

	o o o o o o o o o o o o o o o o o o o	a to Dogulation (EC) No. 1007/2004 as amondod by (EC) No. 2015/02	20 and LIC OCUA UCC 2015			
		according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 2015/830 and US OSHA HCS 2015 Section 1. Identification of the Substance/Mixture and of the Company/Undertaking				
	Section 1. I	denuircation of the Substance/Mixture and of th	ne Company/Undenaking			
Product C		14411				
Product N		(S)-3,5-DHPG				
Synonym		(.alpha.S)-amino-3,5-dihydroxy-benzeneacetic				
	Relevant identified uses of the substance or mixture and uses advised against:					
Relevan	<b>Relevant identified uses:</b> For research use only, not for human or veterinary use.					
	Details of the Supplier of the Safety Data Sheet:					
Compar	ny Name:	Cayman Chemical Company				
		1180 E. Ellsworth Rd. Ann Arbor, MI 48108				
Web site	e address:	www.caymanchem.com				
Information		Cayman Chemical Company	+1 (734)971-3335			
Emergeng	cy telephone num					
•	ncy Contact:	CHEMTREC Within USA and Canada:	+1 (800)424-9300			
U		CHEMTREC Outside USA and Canada:	+1 (703)527-3887			
		Section 2. Hazards Identific	ation			
Classifica	tion of the Subst					
Serious	Eye Damage/Eye Target Organ To	, Category 2 e Irritation, Category 2 oxicity (single exposure), Category 3				
Serious Specific Label Elec GHS Sig GHS Ha	Eye Damage/Eye Target Organ To	e Irritation, Category 2 oxicity (single exposure), Category 3 Warning				
Serious Specific Label Elec GHS Sig GHS Ha H315: C	Eye Damage/Eye Target Organ To ments: gnal Word: zard Phrases:	e Irritation, Category 2 oxicity (single exposure), Category 3 Warning				
Serious Specific Label Elec GHS Sig GHS Ha H315: C H319: C	Eye Damage/Eye Target Organ To ments: gnal Word: izard Phrases: causes skin irritatio	e Irritation, Category 2 oxicity (single exposure), Category 3 Warning on.				
Serious Specific Label Elect GHS Sig GHS Ha H315: C H319: C H335: M	Eye Damage/Eye Target Organ To ments: gnal Word: azard Phrases: causes skin irritatio causes serious eye	e Irritation, Category 2 oxicity (single exposure), Category 3 Warning on. e irritation. ory irritation.				
Serious Specific Label Elec GHS Sig GHS Ha H315: C H319: C H335: M GHS Pre	Eye Damage/Eye Target Organ To ments: gnal Word: azard Phrases: Gauses skin irritatio Gauses serious eye fay cause respirato ecaution Phrases	e Irritation, Category 2 oxicity (single exposure), Category 3 Warning on. e irritation. ory irritation.				
Serious Specific Label Elect GHS Sig GHS Ha H315: C H319: C H335: W GHS Pro P264: W P280: W	Eye Damage/Eye Target Organ To ments: gnal Word: auses skin irritatio auses serious eye fay cause respirato ecaution Phrases /ash {hands} thoro /ear {protective glo	warning warnin	ion}.			
Serious Specific Label Elect GHS Sig GHS Ha H315: C H319: C H319: C H335: M GHS Pro P264: W P280: W P362+30	Eye Damage/Eye Target Organ To ments: gnal Word: auses skin irritatio causes serious eye lay cause respirate ecaution Phrases /ash {hands} thoro /ear {protective glo 64: Take off contai	e Irritation, Category 2 oxicity (single exposure), Category 3 Warning on. e irritation. ory irritation. s: pughly after handling. oves/protective clothing/eye protection/face protection minated clothing and wash it before reuse.	ion}.			
Serious Specific Label Elect GHS Sig GHS Ha H315: C H319: C H335: W GHS Pro P264: W P280: W P362+30 P261: A	Eye Damage/Eye Target Organ To ments: gnal Word: hzard Phrases: auses skin irritatio auses serious eye fay cause respirato ecaution Phrases /ash {hands} thoro /ear {protective glo 64: Take off contai void breathing {du	warning warnin	ion}.			
Serious Specific Label Elect GHS Sig GHS Ha H315: C H319: C H319: C H335: M GHS Pro P264: W P280: W P280: W P362+30 P261: A GHS Re	Eye Damage/Eye Target Organ To ments: anal Word: auses skin irritatio auses serious eye ay cause respirate ecaution Phrases /ash {hands} thoro /ear {protective glo 64: Take off contai void breathing {du	e Irritation, Category 2 oxicity (single exposure), Category 3 Warning on. e irritation. ory irritation. s: pughly after handling. oves/protective clothing/eye protection/face protection minated clothing and wash it before reuse. st/fume/gas/mist/vapours/spray}.	ion}.			
