

	Revision:	01/22/2015
Supersedes	Revision:	12/09/2013

		acc	ording to Regulation (EC) No. 190	7/2006 as amended by	(EC) No. 1272/200	08	
		Section 1.	Identification of the Substan	ce/Mixture and of t	he Company/Ur	ndertaking	
1.1	Product Product		400074 TMB Substrate Solution				
1.2	Relevan	t identified uses o	f the substance or mixture a	nd uses advised ag	gainst:		
	Releva	int identified uses	: For research use only, no	ot for human or veteri	inary use.		
1.3	Details o	of the Supplier of t	he Safety Data Sheet:				
	Compa	any Name:	Cayman Chemical Comp 1180 E. Ellsworth Rd. Ann Arbor, MI 48108	any			
	Web si	ite address:	www.caymanchem.com				
	Inform	ation:	Cayman Chemical Comp	any	+1 (734	4)971-3335	
1.4	Emerge	ncy telephone nur	nber:				
	Emerg	ency Contact:	CHEMTREC Within USA CHEMTREC Outside US			0)424-9300 3)527-3887	
			Section 2. Haz	zards Identific	ation		
2.1.1 2.2 2.2.1	Label El Labelin GHS Sig GHS Ha Based o GHS Pro No phra GHS Re No phra	ements: g according to Re- gnal Word: uzard Phrases: on evaluation of curr ecaution Phrases: ses apply. esponse Phrases: ses apply. orage and Dispose		CLP]:	ot classifiable acc	ording to GHS.	
2.3	-						
		Sect	ion 3. Composition	/Information c	on Ingredie	nts	
CAS RTEC		Hazardous Comp REACH Registrat	onents (Chemical Name)/ ion No.	Concentration	EC No./ EC Index No.	GHS Classification	
NA NA		TMB Substrate Solut	ion	100.0 %	NA NA	No data available.	
						Multi-region format	



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M II II II II II II II II II II II II II	Media: Flammable Properties an Hazards: Flash Pt: Explosive Limits: Autoignition Pt:	No data available. Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention. Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminate clothing. Get medical attention if symptoms occur. Wash clothing before reuse. Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel. 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 Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers. A solid water stream may be inefficient. 170.00 F (76.7 C) Method Used: Closed Cup LEL: No data. No data. As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or
II II II II II II II II II II II II II	In Case of Inhalation: In Case of Skin Contact: In Case of Eye Contact: In Case of Ingestion: Suitable Extinguishing Media: Unsuitable Extinguishing Media: Flammable Properties an Hazards: Flash Pt: Explosive Limits: Autoignition Pt:	Get immediate medical attention. Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminate clothing. Get medical attention if symptoms occur. Wash clothing before reuse. Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel. 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 Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers. A solid water stream may be inefficient. dNo data available. 170.00 F (76.7 C) Method Used: Closed Cup LEL: No data. UEL: No data. No data.
 	In Case of Skin Contact: In Case of Eye Contact: In Case of Ingestion: In Case of Ingestion: Suitable Extinguishing Media: Unsuitable Extinguishing Media: Flammable Properties an Hazards: Flash Pt: Explosive Limits: Autoignition Pt:	Get immediate medical attention. Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminate clothing. Get medical attention if symptoms occur. Wash clothing before reuse. Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel. 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 Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers. A solid water stream may be inefficient. dNo data available. 170.00 F (76.7 C) Method Used: Closed Cup LEL: No data. UEL: No data. No data.
II II .1 S .1 S .1 S .1 S .1 S .1 S .1 S .1 S	In Case of Eye Contact: In Case of Ingestion: Suitable Extinguishing Media: Unsuitable Extinguishing Media: Flammable Properties an Hazards: Flash Pt: Explosive Limits: Autoignition Pt:	Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminate clothing. Get medical attention if symptoms occur. Wash clothing before reuse. Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel. 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 Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers. A solid water stream may be inefficient. 170.00 F (76.7 C) Method Used: Closed Cup LEL: No data. No data.
II II .1 S .1 S .1 S .1 S .1 S .1 S .1 S .1 S	In Case of Eye Contact: In Case of Ingestion: Suitable Extinguishing Media: Unsuitable Extinguishing Media: Flammable Properties an Hazards: Flash Pt: Explosive Limits: Autoignition Pt:	clothing. Get medical attention if symptoms occur. Wash clothing before reuse. Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel. 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 Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers. A solid water stream may be inefficient. 170.00 F (76.7 C) Method Used: Closed Cup LEL: No data. UEL: No data.
II .1 S .1 S .2 F F E A .3 F	In Case of Ingestion: Suitable Extinguishing Media: Unsuitable Extinguishing Media: Flammable Properties an Hazards: Flash Pt: Explosive Limits: Autoignition Pt:	and tested by medical personnel. 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 Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers. A solid water stream may be inefficient. dNo data available. 170.00 F (76.7 C) Method Used: Closed Cup LEL: No data. UEL: No data. No data.
.1 S N U N S.2 F F E A A .3 F	Suitable Extinguishing Media: Unsuitable Extinguishing Media: Flammable Properties an Hazards: Flash Pt: Explosive Limits: Autoignition Pt:	unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel. Section 5. Fire Fighting Measures Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers. A solid water stream may be inefficient. dNo data available. 170.00 F (76.7 C) Method Used: LEL: No data. UEL: No data. No data.
N .2 F F A .3 F	Media: Unsuitable Extinguishing Media: Flammable Properties an Hazards: Flash Pt: Explosive Limits: Autoignition Pt:	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers. A solid water stream may be inefficient. dNo data available. 170.00 F (76.7 C) Method Used: Closed Cup LEL: No data. UEL: No data. No data.
N .2 F F A .3 F	Media: Unsuitable Extinguishing Media: Flammable Properties an Hazards: Flash Pt: Explosive Limits: Autoignition Pt:	Use water spray to cool fire-exposed containers. A solid water stream may be inefficient. dNo data available. 170.00 F (76.7 C) Method Used: Closed Cup LEL: No data. UEL: No data. No data.
U .2 F F E A .3 F	Unsuitable Extinguishing Media: Flammable Properties an Hazards: Flash Pt: Explosive Limits: Autoignition Pt:	A solid water stream may be inefficient. dNo data available. 170.00 F (76.7 C) Method Used: Closed Cup LEL: No data. No data.
.2 F H F A .3 F	Media: Flammable Properties an Hazards: Flash Pt: Explosive Limits: Autoignition Pt:	dNo data available. 170.00 F (76.7 C) Method Used: Closed Cup LEL: No data. No data.
.2 F F E .3 F	Flammable Properties an Hazards: Flash Pt: Explosive Limits: Autoignition Pt:	170.00 F (76.7 C) Method Used: Closed Cup LEL: No data. UEL: No data. No data.
H F A .3 F	Hazards: Flash Pt: Explosive Limits: Autoignition Pt:	170.00 F (76.7 C) Method Used: Closed Cup LEL: No data. UEL: No data. No data.
F E .3 F	Flash Pt: Explosive Limits: Autoignition Pt:	LEL: No data. UEL: No data. No data.
E A .3 F	Explosive Limits: Autoignition Pt:	LEL: No data. UEL: No data. No data.
А .3 F	Autoignition Pt:	No data.
.3 F	-	
	Fire Fighting Instructions	As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or
.1 P		equivalent), and full protective gear to prevent contact with skin and eyes.
.1 P		Section 6. Accidental Release Measures
	Protective Precautions,	Avoid breathing vapors and provide adequate ventilation.
P	Protective Equipment and	As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,
E	Emergency Procedures:	and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
.2 E	Environmental	Take steps to avoid release into the environment, if safe to do so.
P	Precautions:	
.3 N	Methods and Material For	Contain spill and collect, as appropriate.
C	Containment and Cleanin	gTransfer to a chemical waste container for disposal in accordance with local regulations.
U	Up:	
		Section 7. Handling and Storage
'.1 P	Precautions To Be Taken	Avoid breathing dust/fume/gas/mist/vapours/spray.
ir	in Handling:	Avoid prolonged or repeated exposure.
'.2 P	Precautions To Be Taken	Keep container tightly closed.
ir	in Storing:	Store in accordance with information listed on the product insert.
	Sect	ion 8. Exposure Controls/Personal Protection
.1 E	Exposure Parameters:	
CAS #	Partial Chemical	Name Britain EH40 France VL Europe
N	VA TMB Substrate So	



