

		according to	Regulation (EC) No. 1907/2006 as	amended by (EC) No. 2015	5/830 and US OSHA HCS	2015					
		Section 1. Ide	entification of the Substan	nce/Mixture and o	f the Company/U	ndertaking					
.1	Produc Produc Synony	t Name:	15139 STING (human recombin ERIS; MITA; MPYS; Sti		n Genes; TMEM17	3;					
.2	Relevant identified uses of the substance or mixture and uses advised against:										
	Relev	ant identified uses:	For research use only, n	ot for human or vet	erinary use.						
1.3		of the Supplier of the pany Name:	Safety Data Sheet: Cayman Chemical Comp 1180 E. Ellsworth Rd. Ann Arbor, MI 48108	bany							
	Web s	site address:	www.caymanchem.com								
	Inforn	nation:	Cayman Chemical Com	bany	+1 (73	4)971-3335					
.4	Emerge	ency telephone numb	er:								
	Emerg	gency Contact:	CHEMTREC Within USA		•	0)424-9300					
			CHEMTREC Outside US	SA and Canada:	+1 (70	3)527-3887					
			Section 2. Ha	zards Identif	ication						
2.1	Classifi	cation of the Substar	ce or Mixture:								
2.2	Label E	lements:									
	GHS S	Signal Word:	None								
	GHS Hazard Phrases:										
	Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.										
	GHS Precaution Phrases:										
	No phrases apply.										
	GHS Response Phrases:										
	No ph	rases apply.									
		Storage and Disposa									
			Storage and Section 13 fo	-		·					
2.3		and Symptoms: M N	laterial may be irritating to t lay be harmful by inhalatior lay cause eye, skin, or resp o the best of our knowledge	n, ingestion, or skin biratory system irrita	absorption. ation.	spiratory tract. t been thoroughly investigated					
		Sectio	n 3. Composition	/Information	on Ingredie	nts					
CAS RTE		Hazardous Compor REACH Registration	ents (Chemical Name)/ n No.	Concentration	EC No./ EC Index No.	GHS Classification					
NA NA		STING (human recomb	nant)	< 1.0 %	NA NA	No data available.					
	-81-5 50000	Glycerol 01-2119471987-18		10.0 %	200-289-5 NA	No GHS classifications apply					
	7-14-5 25000	Sodium chloride 01-2119485491-33		0.88 %	231-598-3 NA	No GHS classifications apply					
	-86-1 00000	Trizma base 01-2119957659-16		2.0 %	201-064-4 NA						
TY29					231-791-2						



		Section 4. First	Aid Measures					
4.1	Description of First Aid							
	Measures:							
	In Case of Inhalation:	Remove to fresh air. If not breath Get immediate medical attention	ning, give artificial respiration or give oxygen by tra	ined personnel.				
	In Case of Skin Contact:		and plenty of water for at least 15 minutes. Remo symptoms occur. Wash clothing before reuse.	ove contaminated				
	In Case of Eye Contact:		s with plenty of water for at least 15 minutes. Have	eyes examined				
	In Case of Ingestion:	Wash out mouth with water prov	ided person is conscious. Never give anything by a lattention. Do NOT induce vomiting unless direct					
		Section 5. Fire F	ighting Measures					
5.1	Suitable Extinguishing	Use alcohol-resistant foam, carb	on dioxide, water, or dry chemical spray.					
	Media:	Use water spray to cool fire-exp						
		A solid water stream may be ine						
	Media:	<b>,</b>						
5.2	Flammable Properties an	dEmits toxic fumes under fire con	ditions.					
	Hazards:							
		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-containe	ed 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 breathing vapors and pro	vide adequate ventilation.					
	Protective Equipment and As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator							
	Emergency Procedures:	and appropriate personal protect	ction (rubber boots, safety goggles, and heavy rub	ber gloves).				
6.2	Environmental	Take steps to avoid release into	the environment, if safe to do so.					
	Precautions:							
6.3	Methods and Material Fo	r Contain spill and collect, as app	ropriate.					
	Containment and Cleanir Up:	ngTransfer to a chemical waste co	ntainer for disposal in accordance with local regul	ations.				
		Section 7. Hand	ing and Storage					
7.1								
	in Handling:	Avoid prolonged or repeated exp						
7.2	-	Keep container tightly closed.						
	in Storing:	Store in accordance with information	ation listed on the product insert.					
			trols/Personal Protection					
8.1	Exposure Parameters:							
CAS #	-	Jurisdiction	Recommended Exposure Limits	Notations				
56-81-		ACGIH TLV	TLV: 10 mg/m3					
				I				
			Ν	Iulti-region format				



