

Revision: 01/30/2019 Supersedes Revision: 02/19/2015

_	CHEMICAL		Degulation (EC) No. 1007/0004	manded by (EQ) N= 0015		Supersedes Revision: 02/19/2015			
			Regulation (EC) No. 1907/2006 as a	_					
		Section 1. Ide	ntification of the Substar	nce/Mixture and of	the Company/U	ndertaking			
1.1		luct Code: 13843 luct Name: IRAK-1 Polyclonal Antibody onyms: Interleukin-1 Receptor-Associated Kinase 1;							
.2	Relevar	Relevant identified uses of the substance or mixture and uses advised against:							
	Releva	Relevant identified uses: For research use only, not for human or veterinary use.							
1.3		of the Supplier of the any Name:	Safety Data Sheet: Cayman Chemical Comp 1180 E. Ellsworth Rd. Ann Arbor, MI 48108	bany					
	Web s	ite address:	www.caymanchem.com						
	Inform	nation:	Cayman Chemical Comp	bany	+1 (73	4)971-3335			
.4	Emerge	ncy telephone numbe	er:						
	Emerç	gency Contact:	CHEMTREC Within USA CHEMTREC Outside US		-	0)424-9300 3)527-3887			
			Section 2. Ha	zards Identifi	cation				
2.1	Classifi	cation of the Substan							
2.2		lements:							
		Signal Word:	None						
		S Hazard Phrases: sed on evaluation of currently available data this substance or mixture is not classifiable according to GHS.							
			ntiy avallable data this sub	stance or mixture is	not classifiable ac	cording to GHS.			
		Precaution Phrases:							
No phrases apply. GHS Response Phrases: No phrases apply.									
		Storage and Disposal							
	Please		Storage and Section 13 for	-					
2.3	Advers	se Human Health Material may be irritating to the mucous membranes and upper respiratory tract.							
	Effects	and Symptoms: May be harmful by inhalation, ingestion, or skin absorption.							
			ay cause eye, skin, or resp			· · · · · · · · · · · · · · · · · · ·			
			the best of our knowledge	e, the toxicological p	roperties have not	t been thoroughly investigated.			
		Section	n 3. Composition	/Information	on Ingredie	nts			
CAS RTE	#/ CS #	Hazardous Compon REACH Registratior	ents (Chemical Name)/ No.	Concentration	EC No./ EC Index No.	GHS Classification			
NA NA		IRAK-1 Polyclonal Antib	ody	0.0 -0.1 %	NA NA	No data available.			
	8-46-8 96000	Bovine Serum Albumin (BSA)	0.05 %	232-936-2 NA	Acute Tox.(O) 4: H302			
	28-22-8 150000	Sodium azide 01-2119457019-37		0.05 %	247-852-1 011-004-00-7	Acute Tox.(O) 2: H300 Aquatic (A) 1: H400 Aquatic (C) 1: H410			
	7-14-5 25000	Sodium chloride 01-2119485491-33		0.85 %	231-598-3 NA	No GHS classifications apply			
	78-77-0 15500	Potassium phosphate, N 01-2119490224-41	Ionobasic	0.03 %	231-913-4 NA	No GHS classifications apply			
		1		1	- 1	Multi-region form			



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	CHEMICAI			1	1				
7558-79-4 Sodium phosphate, WC4500000 01-2119489797-11 7732-18-5 Water ZC0110000 na		Dibasic	0.106 %	231-448-7 NA	Eye Damage 2: H319				
			98.814 -98.914 %	231-791-2 NA	No GHS classifications apply.				
		-	Sectio	n 4. First Aid Meas	ures				
4.1 Description of First Aid									
	Measu	-							
		e of Inhalation:	Remove to fresh a	ir. If not breathing, give artifici	al respiration or	give oxygen by trained personnel.			
			Get immediate medical attention.						
	In Cas	e of Skin Contact:	-			15 minutes. Remove contaminated			
			-	cal attention if symptoms occu	-				
	In Cas	e of Eye Contact:	Hold eyelids apart and tested by med		water for at least	15 minutes. Have eyes examined			
	In Cas	e of Ingestion:	-	•	onscious Never	give anything by mouth to an			
	in cas	e of ingestion.				iting unless directed to do so by			
			medical personne			<u>j</u>			
			Section	5. Fire Fighting Me	asures				
ـــــــــــــــــــــــــــــــــــــ	Suitab	le Extinguishing		ant foam, carbon dioxide, wat		al spray.			
	Media			o cool fire-exposed containers	-				
	Unsuit	able Extinguishing	A solid water stream	am may be inefficient.					