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CAS	# Partial Chemic	al Name	OSHA TWA		edes Revision: 12/09/2013 Other Limits
	NA TMB Substrate		No data.	No data.	No data.
3.2	Exposure Controls:	Colution			
<u>-</u> 3.2.1	Engineering Controls	Use process encl	osures local exhaust venti	lation, or other engineering c	controls to control airborn
	(Ventilation etc.):		mmended exposure limits.		
3.2.2	Personal protection eq		·		
	Eye Protection:	Safety glasses			
	Protective Gloves:		ical-resistant gloves		
	Other Protective Clothi	•	0		
	Respiratory Equipment	-	respirator, as conditions w	arrant.	
	(Specify Type):				
	Work/Hygienic/Mainten	an Do not take intern	ally.		
	ce Practices:		•	uld be equipped with an eye	wash and a safety showe
		Wash thoroughly	after handling.		
		No data available			
		Section 9. Ph	ysical and Chem	ical Properties	
).1	Information on Basic Pl		•	·	
	Physical States:	[] Gas	[X]Liquid []Solid		
	Appearance and Odor:	Solution			
	pH:	5.9			
	Melting Point:	No data.			
	Boiling Point:	No data.			
	Flash Pt:	170.00 F ((76.7 C) Method Used:	Closed Cup	
	Evaporation Rate:	No data.			
	Explosive Limits:	LEL: No o	data.	UEL: No data.	
	Vapor Pressure (vs. Air	or mm No data.			
	Hg):				
	Vapor Density (vs. Air :	= 1): No data.			
	Specific Gravity (Water	= 1): No data.			
	Solubility in Water:	No data.			
	Autoignition Pt:	No data.			
9.2	Other Information				
	Percent Volatile:	No data.			
		Section	10. Stability and F	Reactivity	
0.1	Reactivity:	No data available			
0.2	Stability:	Unstable []	Stable [X]		
0.3	Stability Note(s):	Stable if stored in	accordance with information	on listed on the product inse	t.
	Polymerization:	Will occur []	Will not occur [X]		
0.4	Conditions To Avoid:	No data available			
0.5	Incompatibility - Materi	als strong oxidizing a	gents		
	To Avoid:				
10.6	Hazardous	carbon dioxide			
	Decomposition Or	carbon monoxide			
	Byproducts:	nitrogen oxides			
					Multi-region form



Multi-region format

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			Section 11. Toxic	ological Infor	mation			
1.1	Informa		The toxicological effects of this product have not been thoroughly studied.					
		ogical Effects:						
	nogenicit	-	NTP? No IARC Monogra	iphs? No OSH	A Regulated? No			
CAS	#	Hazardous Con	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA	
	NA	TMB Substrate S	Solution	n.a.	n.a.	n.a.	n.a.	
			Section 12. Eco	logical Inform	nation			
12.1	Toxicity	/:	Avoid release into the environ	ment.				
			Runoff from fire control or dilu	tion water may caus	se pollution.			
12.2	Persiste	ence and	No data available.					
	Degrada	ability:						
12.3	Bioaccu	umulative	No data available.					
	Potentia	al:						
12.4	Mobility	in Soil:	No data available.					
12.5	Results	of PBT and vPvE	No data available.					
	assessi	nent:						
			Section 13. Dispo	osal Conside	rations			
13.1	Waste I	Disposal Method:	Dispose in accordance with lo	cal, state, and fede	ral regulations.			
			Section 14. Tra	nsport Inform	nation			
14.1	LAND 1	RANSPORT (US	DOT):					
D		er Shipping Name	-					
D	OT Hazaı	d Class:						
U	N/NA Nu	mber:						
14.1	LAND 1	RANSPORT (Eur	opean ADR/RID):					
Α	DR/RID S	hipping Name:	Not dangerous goods.					
-	N Numbe							
	lazard Cla							
14.3		ANSPORT (ICAO	•					
	CAO/IATA	Shipping Name:						
		nenort	Transport in accordance with	local, state, and fee	leral regulations.			
Addit	tional Tra	nsport		, ,				
Addit	tional Tra mation:				notion			
Addit Infori	mation:		Section 15. Reg	ulatory Inform	nation			
Addit Infor EPA	mation: SARA (Su	uperfund Amendr	Section 15. Reg	ulatory Inforn t of 1986) Lists				
Addit Infori	mation: SARA (Sı #	uperfund Amendr Hazardous Con	Section 15. Reg nents and Reauthorization Ac nponents (Chemical Name)	ulatory Inforn t of 1986) Lists S. 302 (EHS)	S. 304 RQ		3 (TRI)	
Addit Infori EPA	mation: SARA (Su	uperfund Amendr	Section 15. Reg nents and Reauthorization Ac nponents (Chemical Name)	ulatory Inforn t of 1986) Lists		S. 31 No	3 (TRI)	
Addit Infori EPA	mation: SARA (Su # NA	uperfund Amendr Hazardous Con TMB Substrate S	Section 15. Reg nents and Reauthorization Ac nponents (Chemical Name)	ulatory Inforn t of 1986) Lists S. 302 (EHS) No Other US EPA	S. 304 RQ No	No		



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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:	01/22/2015			
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.			



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		ing to Regulation (EC) No. 1907/2006 as amended by (
		entification of the Substance/Mixture and of the	ie company/Undertaking
1	Product Code:	10011355	
	Product Name:	HRP Stop Solution	
2		ne substance or mixture and uses advised aga	
	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.	
	Web site address:	Ann Arbor, MI 48108 www.caymanchem.com	
	Information:	Cayman Chemical Company	+1 (734)971-3335
4	Emergency telephone numb		
	Emergency Contact:	CHEMTREC Within USA and Canada:	+1 (800)424-9300
	Emergency contact.	CHEMTREC Outside USA and Canada:	+1 (703)527-3887
		Section 2. Hazards Identifica	
.1	Classification of the Substar		
	GHS Signal Word: GHS Hazard Phrases:	Warning	
	H315: Causes skin irritation.		
	GHS Precaution Phrases:		
	P264: Wash {hands} thoroug	hly after handling.	
		es/protective clothing/eye protection/face protection	on}.
	GHS Response Phrases:		
	P302+352: IF ON SKIN: Wa	sh with plenty of soap and water.	
		ccurs, get medical advice/attention.	
		nated clothing and wash it before reuse.	
	GHS Storage and Disposal		
	Please refer to Section 7 for	Storage and Section 13 for Disposal information.	



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	man				:	Revision: 03/27/201 Supersedes Revision: 12/09/201
2.3	Advers	e Human Health	Causes skin irritation.			·
	Effects	and Symptoms:	Material may be irritating to			spiratory tract.
			May be harmful by inhalation		absorption.	
			May cause eye or respirator		roperties have not	been thoroughly investigated
		<u> </u>			-	
		1	tion 3. Compositior	/information	on ingreale	1
	CAS # / Hazardous Com RTECS # REACH Registra		oonents (Chemical Name)/ tion No.	Concentration	EC No./ EC Index No.	GHS Classification
7664- WS560		Sulfuric acid		4.904 %	231-639-5 016-020-00-8	Skin Corr. 1A: H314
7732- ZC0110		Water		95.096 %	231-791-2 NA	No data available.
			Section 4. Fi	irst Aid Meas	ures	
4.1	-	otion of First Aid	No data available.			
	Measur		Domovo to fresh stall and	oothing size - stiff	I roopiration	
	in Case	of Inhalation:	Remove to fresh air. If not br personnel. Get immediate m		a respiration or giv	ve oxygen by trained
	In Case	of Skin Contact:	Immediately wash skin with		ater for at least 15	minutes Remove
	in case		contaminated clothing. Get n			
	In Case	of Eye Contact:	Hold eyelids apart and flush	-	-	-
		,,	examined and tested by med			
	In Case	of Ingestion:	Do NOT induce vomiting. Wa	-	ater provided per	son is conscious. Never give
		-	anything by mouth to an unc	onscious person. Ge	t medical attention	٦.
			Section 5. Fire	e Fighting Mea	asures	
5.1	Suitable Media:	e Extinguishing	Use alcohol-resistant foam,	carbon dioxide, wate	r, or dry chemical	spray.
		able Extinguishing	A solid water stream may be	e inefficient.		
			,			
	Media:					
	Media: Flamma	able Properties an	dEmits toxic and corrosive fur	mes under fire condit	tions.	
5.2		-	dEmits toxic and corrosive fur	mes under fire condit	tions.	
5.2	Flamma	s:	dEmits toxic and corrosive fur No data.	mes under fire condit	iions.	
5.2	Flamma Hazarda Flash P	s:		mes under fire condit UEL: No da		
5.2	Flamma Hazarda Flash P Explosi	s: Pt:	No data.			
5.2	Flamma Hazarda Flash P Explosi Autoigr	s: Pt: ive Limits: nition Pt:	No data. LEL: No data.	UEL: No da	ata.	emand (NIOSH approved or



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			Section 6. Ac	cidental Release Me	easures			
6.1	Protecti	ve Precautions,	Avoid breathing vapo	ors and provide adequate vent	ilation.			
	Protecti	ve Equipment and	d As conditions warran	t, wear a NIOSH approved se	f-contained breathing appara	atus, or respirator,		
	Emerge	ncy Procedures:	and appropriate pers	onal protection (rubber boots,	safety goggles, and heavy ru	ubber gloves).		
6.2	Environ	mental	Take steps to avoid r	elease into the environment, it	f safe to do so.			
	Precaut	ions:						
6.3	Method	s and Material Fo	r Contain spill and coll	ect, as appropriate.				
	Contain	ment and Cleanin	ng Transfer to a chemic	al waste container for disposal	in accordance with local reg	julations.		
	Up:							
			Section 7.	Handling and Stor	age			
7.1	Precaut	ions To Be Taken	Avoid breathing dust/	fume/gas/mist/vapours/spray.				
	in Hand	ling:	Avoid prolonged or re	peated exposure.				
7.2	Precaut	ions To Be Taken	Keep container tightly	closed.				
	in Stori	ng:	Store in accordance w	vith information listed on the p	roduct insert.			
		Sec	tion 8. Exposu	re Controls/Persona	al Protection			
8.1	Exposur	e Parameters:						
CAS #	#	Partial Chemical	Name	Britain EH40	France VL	Europe		
7664	4-93-9	Sulfuric acid		No data.	TWA: 1.0 mg/m3 STEL: 3.0 mg/m3	No data.		
773	2-18-5	Water		No data.	No data.	No data.		
CAS #	#	Partial Chemical	Name	OSHA TWA	ACGIH TWA	Other Limits		
7664	4-93-9	Sulfuric acid		PEL: 1 mg/m3	TLV: (1 mg/m3) STEL: (3 mg/m3)	No data.		
773	2-18-5	Water		No data.	No data.	No data.		
8.2	Exposu	e Controls:			•			
8.2.1	Enginee	ering Controls	Use process enclosu	es, local exhaust ventilation, c	or other engineering controls	to control airborne		
	(Ventila	tion etc.):	levels below recomme	ended exposure limits.				
8.2.2	Persona	al protection equi	pment:					
	Eye Pro	tection:	Safety glasses					
	Protecti	ve Gloves:	Compatible chemical-	resistant gloves				
	Other P	rotective Clothing	g:Lab coat					
	Respira	tory Equipment	NIOSH approved respirator, as conditions warrant.					
	(Specify							
			n Do not take internally					
	ce Prac	tices:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety					
			shower.	n h a n dlin n				
			Wash thoroughly afte	r nandling.				
			No data available.					



