHS.		
	Label El GHS S GHS H Based GHS F No ph GHS S	lements: Signal Word: Hazard Phrases: I on evaluation of curr Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa	None rently available data this sub-			cording to GHS.		
.2	Label El GHS S GHS H Based GHS H No ph GHS S Please	lements: Signal Word: Hazard Phrases: I on evaluation of curr Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 fo	None rently available data this sub al Phrases: r Storage and Section 13 for	Disposal information	n.	-		
.2	Label El GHS S GHS H Based GHS H No ph GHS S Please Advers	lements: Signal Word: Hazard Phrases: I on evaluation of curr Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 fo e Human Health	None rently available data this sub al Phrases:	[.] Disposal information	n. nes and upper res	-		
.2	Label El GHS S GHS H Based GHS H No ph GHS S Please Advers	lements: Signal Word: Hazard Phrases: I on evaluation of curr Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 fo e Human Health and Symptoms:	None rently available data this sub- al Phrases: r Storage and Section 13 for Material may be irritating to t	[.] Disposal information he mucous membran n, ingestion, or skin a	n. nes and upper res bsorption.	-		
.2	Label El GHS S GHS H Based GHS H No ph GHS S Please Advers	lements: Signal Word: Hazard Phrases: I on evaluation of curr Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 fo e Human Health and Symptoms:	None rently available data this sub- al Phrases: r Storage and Section 13 for Material may be irritating to t May be harmful by inhalation May cause eye, skin, or resp	Disposal information he mucous membran n, ingestion, or skin a iratory system irritati	n. nes and upper res bsorption. on.	-		
.2	Label El GHS S GHS H Based GHS H No ph GHS S Please Advers	lements: Signal Word: Hazard Phrases: I on evaluation of curr Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 fo e Human Health and Symptoms:	None rently available data this sub- al Phrases: r Storage and Section 13 for Material may be irritating to t May be harmful by inhalation May cause eye, skin, or resp	Disposal information he mucous membran , ingestion, or skin a iratory system irritati e, the toxicological pr	n. hes and upper res bsorption. on. roperties have not	piratory tract.		
.1 .2 .3	Label El GHS S GHS H Based GHS F No ph GHS S Please Advers Effects	lements: Signal Word: Hazard Phrases: I on evaluation of curr Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 for e Human Health and Symptoms: Section Hazardous Compo	None rently available data this sub- al Phrases: r 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 on 3. Composition nents (Chemical Name)/	Disposal information he mucous membran , ingestion, or skin a iratory system irritati e, the toxicological pr	n. hes and upper res bsorption. on. roperties have not	piratory tract.		
2 3	Label El GHS S GHS H Based GHS F No ph GHS S Please Advers Effects	lements: Signal Word: Hazard Phrases: I on evaluation of curr Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 for e Human Health and Symptoms:	None rently available data this sub- al Phrases: r 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 on 3. Composition nents (Chemical Name)/	Disposal information he mucous membran , ingestion, or skin a iratory system irritati a, the toxicological pr /Information (n. hes and upper res bsorption. on. roperties have not On Ingredie	piratory tract. been thoroughly investigated		

Multi-region format



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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	A solid water stream may be inefficient.
	Media:	
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	-	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.
		d As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,
	Emergency Procedures:	
6.2	Environmental	Take steps to avoid release into the environment, if safe to do so.
	Precautions:	
6.3		r Contain spill and collect, as appropriate. ngTransfer to a chemical waste container for disposal in accordance with local regulations.
	Up:	
	ор.	
		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	Neep 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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-		C-2 Ceramide Revision: 05/04/2018				
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8.2	Exposure Controls:					
8.2.1	Engineering Controls	rocess enclosures, local exhaust ventilation, or other engineering controls to control airborne				
	(Ventilation etc.):	evels 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	NIOSH approved respirator, as conditions warrant.				
	(Specify Type):					
	Work/Hygienic/Maintenan Do not take internally.					
	ce Practices:	ties storing or utilizing this material should be equipped with an eyewash facility and a safety				
	:	r.				
	,	h thoroughly after handling.				
	l	No data available.				
	Se	ction 9. Physical and Chemical Properties				
9.1	Information on Basic Physical and Chemical Properties					
	Physical States:	[]Gas []Liquid [X]Solid				
	Appearance and Odor:	A crystalline solid				
	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:	~10 mg/ml in EtOH, MeOH, chloroform, & DMSO;				
	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.				
	r crocitt volutile.					