	5 Glycerol	France VL	TWA: 10 mg/m3						
(continued)									
		OSHA PELs Britain EH40	PEL: 15 (dust); 5 (resp.) mg/m3 TWA: 10 mg/m3 ()						
		Britain EH40	STEL: ()						
77-86-1 Trizma base		ACGIH TLV	CEIL: 5 mg/m3 (salts)						
		France VL	TWA: 5 mg/m3						
		OSHA PELs	TWA: 5 mg/m3						
		Britain EH40	TWA: 5.0 mg/m3	Skin Absorptio					
8.2	Exposure Controls:	·							
8.2.1	Engineering Controls	Use process enclosures, loc	al exhaust ventilation, or other engineering con	trols to control airbori					
	(Ventilation etc.):	levels below recommended	exposure limits.						
3.2.2	Personal protection equipment:								
		Safety glasses							
	Protective Gloves:	Compatible chemical-resista	Int gloves						
	Other Protective Clothing:	-	-						
	-	NIOSH approved respirator,	as conditions warrant.						
	(Specify Type):	,							
	Work/Hygienic/Maintenan	Do not take internally.							
			his material should be equipped with an evewa	sh and a safetv show					
		Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower. Wash thoroughly after handling.							
	No data available.								
			ng.						
	I	No data available.	-						
	I	No data available.	and Chemical Properties						
9.1	I	No data available.	and Chemical Properties						
9.1	Se	No data available.	and Chemical Properties						
9.1	Information on Basic Physi	No data available. Ction 9. Physical cal and Chemical Properti []Gas [X]Liqu	and Chemical Properties	lycerol					
9.1	Information on Basic Physical States:	No data available. Ction 9. Physical cal and Chemical Properti []Gas [X]Liqu	and Chemical Properties es uid [] Solid	lycerol					
9.1	Information on Basic Physical States: Appearance and Odor:	No data available. ection 9. Physical a cal and Chemical Properti []Gas [X]Liqu 20 mM Tris, pH 7.5,	and Chemical Properties es uid [] Solid	lycerol					
ə.1	Information on Basic Physic Physical States: Appearance and Odor: pH:	No data available. Ection 9. Physical a cal and Chemical Properti []Gas [X] Liqu 20 mM Tris, pH 7.5, 8.0	and Chemical Properties es uid [] Solid	lycerol					
9.1	Information on Basic Physic Physical States: Appearance and Odor: pH: Melting Point:	No data available. ection 9. Physical a cal and Chemical Properti []Gas [X]Liqu 20 mM Tris, pH 7.5, 8.0 No data.	and Chemical Properties es uid [] Solid	lycerol					
9.1	Information on Basic Physic Physical States: Appearance and Odor: pH: Melting Point: Boiling Point:	No data available. Ection 9. Physical a cal and Chemical Properti []Gas [X] Liqu 20 mM Tris, pH 7.5, 8.0 No data. No data.	and Chemical Properties es uid [] Solid	lycerol					
9.1	Se Information on Basic Physic Physical States: Appearance and Odor: pH: Melting Point: Boiling Point: Flash Pt:	No data available. ection 9. Physical a cal and Chemical Properti []Gas [X] Liqu 20 mM Tris, pH 7.5, 8.0 No data. No data. No data.	and Chemical Properties es uid [] Solid	lycerol					