Serious Specific Label Elec GHS Sig GHS Ha H315: C H319: C H319: C H335: W GHS Pro P264: W P280: W P280: W P362+30 P261: A GHS Re P302+33	Eye Damage/Eye Target Organ To ments:	e Irritation, Category 2 oxicity (single exposure), Category 3 Warning wn. e irritation. ory irritation. ory irritation. S: oughly after handling. oves/protective clothing/eye protection/face protection minated clothing and wash it before reuse. st/fume/gas/mist/vapours/spray}.	ion}.			
Serious Specific Label Elect GHS Sig GHS Sig GHS Ha H315: C H319: C H335: W GHS Pro P264: W P280: W P280: W P362+30 P261: A GHS Re P302+33 P332+3	Eye Damage/Eye Target Organ To ments:	e Irritation, Category 2 oxicity (single exposure), Category 3 Warning on. e irritation. ory irritation. ory irritation. s: bughly after handling. oves/protective clothing/eye protection/face protection minated clothing and wash it before reuse. st/fume/gas/mist/vapours/spray}. vash with plenty of soap and water. occurs, get medical advice/attention.				
Serious Specific Label Elec GHS Sig GHS Ha H315: C H319: C H31	Eye Damage/Eye Target Organ To ments: anal Word: auses skin irritation auses serious eye lay cause respirate ecaution Phrases /ash {hands} thoro /ear {protective glo 64: Take off contai void breathing {du esponse Phrases: 52: IF ON SKIN: W 13: If skin irritation 51+338: IF IN EYE	e Irritation, Category 2 oxicity (single exposure), Category 3 Warning wn. e irritation. ory irritation. ory irritation. S: oughly after handling. oves/protective clothing/eye protection/face protection minated clothing and wash it before reuse. st/fume/gas/mist/vapours/spray}.				
Serious Specific Label Elect GHS Sig GHS Sig GHS Ha H315: C H319: C H315: C H319: C H335: W GHS Pro P264: W P280: W P280: W P264: A GHS Re P302+32 P302+33 P305+33 to do. C	Eye Damage/Eye Target Organ To ments: anal Word: Exard Phrases: Causes skin irritatio Causes serious eye May cause respirato ecaution Phrases /ash {hands} thoro /ear {protective glo 64: Take off contai void breathing {du esponse Phrases: 52: IF ON SKIN: W 13: If skin irritation 51+338: IF IN EYE ontinue rinsing.	e Irritation, Category 2 oxicity (single exposure), Category 3 Warning on. e irritation. ory irritation. ory irritation. s: bughly after handling. oves/protective clothing/eye protection/face protection minated clothing and wash it before reuse. st/fume/gas/mist/vapours/spray}. vash with plenty of soap and water. occurs, get medical advice/attention.				
Serious Specific Label Elect GHS Sig GHS Ha H315: C H319: C H319: C H335: W GHS Pro P264: W P280: W P280: W P280: W P262+30 P261: A GHS Re P302+33 P302+33 P305+33 to do. Co P337+3	Eye Damage/Eye Target Organ To ments: anal Word: Eauses skin irritation auses serious eye ay cause respirate ecaution Phrases /ash {hands} thoro /ear {protective glo 64: Take off contai void breathing {du esponse Phrases: 52: IF ON SKIN: W 13: If skin irritation 51+338: IF IN EYE ontinue rinsing. 13: If eye irritation	e Irritation, Category 2 oxicity (single exposure), Category 3 Warning m. a irritation. ory irritation. ory irritation. S: hughly after handling. oves/protective clothing/eye protection/face protection minated clothing and wash it before reuse. st/fume/gas/mist/vapours/spray}. Vash with plenty of soap and water. occurs, get medical advice/attention. ES: Rinse cautiously with water for several minutes	. Remove contact lenses, if present and eas			
Serious Specific Label Elec GHS Sig GHS Ha H315: C H319: C H319: C H319: C H319: C H335: M GHS Pr P264: W P280: W P262+30 P261: A GHS Re P302+33 P305+33 to do. C4 P337+3 P309+3	Eye Damage/Eye Target Organ To ments: anal Word: auses skin irritation auses serious eye lay cause respirate (auses serious eye (auses serious eye) (auses serio	e Irritation, Category 2 oxicity (single exposure), Category 3 Warning on. e irritation. ory irritation. ory irritation. s: bughly after handling. oves/protective clothing/eye protection/face protection minated clothing and wash it before reuse. st/fume/gas/mist/vapours/spray}. vash with plenty of soap and water. occurs, get medical advice/attention. ES: Rinse cautiously with water for several minutes persists, get medical advice/attention.	. Remove contact lenses, if present and eas			
