

Page: 1 of 5

	Contian 1	Identification of the Substance/Mixture and of th	o Company/Undortaking				
	Section 1.	Identification of the Substance/Mixture and of th	le Company/Undertaking				
.1	Product Code:	22443					
	Product Name:	(R)-Denopamine					
	Synonyms:	Synonyms:.alpha[[[2-(3,4-dimethoxyphenyl)ethyl]amino]methyl]-4-hydroxy-(aR)-benzenemethanol;Carguto; Denopamine; Kalgut; TA 064; Benzenemethanol;					
.2	Relevant identified uses of the substance or mixture and uses advised against:						
	Relevant identified uses	: For research use only, not for human or veterin	nary use.				
.3	Details of the Supplier of the 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 nur	nber:					
	Emergency Contact:	CHEMTREC Within USA and Canada:	+1 (800)424-9300				
			11 (000)+2+ 3000				
		CHEMTREC Outside USA and Canada:	+1 (703)527-3887				
	Classification of the Subs Toxic To Reproduction, Label Elements:	Section 2. Hazards Identifica tance or Mixture: Category 2	+1 (703)527-3887				
	Toxic To Reproduction, Label Elements: GHS Signal Word: GHS Hazard Phrases: H361: Suspected of dama GHS Precaution Phrase	Section 2. Hazards Identification or Mixture: Category 2 Warning aging fertility or the unborn child. s:	+1 (703)527-3887				
	Toxic To Reproduction, Label Elements: GHS Signal Word: GHS Hazard Phrases: H361: Suspected of dama GHS Precaution Phrase P201: Obtain special instr	Section 2. Hazards Identifica tance or Mixture: Category 2 Warning aging fertility or the unborn child. s: ructions before use.	+1 (703)527-3887 ation				
	Toxic To Reproduction, Label Elements: GHS Signal Word: GHS Hazard Phrases: H361: Suspected of dama GHS Precaution Phrase P201: Obtain special instr P202: Do not handle until	Section 2. Hazards Identification tance or Mixture: Category 2 Warning aging fertility or the unborn child. s: ructions before use. all safety precautions have been read and understo	+1 (703)527-3887 ation				
	Toxic To Reproduction, Label Elements: GHS Signal Word: GHS Hazard Phrases: H361: Suspected of dama GHS Precaution Phrase P201: Obtain special instr P202: Do not handle until P280: Wear {protective gl	Section 2. Hazards Identification of Mixture: Category 2 Warning aging fertility or the unborn child. s: ructions before use. all safety precautions have been read and understor oves/protective clothing/eye protection/face protection	+1 (703)527-3887 ation				
	Toxic To Reproduction, Label Elements: GHS Signal Word: GHS Hazard Phrases: H361: Suspected of dama GHS Precaution Phrase P201: Obtain special instr P202: Do not handle until P280: Wear {protective gl GHS Response Phrases	Section 2. Hazards Identification tance or Mixture: Category 2 Warning aging fertility or the unborn child. s: ructions before use. all safety precautions have been read and understo oves/protective clothing/eye protection/face protection	+1 (703)527-3887 ation				
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2.2	Toxic To Reproduction, Label Elements: GHS Signal Word: GHS Hazard Phrases: H361: Suspected of dama GHS Precaution Phrase P201: Obtain special instr P202: Do not handle until P280: Wear {protective gl GHS Response Phrases P308+313: IF exposed or GHS Storage and Dispo Please refer to Section 7	Section 2. Hazards Identification of Mixture: Category 2 Warning aging fertility or the unborn child. s: ructions before use. all safety precautions have been read and understor oves/protective clothing/eye protection/face protection : concerned: Get medical attention/advice. sal Phrases: for Storage and Section 13 for Disposal information.	+1 (703)527-3887 ation				
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2.2	Toxic To Reproduction, Label Elements: GHS Signal Word: GHS Hazard Phrases: H361: Suspected of dama GHS Precaution Phrase P201: Obtain special instr P202: Do not handle until P280: Wear {protective gl GHS Response Phrases P308+313: IF exposed or GHS Storage and Dispo Please refer to Section 7	Section 2. Hazards Identification of Mixture: Category 2 Warning aging fertility or the unborn child. s: ructions before use. all safety precautions have been read and understor oves/protective clothing/eye protection/face protection : concerned: Get medical attention/advice. sal Phrases: for Storage and Section 13 for Disposal information.	+1 (703)527-3887 ation od. on}. es and upper respiratory tract. sorption.				
2.1	Toxic To Reproduction, Label Elements: GHS Signal Word: GHS Hazard Phrases: H361: Suspected of dama GHS Precaution Phrases P201: Obtain special instr P202: Do not handle until P280: Wear {protective gl GHS Response Phrases P308+313: IF exposed or GHS Storage and Dispo Please refer to Section 7 Adverse Human Health	Section 2. Hazards Identification of Mixture: Category 2 Warning aging fertility or the unborn child. s: ructions before use. all safety precautions have been read and understor oves/protective clothing/eye protection/face protection oves/protective clothing/eye protection/face protection s: concerned: Get medical attention/advice. sal Phrases: for Storage and Section 13 for Disposal information. Material may be irritating to the mucous membrane May be harmful by inhalation, ingestion, or skin absorbed to the section of the s	+1 (703)527-3887 ation bod. on}. es and upper respiratory tract. sorption. n.				



