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Revision:	02/19/2018
	02/10/2010

	Section 1.	Identification of the Substar	nce/Mixture and o	of the Company/L	Indertaking			
.1	Product Code:	24458		1 5	5			
••	Product Name:	Ghrelin (rat)						
	Synonyms:		ctyl)-L-seryl-L-pher	iylalanyl-L-leucyl-L	-seryl-L-prolyl-Lalphaglutamy			
		••••			/l-L-arginyl-L-lysyl-Lalphaglut			
		yl-L-seryl-L-lysyl-L-lysyl-	L-prolyl-L-prolyl-L-a	alanyl-L-lysyl-L-leu	cyl-L-glutaminyl-L-prolyl-L-argin			
.2	Relevant identified uses of the substance or mixture and uses advised against:							
	Relevant identified uses	: For research use only, n	ot for human or vet	erinary use.				
.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	34)971-3335			
1.4	Emergency telephone num							
	Emergency Contact:	CHEMTREC Within USA		•	00)424-9300			
		CHEMTREC Outside US	SA and Canada:	+1 (70	03)527-3887			
		Section 2. Ha	zards Identif	ication				
	Classification of the Subs Label Elements: GHS Signal Word: GHS Hazard Phrases:	None						
2	Label Elements: GHS Signal Word: GHS Hazard Phrases: Based on evaluation of cu GHS Precaution Phrases No phrases apply. GHS Response Phrases No phrases apply. GHS Storage and Dispon	None Irrently available data this sub s: :	r Disposal informati he mucous membr n, ingestion, or skin	ion. anes and upper re absorption.	-			
2.2	Label Elements: GHS Signal Word: GHS Hazard Phrases: Based on evaluation of cu GHS Precaution Phrases No phrases apply. GHS Response Phrases No phrases apply. GHS Storage and Dispon Please refer to Section 7 to Adverse Human Health	None Irrently 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	r Disposal informati he mucous membr n, ingestion, or skin piratory system irrita	ion. anes and upper re absorption. ation.	spiratory tract.			
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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:	A solid water stream may be inefficient.
5.2	Flammable Properties an Hazards:	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 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	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:	
		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	Precautions To Be Taken	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



 2. Exposure Controls: 2.1 Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to control airborn (Ventilation etc.): levels below recommended exposure limits. 2.2 Personal protection equipment: Eye Protection: Safety 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 showe Wash thoroughly after handling. No data available. 2.1 Information on Basic Physical and Chemical Properties 2.1 Information on Basic Physical and Chemical Properties Physical States: []Gas []Liquid [X]Solid Appearances and Odor: A lyophilized powder pH: No data. 2.1 Modata. 2.2 Prostion Rate: No data. 3.3 No data available. 3.4 No data. 4 No data. 4 No data. 4 Evaporation Rate: No data. 4 Evaporation Rate: No data. 4 Evaporation Rate: No data. 4 Evaporsure (vs. Air or mm No data. 4 Physical States: LEL: No data. 4 No pressure (vs. Air or mm No data. 5 Sectific Gravity (Water = 1): No data. 5 Sectific Gravity (Water = 1): No data. 5 Sectific Gravity (Water = 1): No data. 5 Sectific Provity (Water = 1): No data. 5 Coefficient: 4 Autoignition Pt: No data. 5 Decomposition Temperature: No data. 5 Decompo			Ghrelin (rat)	Revision: 02/19/2018				
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Percent Volatile: No data.		-	No data.					
	9.2							
Wolecular Formula & Weight: C147H245N45O42 3314.8								
		Molecular Formula & Weigi	II: C147H245N45O42 3314.8					



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			Section 10. Stability	and Reactiv	vity				
10.1	Reactivity: 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.								
	Polymerization: Will occur [] Will not occur [X]								
10.4									
10.5 Incompatibility - Materials strong acids									
	To Avoid	d:	strong bases						
			strong oxidizing agents						
			strong reducing agents						
10.6	Hazardo		No data available.						
Decomposition or									
	Byprodu	icts:							
			Section 11. Toxicologi	cal Informa	ation				
11.1	Informat	ion on	The toxicological effects of this produ	ict have not been	n thoroughly st	udied.			
	Toxicolo	gical Effects:							
CAS	#	Hazardous Com	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA		
2583	38-12-4	Ghrelin (rat)		n.a.	n.a.	n.a.	n.a.		
		ł	Section 12. Ecologic	al Informati	ion				
12.1	Toxicity		Avoid release into the environment.						
12.1	TOXICITY.		Runoff from fire control or dilution water may cause pollution.						
12.2	Persiste	nce and	No data available.						
	Degrada								
12.3	Bioaccu	-	No data available.						
-	Potentia	l:							
12.4	Mobility	in Soil:	No data available.						
12.5	-		3 No data available.						
	assessm								
12.6	Other ad	lverse effects:	No data available.						
			Section 13. Disposal	Considerati	ione				
40.4	Weste D	ion o o l Moth o di	•						
13.1	waste D	isposal Method:	Dispose in accordance with local, sta		•				
			Section 14. Transpo	ort Informat	ion				
14.1		RANSPORT (US I	-						
	=	r Shipping Name:	Not dangerous goods.						
	OT Hazaro								
_	N/NA Nun								
14.1		RANSPORT (Euro							
		hipping Name:	Not dangerous goods.						
	N Number								
H	azard Cla	SS:							
						N	Aulti-region fo		

4
Calman
Caynan

14.3 AIR TRANSPORT (ICAO/IATA): ICAO/IATA Shipping Name: N

ne: Not dangerous goods.

Additional Transport Information:

Section 15. Regulatory Information

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

CAS #	Hazardous Components (Chemical Name)		S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
258338-12-4	Ghrelin (rat)		No	No	No	
CAS #	Hazardous Components (Chemical Name)		Other US EPA o	r State Lists	•	
258338-12-4	Ghrelin (rat)		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 Information	on		
Revision Date:	:	02/19/2018				
Additional Info	ormation About	No data available.				
This Product:						
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