

Revision: 07/03/2017

			dentification of the Substance/Mixture and of		nacitating					
.1	Produc		22686	1 3	0					
••		t Name:	N-Stearoyl Phytosphingosine							
	Synonyms:		N-[(1S,2S,3R)-2,3-dihydroxy-1-(hydroxymethyl)heptadecyl]-octadecanamide; C18:0							
	- ,,			Phytoceramide; N-Octadecanoyl Phytosphingosine; SPS;						
.2	Releva	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.									
1.3	Details of the Supplier of the Safety Data Sheet:									
	Company Name:		Cayman Chemical Company							
			1180 E. Ellsworth Rd.							
			Ann Arbor, MI 48108							
	Web s	site address:	www.caymanchem.com							
	Inform	nation:	Cayman Chemical Company	+1 (73-	4)971-3335					
.4	-	ency telephone num	ber:							
	Emer	gency Contact:	CHEMTREC Within USA and Canada:		0)424-9300					
			CHEMTREC Outside USA and Canada:	+1 (70	3)527-3887					
			Section 2. Hazards Identified	cation						
.1	Classif	ication of the Substa	ance or Mixture:	Classification of the Substance or Mixture: Label Elements:						
			ance or Mixture:							
	Label E		ance or Mixture: None							
	Label E GHS S	lements:								
	Label E GHS S GHS	ilements: Signal Word: Hazard Phrases:	None	not classifiable ac	ccording to GHS.					
	Label E GHS GHS Based	Elements: Signal Word: Hazard Phrases: d on evaluation of cur	None rently available data this substance or mixture is	not classifiable ac	ccording to GHS.					
	Label E GHS GHS Based GHS	ilements: Signal Word: Hazard Phrases: d on evaluation of cur Precaution Phrases	None rently available data this substance or mixture is	not classifiable ac	ccording to GHS.					
	Label E GHS GHS Based GHS No ph	Elements: Signal Word: Hazard Phrases: d on evaluation of cur Precaution Phrases mases apply.	None rently available data this substance or mixture is	not classifiable ac	ccording to GHS.					
2.1 2.2	Label E GHS GHS Based GHS No ph GHS	Elements: Signal Word: Hazard Phrases: d on evaluation of cur Precaution Phrases mases apply. Response Phrases:	None rently available data this substance or mixture is	not classifiable ac	ccording to GHS.					
	Label E GHS GHS Based GHS No ph GHS No ph	Elements: Signal Word: Hazard Phrases: d on evaluation of cur Precaution Phrases mases apply. Response Phrases: mases apply.	None rently available data this substance or mixture is	not classifiable ac	cording to GHS.					
	Label E GHS Based GHS No ph GHS No ph GHS	Elements: Signal Word: Hazard Phrases: d on evaluation of cur Precaution Phrases mases apply. Response Phrases: mases apply. Storage and Dispos	None rently available data this substance or mixture is : al Phrases:		cording to GHS.					
.2	Label E GHS Based GHS No ph GHS No ph GHS Pleas	Elements: Signal Word: Hazard Phrases: d on evaluation of cur Precaution Phrases mases apply. Response Phrases: mases apply. Storage and Dispos e refer to Section 7 fo	None rently available data this substance or mixture is : al Phrases: or Storage and Section 13 for Disposal information	n.	-					
	Label E GHS Based GHS No ph GHS No ph GHS Pleas	Elements: Signal Word: Hazard Phrases: d on evaluation of cur Precaution Phrases arases apply. Response Phrases: arases apply. Storage and Dispos e refer to Section 7 fo se Human Health	None rently available data this substance or mixture is : al Phrases: or Storage and Section 13 for Disposal information Material may be irritating to the mucous membra	on. nes and upper res	-					
.2	Label E GHS GHS Based GHS No ph GHS No ph GHS Pleas Advers	Elements: Signal Word: Hazard Phrases: d on evaluation of cur Precaution Phrases arases apply. Response Phrases: arases apply. Storage and Dispos e refer to Section 7 fo se Human Health	None rently available data this substance or mixture is : al Phrases: or Storage and Section 13 for Disposal information	on. nes and upper res	-					
.2	Label E GHS GHS Based GHS No ph GHS No ph GHS Pleas Advers	Elements: Signal Word: Hazard Phrases: d on evaluation of cur Precaution Phrases: mases apply. Response Phrases: mases apply. Storage and Dispos e refer to Section 7 fo se Human Health a and Symptoms:	None rently available data this substance or mixture is al Phrases: for Storage and Section 13 for Disposal information Material may be irritating to the mucous membra May be harmful by inhalation, ingestion, or skin a May cause eye, skin, or respiratory system irritat	on. ines and upper res absorption. iion.	spiratory tract.					
.2	Label E GHS GHS Based GHS No ph GHS No ph GHS Pleas Advers	Elements: Signal Word: Hazard Phrases: d on evaluation of cur Precaution Phrases: mases apply. Response Phrases: mases apply. Storage and Dispos e refer to Section 7 fo se Human Health a and Symptoms:	None rently available data this substance or mixture is al Phrases: or Storage and Section 13 for Disposal information Material may be irritating to the mucous membra May be harmful by inhalation, ingestion, or skin a	on. ines and upper res absorption. iion.	spiratory tract.					
.2	Label E GHS GHS Based GHS No ph GHS No ph GHS Pleas Advers	Elements: Signal Word: Hazard Phrases: d on evaluation of cur Precaution Phrases: mases apply. Response Phrases: mases apply. Storage and Dispos e refer to Section 7 fo se Human Health and Symptoms:	None rently available data this substance or mixture is al Phrases: for Storage and Section 13 for Disposal information Material may be irritating to the mucous membra May be harmful by inhalation, ingestion, or skin a May cause eye, skin, or respiratory system irritat	on. Ines and upper res absorption. ion. roperties have not	spiratory tract. t been thoroughly investigate					
2.2 2.3	Label E GHS GHS Based GHS No ph GHS Pleas Advers Effects	Elements: Signal Word: Hazard Phrases: d on evaluation of cur Precaution Phrases: mases apply. Response Phrases: mases apply. Storage and Dispos e refer to Section 7 for se Human Health a and Symptoms: Section	None rently available data this substance or mixture is al Phrases: or Storage and Section 13 for Disposal information Material may be irritating to the mucous membra May be harmful by inhalation, ingestion, or skin a May cause eye, skin, or respiratory system irritat To the best of our knowledge, the toxicological p On 3. Composition/Information onents (Chemical Name)/ Concentration	on. Ines and upper res absorption. ion. roperties have not	spiratory tract. t been thoroughly investigate					
2	Label E GHS GHS Based GHS No ph GHS Pleas Advers Effects	Elements: Signal Word: Hazard Phrases: d on evaluation of cur Precaution Phrases: arases apply. Response Phrases: arases apply. Storage and Dispos e refer to Section 7 for se Human Health a and Symptoms: Section Hazardous Compo	None rently available data this substance or mixture is al Phrases: or Storage and Section 13 for Disposal information Material may be irritating to the mucous membra May be harmful by inhalation, ingestion, or skin a May cause eye, skin, or respiratory system irritat To the best of our knowledge, the toxicological p On 3. Composition/Information onents (Chemical Name)/ Concentration	on. nes and upper res absorption. ion. roperties have not on Ingredie EC No./	spiratory tract. t been thoroughly investigate nts					

