

			entification of the Substance			ndertaking					
.1	Product		21513								
	Product		NIBR0213								
	Synony	ms:	N-[[3-[[(1R)-1-(4-chloro-3-h alanine;	netnyipnenyi)etnyi	jaminoj-3,5-dimet	hyl[1,1'-biphenyl]-4-yl]carbony					
.2	Relevar	nt identified uses of	the substance or mixture and	d uses advised a	gainst:						
	Releva	ant identified uses:	For research use only, not f	for human or veter	inary use.						
1.3	Details of the Supplier of the Safety Data Sheet:										
	Company Name:		Cayman Chemical Compan	ny							
			1180 E. Ellsworth Rd. Ann Arbor, MI 48108								
	Web s	ite address:	www.caymanchem.com								
		nation:	Cayman Chemical Compan	ηγ	+1 (734	4)971-3335					
.4	Emerge	ency telephone num			, ,	,					
	-	gency Contact:	CHEMTREC Within USA ar	nd Canada:	+1 (800)424-9300						
			CHEMTREC Outside USA	and Canada:	-	3)527-3887					
			Section 2. Haza	ards Identific	cation						
' <b>.1</b>	Classifi	cation of the Substa	nce or Mixture:		Classification of the Substance or Mixture: Label Elements:						
	Label E	lements:	nce or Mixture: None								
	Label E GHS S GHS I Based GHS I No ph	lements: Signal Word: Hazard Phrases:	None ently available data this substa	ance or mixture is r	not classifiable ac	cording to GHS.					
	Label E GHS S GHS I Based GHS I No ph GHS I	lements: Signal Word: Hazard Phrases: I on evaluation of curr Precaution Phrases: rases apply.	None ently available data this substa	ance or mixture is i	not classifiable ac	cording to GHS.					
	Label E GHS S GHS I Based GHS I No ph GHS S	lements: Signal Word: Hazard Phrases: d on evaluation of curr Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa	None rently available data this substa			cording to GHS.					
2.2	Label E GHS S GHS I Based GHS I No ph GHS S Please	lements: Signal Word: Hazard Phrases: d on evaluation of curr Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 fo	None rently available data this substa al Phrases: r Storage and Section 13 for D	Pisposal information	٦.						
2.1 2.2 2.3	Label E GHS S GHS I Based GHS I No ph GHS S Please Advers	lements: Signal Word: Hazard Phrases: d on evaluation of curr Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 fo the Human Health	None rently available data this substand al Phrases: r Storage and Section 13 for D Material may be irritating to the May be harmful by inhalation, ir May cause eye, skin, or respira	Disposal information e mucous membrar ngestion, or skin a atory system irritati	n. nes and upper res bsorption. on.	spiratory tract.					
2.2	Label E GHS S GHS I Based GHS I No ph GHS S Please Advers	lements: Signal Word: Hazard Phrases: I on evaluation of curr Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 fo the Human Health	None rently available data this substand al Phrases: r Storage and Section 13 for D Material may be irritating to the May be harmful by inhalation, ir May cause eye, skin, or respira To the best of our knowledge, t	Pisposal information mucous membrar ngestion, or skin a atory system irritati the toxicological pr	n. hes and upper res bsorption. on. operties have not	spiratory tract.					
2.2	Label E GHS S GHS I Based GHS I No ph GHS S Please Advers Effects	lements: Signal Word: Hazard Phrases: I on evaluation of curr Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 fo be Human Health and Symptoms:	None ently available data this substand al Phrases: r Storage and Section 13 for D Material may be irritating to the May be harmful by inhalation, ir May cause eye, skin, or respira To the best of our knowledge, the on 3. Composition/In	bisposal information e mucous membrar ngestion, or skin a atory system irritati the toxicological pr <b>nformation (</b>	n. hes and upper res bsorption. on. operties have not	spiratory tract. been thoroughly investigated					
2.2 2.3	Label E GHS S GHS I Based GHS I No ph GHS S Please Advers Effects	lements: Signal Word: Hazard Phrases: I on evaluation of curr Precaution Phrases: rases apply. Response Phrases: rases apply. Storage and Disposa e refer to Section 7 fo be Human Health and Symptoms:	None rently available data this substand al Phrases: r Storage and Section 13 for D Material may be irritating to the May be harmful by inhalation, ir May cause eye, skin, or respira To the best of our knowledge, the Don 3. Composition/In nents (Chemical Name)/	Pisposal information mucous membrar ngestion, or skin a atory system irritati the toxicological pr	n. hes and upper res bsorption. on. operties have not	spiratory tract.					