	Media:	:							
5.2	Flamm	able Properties an	dNo data available						
	Hazards:								
			No data available						
	Flash	Pt:	No data.						
	Explos	sive Limits:	LEL: No data.	UEL: No c	lata.				
	Autoig	nition Pt:	No data.						
5.3	Fire Fi	Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or							
			equivalent), and f	ull protective gear to prevent c	ontact with skin	and eyes.			
			Section 6. /	Accidental Release	Measures				
6.1		tive Precautions,	-	apors and provide adequate v					
						preathing apparatus, or respirator,			
	-	ency Procedures:		personal protection (rubber boo					
6.2	Precau	onmental	Take steps to ave	bid release into the environment	nt, if safe to do s	0.			
6.3			r Contain spill and	collect as appropriate					
0.5		Methods and Material For Contain spill and collect, as appropriate. Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations.							
	Up:			·····					
	-		Saction	7 Handling and St	arago				
	_			7. Handling and St					
7.1			-	ust/fume/gas/mist/vapours/spr or repeated exposure.	ay.				
7.2	in Han Brocau								
1.2	in Stor	utions To Be Taken ring:		nity closed. ce with information listed on th	e product insert				
						Multi-region forma			



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~ 4				Controls/Personal Protection					
8.1	Exposure Parameters:	1							
CAS #	Chemical Name	Juris	diction	Recommended Exposure Limits	Notations				
26628	-22-8 Sodium azide	ACG	IH TLV	CEIL: 0.29 mg/m3					
		Euro	ре	TWA: 0.1 mg/m3	Skin Absorptio				
) //	STEL: 0.3 mg/m3					
			ce VL	TWA: 0.1 mg/m3 STEL: 0.3 mg/m3					
			n EH40	TWA: 0.1 mg/m3 ()	Skin Absorptio				
				STEL: 0.3 mg/m3 ()					
3.2	2 Exposure Controls:								
8.2.1 Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering					controls to control airbor				
	(Ventilation etc.):	entilation etc.): levels below recommended exposure limits.							
3.2.2	Personal protection equ	ipment:							
	Eye Protection:	Safety glass	es						
	Protective Gloves:	Protective Gloves: Compatible chemical-resistant gloves							
	Other Protective Clothing	g:Lab coat							
	Respiratory Equipment	NIOSH appr	oved respirato	r, as conditions warrant.					
	(Specify Type):								
	Work/Hygienic/Maintena	n Do not take	internally.						
	ce Practices:	Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.							
		Wash thoroughly after handling.							
		No data available.							
	S	Section 9.	Physical	and Chemical Properties					
9.1	Information on Basic Phy	sical and Che	emical Proper	ties					
	Physical States: [] Gas [X] Liquid [] Solid								
	Appearance and Odor:	ا 100	ug of protein G	-purified IgG in 200 μ I PBS containing 0.05%	BSA and 0.05% sodium				
		azide)						
	pH:	No d	ata.						
	Melting Point:	No d	ata.						
	Boiling Point:	No d	ata.						
	Flash Pt:	No d							
	Evaporation Rate:		No data.						
	Flammability (solid, gas):		No data available.						
	Explosive Limits:		No data.	UEL: No data.					
	Vapor Pressure (vs. Air or mm		ata.						
	Hg):								
	Vapor Density (vs. Air = 1):		No data.						
	Specific Gravity (Water = 1):		No data.						
	Solubility in Water:		No data.						
	Octanol/Water Partition	No d	ata.						



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	A	tion D/-	No dote						
	Autoigni		No data.						
	Decomp Viscosity	osition Temperat	ure: No data. No data.						
	-	-	NO data.						
9.2	Other Inf								
	Percent	volatile:	No data.		•.				
			Section 10. Stability and	d Reactiv	vity				
0.1	Reactivit	-	No data available.						
0.2									
10.3	Stability		Stable if stored in accordance with inform	nation listed of	on the product	insert.			
	Polymer		Will occur [] Will not occur [X]						
0.4		ns To Avoid:	No data available.						
0.5	-	-	No data available.						
	To Avoid								
10.6	Hazardo		No data available.						
	-	osition or							
	Byprodu		• ·· ·· - · ·						
			Section 11. Toxicologica	I Informa	ation				
1.1	Informat		The toxicological effects of this product h						
	Toxicolo	gical Effects:	Sodium azide - Toxicity Data: Oral LD50 (rat): 27 mg/kg; Oral TDLO (woman): 3 mg/kg;						
			Intraperitoneal LDLO (rat): 30 mg/kg; Sul						
		Toxicological	Sodium azide - Investigated as an agricultural chemical, drug, mutagen, reproductive effector, and						
	Effects:		tumorigen.						
			Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information.						
			Sodium azide RTECS Number: VY80500						
Carci	nogenicity	<i>'</i> :	NTP? No IARC Monographs? No	OSHA Re	egulated? No				
CAS		i	ponents (Chemical Name)	NTP		ACGIH	OSHA		
		IRAK-1 Polyclona			n.a.	n.a.	n.a.		
			I Antibody	Ina		1			
904	18-46-8	Bovine Serum All		n.a.		na	na		
	18-46-8 28-22-8	Bovine Serum All		n.a.	n.a.	n.a.	n.a.		
2662	28-22-8	Sodium azide		n.a. n.a.	n.a. n.a.	A4	n.a.		
2662 764	28-22-8 17-14-5	Sodium azide Sodium chloride	bumin (BSA)	n.a. n.a. n.a.	n.a. n.a. n.a.	A4 n.a.	n.a. n.a.		
2662 764 777	28-22-8 17-14-5 78-77-0	Sodium azide Sodium chloride Potassium phosp	bumin (BSA) hate, Monobasic	n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a.	A4 n.a. n.a.	n.a. n.a. n.a.		
2662 764 777 755	28-22-8 17-14-5 78-77-0 58-79-4	Sodium azide Sodium chloride Potassium phosp Sodium phospha	bumin (BSA) hate, Monobasic	n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. n.a. n.a.	A4 n.a. n.a. n.a.	n.a. n.a. n.a. n.a.		
2662 764 777 755	28-22-8 17-14-5 78-77-0	Sodium azide Sodium chloride Potassium phosp	bumin (BSA) hate, Monobasic re, Dibasic	n.a. n.a. n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. n.a. n.a. n.a.	A4 n.a. n.a.	n.a. n.a. n.a.		
2662 764 777 755 773	28-22-8 47-14-5 78-77-0 58-79-4 32-18-5	Sodium azide Sodium chloride Potassium phosp Sodium phospha Water	hate, Monobasic re, Dibasic Section 12. Ecological	n.a. n.a. n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. n.a. n.a. n.a.	A4 n.a. n.a. n.a.	n.a. n.a. n.a. n.a.		
2662 764 777 755 773	28-22-8 17-14-5 78-77-0 58-79-4	Sodium azide Sodium chloride Potassium phosp Sodium phospha Water	hate, Monobasic e, Dibasic Section 12. Ecological Avoid release into the environment.	n.a. n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. n.a. n.a.	A4 n.a. n.a. n.a.	n.a. n.a. n.a. n.a.		
2662 764 777 755 773	28-22-8 7-14-5 78-77-0 58-79-4 32-18-5 Toxicity:	Sodium azide Sodium chloride Potassium phosp Sodium phospha Water	hate, Monobasic re, Dibasic Section 12. Ecological Avoid release into the environment. Runoff from fire control or dilution water i	n.a. n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. n.a. n.a. ion	A4 n.a. n.a. n.a.	n.a. n.a. n.a. n.a.		
2662 764 777 755 773	28-22-8 47-14-5 78-77-0 58-79-4 32-18-5 Toxicity: Persiste	Sodium azide Sodium chloride Potassium phosp Sodium phosphar Water	hate, Monobasic e, Dibasic Section 12. Ecological Avoid release into the environment.	n.a. n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. n.a. n.a. ion	A4 n.a. n.a. n.a.	n.a. n.a. n.a. n.a.		
2662 764 777 755 773 12.1	28-22-8 7-14-5 78-77-0 58-79-4 32-18-5 Toxicity: Persiste Degrada	Sodium azide Sodium chloride Potassium phosp Sodium phospha Water	hate, Monobasic re, Dibasic Section 12. Ecological Avoid release into the environment. Runoff from fire control or dilution water i No data available.	n.a. n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. n.a. n.a. ion	A4 n.a. n.a. n.a.	n.a. n.a. n.a. n.a.		
2662 764 777 755 773 12.1 12.2	28-22-8 47-14-5 78-77-0 58-79-4 32-18-5 Toxicity: Persiste Degrada Bioaccu	Sodium azide Sodium chloride Potassium phosp Sodium phospha Water Mater	hate, Monobasic re, Dibasic Section 12. Ecological Avoid release into the environment. Runoff from fire control or dilution water i	n.a. n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. n.a. n.a. ion	A4 n.a. n.a. n.a.	n.a. n.a. n.a. n.a.		