Serious Specific Label Elect GHS Sig GHS Sig GHS Ha H315: C H319: C H335: W GHS Pro P264: W P280: W P280: W P280: W P362+30 P261: A GHS Re P302+33 P305+33 to do. Co P337+3 P309+3 P304+30	Eye Damage/Eye Target Organ To ments: anal Word: auses skin irritation auses serious eye lay cause respirate (auses serious eye (auses serious eye) (auses serio	<ul> <li>e Irritation, Category 2</li> <li>bxicity (single exposure), Category 3</li> <li>Warning</li> <li>on.</li> <li>e irritation.</li> <li>by irritation.</li> <li>by irritation.</li> <li>by after handling.</li> <li>by espondential advise protection/face protection</li> <li>minated clothing and wash it before reuse.</li> <li>st/fume/gas/mist/vapours/spray}.</li> <li>Wash with plenty of soap and water.</li> <li>occurs, get medical advice/attention.</li> <li>ES: Rinse cautiously with water for several minutes</li> <li>persists, get medical advice/attention.</li> <li>I CENTER or doctor/physician if exposed or you fe</li> <li>Remove victim to fresh air and keep at rest in a positional protection in the protection of the protection.</li> </ul>	. Remove contact lenses, if present and eas			

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Cayman	

	Revision:	11/28/2018
Supersedes	Revision:	01/21/2014

1	: Causes skin irritation. Material may be irritating May be harmful by inhala May cause respiratory in To the best of our knowle ction 3. Composit	to the mucous memb ation, ingestion, or ski ritation. edge, the toxicologica	n absorption. I properties have no	t been thoroughly investigated.			
Hazardous Co # Hazardous Co REACH Regist 29-3 (S)-3,5-DHPG 50 (S)-3,5-DHPG escription of First Aid leasures:	Material may be irritating May be harmful by inhala May cause respiratory in To the best of our knowle ction 3. Composit mponents (Chemical Name ration No.	ation, ingestion, or ski ritation. edge, the toxicologica ion/Information	n absorption. I properties have no n on Ingredie EC No./ EC Index No.	t been thoroughly investigated.			
Hazardous Co REACH Regist 29-3 (S)-3,5-DHPG 50 escription of First Aid leasures:	May be harmful by inhala May cause respiratory in To the best of our knowle ction 3. Composit mponents (Chemical Name ration No.	ation, ingestion, or ski ritation. edge, the toxicologica ion/Information	n absorption. I properties have no n on Ingredie EC No./ EC Index No.	t been thoroughly investigated.			
Hazardous Co REACH Regist 29-3 (S)-3,5-DHPG 50 escription of First Aid leasures:	May cause respiratory in To the best of our knowle ction 3. Composit mponents (Chemical Name ration No.	ritation. edge, the toxicologica ion/Information e)/ Concentration	D properties have no D ON Ingredie EC No./ EC Index No.	ents			
Hazardous Co REACH Regist 29-3 (S)-3,5-DHPG 50 escription of First Aid leasures:	To the best of our knowle ction 3. Composit mponents (Chemical Name ration No.	edge, the toxicologica ion/Information e)/ Concentration	EC No./ EC Index No.	ents			
Hazardous Co REACH Regist 29-3 (S)-3,5-DHPG 50 escription of First Aid leasures:	ction 3. Composit mponents (Chemical Name ration No.	ion/Information	EC No./ EC Index No.	ents			
Hazardous Co REACH Regist 29-3 (S)-3,5-DHPG 50 escription of First Aid leasures:	mponents (Chemical Name ration No.	e)/ Concentration	EC No./ EC Index No.	1			
#       REACH Regist         29-3       (S)-3,5-DHPG         50	ration No.		EC Index No.	GHS Classification			
escription of First Aid		100.0 %					
escription of First Aid	Section 4.	100.0 %	NA				
escription of First Aid	Section 4.			Skin Corr. 2: H315			
easures:	Section 4.		NA	Eye Damage 2: H319			
easures:	Section 4.			STOT (SE) 3: H335 H336			
easures:		First Aid Mea	sures				
	1						
Case of innalation:	Demous to fresh sin If n		ciel vective an ei				
	Get immediate medical a		cial respiration of gi	ve oxygen by trained personnel			
Case of Skin Contac			water for at least 1	5 minutes. Remove contaminate			
	clothing. Get medical atte						
Case of Eye Contac	-		-				
·····		Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examine and tested by medical personnel.					