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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:	g A solid water stream may be inefficient.
5.2	Flammable Properties an Hazards:	I <b>d</b> 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	<b>s:</b> 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 Precautions:	Take steps to avoid release into the environment, if safe to do so.
6.3	Methods and Material Fo	r Contain spill and collect, as appropriate.
	Containment and Cleanir	ngTransfer to a chemical waste container for disposal in accordance with local regulations.
	Up:	
		Section 7. Handling and Storage
7.1	Precautions To Be Taker	Avoid breathing dust/fume/gas/mist/vapours/spray.
	in Handling:	Avoid prolonged or repeated exposure.
7.2	Precautions To Be Taker	Neep 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:	



8.2							
	Exposure Controls:						
8.2.1	Engineering Controls	Jse process enclosures, local exhaust ventilation, or other engineering controls to control airborne					
		evels below recommended exposure limits.					
8.2.2	Personal protection equipment:						
		Safety glasses					
		atible chemical-resistant gloves					
	Other Protective Clothing: Lab coat						
	<b>Respiratory Equipment</b> NIOSH approved respirator, as conditions warrant.						
	(Specify Type):						
	Work/Hygienic/Maintenan Do not take internally.						
		cacilities storing or utilizing this material should be equipped with an eyewash and a safety shower					
	V	Vash thoroughly after handling.					
	Ν	lo data available.					
	Sou	ction 0 Develoal and Chamical Properties					
<u> </u>		ction 9. Physical and Chemical Properties					
9.1	Information on Basic Physic	-					
	Physical States:	[]Gas []Liquid [X]Solid					
	Appearance and Odor:	A crystalline solid					
	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 r	nm No data.					
	Hg):						
	Vapor Density (vs. Air = 1):						
	Specific Gravity (Water = 1)						
	Solubility in Water:	No data.					
	Solubility Notes:	~0.15 mg/ml in a 1:5 solution of EtOH:PBS (pH 7.2); ~25 mg/ml in EtOH, DMSO, & DMF;					
		No data.					
	Octanol/Water Partition						
	Coefficient:						
	Coefficient: Autoignition Pt:	No data.					
	Coefficient: Autoignition Pt: Decomposition Temperatur	No data. re: No data.					
	Coefficient: Autoignition Pt: Decomposition Temperatur Viscosity:	No data.					
9.2	Coefficient: Autoignition Pt: Decomposition Temperatur	No data. re: No data. No data.					
9.2	Coefficient: Autoignition Pt: Decomposition Temperatur Viscosity:	No data. re: No data.					