Revision: 08/21/2017

		Sect	tion 3. Composition	/Information	on Ingredie	nts		
CAS RTEC		Hazardous Comp REACH Registra	oonents (Chemical Name)/ tion No.	Concentration	EC No./ EC Index No.	GHS Classification		
	71-90-9 95470	R(-)-Denopamine		100.0 %	NA NA	Toxic Repro. 2: H361		
			Section 4. Fi	rst Aid Measu	ures			
4.1	Descri	ption of First Aid						
	Measu	res:						
	In Case	e of Inhalation:	Remove to fresh air. If not bre	eathing, give artificia	I respiration or giv	e oxygen by trained personnel.		
		Get immediate medical attention.						
	In Case	e of Skin Contact:						
			clothing. Get medical attentio		-			
	In Case	e 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	e of Ingestion:	Wash out mouth with water p		nscious. Never ai	ve anything by mouth to an		
	in ous	of ingestion.		-	-	ng unless directed to do so by		
			medical personnel.					
			Section 5. Fire	Fighting Mea	asures			
5.1	Suitabl	e Extinguishing	Use alcohol-resistant foam, o	arbon dioxide, wate	r, or dry chemical	spray.		
	Media: Use water spray to cool fire-exposed containers.							
	Unsuita	Unsuitable Extinguishing A solid water stream may be inefficient.						
	Media:							
5.2	Flammable Properties andNo data available. Hazards:							
		-	No data available.					
	Flash F	Pt:	No data.					
	Explos	ive Limits:	LEL: No data.	UEL: No da	ata.			
	Autoig	nition Pt:	No data.					
5.3	Fire Fig	ghting Instructions	s: As in any fire, wear self-conta	ained breathing appa	aratus pressure-de	emand (NIOSH approved or		
			equivalent), and full protectiv	e gear to prevent co	ntact with skin an	d eyes.		
			Section 6. Acciden	tal Release N	Measures			
6.1	Protect	tive Precautions,	Avoid raising and breathing			l.		
				-	-	athing apparatus, or respirator,		
	Emerge	ency Procedures:	and appropriate personal pro	otection (rubber boot	ts, safety goggles	, and heavy rubber gloves).		
6.2	Enviro	nmental	Take steps to avoid release	into the environmen	t, if safe to do so.			
	Precau	tions:						
6.3	Method	ds and Material Fo	r Contain spill and collect, as	appropriate.				
	Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations.							
	Up:							
			Section 7. Har	ndling and Sto	orage			
7.1	Precau	tions To Be Taken	Avoid breathing dust/fume/ga					
	in Hand		Avoid prolonged or repeated					
7.2			Keep container tightly closed					
	in Stor		Store in accordance with info		e product insert.			
						Multi-region format		



Page: 3 of 5

	Secti	on 8. Exposure Controls/Personal Protection				
3.1	Exposure Parameters:					
8.2	Exposure Controls:					
8.2.1       Engineering Controls       Use process enclosures, local exhaust ventilation, or other engineering controls to cont         (Ventilation etc.):       levels below recommended exposure limits.						
					8.2.2	Personal protection equipment:
		fety glasses				
	Protective Gloves:	ompatible 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				
		ash thoroughly after handling.				
		No data available.				
	Se	ection 9. Physical and Chemical Properties				
9.1		ical and Chemical Properties				
	Physical States:	[]Gas []Liquid [X]Solid				
	Appearance and Odor:	A powder				
	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	mm No data.				
	Hg):					
	Vapor Density (vs. Air = 1)	: No data.				
	Specific Gravity (Water = 1	I): No data.				
	Solubility in Water:	No data.				
	Solubility Notes:	Soluble in: DMSO;				
	Octanol/Water Partition	No data.				
	Coefficient:					
	Autoignition Pt:	No data.				
	Decomposition Temperatu	<b>ire:</b> No data.				
	Viscosity:	No data.				
9.2	Other Information					
	Percent Volatile:	No data.				
	Molecular Formula & Weig	Iht: C18H23NO4 317.4				