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Se	ection 9. Physical and Chemical Properties				
	sical and Chemical Properties				
Physical States:	[]Gas [X]Liquid []Solid				
Appearance and Odor:	Solution				
pH:	7.0				
Melting Point:	No data.				
Boiling Point:	No data.				
Flash Pt:	No data.				
Evaporation Rate:	No data.				
Explosive Limits:	LEL: No data. UEL: No data.				
Vapor Pressure (vs. Air or	r mm No data.				
Hg):					
Vapor Density (vs. Air = 1)): No data.				
Specific Gravity (Water = 2	1): No data.				
Solubility in Water:	No data.				
Autoignition Pt:	No data.				
Other Information					
	No data.				
	Section 10. Stability and Reactivity				
,	No data available.				
-	Unstable [] Stable [X]				
	Stable if stored in accordance with information listed on the product insert.				
-	Will occur [] Will not occur [X]				
	No data available.				
To Avoid:	halogens				
	hydrides				
	lithium				
	metal acetylides metals				
	organic material				
	oxides				
	potassium chlorate				
	potassium perchlorate				
	potassium permanganate				
	sodium				
	strong oxidizing agents				
	strong reducing agents				
Hazardous	carbon dioxide				
Decomposition Or	hydrogen cyanide				
	hydrogen sulfide				
	Information on Basic Physical States: Appearance and Odor: pH: Melting Point: Flash Pt: Evaporation Rate: Explosive Limits: Vapor Pressure (vs. Air of Hg): Vapor Density (vs. Air = 1 Specific Gravity (Water = Solubility in Water: Autoignition Pt: Other Information Percent Volatile: Reactivity: Stability: Stability Note(s): Polymerization: Conditions To Avoid: Incompatibility - Materials To Avoid: Hazardous Decomposition Or				



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HEMICAL					Cup		SIOTI. 12/09/20
		Sectio	on 11. Toxicolo	ogical Inform	ation		
Toxicolo Chronic Effects:	gical Effects: Toxicological	Sulfuric acid mg/m3; Inha Sulfuric acid Sulfuric acid Only select See actual e Sulfuric Acid	d - Toxicity Data: Oral alation LC50 (mouse) d - Irritation Data: Eye d - Investigated as a ro Registry of Toxic Effe entry in RTECS for co d RTECS Number: Wo	LD50 (rat): 2,140 n 320 mg/m3; Inhala s (rabbit): 5 mg (30 eproductive effector cts of Chemical Su mplete information S5600000	ng/kg; Inhalation ation LC50 (guine s) severe; r. bstances (RTEC	TCLO (huma ea pig): 18 m(g/m3 (8hr);
		_		I	-	-1	
		ponents (Ch	emical Name)	NTP	IARC		OSHA
				Known	Unknown	A2	n.a.
2-18-5	Water			n.a.	n.a.	n.a.	n.a.
		Sect	ion 12. Ecolog	jical Informa	tion		
Toxicity:		Avoid releas	se into the environme	nt.			
		Runoff from	fire control or dilution	water may cause	pollution.		
Persister	nce and	No data ava	ailable.				
Degrada	bility:						
Bioaccur	nulative	No data ava	ailable.				
Potential	:						
Mobility	in Soil:	No data available.					
Results o	of PBT and vPvB	No data available.					
assessm	ent:						
Other ad	verse effects:	No data ava	ailable.				
		Sectio	on 13. Disposa	al Considera	tions		
Waste Di	sposal Method:	Dispose in a	accordance with local	state, and federal	regulations.		
		Sec	tion 14. Trans	port Informa	tion		
LAND T	RANSPORT (US I	DOT):					
	-	-	acid [with 51% or les	s acid]			
-		8	-	-			
N/NA Num	iber:	2796		Packing Gro	up:	П	
DR/RID Sł N Number	hipping Name:	ppean ADR/F Sulfuric 2796	RID): acid [with 51% or less	-	up:	II	
	Informati Toxicolo Chronic Effects: nogenicity # 4-93-9 2-18-5 Toxicity: Persister Degrada Bioaccur Potential Mobility Results of assessm Other ad Waste Di LAND TI OT Proper OT Hazaro N/NA Num	Information on Toxicological Effects: Chronic Toxicological Effects: Mogenicity: Hazardous Comp 4-93-9 Sulfuric acid 2-18-5 Water Toxicity: Persistence and Degradability: Bioaccumulative Potential: Mobility in Soil: Results of PBT and vPvB assessment: Other adverse effects: Waste Disposal Method: LAND TRANSPORT (US D OT Proper Shipping Name: OT Hazard Class: N/NA Number:	Information on The toxicological Toxicological Effects: Sulfuric acid Chronic Toxicological Sulfuric acid Effects: Only select Sulfuric acid Sulfuric acid Effects: Only select Sulfuric acid Sulfuric acid 2-18-5 Water # Hazardous Components (Cr 44-93-9 Sulfuric acid 2-18-5 Water Toxicity: Avoid releas Runoff from Persistence and No data ava Degradability: Bioaccumulative No data ava Potential: No data ava Section Mobility in Soil: No data ava Section Gther adverse effects: No data ava Section Vaste Disposal Method: Dispose in ava Section OT Proper Shipping Name: Sulfuric acid Sulfuric acid NNA Number: 2796 Sulfuric LAND TRANSPORT (European ADR/I DR/RID Shipping Name: Sulfuric NAND TRANSPORT (European ADR/I Sulfuric Sulfuric No Sulfuric	Section 11. Toxicolo Information on The toxicological effects of this pr Toxicological Effects: Sulfuric acid - Toxicity Data: Oral mg/m3; Inhalation LC50 (mouse): Sulfuric acid - Irritation Data: Eyee Chronic Toxicological Sulfuric acid - Irritation Data: Eyee Chronic Toxicological Sulfuric acid - Irritation Data: Eyee Chronic Toxicological Sulfuric acid - Irritation Data: Eyee Effects: Only select Registry of Toxic Effe See actual entry in RTECS for coo Sulfuric Acid RTECS Number: W3 nogenicity: NTP? No IARC Monographs # Hazardous Components (Chemical Name) 4:93-9 Sulfuric acid Section 12. Ecolog 2:18-5 Water Vater Sulfuric acid 2:18-5 Water Bioaccumulative No data available. Persistence and No data available. Degradability: Bioaccumulative No data available. Boto of PBT and vPvB No data available. Section 13. Dispose Assessment: Other adverse effects: No data available. Section 14. Trans UAND TRANSPORT (US DOT): <t< td=""><td>Section 11. Toxicological Inform Information on The toxicological effects of this product have not bee Toxicological Effects: Sulfuric acid - Toxicity Data: Oral LD50 (rat): 2,140 rmg/m3; Inhalation LC50 (mouse): 320 mg/m3; Inhalatin, Inhalatin, Inholation LC50 (mouse): 320 mg/m3; Inh</td><td>Section 11. Toxicological Information Information on Toxicological effects of this product have not been thoroughly study Toxicological Effects: Sulfuric acid - Toxicity Data: Oral LD50 (rat): 2,140 mg/kg; Inhalation LC50 (mouse): 320 mg/m3; Inhalation LC50 (guine Sulfuric acid - Investigated as a reproductive effector. Effects: Only select Registry of Toxic Effects of Chemical Substances (RTEC: See actual entry in RTECS for complete information. Sulfuric Acid RTECS Number: WS5600000 mogenicity: NTP? No IARC Monographs? No OSHA Regulated? No # Hazardous Components (Chemical Name) NTP IARC 4:93-9 Sulfuric acid Inca. n.a. Section 12. Ecological Information Toxicity: Avoid release into the environment. Runoff from fire control or dilution water may cause pollution. Persistence and No data available. Detection 13. Disposal Considerations Section 13. Disposal Considerations Modata available. Posterial: Mobility in Soil: No data available. Dispose in accorda</td><td>Section 11. Toxicological Information Information on The toxicological effects of this product have not been thoroughly studied. Toxicological Effects: Sulfuric acid - Toxicity Data: Oral LD50 (rat): 2,140 mg/kg; Inhalation TCLO (huma mg/m3; Inhalation LC50 (guinea pig): 18 mg Sulfuric acid - Irrestigated as a reproductive effector. Effects: Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is pre See actual entry in RTECS for complete information. Sulfuric acid Inter control or Components (Chemical Name) NTP IARC ACGIH 4:93:9 Sulfuric acid Known Unknown A2 2:18:5 Water n.a. n.a. n.a. n.a. Section 12. Ecological Information Toxicity: Avoid release into the environment. Runoff rom fire control or dilution water may cause pollution. Persistence and No data available. Potential: Mobility in Soil: No data available. Potential: Mo data available. Section 13. Disposal Considerations Section 14. Transport Information LAND TRANSPORT (US DOT): OT Proper Shipping Name: Sulfuric acid (with 51% or less acid]</td></t<>	Section 11. Toxicological Inform Information on The toxicological effects of this product have not bee Toxicological Effects: Sulfuric acid - Toxicity Data: Oral LD50 (rat): 2,140 rmg/m3; Inhalation LC50 (mouse): 320 mg/m3; Inhalatin, Inhalatin, Inholation LC50 (mouse): 320 mg/m3; Inh	Section 11. Toxicological Information Information on Toxicological effects of this product have not been thoroughly study Toxicological Effects: Sulfuric acid - Toxicity Data: Oral LD50 (rat): 2,140 mg/kg; Inhalation LC50 (mouse): 320 mg/m3; Inhalation LC50 (guine Sulfuric acid - Investigated as a reproductive effector. Effects: Only select Registry of Toxic Effects of Chemical Substances (RTEC: See actual entry in RTECS for complete information. Sulfuric Acid RTECS Number: WS5600000 mogenicity: NTP? No IARC Monographs? No OSHA Regulated? No # Hazardous Components (Chemical Name) NTP IARC 4:93-9 Sulfuric acid Inca. n.a. Section 12. Ecological Information Toxicity: Avoid release into the environment. Runoff from fire control or dilution water may cause pollution. Persistence and No data available. Detection 13. Disposal Considerations Section 13. Disposal Considerations Modata available. Posterial: Mobility in Soil: No data available. Dispose in accorda	Section 11. Toxicological Information Information on The toxicological effects of this product have not been thoroughly studied. Toxicological Effects: Sulfuric acid - Toxicity Data: Oral LD50 (rat): 2,140 mg/kg; Inhalation TCLO (huma mg/m3; Inhalation LC50 (guinea pig): 18 mg Sulfuric acid - Irrestigated as a reproductive effector. Effects: Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is pre See actual entry in RTECS for complete information. Sulfuric acid Inter control or Components (Chemical Name) NTP IARC ACGIH 4:93:9 Sulfuric acid Known Unknown A2 2:18:5 Water n.a. n.a. n.a. n.a. Section 12. Ecological Information Toxicity: Avoid release into the environment. Runoff rom fire control or dilution water may cause pollution. Persistence and No data available. Potential: Mobility in Soil: No data available. Potential: Mo data available. Section 13. Disposal Considerations Section 14. Transport Information LAND TRANSPORT (US DOT): OT Proper Shipping Name: Sulfuric acid (with 51% or less acid]