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			Section 10. Stability	and Reactiv	vity		
10.1	Reactivit	ty:	No data available.				
10.2	-						
10.3	<b>10.3 Stability Note(s):</b> Stable if stored in accordance with information listed on the product insert.						
	Polymer	ization:	Will occur [ ] Will not occur [ X ]	]			
10.4	0.4 Conditions To Avoid: No data available.						
10.5 Incompatibility - Materials No data available.							
	To Avoid	d:					
10.6	Hazardo		No data available.				
	=	osition or					
	Byprodu	icts:	_				
			Section 11. Toxicolog	ical Informa	ation		
11.1	Informat		The toxicological effects of this produ	uct have not been	thoroughly st	udied.	
	Toxicolo	gical Effects:					
CAS	#	Hazardous Com	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA
1233	332-14-3	NIBR0213		n.a.	n.a.	n.a.	n.a.
			Section 12. Ecologic	al Informati	ion		
12.1	Toxicity		Avoid release into the environment.				
			Runoff from fire control or dilution water may cause pollution.				
12.2 Persistence and							
12.2	Persiste	nce and	No data available.				
12.2	Persiste Degrada		No data available.				
		bility:	No data available. No data available.				
	Degrada	bility: mulative					
12.2 12.3 12.4	Degrada Bioaccu	bility: mulative I:					
12.3	Degrada Bioaccu Potentia Mobility	ibility: mulative I: in Soil:	No data available.				
12.3 12.4	Degrada Bioaccu Potentia Mobility	bility: mulative I: in Soil: of PBT and vPvB	No data available. No data available.				
12.3 12.4	Degrada Bioaccu Potentia Mobility Results assessm	bility: mulative I: in Soil: of PBT and vPvB	No data available. No data available.				
12.3 12.4 12.5	Degrada Bioaccu Potentia Mobility Results assessm	ibility: mulative I: in Soil: of PBT and vPvB nent:	No data available. No data available. No data available.	Considerati	ons		
12.3 12.4 12.5	Degrada Bioaccu Potentia Mobility Results assessm Other ad	ibility: mulative I: in Soil: of PBT and vPvB nent:	No data available. No data available. No data available. No data available.				
12.3 12.4 12.5 12.6	Degrada Bioaccu Potentia Mobility Results assessm Other ad	bility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects:	No data available. No data available. No data available. No data available. <b>Section 13. Disposal</b>	ate, and federal re	egulations.		
12.3 12.4 12.5 12.6	Degrada Bioaccu Potentia Mobility Results assessm Other ad	bility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects:	No data available. No data available. No data available. No data available. <b>Section 13. Disposal</b> Dispose in accordance with local, sta <b>Section 14. Transpo</b>	ate, and federal re	egulations.		
12.3 12.4 12.5 12.6 13.1 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D	ibility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects: isposal Method:	No data available. No data available. No data available. No data available. Section 13. Disposal of Dispose in accordance with local, sta Section 14. Transported Dotted Section 15. Disposal of the s	ate, and federal re	egulations.		
12.3 12.4 12.5 12.6 13.1 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D	bility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects: isposal Method: RANSPORT (US I r Shipping Name:	No data available. No data available. No data available. No data available. Section 13. Disposal of Dispose in accordance with local, sta Section 14. Transported Dotted Section 15. Disposal of the s	ate, and federal re	egulations.		
12.3 12.4 12.5 12.6 13.1 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T	bility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class:	No data available. No data available. No data available. No data available. Section 13. Disposal of Dispose in accordance with local, sta Section 14. Transported Dotted Section 15. Disposal of the s	ate, and federal re	egulations.		
12.3 12.4 12.5 12.6 13.1 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T DOT Prope	bility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class:	No data available. No data available. No data available. No data available. Section 13. Disposal ( Dispose in accordance with local, sta Section 14. Transpo DOT): Not dangerous goods.	ate, and federal re	egulations.		
12.3 12.4 12.5 12.6 13.1 14.1 U 14.1 A	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T OT Prope OT Hazard	Ibility: mulative I: in Soil: of PBT and vPvB nent: Iverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name:	No data available. No data available. No data available. No data available. Section 13. Disposal ( Dispose in accordance with local, sta Section 14. Transpo DOT): Not dangerous goods.	ate, and federal re	egulations.		
12.3 12.4 12.5 12.6 13.1 14.1 D U 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D UNNA Num LAND T DOT Hazard N/NA Num LAND T	bility: mulative l: in Soil: of PBT and vPvB nent: lverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name: r:	No data available. No data available. No data available. No data available. Section 13. Disposal of Dispose in accordance with local, sta Section 14. Transpo DOT): Not dangerous goods.	ate, and federal re	egulations.		
12.3 12.4 12.5 12.6 13.1 14.1 D U 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D LAND T OT Prope OT Hazard	bility: mulative l: in Soil: of PBT and vPvB nent: lverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name: r:	No data available. No data available. No data available. No data available. Section 13. Disposal of Dispose in accordance with local, sta Section 14. Transpo DOT): Not dangerous goods.	ate, and federal re	egulations.		
12.3 12.4 12.5 12.6 13.1 14.1 D U 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D UNNA Num LAND T DOT Hazard N/NA Num LAND T	bility: mulative l: in Soil: of PBT and vPvB nent: lverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name: r:	No data available. No data available. No data available. No data available. Section 13. Disposal of Dispose in accordance with local, sta Section 14. Transpo DOT): Not dangerous goods.	ate, and federal re	egulations.		
12.3 12.4 12.5 12.6 13.1 14.1 D U 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D UNNA Num LAND T DOT Hazard N/NA Num LAND T	bility: mulative l: in Soil: of PBT and vPvB nent: lverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name: r:	No data available. No data available. No data available. No data available. Section 13. Disposal of Dispose in accordance with local, sta Section 14. Transpo DOT): Not dangerous goods.	ate, and federal re	egulations.		
12.3 12.4 12.5 12.6 13.1 14.1 D U 14.1	Degrada Bioaccu Potentia Mobility Results assessm Other ad Waste D UNNA Num LAND T DOT Hazard N/NA Num LAND T	bility: mulative l: in Soil: of PBT and vPvB nent: lverse effects: isposal Method: RANSPORT (US I r Shipping Name: d Class: nber: RANSPORT (Euro hipping Name: r:	No data available. No data available. No data available. No data available. Section 13. Disposal of Dispose in accordance with local, sta Section 14. Transpo DOT): Not dangerous goods.	ate, and federal re	egulations.		

4
Calman
Caynan

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

Name: Not dangerous goods.

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

Information:

# Section 15. Regulatory Information

CAS #	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
1233332-14-3	233332-14-3 NIBR0213		No	No	No	
CAS # Hazardous Compo		ponents (Chemical Name) Other US EPA or State Lists		•		
1233332-14-3	NIBR0213		CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No			
Regulatory Info Statement:	ormation	This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.				
		Section 16. Oth	er Information	n		
Revision Date:		12/08/2017				
Additional Info	rmation About	No data available.				
This Product:						
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.				