9.1	Information on Basic Physic Physical States: Appearance and Odor: pH: Melting Point: Boiling Point: Flash Pt: Evaporation Rate:	No data available. ection 9. Physical a cal and Chemical Properti []Gas [X]Liqu 20 mM Tris, pH 7.5, 8.0 No data. No data. No data. No data. No data. No data.	and Chemical Properties es uid [] Solid	lycerol					
9.1	Se Information on Basic Physic Physical States: Appearance and Odor: pH: Melting Point: Boiling Point: Flash Pt: Evaporation Rate: Flammability (solid, gas):	No data available. ection 9. Physical a cal and Chemical Properti []Gas [X]Liqu 20 mM Tris, pH 7.5, 8.0 No data. No data.	and Chemical Properties es uid [] Solid containing 150 mM sodium chloride and 10% gi	lycerol					
9.1	Se Information on Basic Physic Physical States: Appearance and Odor: pH: Melting Point: Boiling Point: Flash Pt: Evaporation Rate: Flammability (solid, gas): Explosive Limits:	No data available. ection 9. Physical a cal and Chemical Properti []Gas [X]Liqu 20 mM Tris, pH 7.5, 8.0 No data. No data.	and Chemical Properties es uid [] Solid containing 150 mM sodium chloride and 10% gi	lycerol					
9.1	Se Information on Basic Physic Physical States: Appearance and Odor: pH: Melting Point: Boiling Point: Flash Pt: Evaporation Rate: Flammability (solid, gas): Explosive Limits: Vapor Pressure (vs. Air or	No data available. ection 9. Physical a cal and Chemical Properti []Gas [X]Liqu 20 mM Tris, pH 7.5, 8.0 No data. No data.	and Chemical Properties es uid [] Solid containing 150 mM sodium chloride and 10% gi	lycerol					
9.1	Se Information on Basic Physic Physical States: Appearance and Odor: pH: Melting Point: Boiling Point: Flash Pt: Evaporation Rate: Flammability (solid, gas): Explosive Limits: Vapor Pressure (vs. Air or Hg):	No data available. Ection 9. Physical a cal and Chemical Properti []Gas [X] Liqu 20 mM Tris, pH 7.5, 8.0 No data. No data.	and Chemical Properties es uid [] Solid containing 150 mM sodium chloride and 10% gi	lycerol					
9.1	Se Information on Basic Physic Physical States: Appearance and Odor: pH: Melting Point: Boiling Point: Flash Pt: Evaporation Rate: Flammability (solid, gas): Explosive Limits: Vapor Pressure (vs. Air or Hg): Vapor Density (vs. Air = 1):	No data available. Ection 9. Physical a cal and Chemical Properti []Gas [X] Liqu 20 mM Tris, pH 7.5, 8.0 No data. No data.	and Chemical Properties es uid [] Solid containing 150 mM sodium chloride and 10% gi	lycerol					
9.1	Se Information on Basic Physic Physical States: Appearance and Odor: pH: Melting Point: Boiling Point: Flash Pt: Evaporation Rate: Flammability (solid, gas): Explosive Limits: Vapor Pressure (vs. Air or Hg): Vapor Density (vs. Air = 1): Specific Gravity (Water = 1)	No data available. ection 9. Physical a fcal and Chemical Properti []Gas [X]Liqu 20 mM Tris, pH 7.5, 8.0 No data. No data.	and Chemical Properties es uid [] Solid containing 150 mM sodium chloride and 10% gi	lycerol					