Revision: 03/27/2015 Supersedes Revision: 12/09/2013

CHIMICAL				Supers	sedes Revision: 12/09/2013	
14.3 AIR TRA	NSPORT (ICAO/	IATA):				
ICAO/IATA	Shipping Name:	Sulfuric acid [with 51% or le	ess acid]			
UN Number	:	2796	Packing Group:		II	
Hazard Clas	SS:	8 - CORROSIVE	IATA Classi	fication:	8	
Additional Tran	sport	Transport in accordance with lo	ocal, state, and feder	al regulations.		
Information:						
		Section 15. Regu	latory Informa	ation		
EPA SARA (Su	perfund Amendm	nents and Reauthorization Act	of 1986) Lists			
CAS #	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
7664-93-9	Sulfuric acid		Yes 1000 LB	Yes 1000 LB	Yes	
7732-18-5	Water		No	No	No	
CAS #	Hazardous Com	ponents (Chemical Name)	Other US EPA or	State Lists	· · · · · · · · · · · · · · · · · · ·	
7664-93-9	Sulfuric acid	P		No; CWA NPDES: N	No: TSCA: Yes -	
			Inventory; CA PF			
7732-18-5	Water		CAA HAP,ODC: I Inventory; CA PF	No; CWA NPDES: N ROP.65: No	No; TSCA: Yes -	
Regulatory Info	rmation	This SDS was prepared in acco	rdance with 29 CFR	1910.1200 and Reg	gulation (EC)	
Statement:		No.1272/2008.				
		Section 16. Otl	ner Informatio	on		
Revision Date:		03/27/2015				
Additional Infor	mation About	No data available.				
This Product:						
Company Policy or Disclaimer:		DISCLAIMER: This information currently available to us. However express or implied, with respect use. Users should make their of their particular purposes.	ver, we make no war t to such information	ranty of merchantab , and we assume no	ility or any other warranty, liability resulting from its	

Product Information



A Safety Data Sheet (SDS) on this material is not required as it is non-hazardous. However, we do recommend the following minimum precautions when using this item:

- Store at correct temperature.
- Dispose of by in accordance with federal, state, and local regulations.
- Wash thoroughly after handling.

WARNING:

This product is not intended or approved for human or veterinary use.

The above information is believed to be correct but should only be used as a guide. Cayman Chemical disclaims any express or implied warranty as to the accuracy of the above information and shall not be held liable for any direct, incidental, or consequential damages resulting from reliance on the above information.

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Cayman Chemical

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Web www.caymanchem.com



Revision: 06/30/2015

		aco	cording to Regulation (EC) No. 190)7/2006 as amended by	y (EC) No. 1272/200	8
		Section 1.	Identification of the Substar	nce/Mixture and of	the Company/U	ndertaking
1.1	Product		401241			5
	Product		Mouse IgG Assay HRP-0	Conjugate		
1.2	Relevar	nt identified uses o	of the substance or mixture a	and uses advised a	gainst:	
	Releva	ant identified uses	: For research use only, ne	ot for human or veter	rinary use.	
1.3	Details	of the Supplier of	the Safety Data Sheet:			
	Comp	any Name:	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
1.4	-	ncy telephone nu	mber:			
	Emerg	gency Contact:	CHEMTREC Within USA CHEMTREC Outside US		•	0)424-9300 3)527-3887
			Section 2. Ha			0,021 0001
2.1	Cleasifi	cation of the Subs			Salion	
2.1		lements:	stance of mixture:			
		Signal Word:	None			
		Hazard Phrases:	None			
			urrently available data this sub	stance or mixture is	not classifiable ac	cording to GHS.
		Precaution Phrase	-			
	No ph	rases apply.				
	GHS I	Response Phrases	5:			
	No ph	rases apply.				
	GHS S	Storage and Dispo	osal Phrases:			
	Please	e refer to Section 7	for Storage and Section 13 for	Disposal informatio	n.	
2.3	Advers	e Human Health	Material may be irritating to t			piratory tract.
	Effects	and Symptoms:	May be harmful by inhalation		•	
			May cause eye, skin, or resp			been thoroughly investigated.
		Sec	tion 3. Composition	•	•	
	#1	1	-	1	EC No./	
CAS RTE		REACH Registra	ponents (Chemical Name)/ tion No.	Concentration	EC NO./ EC Index No.	GHS Classification
NA NA		Mouse IgG Assay H	RP-Conjugate	< 0.1 %	NA NA	No data available.
NA NA		StabilZyme HRP co	njugate stabilizer	99.9 %	NA NA	No data available.



Revision: 06/30/2015

			Section 4	4. First Aid Measur	es	
4.1	Descrip	otion of First Aid				
	Measur	res:				
	In Case	e of Inhalation:	Remove to fresh air. In Get immediate medica	f not breathing, give artificial re al attention.	espiration or give oxygen by	trained personnel.
	In Case	e of Skin Contact:	-	n with soap and plenty of wate attention if symptoms occur. V		move contaminated
	In Case	e of Eye Contact:	-	d flush eyes with plenty of wate	-	ave eyes examined
	In Case	e of Ingestion:		water provided person is cons Get medical attention. Do NOT		-
			Section 5.	Fire Fighting Meas	ures	
5.1	Suitabl Media:	e Extinguishing		foam, carbon dioxide, water, o ool fire-exposed containers.	or dry chemical spray.	
	Unsuita Media:	able Extinguishing	A solid water stream	may be inefficient.		
5.2	Flamma Hazard	-	d No data available.			
			No data available.			
	Flash F	Pt:	No data.			
	Explos	ive Limits:	LEL: No data.	UEL: No data		
	Autoig	nition Pt:	No data.			
5.3	Fire Fiç	phting Instructions	-	elf-contained breathing appara rotective gear to prevent conta		SH approved or
			Section 6. Ac	cidental Release Mo	easures	
6.1	Protect	ive Precautions,	Avoid breathing vapo	ors and provide adequate vent	ilation.	
		ive Equipment an ency Procedures:		it, wear a NIOSH approved sel onal protection (rubber boots,		
6.2	Enviror Precau	nmental tions:	Take steps to avoid r	elease into the environment, in	f safe to do so.	
6.3			r Contain spill and coll ngTransfer to a chemic	ect, as appropriate. al waste container for disposal	l in accordance with local rec	gulations.
			Section 7.	Handling and Stor	age	
7.1	Precau in Hanc		Avoid breathing dust/ Avoid prolonged or re	fume/gas/mist/vapours/spray. epeated exposure.		
7.2	Precau in Stori		Keep container tightly Store in accordance v	r closed. with information listed on the p	roduct insert.	
		Sec	tion 8. Exposu	re Controls/Persona	al Protection	
8.1	Exposu	re Parameters:	•			
CAS	#	Partial Chemical	Name	Britain EH40	France VL	Europe
	NA	Mouse IgG Assay	HRP-Conjugate	No data.	No data.	No data.
						Multi-region format