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 Media:	g A solid water stream may be inefficient.
5.2	Flammable Properties ar Hazards:	I d No 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 Instruction	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		r Contain spill and collect, as appropriate.
0.5		ngTransfer 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:	

Multi-region format



9.2	Exposuro Controla:						
8.2	Exposure Controls:						
8.2.1		se process enclosures, local exhaust ventilation, or other engineering controls to control airborne					
	(Ventilation etc.): levels below recommended exposure limits. Personal protection equipment:						
8.2.2							
	-						
		ompatible chemical-resistant gloves					
	Other Protective Clothing:La						
	Respiratory Equipment N	OSH approved respirator, as conditions warrant.					
	(Specify Type):						
	Work/Hygienic/Maintenan De	o not take internally.					
		acilities storing or utilizing this material should be equipped with an eyewash and a safety shower.					
	W	ash thoroughly after handling.					
	No data available.						
	Sec	tion 9. Physical and Chemical Properties					
9.1	Information on Basic Physica	al and Chemical Properties					
	Physical States:	[]Gas []Liquid [X]Solid					
	Appearance and Odor:	A 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 m	m No data.					
	Hg):						
	Vapor Density (vs. Air = 1):	No data.					
	Specific Gravity (Water = 1):	No data.					
	Solubility in Water:	No data.					
	Solubility Notes:	~1:1 solution of chloroform:MeOH;					
	Octanol/Water Partition	No data.					
	Coefficient:						
	Autoignition Pt:	No data.					
	Decomposition Temperature						
	Viscosity:	No data.					
9.2	Other Information						
	Percent Volatile:	No data.					
	Molecular Formula & Weight						



