

Page: 1 of 5

Section 1. Identification of the Substance/Mixture and of the Company/Undertaking 1.1 Product Code: 20141 Product Name: Valnemulin Synonyms: 2-[[2-[[(2R)-2-amino-3-methyl-1-oxobutyl]-amino]-1,1-dimethyl-ethyl]-thio]-acetic acid, (383-4R.58,-68.8R,9R,-98.R,10R)-6-ethenyl-decathydro-5-hydroxy-4.6.9,10-tetramethyl-1-o a,9-propano-3aH-cyclopentacyclopenta-8-yl ester; 1.2 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. 1.3 Details of the Supplier of the Safety Data Sheet: Company Name: Cayman Chemical Company 1180 E. Elisworth Rd. Ann Arbor, MI 49108 Web site address: www.caymanchem.com Information: Cayman Chemical Company 1180 E. Elisworth Rd. Ann Arbor, MI 49108 +1 (704)971-3335 I.4 Emergency telephone number: Emergency Contact: CHEMTREC Within USA and Canada: +1 (703)527-3887 I.4 Emergency Contact: CHEMTREC Outside USA and Canada: +1 (703)527-3887 I.4 Ethernets: GHS Signal Word: None GHS Signal Word: None GHS Hazard Phrases: I.4 Label Elements: None GHS Shopaal Phrases: No phrases apply. GHS Storage and Disposal Phrases: No phrases apply. <t< th=""><th>.2</th><th>Product Synony Relevan Releva Details o</th><th>Code: Name: ms: t identified uses of ant identified uses: of the Supplier of t</th><th>20141 Valnemulin 2-[[2-[[(2R)-2-amino-3-m (3aS,4R,5S,-6S,8R,9R,- a,9-propano-3aH-cyclop f the substance or mixture a For research use only, n</th><th>ethyl-1-oxobutyl]-an 9aR,10R)-6-ethenyl entacycloocten-8-yl and uses advised a</th><th>nino]-1,1-dimethyl- -decahydro-5-hydr ester;</th><th>ethyl]-thio]-acetic acid,</th></t<>	.2	Product Synony Relevan Releva Details o	Code: Name: ms: t identified uses of ant identified uses: of the Supplier of t	20141 Valnemulin 2-[[2-[[(2R)-2-amino-3-m (3aS,4R,5S,-6S,8R,9R,- a,9-propano-3aH-cyclop f the substance or mixture a For research use only, n	ethyl-1-oxobutyl]-an 9aR,10R)-6-ethenyl entacycloocten-8-yl and uses advised a	nino]-1,1-dimethyl- -decahydro-5-hydr ester;	ethyl]-thio]-acetic acid,		
Product Name: Valnemulin Synonyms: 2-[[2:1](2:R)-2-anino-3-methyl-1-oxobutyl]-anino]-1,1-dimethyl-ethyl]-thio]-acetic acid, (3a \$4R, 55, 45, 88, 9R, 9a R, 10R)-6-ethanyl-decahydro-5-hydroxy-4,6,9,10-tetramethyl-1-o a. Apropano-3aH-cyclopentacycloocten-8-yl ester: 2 Relevant identified uses: For research use only, not for human or veterinary use. 3 Details of the Supplier of the Safety Data Sheet: Company Name: Cayman Chemical Company 1130 E. Elsworth Rd. Ann Arbor, MI 48108 Web site address: www.caymanchem.com Information: Cayman Chemical Company 1130 E. Elsworth Rd. Ann Arbor, MI 48108 Web site address: Company Ame: Cayman Chemical Company 1130 E. Elsworth Rd. Ann Arbor, MI 48108 Web site address: Common Common Information: Cayman Chemical Company +1 (734)971-3335 4 Emergency telephone number: Emergency Contact: CHEMTREC Within USA and Canada: +1 (703)627-3887 11 Classification of the Substance or Mixture: 2 Label Elements: CHS Signal Word: None GHS Hazard Phrases: No phrases apply. None GHS Storage and Disposal Phrases: No phrases apply. Material may be irritating to the mucous membranes and upper respiratory tract. Effects and Symptoms: Material may be ir	.2	Product Synony Relevan Releva Details o	Name: ms: t identified uses of ant identified uses: of the Supplier of t	Valnemulin 2-[[2-[[(2R)-2-amino-3-m (3aS,4R,5S,-6S,8R,9R,- a,9-propano-3aH-cyclop f the substance or mixture a For research use only, n	9aR,10R)-6-ethenyl entacycloocten-8-yl and uses advised a	-decahydro-5-hydr ester;			
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Effects and Symptoms: May be harmful by inhalation, ingestion, or skin absorption. May cause eye, skin, or respiratory system irritation. To the best of our knowledge, the toxicological properties have not been thoroughly investigate Section 3. Composition/Information on Ingredients EAS # / REACH Registration No. Interview of the toxicological properties have not been thoroughly investigate Output Output Section 3. Composition/Information on Ingredients EAS # / REACH Registration No. Index No. Index No. Index No. I01312-92-9 Valnemulin 100.0 % NA No data available.		Please	e refer to Section 7 f	or Storage and Section 13 for	Disposal information	on.			
May cause eye, skin, or respiratory system irritation. To the best of our knowledge, the toxicological properties have not been thoroughly investigate Section 3. Composition/Information on Ingredients CAS # / Hazardous Components (Chemical Name)/ Concentration EC No./ GHS Classification IO1312-92-9 Valnemulin 100.0 % NA No data available.	3	Adverse	e Human Health	Material may be irritating to t	he mucous membra	nes and upper res	spiratory tract.		
To the best of our knowledge, the toxicological properties have not been thoroughly investigated Section 3. Composition/Information on Ingredients CAS # / Hazardous Components (Chemical Name)/ Concentration EC No./ GHS Classification CAS # / Hazardous Components (Chemical Name)/ Concentration EC No./ GHS Classification I01312-92-9 Valnemulin 100.0 % NA No data available.		Effects	and Symptoms:	May be harmful by inhalation	, ingestion, or skin a	absorption.			
Section 3. Composition/Information on Ingredients CAS # / REACH Registration No. Hazardous Components (Chemical Name)/ REACH Registration No. Concentration EC Index No. EC No./ EC Index No. GHS Classification 101312-92-9 Valnemulin 100.0 % NA No data available.				May cause eye, skin, or resp	iratory system irritat	tion.			
Concentration EC No./ GHS Classification Concentration EC Index No. GHS Classification Concentration EC Index No. GHS Classification Concentration EC Index No. Concentration Concentration EC No./ GHS Classification Concentration EC Index No. NA				To the best of our knowledge	e, the toxicological p	roperties have not	t been thoroughly investigated		
REACH Registration No. EC Index No. 101312-92-9 Valnemulin Valnemulin 100.0 %			Secti	ion 3. Composition	/Information	on Ingredie	nts		
			-		Concentration		GHS Classification		
		2-92-9	Valnemulin		100.0 %		No data available.		