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0.2 Sta 0.3 Sta Pol 0.4 Con 10.5 Inc. To 10.6 Haz Dec Byp 1.1 Info Tox 2.2 Per Deg 2.3 Bio Pot 2.4 Mol 2.5 Res		Section 10. Stability No data available. Unstable [] Stable [X] Stable if stored in accordance with in Will occur [] Will not occur [X] No data available. strong oxidizing agents carbon dioxide carbon monoxide nitrogen oxides Section 11. Toxicolog The toxicological effects of this prod Section 12. Ecological Avoid release into the environment.	nformation listed o] jical Informa luct have not been <u>NTP</u> n.a.	on the product		OSHA	
0.2 Sta 0.3 Sta Pol 0.4 Con 10.5 Inc. To 10.6 Haz Dec Byp 1.1 Info Tox 2.2 Per Deg 2.3 Bio Pot 2.4 Mol 2.5 Res	tability: tability Note(s): olymerization: onditions To Avoid: compatibility - Materials o Avoid: azardous ecomposition or yproducts: formation on oxicological Effects: Hazardous Com 7-6 C-2 Ceramide	Unstable [] Stable [X] Stable if stored in accordance with in Will occur [] Will not occur [X No data available. strong oxidizing agents carbon dioxide carbon monoxide nitrogen oxides Section 11. Toxicolog The toxicological effects of this prod ponents (Chemical Name)] jical Informa luct have not been NTP n.a.	ation thoroughly st	udied.		
0.3 Sta Pol 0.4 Con 0.5 Inc To 10.6 Haz Dec Byp 1.1 Info Tox CAS # 3102-57 2.1 Tox 2.2 Per Dec 2.3 Bio Pot 2.3 Bio Pot 2.4 Mol 2.5 Res	tability Note(s): olymerization: onditions To Avoid: compatibility - Materials o Avoid: azardous ecomposition or yproducts: formation on oxicological Effects: Hazardous Comp 7-6 C-2 Ceramide	Stable if stored in accordance with in Will occur [] Will not occur [X No data available. strong oxidizing agents carbon dioxide carbon monoxide nitrogen oxides Section 11. Toxicolog The toxicological effects of this prod ponents (Chemical Name) Section 12. Ecologic] jical Informa luct have not been NTP n.a.	ation thoroughly st	udied.		
Pol 0.4 Cor 10.5 Inc. To 0.6 Haz Dec Byr 10.6 Haz Dec 3102-57 2.1 Tox 2.2 Per Dec 2.3 Bio Pot 2.3 Bio Pot 2.4 Mol 2.5 Res	olymerization: onditions To Avoid: compatibility - Materials o Avoid: azardous ecomposition or yproducts: formation on oxicological Effects: Hazardous Comp 7-6 C-2 Ceramide	Will occur [] Will not occur [X No data available. Strong oxidizing agents carbon dioxide Carbon monoxide nitrogen oxides Section 11. Toxicolog The toxicological effects of this prod ponents (Chemical Name) Section 12. Ecological] jical Informa luct have not been NTP n.a.	ation thoroughly st	udied.		
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0.5 Inc. To To Dec Byp 1.1 Info Tox CAS # 3102-57 2.1 Tox 2.2 Per Deg 2.3 Bio Pot 2.4 Mol 2.5 Res	compatibility - Materials o Avoid: azardous ecomposition or yproducts: formation on oxicological Effects: Hazardous Comp 7-6 C-2 Ceramide	carbon dioxide carbon monoxide nitrogen oxides Section 11. Toxicolog The toxicological effects of this prod ponents (Chemical Name) Section 12. Ecologic	NTP	IARC	ACGIH		
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Dec Byp 1.1 Info Tox CAS # 3102-574 2.1 Tox 2.2 Per Dec 2.3 Bio Pot 2.3 Bio Pot 2.4 Mol 2.5 Res	ecomposition or yproducts: formation on pxicological Effects: Hazardous Comp 7-6 C-2 Ceramide pxicity:	carbon monoxide nitrogen oxides Section 11. Toxicolog The toxicological effects of this prod ponents (Chemical Name) Section 12. Ecologic	NTP	IARC	ACGIH		