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			Section 10. Stability	and Reading	vity			
10.1	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	ons To Avoid:	No data available.					
10.5 Incompatibility - Materials strong oxidizing agents								
	To Avoid:							
10.6	Hazardous Decomposition or Byproducts:		carbon dioxide					
			carbon monoxide					
			nitrogen oxides					
			Section 11. Toxicolog	ical Informa	ation			
11.1	Informat	ion on	The toxicological effects of this proc	uct have not beer	n thoroughly st	udied.		
	Toxicolo	gical Effects:						
CAS	#	Hazardous Com	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA	
3435								
	54-88-6	Ceramide 3		n.a.	n.a.	n.a.	n.a.	
	54-88-6	Ceramide 3	Section 12 Ecologi			n.a.	n.a.	
		<u> </u>	Section 12. Ecologic			n.a.	n.a.	
12.1	54-88-6 Toxicity:	<u> </u>	Avoid release into the environment.	cal Informat	ion	n.a.	n.a.	
12.1	Toxicity	<u>. </u>	Avoid release into the environment. Runoff from fire control or dilution w	cal Informat	ion	n.a.	n.a.	
	Toxicity: Persiste	nce and	Avoid release into the environment.	cal Informat	ion	n.a.	n.a.	
12.1	Toxicity	nce and bility:	Avoid release into the environment. Runoff from fire control or dilution w	cal Informat	ion	n.a.	n.a.	
12.1 12.2	Toxicity: Persiste Degrada	nce and bility: mulative	Avoid release into the environment. Runoff from fire control or dilution w No data available.	cal Informat	ion	n.a.	n.a.	
12.1 12.2	Toxicity: Persiste Degrada Bioaccu	nce and bility: mulative I:	Avoid release into the environment. Runoff from fire control or dilution w No data available.	cal Informat	ion	n.a.	n.a.	
12.1 12.2 12.3	Toxicity: Persiste Degrada Bioaccu Potentia Mobility	nce and bility: mulative I: in Soil:	Avoid release into the environment. Runoff from fire control or dilution w No data available. No data available.	cal Informat	ion	n.a.	n.a.	
12.1 12.2 12.3 12.4	Toxicity: Persiste Degrada Bioaccu Potentia Mobility	nce and bility: mulative I: in Soil: of PBT and vPvB	Avoid release into the environment. Runoff from fire control or dilution w No data available. No data available. No data available.	al Informat	ion	n.a.	n.a.	
12.1 12.2 12.3 12.4	Toxicity: Persiste Degrada Bioaccu Potentia Mobility Results assessm	nce and bility: mulative I: in Soil: of PBT and vPvB	Avoid release into the environment. Runoff from fire control or dilution w No data available. No data available. No data available.	al Informat	ion	n.a.	n.a.	
12.1 12.2 12.3 12.4 12.5	Toxicity: Persiste Degrada Bioaccu Potentia Mobility Results assessm	nce and bility: mulative I: in Soil: of PBT and vPvB nent:	Avoid release into the environment. Runoff from fire control or dilution w No data available. No data available. No data available. No data available. No data available.	L cal Informat	ion ollution.	n.a.	n.a.	
12.1 12.2 12.3 12.4 12.5	Toxicity: Persiste Degrada Bioaccu Potentia Mobility Results assessm Other ad	nce and bility: mulative I: in Soil: of PBT and vPvB nent:	Avoid release into the environment. Runoff from fire control or dilution w No data available. No data available. No data available. No data available.	ater may cause pr	ion ollution.	n.a.	n.a.	
12.1 12.2 12.3 12.4 12.5 12.6	Toxicity: Persiste Degrada Bioaccu Potentia Mobility Results assessm Other ad	nce and bility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects:	Avoid release into the environment. Runoff from fire control or dilution w No data available. No data available. No data available. No data available. No data available. Section 13. Disposal Dispose in accordance with local, st	ater may cause provide the second sec	ion ollution. ions egulations.	n.a.	n.a.	
12.1 12.2 12.3 12.4 12.5 12.6	Toxicity: Persiste Degrada Bioaccu Potentia Mobility Results assessm Other ad	nce and bility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects: isposal Method:	Avoid release into the environment. Runoff from fire control or dilution w No data available. No data available. No data available. No data available. No data available. Section 13. Disposal Dispose in accordance with local, st Section 14. Transp	ater may cause provide the second sec	ion ollution. ions egulations.	n.a.	n.a.	
