

ay		Ganglioside GQ1b (sodiur	Revision: 10/04/2019
	man		Supersedes Revision: 03/19/2015
	according to	o Regulation (EC) No. 1907/2006 as amended by (EC) No. 2015/830	0 and US OSHA HCS 2015
	Section 1. Ide	entification of the Substance/Mixture and of th	e Company/Undertaking
.1	Product Code:	15589	
	Product Name:	Ganglioside GQ1b (sodium salt)	
2	Relevant identified uses of t	he substance or mixture and uses advised aga	ainst:
	Relevant identified uses:	For research use only, not for human or veterin	
3	Details of the Supplier of the	e Safety Data Sheet:	
-	Company Name:	Cayman Chemical Company	
		1180 E. Ellsworth Rd.	
		Ann Arbor, MI 48108	
	Web site address:	www.caymanchem.com	
	Information:	Cayman Chemical Company	+1 (734)971-3335
.4	Emergency telephone numb	per:	
	Emergency Contact:	CHEMTREC Within USA and Canada:	+1 (800)424-9300
		CHEMTREC Outside USA and Canada:	+1 (703)527-3887
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	Classification of the Substan Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements:	Section 2. Hazards Identificance or Mixture:	ation
.1 .2	Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements:	Section 2. Hazards Identifica nce or Mixture: Irritation, Category 2 ricity (single exposure), Category 3	ation
	Serious Eye Damage/Eye Specific Target Organ Tox	Section 2. Hazards Identificance or Mixture: Irritation, Category 2	ation
	Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements: GHS Signal Word:	Section 2. Hazards Identifica nce or Mixture: Irritation, Category 2 ticity (single exposure), Category 3 Warning	ation
	Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases:	Section 2. Hazards Identifica nce or Mixture: Irritation, Category 2 cicity (single exposure), Category 3 <b>Warning</b>	ation
	Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H319: Causes serious eye in	Section 2. Hazards Identifica nce or Mixture: Irritation, Category 2 dicity (single exposure), Category 3 <b>Warning</b> rritation.	ation
	Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H319: Causes serious eye in H335: May cause respirator GHS Precautionary Phrase	Section 2. Hazards Identifica nce or Mixture: Irritation, Category 2 dicity (single exposure), Category 3 <b>Warning</b> rritation.	ation
	Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H319: Causes serious eye in H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust P264: Wash {hands} thoroug	Section 2. Hazards Identifica nce or Mixture: Irritation, Category 2 ticity (single exposure), Category 3 Warning rritation. y irritation. es: /fume/gas/mist/vapors/spray}. ghly after handling.	
	Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H319: Causes serious eye in H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust P264: Wash {hands} thoroug P280: Wear {protective glow	Section 2. Hazards Identifica nce or Mixture: Irritation, Category 2 dicity (single exposure), Category 3 Warning rritation. y irritation. y irritation.	
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	Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H319: Causes serious eye in H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust P264: Wash {hands} thoroug P280: Wear {protective glov GHS Response Phrases: P304+340: IF INHALED: Res	Section 2. Hazards Identification of Mixture: Irritation, Category 2 Sticity (single exposure), Category 3 Warning rritation. y irritation. y irritation. ses: /fume/gas/mist/vapors/spray}. ghly after handling. es/protective clothing/eye protection/face protection emove victim to fresh air and keep at rest in a position	on}. tion comfortable for breathing.
	Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H319: Causes serious eye in H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust P264: Wash {hands} thoroug P280: Wear {protective glov GHS Response Phrases: P304+340: IF INHALED: Re P305+351+338: IF IN EYES	Section 2. Hazards Identifica nce or Mixture: Irritation, Category 2 ticity (single exposure), Category 3 Warning rritation. y irritation. es: /fume/gas/mist/vapors/spray}. ghly after handling. es/protective clothing/eye protection/face protection	on}. tion comfortable for breathing.
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	Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H319: Causes serious eye in H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust P264: Wash {hands} thoroug P280: Wear {protective glov GHS Response Phrases: P304+340: IF INHALED: Re P305+351+338: IF IN EYES to do. Continue rinsing. P312: Call a POISON CENT	Section 2. Hazards Identification nce or Mixture: Irritation, Category 2 Sticity (single exposure), Category 3 Warning rritation. y irritation. y irritation. es: /fume/gas/mist/vapors/spray}. ghly after handling. es/protective clothing/eye protection/face protection emove victim to fresh air and keep at rest in a posi S: Rinse cautiously with water for several minutes. FER or doctor/physician if you feel unwell.	on}. tion comfortable for breathing.
	Serious Eye Damage/Eye I Specific Target Organ Tox Label Elements: GHS Signal Word: GHS Hazard Phrases: H319: Causes serious eye in H335: May cause respirator GHS Precautionary Phrase P261: Avoid breathing {dust P264: Wash {hands} thoroug P280: Wear {protective glov GHS Response Phrases: P304+340: IF INHALED: Re P305+351+338: IF IN EYES to do. Continue rinsing. P312: Call a POISON CENT	Section 2. Hazards Identifica nce or Mixture: Irritation, Category 2 ticity (single exposure), Category 3 Warning rritation. y irritation. es: /fume/gas/mist/vapors/spray}. ghly after handling. es/protective clothing/eye protection/face protection emove victim to fresh air and keep at rest in a posi S: Rinse cautiously with water for several minutes. FER or doctor/physician if you feel unwell. ersists, get medical advice/attention.	on}. tion comfortable for breathing.