Page: 3 of 5

Revision: 06/30/2015

	NA	StabilZyme HRP	conjugate stabilizer	No data.	No data.	No data.		
CAS	#	Partial Chemical	Name	OSHA TWA	ACGIH TWA	Other Limits		
	NA	Mouse IgG Assay	HRP-Conjugate	No data.	No data.	No data.		
	NA	StabilZyme HRP	conjugate stabilizer	PEL: 10 ppm	TLV: 10 ppm	No data.		
3.2	Exposu	re Controls:	-	ł	ł	ł		
8.2.1	Engine	ering Controls	Use process enclosu	res, local exhaust ven	tilation, or other engineering co	ontrols to control airbor		
	(Ventila	tion etc.):	levels below recomm	ended exposure limits				
8.2.2	Person	al protection equi	pment:					
	Eye Pro	ection:	Safety glasses					
	Protect	ive Gloves:	Compatible 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 Prac		•		ould be equipped with an eyev	vash and a safety show		
			Wash thoroughly afte	•				
			No data available.	-				
		<u> </u>	action O Dhua	ical and Cham	ical Dranartica			
					nical Properties			
9.1		-	sical and Chemical P	-				
	-	al States:		X]Liquid []Solio	Ł			
		ance and Odor:	Solution					
	Melting		No data.					
	Boiling		No data.					
	Flash P		No data.					
	-	ation Rate:	No data.					
		ability (solid, gas):						
	-	ve Limits:	LEL: No data	l.	UEL: No data.			
	-	Pressure (vs. Air o	r mm No data.					
	Hg):							
	-	Density (vs. Air = 1	-					
	-	c Gravity (Water =	•					
	Solubili	ty in Water:	No data.					
	Autoigr	nition Pt:	No data.					
9.2	Other In	formation						
	Percent	Volatile:	No data.					
			Section 10	. Stability and	Reactivity			
10.1	Reactiv	itv:	No data available.	,	, ,			
10.2	Stability	-		ble [X]				
10.3	-	y Note(s):			tion listed on the product insert	t.		
-	-	rization:		ll not occur [X]				
10.4	-	ons To Avoid:	No data available.					
10.5			s No data available.					
10.5	To Avoi	-						
10.6	Hazardo		No data available.					
10.0			ino uala availabie.					
	Decom	position or						
						Multi-region for		



Revision: 06/30/2015

	Byprodu	ICTS:			6-	(i.e. a		
		-	Section 11. Toxico					
11.1	Toxicological Effects:							
Carcin	loxicolo	-	NTP? No IARC Monograp	ohs? No (gulated? No		
CAS #			ponents (Chemical Name)				ACGIH	OSHA
	NA	Mouse IgG Assay			n.a.	n.a.	n.a.	n.a.
	NA		conjugate stabilizer		n.a.	n.a.	n.a.	n.a.
		ļ	Section 12. Ecol	ogical Inf	ormati	 on		
12.1	Toxicity	:	Avoid release into the environr	-				
	· · · · · · · · · · · · · · · · · · ·		Runoff from fire control or dilut	ion water may	cause po	ollution.		
12.2	Persiste	nce and	No data available.					
	Degrada	bility:						
12.3	Bioaccu	mulative	No data available.					
	Potentia	l:						
12.4	Mobility		No data available.					
12.5			No data available.					
	assessm		NI 17 111					
12.6	Other ad	verse effects:	No data available.					
			Section 13. Dispo					
13.1	Waste D	isposal Method:	Dispose in accordance with loc	cal, state, and	federal re	gulations.		
			Section 14. Trar	nsport Inf	ormati	on		
14.1	LAND T	RANSPORT (US I	DOT):					
D	OT Prope	r Shipping Name:	Not dangerous goods.					
	OT Hazaro							
	N/NA Nun							
14.1		RANSPORT (Euro	. ,					
		hipping Name:	Not dangerous goods.					
-	N Numbei azard Clas							
14.3		ANSPORT (ICAO/I	ATA).					
		Shipping Name:	Not dangerous goods.					
	ional Trar		Transport in accordance with I	local, state, an	d federal	regulations.		
	nation:	•	•			U U		
			Section 15. Regu	latory Inf	ormati	ion		
EPA S	SARA (Su	perfund Amendm	ents and Reauthorization Act					
CAS #	•		ponents (Chemical Name)	S. 302 (EF		S. 304 RQ	S. 313	3 (TRI)
	NA	Mouse IgG Assay	· · · · · ·	No	·	No	No	
	NA	StabilZyme HRP	conjugate stabilizer	No		No	No	
CAS #	ŧ	Hazardous Com	ponents (Chemical Name)	Other US I	EPA or S	tate Lists	+	
	NA	Mouse IgG Assay	/ HRP-Conjugate	CAA HAP, PROP.65:		; CWA NPDE	S: No; TSCA:	No; CA
		ļ		 				lulti roniar fama
							N	lulti-region form



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Revision: 06/30/2015

NA	StabilZyme HRP	conjugate stabilizer	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No			
Regulatory Info	ormation	This SDS was prepared in acco No.1272/2008.	rdance with 29 CFR 1910.1200 and Regulation (EC)			
		Section 16. Oth	ner Information			
Revision Date:		06/30/2015				
Additional Info	rmation About	No data available.				
This Product: Company Policy or Disclaimer: DISCLAIMER: This information is believed to be accurate and represents the best information						
Company Polic	y or Disclaimer:	currently available to us. Howev express or implied, with respect	is believed to be accurate and represents the best information er, we make no warranty of merchantability or any other warranty, to such information, and we assume no liability resulting from its wn investigations to determine the suitability of the information for			



SAFETY DATA SHEET ecoated (Goat Anti-Mouse IgG) EIA 96-V

Multi-region format

Precoated (Goat Anti-Mouse IgG) EIA 96-Well Plate (strip or solid) Supersed

Revision: 07/10/2015 Supersedes Revision: 05/14/2013

					<u> </u>	•
		accord	ling to Regulation (EC) No. 190	7/2006 as amended by	r (EC) No. 1272/200	8
		Section 1. Ide	entification of the Substar	nce/Mixture and of t	the Company/Ur	ndertaking
1.1	Product	Code:	400008/400009			
	Product	Name:	Precoated (Goat Anti-Mo	ouse IgG) EIA 96-We	Il Plate (strip or so	blid)
1.2	Relevan	t identified uses of tl	he substance or mixture a	and uses advised ag	gainst:	
	Releva	ant identified uses:	For research use only, no	ot for human or veter	inary use.	
1.3	Details o	of the Supplier of the	Safety Data Sheet:			
	Comp	any Name:	Cayman Chemical Comp 1180 E. Ellsworth Rd. Ann Arbor, MI 48108	bany		
	Web s	ite address:	www.caymanchem.com			
	Inform	ation:	Cayman Chemical Comp	bany	+1 (734	4)971-3335
1.4	Emerge	ncy telephone numb	er:			
	Emerg	ency Contact:	CHEMTREC Within USA			0)424-9300
			CHEMTREC Outside US	A and Canada:	+1 (703	3)527-3887
			Section 2. Haz	zards Identific	cation	
2.1	Classifie	cation of the Substar	nce or Mixture:			
2.2	Label El	ements:				
	GHS S	ignal Word:	None			
		lazard Phrases:				
			ently available data this sub	stance or mixture is r	not classifiable ac	cording to GHS.
		Precaution Phrases:				
		rases apply.				
		Response Phrases: rases apply.				
	-	Storage and Disposal	Phrases:			
			Storage and Section 13 for	Disposal informatior	٦.	
2.3			laterial may be irritating to t	-		piratory tract.
	Effects	and Symptoms: M	lay be harmful by inhalation	, ingestion, or skin al	bsorption.	
			lay cause eye, skin, or resp			
		Т	o the best of our knowledge	e, the toxicological pr	operties have not	been thoroughly investigated.
		Sectio	n 3. Composition	/Information of	on Ingredie	nts
CAS RTE	6 # / CS #	Hazardous Compon REACH Registration	ents (Chemical Name)/ n No.	Concentration	EC No./ EC Index No.	GHS Classification
NA NA		Precoated (Goat Anti-M (soild or strip)	ouse IgG) EIA 96-Well Plate	100.0 %	NA NA	No data available.
		·			·	·



SAFETY DATA SHEET

Page: 2 of 5

Precoated (Goat Anti-Mouse IgG) EIA 96-Well

Revision: 07/10/2015 Supersedes Revision: 05/14/2013

Plate (strip or solid) 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 20 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 20 minutes. Have eyes examined and tested by medical personnel. Wash out mouth with water provided person is conscious. Never give anything by mouth to an In Case of Ingestion: 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 A solid water stream may be inefficient. Media: 5.2 Flammable Properties and No data available. Hazards: No data available. Flash Pt: No data. LEL: No data. **Explosive Limits:** 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 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 and As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves). **Emergency Procedures:** 6.2 Take steps to avoid release into the environment, if safe to do so. Environmental **Precautions:** 6.3 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: 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. Store in accordance with information listed on the product insert. in Storing: Section 8. Exposure Controls/Personal Protection 8.1 **Exposure Parameters:** CAS # **Partial Chemical Name Britain EH40** France VL Europe Precoated (Goat Anti-Mouse IgG) EIA No data. No data. NA No data. **Multi-region format**



SAFETY DATA SHEET Precoated (Goat Anti-Mouse IgG) EIA 96-Well

Plate (strip or solid)