12.1 12.2 12.3 12.4 12.5 12.6 13.1 14.1	Toxicity: Persiste Degrada Bioaccu Potentia Mobility Results assessm Other ad	nce and bility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects: isposal Method: RANSPORT (US I	Avoid release into the environment. Runoff from fire control or dilution w No data available. No data available. No data available. No data available. No data available. Section 13. Disposal Dispose in accordance with local, st Section 14. Transp DOT):	ater may cause provide the second sec	ion ollution. ions egulations.	n.a.	n.a.	
12.1 12.2 12.3 12.4 12.5 12.6 13.1 14.1 D	Toxicity: Persiste Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T	nce and bility: mulative l: in Soil: of PBT and vPvB hent: lverse effects: isposal Method: RANSPORT (US I r Shipping Name:	Avoid release into the environment. Runoff from fire control or dilution w No data available. No data available. No data available. No data available. No data available. Section 13. Disposal Dispose in accordance with local, st Section 14. Transp DOT):	ater may cause provide the second sec	ion ollution. ions egulations.	n.a.	n.a.	
12.1 12.2 12.3 12.4 12.5 12.6 13.1 14.1 D	Toxicity: Persiste Degrada Bioaccu Potentia Mobility Results assessm Other ad	nce and bility: mulative l: in Soil: of PBT and vPvB nent: lverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class:	Avoid release into the environment. Runoff from fire control or dilution w No data available. No data available. No data available. No data available. No data available. Section 13. Disposal Dispose in accordance with local, st Section 14. Transp DOT):	ater may cause provide the second sec	ion ollution. ions egulations.	n.a.	n.a.	
12.1 12.2 12.3 12.4 12.5 12.6 13.1 14.1 D	Toxicity: Persiste Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T OT Prope OT Hazard	nce and bility: mulative l: in Soil: of PBT and vPvB hent: lverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: hber:	Avoid release into the environment. Runoff from fire control or dilution w No data available. No data available. No data available. No data available. No data available. Section 13. Disposal Dispose in accordance with local, st Section 14. Transp DOT): Not dangerous goods.	ater may cause provide the second sec	ion ollution. ions egulations.	n.a.	n.a.	
12.1 12.2 12.3 12.4 12.5 12.6 13.1 14.1 D U 14.1	Toxicity: Persiste Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T OT Prope OT Hazard N/NA Nun LAND T	Ince and bility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: nber: RANSPORT (Euro	Avoid release into the environment. Runoff from fire control or dilution w No data available. No data available. No data available. No data available. No data available. Section 13. Disposal Dispose in accordance with local, st Section 14. Transpo DOT): Not dangerous goods.	ater may cause provide the second sec	ion ollution. ions egulations.	n.a.	n.a.	
12.1 12.2 12.3 12.4 12.5 12.6 13.1 14.1 D U 14.1 A	Toxicity: Persiste Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T OT Prope OT Hazard N/NA Nun LAND T	nce and bility: mulative l: in Soil: of PBT and vPvB hent: lverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: hber: RANSPORT (Euro hipping Name:	Avoid release into the environment. Runoff from fire control or dilution w No data available. No data available. No data available. No data available. No data available. Section 13. Disposal Dispose in accordance with local, st Section 14. Transp DOT): Not dangerous goods.	ater may cause provide the second sec	ion ollution. ions egulations.	n.a.	n.a.	



14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Not dangerous goods.

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

Information:

Additional Transport

Section 15. Regulatory Information

CAS #	Hazardous Components (Chemical Name)		S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
34354-88-6	Ceramide 3		No	No	No	
CAS #	Hazardous Com	ponents (Chemical Name)	Other US EPA or	· ·		
34354-88-6	Ceramide 3		CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No			
Regulatory Inf Statement:	ormation	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:	:	07/03/2017				
Additional Information About		No data available.				
Additional Information About This Product: Company Policy or Disclaimer:		DISCLAIMER: This information currently available to us. Howe express or implied, with respec- use. Users should make their their particular purposes.	ver, we make no wa t to such information	rranty of merchanta , and we assume r	bility or any other warranty o liability resulting from its	