2662 764 777 755 773 12.1 12.2 12.3	28-22-8 47-14-5 78-77-0 58-79-4 32-18-5 Toxicity: Persiste Degrada Bioaccu Potentia	Sodium azide Sodium chloride Potassium phosp Sodium phospha Water mutative I:	hate, Monobasic re, Dibasic Section 12. Ecological Avoid release into the environment. Runoff from fire control or dilution water i No data available. No data available.	n.a. n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. n.a. n.a. ion	A4 n.a. n.a. n.a.	n.a. n.a. n.a. n.a.		
2662 764 777 755 773 2.1 2.2 2.3	28-22-8 47-14-5 78-77-0 58-79-4 32-18-5 Toxicity: Persiste Degrada Bioaccu Potentia Mobility	Sodium azide Sodium chloride Potassium phosp Sodium phospha Water Mater in ce and bility: mulative I: in Soil:	hate, Monobasic te, Dibasic Section 12. Ecological Avoid release into the environment. Runoff from fire control or dilution water i No data available. No data available. No data available.	n.a. n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. n.a. n.a. ion	A4 n.a. n.a. n.a.	n.a. n.a. n.a. n.a.		
2662 764 777 755 773 12.1 12.2 12.2 12.3	28-22-8 47-14-5 78-77-0 58-79-4 32-18-5 Toxicity: Persiste Degrada Bioaccu Potentia Mobility Results	Sodium azide Sodium chloride Potassium phosp Sodium phosphar Water Water in soil: of PBT and vPvB	hate, Monobasic re, Dibasic Section 12. Ecological Avoid release into the environment. Runoff from fire control or dilution water i No data available. No data available.	n.a. n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. n.a. n.a. ion	A4 n.a. n.a. n.a.	n.a. n.a. n.a. n.a.		
2662 764 777 755	28-22-8 47-14-5 78-77-0 58-79-4 32-18-5 Toxicity: Persiste Degrada Bioaccu Potentia Mobility	Sodium azide Sodium chloride Potassium phosp Sodium phosphar Water Water in soil: of PBT and vPvB	hate, Monobasic te, Dibasic Section 12. Ecological Avoid release into the environment. Runoff from fire control or dilution water i No data available. No data available. No data available.	n.a. n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. n.a. n.a. ion	A4 n.a. n.a. n.a.	n.a. n.a. n.a. n.a.		



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12.6 Other adverse effects: No data available.							
Section 13. Disposal Considerations							
3.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations.							
Section 14. Transport Information							
14.1 LAND T	RANSPORT (US DOT):						
DOT Prope	DOT Proper Shipping Name: Not dangerous goods.						
DOT Hazar	DOT Hazard Class:						
UN/NA Number:							
	14.1 LAND TRANSPORT (European ADR/RID):						
	hipping Name: Not dangerous goods.						
UN Numbe Hazard Cla							
	SS. ANSPORT (ICAO/IATA):						
	Shipping Name: Not dangerous goods.						
Additional Trai		cal state and federal	regulations				
Information:			- ogulationol				
	Section 15. Regul	atory Informat	tion				
EPA SARA (Su	perfund Amendments and Reauthorization Act of	of 1986) Lists					
CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)			
NA	IRAK-1 Polyclonal Antibody	No	No	No			
9048-46-8	Bovine Serum Albumin (BSA)	No	No	No			
26628-22-8	Sodium azide	Yes 500 LB	Yes 1000 LB	Yes			
7647-14-5	Sodium chloride	No	No	No			
7778-77-0	Potassium phosphate, Monobasic	No	No	No			
7558-79-4	Sodium phosphate, Dibasic	No	Yes 5000 LB	No			
7732-18-5	Water	No	No	No			
CAS # Hazardous Components (Chemical Name) Other US EPA or State Lists							
NA	NA IRAK-1 Polyclonal Antibody CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No						
9048-46-8 Bovine Serum Albumin (BSA) CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory: Active; CA PROP.65: No			TSCA: Yes -				
26628-22-8	26628-22-8 Sodium azide 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					
7778-77-0	Potassium phosphate, Monobasic	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No					
7558-79-4	Sodium phosphate, Dibasic	CAA HAP,ODC: No Inventory; CA PRO	o; CWA NPDES: No DP.65: No	TSCA: Yes -			
7732-18-5	Water	CAA HAP,ODC: No Inventory; CA PRO	o; CWA NPDES: No; DP.65: No	TSCA: Yes -			
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Regulatory Information	This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)				
Statement:	No.1272/2008.				
	Section 16. Other Information				
Revision Date:	01/30/2019				
Additional Information 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.				