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.						
C C							
	Section 5. F	ire Fighting M	easures				
uitable Extinguishing	Use alcohol-resistant foa	am, carbon dioxide, wa	ater, or dry chemica	l spray.			
edia:	Use water spray to cool	fire-exposed containe					
nsuitable Extinguish	ng A solid water stream mag	y be inefficient.					
edia:							
lammable Properties	andNo data available.						
azards:							
	No data available.						
lash Pt:	No data.						
xplosive Limits:	LEL: No data.	UEL: No	data.				
utoignition Pt:	No data.						
ire Fighting Instruction	ns: As in any fire, wear self-	contained breathing a	oparatus pressure-c	demand (NIOSH approved or			
	equivalent), and full prote	equivalent), and full protective gear to prevent contact with skin and eyes.					
ire Fighting Instruction							



		Section 6. Accidental Release Measures				
6.1	Protective Precautions,	Avoid raising and breathing dust, and provide adequate ventilation.				
	Protective Equipment and As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respira					
	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	<b>Methods and Material For</b> Contain spill and collect, as appropriate. <b>Containment and Cleaning</b> Transfer 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.				
	Other Precautions:	Air sensitive.				
		Light sensitive.				
	Sect	tion 8. Exposure Controls/Personal Protection				
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	pment:				
	Eye Protection:	Safety glasses				
	Protective Gloves:	Compatible chemical-resistant gloves				
	Other Protective Clothing	j:Lab coat				
	<b>Respiratory Equipment</b>	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.				
		Multi-region form				



Pr Ay Pr Ma Ba Fl Ev Fl Ev Va Va Va		ection 9. Physical and Chemical Properties cal and Chemical Properties []Gas []Liquid [X]Solid A crystalline solid No data. No data. No data. No data. No data. LEL: No data. UEL: No data.				
Ph Aj Ph Ba Fl Ex Fl Ex Va Va Va	Physical States: Appearance and Odor: OH: Melting Point: Boiling Point: Flash Pt: Evaporation Rate: Flammability (solid, gas): Explosive Limits: Mapor Pressure (vs. Air or	[]Gas []Liquid [X]Solid A crystalline solid No data. No data. No data. No data. No data. No data.				
Aj pH Bo Fl: E\ Fl: Va Va	Appearance and Odor: bH: Melting Point: Boiling Point: Flash Pt: Evaporation Rate: Flammability (solid, gas): Explosive Limits: Mapor Pressure (vs. Air or	A crystalline solid No data. No data. No data. No data. No data. No data.				
pi Ma Ba Fi Ex Fi Ex Va Hg Va	Allenting Point: Melting Point: Boiling Point: Flash Pt: Evaporation Rate: Flammability (solid, gas): Explosive Limits: Mapor Pressure (vs. Air or	No data. No data. No data. No data. No data. No data available.				
Mi Bi Fi Ex Fi Ex Va Va	Melting Point: Boiling Point: Flash Pt: Evaporation Rate: Flammability (solid, gas): Explosive Limits: Mapor Pressure (vs. Air or	No data. No data. No data. No data. No data available.				
B0 F1 F1 F1 Va Va Va	Boiling Point: Flash Pt: Evaporation Rate: Flammability (solid, gas): Explosive Limits: Vapor Pressure (vs. Air or	No data. No data. No data. No data available.				
Fi Ev Fi Ex Va Va	Flash Pt: Evaporation Rate: Flammability (solid, gas): Explosive Limits: Vapor Pressure (vs. Air or	No data. No data. No data available.				
EN Fil Va Hų Va	Evaporation Rate: Flammability (solid, gas): Explosive Limits: /apor Pressure (vs. Air or	No data. No data available.				
FI Ex Va Hg Va	Tammability (solid, gas): Explosive Limits: /apor Pressure (vs. Air or	No data available.				
E> Va Hg Va	Explosive Limits: /apor Pressure (vs. Air or					
Va Hç Va	/apor Pressure (vs. Air or	LEL: No data. UEL: No data.				
Hç Va						
Va	la):	mm No data.				
	.9/.					
Sp	/apor Density (vs. Air = 1):	No data.				
	Specific Gravity (Water = 1	): No data.				
Sc	Solubility in Water:	No data.				
So	Solubility Notes:	~20 mg/ml in PBS (pH 7.2); ~20 mg/ml in DMSO				
0	Octanol/Water Partition	No data.				
Co	Coefficient:	No data. No data.				