Revision: 07/10/2015 Supersedes Revision: 05/14/2013

	HEMICAL	1		Plate (strip or solid	L) Superse	edes Revision: 05/14/2013
		96-Well Plate (soild o				
		Partial Chemical Name Precoated (Goat Anti-Mouse I		OSHA TWA No data.	ACGIH TWA	Other Limits
	NA Precoated (Goat Anti-Mouse IgG) EI 96-Well Plate (soild or strip)		•	No data.	No data.	No data.
3.2	Exposu	re Controls:		1		ŀ
8.2.1	Enginee	ering Controls U	se process enclosu	ures, local exhaust ventilation	n, or other engineering c	ontrols to control airborr
	(Ventila	tion etc.): le	vels below recomm	nended exposure limits.		
3.2.2	Person	al protection equipm	ent:			
	Eye Pro	stection: S	afety glasses			
	Protecti	ive Gloves: C	ompatible chemica	I-resistant gloves		
	Other P	rotective Clothing:La	ab coat			
	Respira	tory Equipment N	IOSH approved res	spirator, as conditions warra	nt.	
	(Specify	у Туре):				
	Work/H	ygienic/Maintenan D				
	ce Prac		•	Itilizing this material should b	be equipped with an eyev	wash and a safety show
			ash thoroughly after	er handling.		
		N	o data available.			
		Sec	tion 9. Phys	sical and Chemica	I Properties	
.1	Informat	tion on Basic Physic	al and Chemical F	Properties		
	Physica	al States:	[]Gas [] Liquid [X] Solid		
	Appeara	ance and Odor:	Plate			
	Melting	Point:	No data.			
	Boiling	Point:	No data.			
	Flash P	t:	No data.			
	-	ation Rate:	No data.			
		ability (solid, gas):	No data avail			
	-	ve Limits:	LEL: No data	a. UEL	.: No data.	
	-	Pressure (vs. Air or m	m No data.			
	Hg):					
	-	Density (vs. Air = 1):	No data.			
	•	Gravity (Water = 1):				
		ty in Water:	No data.			
	-	hition Pt:	No data.			
9.2		formation				
	Percent	Volatile:	No data.			
			Section 10). Stability and Rea	activity	
0.1	Reactiv	ity: N	o data available.			
0.2	Stability	/: U	nstable [] Sta	able [X]		
0.3	Stability	/ Note(s): S	able if stored in ac	cordance with information lis	sted on the product inser	t.
	Polyme	rization: W	/ill occur [] W	/ill not occur [X]		
0.4	Conditio	ons To Avoid: N	o data available.			
0.5	Incomp	atibility - Materials N	o data available.			
	To Avoi	d:				
0.6	Hazardo	ous N	o data available.			
	Decomp	position or				
						Multi-region for



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SAFETY DATA SHEET Precoated (Goat Anti-Mouse IgG) EIA 96-Well

Plate (strip or solid)

Revision: 07/10/2015 Supersedes Revision: 05/14/2013

Byproducts:

			Section 11. Toxico	<u> </u>				
1.1	Informa Toxicolo	tion on ogical Effects:	The toxicological effects of this	product have r	not been	thoroughly stu	udied.	
CAS	#	Hazardous Com	ponents (Chemical Name)	N	ТР	IARC	ACGIH	OSHA
	NA	Precoated (Goat or strip)	Anti-Mouse IgG) EIA 96-Well Pla	ate (soild n.	a.	n.a.	n.a.	n.a.
			Section 12. Ecolo	ogical Info	ormati	ion		
2.1	Toxicity	:	Avoid release into the environm	nent.				
			Runoff from fire control or diluti	on water may o	cause po	ollution.		
2.2		ence and	No data available.					
	Degrada	-						
2.3		mulative	No data available.					
	Potentia		Nie dete en 1111					
2.4	Mobility		No data available.					
2.5			No data available.					
12.6	assessn Other ad	nent: dverse effects:	No data available.					
					dorati	onc		
0.4	Marta D		Section 13. Dispos					
3.1	Waste L	isposal Method:	Dispose in accordance with loc			-		
			Section 14. Tran	sport Info	ormat	ion		
14.1	LAND T	RANSPORT (US I	DOT):					
[OT Prope	er Shipping Name:	Not dangerous goods.					
	OT Hazar							
ι	JN/NA Nur							
14.1		RANSPORT (Euro						
		hipping Name:	Not dangerous goods.					
	JN Numbe lazard Cla							
ء 14.3		SS. ANSPORT (ICAO/I	ΔΤΔ).					
		Shipping Name:	Not dangerous goods.					
	tional Tra		Transport in accordance with lo	ocal. state. and	federal	regulations.		
	mation:					. eguianeriei		
Infor			Section 15. Regu	latory Info	ormat	ion		
Infor			ents and Reauthorization Act					
EPA	•	1		S. 302 (EH	S)	S. 304 RQ	S. 313	
	•	Hazardous Com	ponents (Chemical Name)	· · · ·				
EPA	•	Hazardous Com	Anti-Mouse IgG) EIA 96-Well	No		No	No	, (TRI)
EPA	# NA	Hazardous Com Precoated (Goat A Plate (soild or stri	Anti-Mouse IgG) EIA 96-Well		PA or S		No	



SAFETY DATA SHEET

Precoated (Goat Anti-Mouse IgG) EIA 96-Well Plate (strip or solid)

Revision: 07/10/2015

CHEMICAL	Flate (Strip of Solid) Supersedes Revision: 05/14/2013
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:	07/10/2015
Additional Information About	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.