Multi-region format

# Cayman

# SAFETY DATA SHEET (R)-Denopamine

Revision: 08/21/2017

10.1 10.2			Section 10. Stability and	Reactiv	itv			
	Reactivi	hv-	No data available.					
10.2	Stability:     Unstable []     Stable [X]							
	-							
10.3	Stability			lition listed of	i the product	insen.		
	Polymer		Will occur [ ] Will not occur [ X ]					
10.4	<b>3</b>							
10.5	-	-	rials strong oxidizing agents					
	To Avoid:							
10.6	Hazardo	us	carbon dioxide					
	Decomposition or		carbon monoxide					
	Byprodu	icts:	nitrogen oxides					
			Section 11. Toxicological	Information	tion			
11.1	Informat	ion on	The toxicological effects of this product ha	ve not been	thoroughly stu	udied.		
	Toxicolo	gical Effects:	(R)-Denopamine - ToxicityData: Oral LD50	) (rat): 9369 (	mg/kg; Intrape	eritoneal LD50	(rat): 1785	
			mg/kg; Subcutaneous LD50 (rat): >5 gm/k	-		72 mg/kg; Intra	aperitoneal LD5	
			(mouse): 1651 mg/kg; Subcutaneous LD50	) (mouse): >	5 gm/kg;			
	Chronic	Toxicological	(R)-Denopamine - Investigated as a drug and reproductive effector.					
	Effects:		Only select Registry of Toxic Effects of Ch		tances (RTEC	CS) data is pre	sented here.	
			See actual entry in RTECS for complete information.					
			(R)-Denopamine RTECS Numb er: DA479	5470				
CAS #	¥	Hazardous Com	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA	
7177	'1-90-9	R(-)-Denopamine		n.a.	n.a.	n.a.	n.a.	
			Section 12. Ecological Ir	nformatio	on			
12.1	Toxicity:		Avoid release into the environment.					
			Runoff from fire control or dilution water ma	ay cause pol	lution.			
12.2	Persiste	nce and	No data available.					
	Degrada	bility:						
12.3	Bioaccu	-	No data available.					
12.0	Potentia							
10 /			No data available.					
12.4	Mobility							
12.5			No data available.					
	assessm							
	Other ad	verse effects:	No data available.					
12.6								
12.6			Section 13. Disposal Con	sideratio	ons			



	Section 14. Tran	sport Informa	ation		
RANSPORT (US	DOT):				
er Shipping Name	: Not dangerous goods.				
d Class:					
nber:					
-					
	Not dangerous goods.				
	۱۵۲۵).				
14.3       AIR TRANSPORT (ICAO/IATA):         ICAO/IATA Shipping Name:       Not dangerous goods.					
nsport		ocal, state, and feder	al regulations.		
	Section 15. Regu	latory Informa	ation		
perfund Amendn	nents and Reauthorization Act	of 1986) Lists			
Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
R(-)-Denopamine	9	No	No	No	
Hazardous Com	ponents (Chemical Name)	Other US EPA or	State Lists		
R(-)-Denopamine	2	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No			
ormation	This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.				
	Section 16. Ot	her Informatio	n		
	08/21/2017				
rmation About	No data available.				
y 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.				
	express or implied, with respec use. Users should make their of	t to such information	, and we assume r	ability or any other warranty, no liability resulting from its	
	r Shipping Name d Class: nber: RANSPORT (Eur hipping Name: r: ss: ANSPORT (ICAO/ Shipping Name: nsport perfund Amendin Hazardous Com R(-)-Denopamine Hazardous Com R(-)-Denopamine	RANSPORT (US DOT):         rr Shipping Name:       Not dangerous goods.         d Class:         nber:         'RANSPORT (European ADR/RID):         hipping Name:       Not dangerous goods.         r:       ss:         ANSPORT (ICAO/IATA):         Shipping Name:       Not dangerous goods.         nsport       Transport in accordance with letter         Section 15. Regu         operfund Amendments and Reauthorization Act         Hazardous Components (Chemical Name)         R(-)-Denopamine         Hazardous Components (Chemical Name)         R(-)-Denopamine         Ommation         This SDS was prepared in accordance         No.1272/2008.         Section 16. Ott         08/21/2017         rmation About       No data available.	RANSPORT (US DOT):         r Shipping Name:       Not dangerous goods.         d Class:         inber:         RANSPORT (European ADR/RID):         hipping Name:       Not dangerous goods.         r:       ss:         ANSPORT (ICAO/IATA):         Shipping Name:       Not dangerous goods.         nsport       Transport in accordance with local, state, and feder         Section 15. Regulatory Information         perfund Amendments and Reauthorization Act of 1986) Lists         Hazardous Components (Chemical Name)       S. 302 (EHS)         R(-)-Denopamine       No         Hazardous Components (Chemical Name)       Other US EPA or         R(-)-Denopamine       CAA HAP,ODC: I         PROP.65: No       PROP.65: No         ormation       This SDS was prepared in accordance with 29 CFR         No.1272/2008.       Section 16. Other Informatic         08/21/2017       08/21/2017         rmation About       No data available.	r Shipping Name: Not dangerous goods. d Class: mber: RANSPORT (European ADR/RID): hipping Name: Not dangerous goods. r: ss: ANSPORT (ICAO/IATA): Shipping Name: Not dangerous goods. nsport Transport in accordance with local, state, and federal regulations. Section 15. Regulatory Information perfund Amendments and Reauthorization Act of 1986) Lists Hazardous Components (Chemical Name) S. 302 (EHS) S. 304 RQ R(-)-Denopamine No No Hazardous Components (Chemical Name) Other US EPA or State Lists R(-)-Denopamine CAA HAP,ODC: No; CWA NPDES PROP.65: No ormation This SDS was prepared in accordance with 29 CFR 1910.1200 and R No.1272/2008. Section 16. Other Information 08/21/2017 rmation About No data available.	