Revision:	04/24/2019
Supersedes Revision:	12/11/2013

	Autoigniti	on Pt:	No d	ata.						
	Decompos	sition Temperat	ure: No d	ata.						
	Viscosity:		No d	ata.						
9.2	Other Infor	mation								
	Percent V	olatile:	No d	ata.						
			Secti	on 10. St	ability and	Reactiv	ity			
10.1	Reactivity	:	No data ava	ilable.						
10.2	Stability:		Unstable [ ] Stable [ X ]							
10.3	Stability N	lote(s):	Stable if stored in accordance with information listed on the product insert.							
	Polymeriz	ation:	Will occur [ ] Will not occur [ X ]							
10.4	Condition	s To Avoid:	No data available.							
10.5	Incompati	bility - Materials	strong base	S						
	To Avoid:		strong oxidiz	zing agents						
10.6	6 Hazardous		carbon dioxi	de						
	Decomposition or		carbon monoxide							
	Byproduc	ts:								
			Sectio	n 11. To>	kicological	Informat	ion			
11.1	Informatio	on on	The toxicolo	gical effects o	f this product ha	ve not been t	horoughly st	udied.		
	Toxicolog	ical Effects:								
Carci	nogenicity:		NTP? No	IARC Monc	ographs? No	OSHA Reg	ulated? No			
CAS	#  ł	lazardous Com	ponents (Ch	emical Name	)	NTP	IARC	ACGIH	OSHA	
	NA S	STING (human re	ecombinant)			n.a.	n.a.	n.a.	n.a.	
56	5-81-5 C	Glycerol				n.a.	n.a.	n.a.	n.a.	
764	7-14-5 8	Sodium chloride				n.a.	n.a.	n.a.	n.a.	
77	'-86-1 T	Trizma base				n.a.	n.a.	n.a.	n.a.	
773	732-18-5 Water					n.a.	n.a.	n.a.	n.a.	
	I		Section 12. Ecological Information							
12.1	Toxicity:			se into the envi						
	l'oxiony.				dilution water ma	ay cause pol	lution.			
12.2	Persistend	ce and	No data ava			, ,				
	Degradabi									
12.3	Bioaccum	-	No data ava	ilable.						
	Potential:									
12.4			No data available.							
12.5	-									
	assessment:									
12.6			No data available.							



Page: 5 of 6

Revision: 04/24/2019 Supersedes Revision: 12/11/2013

	Section 13. Disp	osal Considera	ations		
3.1 Waste	Disposal Method: Dispose in accordance with	local, state, and federa	l regulations.		
	Section 14. Tr	ansport Informa	ation		
14.1 LAND	TRANSPORT (US DOT):				
DOT Prop DOT Haza UN/NA Nu					
14.1 LAND	TRANSPORT (European ADR/RID):				
ADR/RID S UN Numbe Hazard Cl					
14.3 AIR TR	ANSPORT (ICAO/IATA):				
ICAO/IAT	A Shipping Name: Not dangerous goods.				
Additional Tra	ansport Transport in accordance wit	h local, state, and fede	ral regulations.		
	Section 15. Reg	gulatory Inform	ation		
EPA SARA (S	uperfund Amendments and Reauthorization A	Act of 1986) Lists			
CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
NA	STING (human recombinant)	No	No	No	
56-81-5	Glycerol	No	No	No	
7647-14-5	Sodium chloride	No	No	No	
77-86-1	Trizma base	No	No	Yes-Cat. N106	
7732-18-5	Water	No	No	No	
CAS #	Hazardous Components (Chemical Name)	Other US EPA o	r State Lists		
NA	STING (human recombinant)	CAA HAP,ODC: PROP.65: No	No; CWA NPDES:	No; TSCA: No; CA	
56-81-5	56-81-5 Glycerol		CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No		
7647-14-5	Sodium chloride		CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No		
77-86-1	Trizma base	CAA HAP,ODC: Inventory; CA P		IPDES: No; TSCA: Yes -	
	Water			No; TSCA: Yes -	

Statement:

This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC No.1272/2008.

Multi-region format



Page: 6 of 6

Section 16. Other Information				
Revision Date:	04/24/2019			
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.			