	Section 1.	Identification of the Substance/Mixture and of th	ne Company/Undertaking
.1	Product Code:	401244	
	Product Name:	IgG (mouse) EIA Standard	
.2	Relevant identified uses of	of the substance or mixture and uses advised aga	ainst:
	Relevant identified uses	-	
.3	Details of the Supplier of	·	
		Courses Chemical Compose	
	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 nu	mber:	
	Emergency Contact:	CHEMTREC Within USA and Canada:	+1 (800)424-9300
		CHEMTREC Outside USA and Canada:	+1 (703)527-3887
		Section 2. Hazards Identifica	ation
2.1	Classification of the Subs		
	Serious Eye Damage/Ey	ye Irritation, Category 2A	
2.2	Label Elements:		
	GHS Signal Word:	Warning	
	GHS Hazard Phrases:	-	
	GHS Hazard Phrases: H319: Causes serious ey	re irritation.	
	GHS Hazard Phrases: H319: Causes serious ey GHS Precaution Phrase	re irritation.	
	GHS Hazard Phrases: H319: Causes serious ey GHS Precaution Phrase P264: Wash {hands} thor	ve irritation. 2 5: roughly after handling.	
	GHS Hazard Phrases: H319: Causes serious ey GHS Precaution Phrase P264: Wash {hands} thor P280: Wear {protective g	re irritation. es: roughly after handling. loves/protective clothing/eye protection/face protection	on}.
	GHS Hazard Phrases: H319: Causes serious ey GHS Precaution Phrase P264: Wash {hands} thor P280: Wear {protective g GHS Response Phrases	re irritation. es: roughly after handling. loves/protective clothing/eye protection/face protectio	
	GHS Hazard Phrases: H319: Causes serious ey GHS Precaution Phrase P264: Wash {hands} thor P280: Wear {protective g GHS Response Phrases P305+351+338: IF IN EY	re irritation. es: roughly after handling. loves/protective clothing/eye protection/face protection	
	GHS Hazard Phrases: H319: Causes serious ey GHS Precaution Phrase P264: Wash {hands} thor P280: Wear {protective g GHS Response Phrases P305+351+338: IF IN EY to do. Continue rinsing.	re irritation. PS: roughly after handling. loves/protective clothing/eye protection/face protection S: (ES: Rinse cautiously with water for several minutes.	
	GHS Hazard Phrases: H319: Causes serious ey GHS Precaution Phrase P264: Wash {hands} thor P280: Wear {protective g GHS Response Phrases P305+351+338: IF IN EY to do. Continue rinsing. P337+313: If eye irritation	re irritation. es: roughly after handling. loves/protective clothing/eye protection/face protection s: (ES: Rinse cautiously with water for several minutes. In persists, get medical advice/attention.	
	GHS Hazard Phrases: H319: Causes serious ey GHS Precaution Phrase P264: Wash {hands} thor P280: Wear {protective g GHS Response Phrases P305+351+338: IF IN EY to do. Continue rinsing. P337+313: If eye irritation GHS Storage and Dispo	re irritation. PS: roughly after handling. loves/protective clothing/eye protection/face protection S: (ES: Rinse cautiously with water for several minutes. In persists, get medical advice/attention. DSAI Phrases:	Remove contact lenses, if present and easy
2.3	GHS Hazard Phrases: H319: Causes serious ey GHS Precaution Phrase P264: Wash {hands} thor P280: Wear {protective g GHS Response Phrases P305+351+338: IF IN EY to do. Continue rinsing. P337+313: If eye irritation GHS Storage and Dispo	re irritation. es: roughly after handling. loves/protective clothing/eye protection/face protection s: (ES: Rinse cautiously with water for several minutes. In persists, get medical advice/attention. osal Phrases: for Storage and Section 13 for Disposal information.	Remove contact lenses, if present and easy
2.3	GHS Hazard Phrases: H319: Causes serious ey GHS Precaution Phrase P264: Wash {hands} thor P280: Wear {protective g GHS Response Phrases P305+351+338: IF IN EY to do. Continue rinsing. P337+313: If eye irritation GHS Storage and Dispo Please refer to Section 7 Adverse Human Health	re irritation. PS: roughly after handling. loves/protective clothing/eye protection/face protection S: (ES: Rinse cautiously with water for several minutes. In persists, get medical advice/attention. DSAI Phrases:	Remove contact lenses, if present and easy
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2.3	GHS Hazard Phrases: H319: Causes serious ey GHS Precaution Phrase P264: Wash {hands} thor P280: Wear {protective g GHS Response Phrases P305+351+338: IF IN EY to do. Continue rinsing. P337+313: If eye irritation GHS Storage and Dispo Please refer to Section 7 Adverse Human Health	re irritation. es: roughly after handling. loves/protective clothing/eye protection/face protection face protection face protection f	Remove contact lenses, if present and easy
2.3	GHS Hazard Phrases: H319: Causes serious ey GHS Precaution Phrase P264: Wash {hands} thor P280: Wear {protective g GHS Response Phrases P305+351+338: IF IN EY to do. Continue rinsing. P337+313: If eye irritation GHS Storage and Dispo Please refer to Section 7 Adverse Human Health	re irritation. PS: roughly after handling. loves/protective clothing/eye protection/face protection S: (ES: Rinse cautiously with water for several minutes. In persists, get medical advice/attention. DSAI Phrases: for Storage and Section 13 for Disposal information. Causes serious eye irritation. Material may be irritating to the mucous membrane May be harmful by inhalation, ingestion, or skin absolute May be harmful by inhalation by the manual	Remove contact lenses, if present and easy es and upper respiratory tract. sorption.
2.3	GHS Hazard Phrases: H319: Causes serious ey GHS Precaution Phrase P264: Wash {hands} thor P280: Wear {protective g GHS Response Phrases P305+351+338: IF IN EY to do. Continue rinsing. P337+313: If eye irritation GHS Storage and Dispo Please refer to Section 7 Adverse Human Health	re irritation. PS: roughly after handling. loves/protective clothing/eye protection/face protection S: TES: Rinse cautiously with water for several minutes. In persists, get medical advice/attention. Ssal Phrases: for Storage and Section 13 for Disposal information. Causes serious eye irritation. Material may be irritating to the mucous membrane May be harmful by inhalation, ingestion, or skin abi- May cause skin or respiratory system irritation.	Remove contact lenses, if present and easy es and upper respiratory tract. sorption.
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3	GHS Hazard Phrases: H319: Causes serious ey GHS Precaution Phrase P264: Wash {hands} thor P280: Wear {protective g GHS Response Phrases P305+351+338: IF IN EY to do. Continue rinsing. P337+313: If eye irritation GHS Storage and Dispo Please refer to Section 7 Adverse Human Health	re irritation. PS: roughly after handling. loves/protective clothing/eye protection/face protection S: TES: Rinse cautiously with water for several minutes. In persists, get medical advice/attention. Ssal Phrases: for Storage and Section 13 for Disposal information. Causes serious eye irritation. Material may be irritating to the mucous membrane May be harmful by inhalation, ingestion, or skin abi- May cause skin or respiratory system irritation.	Remove contact lenses, if present and easy es and upper respiratory tract. sorption.
2.3	GHS Hazard Phrases: H319: Causes serious ey GHS Precaution Phrase P264: Wash {hands} thor P280: Wear {protective g GHS Response Phrases P305+351+338: IF IN EY to do. Continue rinsing. P337+313: If eye irritation GHS Storage and Dispo Please refer to Section 7 Adverse Human Health	re irritation. PS: roughly after handling. loves/protective clothing/eye protection/face protection S: TES: Rinse cautiously with water for several minutes. In persists, get medical advice/attention. Ssal Phrases: for Storage and Section 13 for Disposal information. Causes serious eye irritation. Material may be irritating to the mucous membrane May be harmful by inhalation, ingestion, or skin abi- May cause skin or respiratory system irritation.	Remove contact lenses, if present and easy es and upper respiratory tract. sorption.



RTECS #		oonents (Chemical Name)/ tion No.	Concentration	EC No./ EC Index No.	GHS Classification
NA NA	AP Mouse IgG		< 0.01 %	NA NA	No data available.
7647-14- VZ4725000			0.8 %	231-598-3 NA	Eye Damage 2A: H319 STOT (SE) 3: H335 H336
7778-77- TC6615500		te, Monobasic	0.02 %	231-913-4 NA	No data available.
7558-79- WC450000		Dibasic	0.14 %	231-448-7 NA	Eye Damage 2: H319
7447-40- TS8050000			0.02 %	231-211-8 NA	Acute Tox.(O) 4: H302
9048-46- MT644600		nin (BSA)	0.5 %	232-936-2 NA	Acute Tox.(O) 4: H302
26628-22 VY805000			0.05 %	247-852-1 011-004-00-7	Acute Tox.(O) 2: H300 Aquatic (A) 1: H400 Aquatic (C) 1: H410
7732-18- ZC0110000			>98.46 %	231-791-2 NA	No data available.
	Case of Skin Contact:	Get immediate medical atten Immediately wash skin with s		vater for at least 15	5 minutes. Remove contaminat
In	Case of Skin Contact: Case of Eye Contact: Case of Ingestion:	Immediately wash skin with s clothing. Get medical attention Hold eyelids apart and flush and tested by medical person Wash out mouth with water p	soap and plenty of w on if symptoms occu eyes with plenty of w nnel. provided person is c	ır. Wash clothing b water for at least 1 onscious. Never g	efore reuse. 5 minutes. Have eyes examine
In	Case of Eye Contact:	Immediately wash skin with s clothing. Get medical attention Hold eyelids apart and flush and tested by medical person Wash out mouth with water p unconscious person. Get me medical personnel.	soap and plenty of w on if symptoms occu eyes with plenty of w nnel. provided person is c dical attention. Do N	ir. Wash clothing b water for at least 1 onscious. Never g NOT induce vomiti	efore reuse. 5 minutes. Have eyes examine ive anything by mouth to an
In In	Case of Eye Contact: Case of Ingestion:	Immediately wash skin with s clothing. Get medical attention Hold eyelids apart and flush and tested by medical person Wash out mouth with water p unconscious person. Get me medical personnel. Section 5. Fire	soap and plenty of woon if symptoms occur eyes with plenty of woon nnel. brovided person is c idical attention. Do N Fighting Me	ir. Wash clothing b water for at least 1 onscious. Never g NOT induce vomiti	efore reuse. 5 minutes. Have eyes examine ive anything by mouth to an ng unless directed to do so by
In In 5.1 Su Me	Case of Eye Contact: Case of Ingestion: itable Extinguishing	Immediately wash skin with s clothing. Get medical attention Hold eyelids apart and flush and tested by medical person Wash out mouth with water p unconscious person. Get me medical personnel.	soap and plenty of w on if symptoms occu eyes with plenty of w nnel. orovided person is c dical attention. Do N <u>Fighting Me</u> carbon dioxide, wate exposed containers	ur. Wash clothing b water for at least 1 onscious. Never g NOT induce vomiti CASUTES er, or dry chemical	efore reuse. 5 minutes. Have eyes examine ive anything by mouth to an ng unless directed to do so by
In In 5.1 Su Me 5.2 Fla	Case of Eye Contact: Case of Ingestion: itable Extinguishing	Immediately wash skin with s clothing. Get medical attention Hold eyelids apart and flush and tested by medical person Wash out mouth with water p unconscious person. Get me medical personnel. Section 5. Fire Use alcohol-resistant foam, Use water spray to cool fire- a solid water stream may be	soap and plenty of w on if symptoms occu eyes with plenty of w nnel. orovided person is c dical attention. Do N <u>Fighting Me</u> carbon dioxide, wate exposed containers	ur. Wash clothing b water for at least 1 onscious. Never g NOT induce vomiti CASUTES er, or dry chemical	efore reuse. 5 minutes. Have eyes examine ive anything by mouth to an ng unless directed to do so by
In In 5.1 Su Me 5.2 Fla Ha	Case of Eye Contact: Case of Ingestion: itable Extinguishing edia: suitable Extinguishing edia:	Immediately wash skin with s clothing. Get medical attention Hold eyelids apart and flush and tested by medical person Wash out mouth with water p unconscious person. Get me medical personnel. Section 5. Fire Use alcohol-resistant foam, Use water spray to cool fire- a solid water stream may be	soap and plenty of w on if symptoms occu eyes with plenty of w nnel. orovided person is c dical attention. Do N <u>Fighting Me</u> carbon dioxide, wate exposed containers	ur. Wash clothing b water for at least 1 onscious. Never g NOT induce vomiti CASUTES er, or dry chemical	efore reuse. 5 minutes. Have eyes examine ive anything by mouth to an ng unless directed to do so by
In In 5.1 Su Me 5.2 Fla Ha Fla Ex	Case of Eye Contact: Case of Ingestion: itable Extinguishing edia: suitable Extinguishing edia: ammable Properties an zards:	Immediately wash skin with s clothing. Get medical attention Hold eyelids apart and flush and tested by medical person Wash out mouth with water p unconscious person. Get me medical personnel. Section 5. Fire Use alcohol-resistant foam, fu Use water spray to cool fire- a A solid water stream may be adNo data available. No data available.	soap and plenty of w on if symptoms occu eyes with plenty of w nnel. orovided person is c dical attention. Do N <u>Fighting Me</u> carbon dioxide, wate exposed containers	ur. Wash clothing b water for at least 1 onscious. Never g NOT induce vomiti a SUIES er, or dry chemical	5 minutes. Have eyes examine ive anything by mouth to an ng unless directed to do so by
In In 5.1 Su Un 5.2 Fla Ha Fla Ex Au	Case of Eye Contact: Case of Ingestion: itable Extinguishing edia: suitable Extinguishing edia: ammable Properties an zards: ash Pt: plosive Limits: itoignition Pt:	Immediately wash skin with s clothing. Get medical attention Hold eyelids apart and flush and tested by medical person Wash out mouth with water p unconscious person. Get me medical personnel. Section 5. Fire Use alcohol-resistant foam, fu Use water spray to cool fire- a A solid water stream may be adNo data available. No data available. No data. LEL: No data.	soap and plenty of w on if symptoms occur eyes with plenty of w nnel. provided person is c dical attention. Do N e Fighting Me carbon dioxide, wate exposed containers e inefficient. UEL: No c	ur. Wash clothing b water for at least 1 onscious. Never g NOT induce vomiti Pasures er, or dry chemical lata.	efore reuse. 5 minutes. Have eyes examine ive anything by mouth to an ng unless directed to do so by spray.