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		Section 4	4. First Aid Measure	es					
4.1 Description of First Aid									
	Measures:								
	In Case of Inhalation:	Remove to fresh air. In Get immediate medica	f not breathing, give artificial re al attention.	spiration or give oxygen by	trained personnel.				
	In Case of Skin Contact:	-	n with soap and plenty of wate attention if symptoms occur. N		move contaminated				
	In Case of Eye Contact:	C C	d flush eyes with plenty of wate	U U	we eyes examined				
	In Case of Ingestion:	Wash out mouth with	water provided person is conse		-				
		unconscious person. (medical personnel.	Get medical attention. Do NOT	induce vomiting unless dire	cted to do so by				
		Section 5.	Fire Fighting Meas	ures					
5.1	Suitable Extinguishing	Use alcohol-resistant	foam, carbon dioxide, water, c	or dry chemical spray.					
	Media:	Use water spray to co	ool fire-exposed containers.						
	Unsuitable Extinguishing	A solid water stream	may be inefficient.						
	Media:								
5.2	Flammable Properties ar	dNo data available.							
	Hazards:								
		No data available.							
	Flash Pt:	No data.							
	Explosive Limits:	LEL: No data.	UEL: No data.						
	Autoignition Pt:	No data.							
5.3	Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or								
		equivalent), and full p	rotective gear to prevent conta	ct with skin and eyes.					
		Section 6. Ac	cidental Release Me	easures					
6.1	Protective Precautions,	U U	eathing dust, and provide adeq						
	Protective Equipment an		t, wear a NIOSH approved sel						
	Emergency Procedures:	and appropriate pers	onal protection (rubber boots,	safety goggles, and heavy ru	ubber gloves).				
6.2	Environmental Precautions:	Take steps to avoid r	elease into the environment, if	safe to do so.					
6.3	Methods and Material Fo	r Contain spill and coll	ect, as appropriate.						
	Containment and Cleanin	ngTransfer to a chemic	al waste container for disposal	in accordance with local reg	gulations.				
	Up:								
		Section 7.	Handling and Stor	age					
7.1	Precautions To Be Taker	Avoid breathing dust/	fume/gas/mist/vapours/spray.						
	in Handling:	Avoid prolonged or re	epeated exposure.						
7.2	Precautions To Be Taker	NKeep container tightly	/ closed.						
	in Storing:	Store in accordance v	with information listed on the p	roduct insert.					
	Sec	tion 8. Exposu	re Controls/Persona	al Protection					
8.1	Exposure Parameters:								
CAS #	# Partial Chemica	I Name	Britain EH40	France VL	Europe				
1013	12-92-9 Valnemulin		No data.	No data.	No data.				
	 		ļ	ł	Į				