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2.3		e Human Health and Symptoms:	May be harmful by inhalation May cause respiratory system	Causes serious eye irritation.				
		Sec	tion 3. Composition	/Information	on Ingredie	nts		
	CAS # / Hazardous Comp RTECS # REACH Registrat		oonents (Chemical Name)/ tion No.	Concentration	EC No./ EC Index No.	GHS Classification		
6865 NA	68652-37-9 Ganglioside GQ1b (s		odium salt) 100.0 % NA NA			Eye Damage 2A: H319 STOT (SE) 3: H335 H336		
			Section 4. Fi	rst Aid Meas	sures			
4.1	Measu In Case In Case In Case	otion of First Aid res: a of Inhalation: a of Skin Contact: a of Eye Contact: a of Ingestion:	Get immediate medical attent Immediately wash skin with s clothing. Get medical attention Hold eyelids apart and flush of and tested by medical person Wash out mouth with water p	tion. coap and plenty of a n if symptoms occ eyes with plenty of nnel. provided person is a	water for at least 1 ur. Wash clothing b water for at least 1 conscious. Never g	5 minutes. Have eyes examined		
			medical personnel.					
5.1	Suitabl Media:	e Extinguishing	Section 5. Fire Fighting Measures Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.					
			A solid water stream may be	inefficient.				
5.2	Flamm Hazard	-	<b>d</b> No data available. No data available.					
	-	Pt: ive Limits: nition Pt:	No data. LEL: No data. No data.	UEL: No	data.			
5.3	-		s: As in any fire, wear self-conta equivalent), and full protectiv					
						Multi-region forma		



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		Section 6. Accidental Release Measures					
6.1	Protective Precautions,	Avoid raising and breathing dust, and provide adequate ventilation.					
		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	Take steps to avoid release into the environment, if safe to do so.					
<b>C</b> 2	Precautions:						
6.3		Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.					
	Up:						
	-p.	Section 7. Handling and Storage					
7.1	Precautions To Be Taken	Avoid breathing dust/fume/gas/mist/vapours/spray.					
	in Handling:	Avoid prolonged or repeated exposure.					
7.2	-	Keep container tightly closed.					
	in Storing:	Store in accordance with information listed on the product insert.					
	Other Precautions:	hygroscopic					
	Secti	on 8. Exposure Controls/Personal Protection					
<b></b> 8.1	Exposure Parameters:						
8.2	Exposure Controls:						
8.2.1	Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne					
	(Ventilation etc.):	levels below recommended exposure limits.					
8.2.2	Personal protection equip	ment:					
	Eye Protection:	Safety glasses					
	Protective Gloves:	Compatible chemical-resistant gloves					
	Other Protective Clothing:Lab coat						
	Respiratory Equipment (Specify Type):	NIOSH approved respirator, as conditions warrant.					
	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.					
		No data available.					
	Se	ection 9. Physical and Chemical Properties					
9.1	Information on Basic Phys	ical and Chemical Properties					
	Physical States:	[]Gas []Liquid [X]Solid					
	Appearance and Odor:	A lyophilized solid					
	pH:	No data.					
	Melting Point:	No data.					
	Boiling Point:	No data.					
	Flash Pt:	No data. No data.					
	Evaporation Rate: Flammability (solid, gas):	No data available.					
	Explosive Limits:	LEL: No data. UEL: No data.					
	Vapor Pressure (vs. Air or						
	Hg):						
	Vapor Density (vs. Air = 1)	: No data.					
		Multi-region format					