Byr 1.1 Info Tox CAS # 3102-57- 2.1 Tox 2.2 Per Deg 2.3 Bio Pot 2.4 Mol 2.5 Res	yproducts: formation on pxicological Effects: Hazardous Comp 7-6 C-2 Ceramide pxicity:	nitrogen oxides Section 11. Toxicolog The toxicological effects of this prod ponents (Chemical Name) Section 12. Ecologic	NTP	IARC	ACGIH		
1.1 Info Tox CAS # 3102-574 2.1 Tox 2.2 Per Deg 2.3 Bio Pot 2.4 Mol 2.5 Res	formation on oxicological Effects: Hazardous Com 7-6 C-2 Ceramide oxicity:	Section 11. Toxicolog The toxicological effects of this prod ponents (Chemical Name) Section 12. Ecologic	NTP	IARC	ACGIH		
Tox CAS # 3102-57- 2.1 Tox 2.2 Per Deg 2.3 Bio Pot 2.4 Mol 2.5 Res	Distriction of the sector of	The toxicological effects of this prod ponents (Chemical Name) Section 12. Ecologic	NTP	IARC	ACGIH		
Tox CAS # 3102-57- 2.1 Tox 2.2 Per Deg 2.3 Bio Pot 2.4 Mol 2.5 Res	Distriction of the sector of	ponents (Chemical Name) Section 12. Ecologic	NTP n.a.	IARC	ACGIH		
CAS # 3102-57- 2.1 Tox 2.2 Per Deg 2.3 Bio Pot 2.4 Mol 2.5 Res	Hazardous Comp 7-6 C-2 Ceramide xicity: Control of the second se	Section 12. Ecologic	n.a.				
3102-57- 2.1 Tox 2.2 Per Deg 2.3 Bio Pot 2.4 Mol 2.5 Res	7-6 C-2 Ceramide	Section 12. Ecologic	n.a.				
2.1 Tox 2.2 Per Deg 2.3 Bio Pot 2.4 Moi 2.5 Res	oxicity:			n.a.	lna	USHA	
2.2 Per Deg 2.3 Bio Pot 2.4 Mol 2.5 Res	-		cal Informati		11.a.	n.a.	
2.2 Per Deg 2.3 Bio Pot 2.4 Mol 2.5 Res	-	Avoid release into the environment.		on			
Deg 2.3 Bio Pot 2.4 Mol 2.5 Res	ersistence and						
Deg 2.3 Bio Pot 2.4 Mol 2.5 Res	ersistence and	Runoff from fire control or dilution water may cause pollution.					
2.3 Bio Pot 2.4 Mo 2.5 Res		No data available.					
Pot 2.4 Mo 2.5 Res	egradability:						
2.4 Mol 2.5 Res	ioaccumulative	No data available.					
2.5 Res	otential:						
	Mobility in Soil: No data available.						
ass	esults of PBT and vPvB	No data available.					
	ssessment:						
2.6 Oth	ther adverse effects:	No data available.					
		Section 13. Disposal	Considerati	ons			
3.1 Wa	aste Disposal Method:	Dispose in accordance with local, st	ate, and federal re	egulations.			
		Section 14. Transpo	ort Informati	ion			
14.1 LA	AND TRANSPORT (US D	DOT):					
DOT P	Proper Shipping Name:	Not dangerous goods.					
DOT H	Hazard Class:						
UN/NA	IA Number:						
14.1 LA	AND TRANSPORT (Euro	opean ADR/RID):					
	/RID Shipping Name:	Not dangerous goods.					
	lumber:						
Hazar	rd Class:						

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14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name:

Not dangerous goods.

Additional Transport Information:

Section 15. Regulatory Information

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

CAS #	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
3102-57-6 C-2 Ceramide			No	No	No	
CAS # Hazardous Com		nponents (Chemical Name) Other US EPA or State Lists				
3102-57-6	C-2 Ceramide		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. Ot	her Informatio	on		
Revision Date:		05/04/2018				
Additional Information About		No data available.				
This Product:						
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.				