Αι	Autoignition Pt:					
De	Decomposition Temperatu					
Vi	/iscosity:	No data.				
9.2 Ot	ther Information					
Pe	Percent Volatile:	No data.				
M	Iolecular Formula & Weig	ht: C8H9NO4 183.2				
		Section 10. Stability and Reactivity				
10.1 Re	Reactivity:	No data available.				
10.2 St	Stability:	Unstable [ ] Stable [ X ]				
10.3 St	Stability Note(s):	Stable if stored in accordance with information listed on the product insert.				
Po	Polymerization:	Will occur [ ] Will not occur [ X ]				
10.4 Co	Conditions To Avoid:	Air and light sensitive				
10.5 In	ncompatibility - Materials	-				
	o Avoid:					
		carbon dioxide				
		carbon monoxide				
	-	nitrogen oxides				



	Section 11. Toxicological Information           Information on         The toxicological effects of this product have not been thoroughly studied.						
1.1         Information on         The toxicological           Toxicological Effects:         The toxicological         The toxicological		The toxicological effects of this	gical effects of this product have not been thoroughly studied.				
CAS #	ŧ	Hazardous Com	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA
16287	70-29-3	(S)-3,5-DHPG		n.a.	n.a.	n.a.	n.a.
			Section 12. Ecol	ogical Informa	ition		
12.1 Toxicity:		:	Avoid release into the environr	nent.			
			Runoff from fire control or dilut	ion water may cause	pollution.		
12.2	Persiste	nce and	No data available.				
	Degrada	bility:					
12.3	Bioaccu	mulative	No data available.				
	Potentia	1:					
12.4	Mobility	in Soil:	No data available.				
12.5			No data available.				
12.6	assessn Other ac	iverse effects:	No data available.				
	Section 13. Disposal Considerations						
13.1	Waste D	isposal Method:	Dispose in accordance with loc				
			Section 14. Trar	nsport Informa	ition		
14.1	LAND T	RANSPORT (US I		•			
D		r Shipping Name:	-				
	OT Hazar		not dangerede geode.				
U	N/NA Nun	nber:					
14.1	LAND T	RANSPORT (Euro	opean ADR/RID):				
		hipping Name:	Not dangerous goods.				
Al							
	N Numbe						
U	N Numbe azard Cla	ss:					
UI Ha	azard Cla	ss: ANSPORT (ICAO/I	ATA):				
UI Ha 14.3	azard Cla AIR TR		ATA): Not dangerous goods.				
UI Ha 14.3 IC	azard Cla AIR TR	ANSPORT (ICAO/I Shipping Name:	-	ocal, state, and feder	al regulations.		
UI Ha 14.3 IC Additi	AZARD CIA AIR TRA AO/IATA	ANSPORT (ICAO/I Shipping Name:	Not dangerous goods.	ocal, state, and feder	al regulations.		
UI Ha 14.3 IC Additi	AZARD Cla AIR TR/ AO/IATA ional Trai	ANSPORT (ICAO/I Shipping Name:	Not dangerous goods.				
UI Ha 14.3 IC Additi Inforn	azard Cla AIR TRA AO/IATA ional Trai nation:	ANSPORT (ICAO/I Shipping Name: nsport	Not dangerous goods. Transport in accordance with I	llatory Informa			
UI Ha 14.3 IC Additi Inforn	AIR TR/ AIR TR/ AO/IATA ional Traination: SARA (Su	ANSPORT (ICAO/I Shipping Name: nsport perfund Amendm	Not dangerous goods. Transport in accordance with I Section 15. Regu	llatory Informa		S. 313	3 (TRI)
UI Ha 14.3 IC Additi Inforn EPA S CAS #	AIR TR/ AIR TR/ AO/IATA ional Traination: SARA (Su	ANSPORT (ICAO/I Shipping Name: nsport perfund Amendm	Not dangerous goods. Transport in accordance with I Section 15. Regu nents and Reauthorization Act	Ilatory Informa of 1986) Lists	ation	S. 313	3 (TRI)
UI Ha 14.3 IC Additi Inforn EPA S CAS # 16287	AIR TRA AIR TRA AO/IATA ional Traination: SARA (Su # 70-29-3	ANSPORT (ICAO/I Shipping Name: nsport perfund Amendm Hazardous Com (S)-3,5-DHPG	Not dangerous goods. Transport in accordance with I Section 15. Regu nents and Reauthorization Act	Ilatory Informa of 1986) Lists S. 302 (EHS)	Ation S. 304 RQ No State Lists	No	



This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)					
No.1272/2008.					
Section 16. Other Information					
11/28/2018					
No data available.					
No data available. 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.					