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	Specific Gra	avity (Water =	1):	No data.					
	Solubility in	Water:		No data.					
	Solubility N	otes:		Soluble in: water (mic	ellar aggregat	es); 2:1 chl	oroform:MeOl	⊣;	
	Octanol/Wa	ter Partition		No data.					
	Coefficient:								
	Autoignitior	ו Pt:		No data.					
	-	tion Temperat	ure:	No data.					
	Viscosity:			No data.					
9.2	Other Inform	ation							
9.2				No data					
	Percent Vol			No data.		-			
	wolecular F	ormula & Weig	gnt:	C106H178N6O55 • 4I	Na 2508.	5			
			S	Section 10. Stat	oility and	Reactiv	⁄ity		
10.1	Reactivity:		No da	ta available.					
10.2	Stability:		Unstal	ble [ ] Stable [ X ]					
10.3	Stability No	te(s):	Stable	if stored in accordance	e with informa	tion listed o	n the product	insert.	
	Polymerizat	ion:	Will oc	ccur [ ] Will not oc	cur [ X ]				
10.4	Conditions	To Avoid:	hygros	scopic					
10.5				oxidizing agents					
	To Avoid:	inty materiale	onong	onaizing agoino					
10.6	Hazardous		carbor	a diaxida					
10.0	Decomposit	tion or		on dioxide on monoxide					
	-			gen oxides					
	Byproducts	:	-	im oxides					
<b>—</b>						Informo	tion		
				ection 11. Toxic					
11.1	Information	on	The to	exicological effects of th	is product hav	ve not been	thoroughly st	udied.	
	Toxicologic	al Effects:							
CAS #	ŧ Ha	zardous Com	ponent	ts (Chemical Name)		NTP	IARC	ACGIH	OSHA
6865	2-37-9 Ga	anglioside GQ1	b (sodiı	um salt)		n.a.	n.a.	n.a.	n.a.
			S	Section 12. Eco	logical In	formati	on		
12.1	Toxicity:		Avoid	release into the enviror	nment.				
	•		Runof	f from fire control or dilu	ution water ma	ay cause po	llution.		
12.2	Persistence	and	No dat	ta available.					
	Degradabili								
12.2	Bioaccumul	-	No da	ta available.					
12.3	Potential:	alive	NU Ua	la avaliable.					
12.4	Mobility in S			ta available.					
12.5	Results of F	PBT and vPvB	No da	ta available.					
	assessment	t:							
12.6	Other adver	se effects:	No da	ta available.					
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Multi-region format



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CHEMICAL				Supers	edes Revision. 03/19/2013		
		Section 13. Dispos	sal Considerat	ions			
13.1 Waste D	Disposal Method:	Dispose in accordance with loca	al, state, and federal r	egulations.			
		Section 14. Tran	sport Informat	ion			
14.1 LAND T	RANSPORT (US	DOT):					
DOT Prope	r Shipping Name	Not dangerous goods.					
DOT Hazar							
UN/NA Nun							
	RANSPORT (Euro						
UN Numbe	hipping Name: r:	Not dangerous goods.					
Hazard Cla							
14.3 AIR TR	ANSPORT (ICAO/	IATA):					
ΙCΑΟ/ΙΑΤΑ	Shipping Name:	Not dangerous goods.					
UN Numbe			Packing Grou	ıp:			
Hazard Cla		<b>—</b>					
Additional Tra	nsport	Transport in accordance with lo	cal, state, and federa	l regulations.			
		Contine 15 Degui	lator unforma	tion			
		Section 15. Regul	•	lion			
· · ·	-	nents and Reauthorization Act of 1986) Lists					
CAS # 68652-37-9	Ganglioside GQ1	nponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)		
CAS # 68652-37-9	Ganglioside GQ1	ponents (Chemical Name) Other US EPA or State Lists   b (sodium salt) CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA					
00032-37-9	Garigiloside GQ	PROP.65: No					
Regulatory Info	ormation	This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)					
Statement:		No.1272/2008.					
		Section 16. Oth	ner Information	า			
Revision Date:		10/04/2019					
Additional Info This Product:	rmation About	No data available.					
	cy or Disclaimer:	DISCLAIMER: This information currently available to us. Howev express or implied, with respect use. Users should make their o their particular purposes.	ver, we make no warra	anty of merchantab and we assume no	lity or any other warranty, liability resulting from its		