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CAS #		Partial Chemical	Name	OSHA TWA	ACGIH TWA	Other Limits
1013	12-92-9	Valnemulin		No data.	No data.	No data.
8.2	Exposu	re Controls:		ļ	I	Į
8.2.1 8.2.2	Enginee (Ventila	ering Controls tion etc.): al protection equi	levels below recomm	res, local exhaust ven ended exposure limits	tilation, or other engineering c	ontrols to control airborne
0.2.2			Safety glasses			
	-	etection:		registent deves		
		ive Gloves:	Compatible chemical	-resistant gloves		
	Respira	rotective Clothing tory Equipment / Type):	-	pirator, as conditions	varrant.	
			Do not take internally			
	ce Prac				ould be equipped with an eye	wash and a safety showe
			Wash thoroughly afte	-		, , , , , , , , , , , , , , , , , , ,
			No data available.			
		<u> </u>	action 0 Dhys	ical and Chan	ical Dranartica	
			y		nical Properties	
9.1		-	sical and Chemical P	-		
	-	al States:] Liquid [X] Solie	1	
		ance and Odor:	A solid			
	Melting		No data.			
	Boiling		No data.			
	Flash P		No data.			
	-	ation Rate:	No data.	- 1- 1-		
		ability (solid, gas):				
	-	ve Limits:	LEL: No data	l.	UEL: No data.	
	-	Pressure (vs. Air o	r mm No data.			
	Hg): Vapor D)oncity (vo Air - 1): No data.			
	-	Density (vs. Air = 1	-			
	•	c Gravity (Water =				
		ty in Water:	No data.			
		ty Notes:		OH; MeOH; DMSO; D	MF; water;	
	-	nition Pt:	No data.			
9.2	Other In	formation				
		Volatile:	No data.			
	Molecu	lar Formula & Wei	ght: C31H52N2O	5S 564.8		
			Section 10	. Stability and	Reactivity	
10.1	Reactiv	ity:	No data available.	-	-	
10.2	Stability	-	Unstable [] Sta	ble [X]		
10.3	-	/ Note(s):			ion listed on the product inser	t.
	-	rization:		II not occur [X]		
10.4	-	ons To Avoid:	No data available.			
10.5						
To Avoid:						
10.6	Hazardo		carbon dioxide			
		oosition or	carbon monoxide			
	Decom					
						Multi-region form



Byproducts:		ucts:	hydrogen sulfide gas nitrogen oxides					
Section 11. Toxicological Information								
11.1								
CAS	#	Hazardous Com	ponents (Chemical Name)	NT	P IAR	C A	CGIH	OSHA
1013	12-92-9	Valnemulin		n.a.	n.a.	n.	a.	n.a.
			Section 12. Ecolo	ogical Infor	mation			
12.1	Toxicity	:	Avoid release into the environm Runoff from fire control or diluti		use pollution.			
12.2	Persiste Degrada		No data available.					
12.3	Bioaccu Potentia	mulative II:	No data available.					
12.4	Mobility	in Soil:	No data available.					
12.5	Results assessn		No data available.					
12.6	Other ac	dverse effects:	No data available.					
			Section 13. Dispos	sal Conside	erations			
13.1	Waste D	isposal Method:	Dispose in accordance with loc	al, state, and fed	eral regulation	s.		
			Section 14. Trar	sport Infor	mation			
D			-					
14.1		RANSPORT (Euro	. ,					
		hipping Name:	Not dangerous goods.					
	N Numbe azard Cla							
14.3		ANSPORT (ICAO/I	ATA):					
IC	AO/IATA	Shipping Name:	Not dangerous goods.					
	ional Trai nation:	nsport	Transport in accordance with lo	ocal, state, and fe	ederal regulation	ons.		
			Section 15. Regu	latory Infor	mation			
EPA S	SARA (Su	perfund Amendm	ents and Reauthorization Act	of 1986) Lists				
CAS	#	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304	RQ	S. 313	(TRI)
1013	12-92-9	Valnemulin		No No No				
CAS			ponents (Chemical Name)	Other US EPA or State Lists CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA				
1013	12-92-9	Valnemulin		CAA HAP,OD PROP.65: No		NPDES: No	; TSCA:	No; CA
							N	lulti-region form



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Regulatory Information Statement:	This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.
	Section 16. Other Information
Revision Date:	08/17/2016
Additional Information About This Product:	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.