Revision: 06/25/2015

		Section 6. A	Accidental Release	e Measures		
6.1 P	Protecti	ive Precautions, Avoid raising and	breathing dust, and provide	e adequate ventilation.		
P	Protecti	ve Equipment and As conditions war				
E	Emerge	ncy Procedures: and appropriate p	ersonal protection (rubber b	poots, safety goggles, and he	avy rubber gloves).	
-	Environmental Take steps to avoid release into the environment, if safe to do so.					
	Precaut					
		s and Material For Contain spill and				
	Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations.					
	Jp:					
		Section	7. Handling and	Storage		
7.1 P	Precaut	ions To Be Taken Avoid breathing du	ust/fume/gas/mist/vapours/s	pray.		
ir	n Hand	ling: Avoid prolonged o	r repeated exposure.			
7.2 P	Precaut	ions To Be Taken Keep container tig	htly closed.			
ir	n Storii	ng: Store in accordance	ce with information listed on	the product insert.		
		Section 8. Expo	sure Controls/Per	sonal Protection		
8.1 E	xposur	e Parameters:				
CAS #		Partial Chemical Name	Britain EH40	France VL	Europe	
N	A	AP Mouse IgG	No data.	No data.	No data.	
7647-′	14-5	Sodium chloride	No data.	No data.	No data.	
7778-7	77-0	Potassium phosphate, Monobasic	No data.	No data.	No data.	
7558-7	79-4	Sodium phosphate, Dibasic	No data.	No data.	No data.	
7447-4	40-7	Potassium chloride	No data.	No data.	No data.	
9048-4	46-8	Bovine Serum Albumin (BSA)	No data.	No data.	No data.	
26628-	-22-8	Sodium azide	TWA: 0.1 mg/m3 () STEL: 0.3 mg/m3 ()	TWA: 0.1 mg/m3 STEL: 0.3 mg/m3	TWA: 0.1 mg/m3 STEL: 0.3 mg/m3	
7732-	18-5	Water	No data.	No data.	No data.	
CAS #		Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits	
N	A	AP Mouse IgG	No data.	No data.	No data.	
7647-′	14-5	Sodium chloride	No data.	No data.	No data.	
7778-7	77-0	Potassium phosphate, Monobasic	No data.	No data.	No data.	
7558-7	79-4	Sodium phosphate, Dibasic	No data.	No data.	No data.	
7447-4	40-7	Potassium chloride	No data.	No data.	No data.	
9048-4	46-8	Bovine Serum Albumin (BSA)	No data.	No data.	No data.	
26628-	-22-8	Sodium azide	No data.	CEIL: 0.29 mg/m3	No data.	
7700	18-5	Water	No data.	No data.	No data.	



-	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborn levels below recommended exposure limits. pment: Safety glasses Compatible chemical-resistant gloves						
(Ventilation etc.): Personal protection equip Eye Protection: Protective Gloves: Other Protective Clothing	levels below recommended exposure limits. pment: Safety glasses						
Personal protection equip Eye Protection: Protective Gloves: Other Protective Clothing	pment: Safety glasses						
Eye Protection: Protective Gloves: Other Protective Clothing	Safety glasses						
Protective Gloves: Other Protective Clothing							
Other Protective Clothing	Compatible chemical-resistant gloves						
-							
	Other Protective Clothing:Lab coat						
Respiratory Equipment	NIOSH approved respirator, as conditions warrant.						
(Specify Type):							
Work/Hygienic/Maintenar	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.						
S	ection 9. Physical and Chemical Properties						
Information on Basic Phys	sical and Chemical Properties						
Physical States:	[]Gas [X]Liquid []Solid						
Appearance and Odor:	solution						
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 o	r mm No data.						
Hg):							
Vapor Density (vs. Air = 1): No data.						
Specific Gravity (Water =	1): No data.						
Solubility in Water:	No data.						
Autoignition Pt:	No data.						
Other Information							
Percent Volatile:	No data.						
	Section 10. Stability and Reactivity						
Reactivity:	No data available.						
-	Unstable [] Stable [X]						
-	Stable if stored in accordance with information listed on the product insert.						
	Will occur [] Will not occur [X]						
•	No data available.						
	strong oxidizing agents						
	hydrogen chloride gas						
	phosphorus oxides						
-	potassium oxides						
Byproducis.	sodium oxides						
	Solution on Basic Physical States: Appearance and Odor: Melting Point: Boiling Point: Flash Pt: Evaporation Rate: Flammability (solid, gas): Explosive Limits: Vapor Pressure (vs. Air of Hg): Vapor Density (vs. Air = 1 Specific Gravity (Water = Solubility in Water: Autoignition Pt: Other Information						



Revision: 06/25/2015

			Section 11. Toxicologica	al Informa	ation			
11.1		tion on ogical Effects: Toxicological	The toxicological effects of this product I Potassium chloride - Toxicity Data: Oral Potassium chloride - Irritation Data: Eye Potassium phosphate, Monobasic - Toxi Sodium chloride - Toxicity Data: Oral LD Sodium chloride - Irritation Data: Eyes (r mild; Sodium phosphate, Dibasic - Irritation D (24h) mild; Potassium chloride - Investigated as a r Only select Registry of Toxic Effects of O See actual entry in RTECS for complete Potassium chloride RTECS Number: TS Potassium phosphate, Monobasic RTEO Sodium chloride RTECS Number: VZ47 Sodium phosphate, Dibasic RTECS Nur	have not been LD50 (rat): 2 s (rabbit): 500 icity Data: Sk 950 (rat): 3,00 rabbit): 100 m ata: Eyes (ra hutagen and f Chemical Sub information. 8050000 CS Number: 1 25000	n thoroughly st ,600 mg/kg; D mg (24h) mili in LD50 (rabbi 00 mg/kg; Oral ng (24h) moder bbit): 500 mg (tumorigen. ostances (RTE	d; t): >4,640 mg/ł LD50 (mouse) rate; Skin (rabt 24h) mild; Skir	: 4,000 mg/kg; bit): 500 mg (24h n (rabbit): 500 mg	
Carci	inogenicity	y:	NTP? No IARC Monographs? No					
CAS	#	Hazardous Com	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA	
	NA	AP Mouse IgG		n.a.	n.a.	n.a.	n.a.	
764	47-14-5	Sodium chloride		n.a.	n.a.	n.a.	n.a.	
777	78-77-0	Potassium phosp	ohate, Monobasic	n.a.	n.a.	n.a.	n.a.	
755	58-79-4	Sodium phospha	te, Dibasic	n.a.	n.a.	n.a.	n.a.	
744	47-40-7	Potassium chlori	de	n.a.	n.a.	n.a.	n.a.	
904	48-46-8	Bovine Serum Al	bumin (BSA)	n.a.	n.a.	n.a.	n.a.	
266	28-22-8	Sodium azide		n.a.	n.a.	A4	n.a.	
773	32-18-5	Water		n.a.	n.a.	n.a.	n.a.	
		•	Section 12. Ecological	Informat	ion	•		
 12.1 Toxicity: 12.2 Persistence and Degradability: 12.3 Bioaccumulative Potential: 12.4 Mobility in Soil: 12.5 Results of PBT and vPvB assessment: 12.6 Other adverse effects: 		ence and ability: amulative al: in Soil: of PBT and vPvB nent:	Avoid release into the environment. Runoff from fire control or dilution water No data available. No data available. No data available. No data available. No data available.	may cause p	ollution.			



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3.1 Waste [Section 13. Dispo Disposal Method: Dispose in accordance with loc			
	Section 14. Trar		•	
14.1 LAND 1	TRANSPORT (US DOT):			
	er Shipping Name: Not dangerous goods.			
DOT Haza				
UN/NA Nu	mber:			
14.1 LAND	TRANSPORT (European ADR/RID):			
ADR/RID S	Shipping Name: Not dangerous goods.			
UN Numbe				
	ANSPORT (ICAO/IATA): A Shipping Name: Not dangerous goods.			
Additional Tra		local state and fede	aral regulations	
Information:				
-	Section 15. Regu	latory Inform	ation	
EPA SARA (Si	uperfund Amendments and Reauthorization Act			
CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
NA	AP Mouse IgG	No	No	No
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
7447-40-7	Potassium chloride	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
7732-18-5	Water	No	No	No
CAS #	Hazardous Components (Chemical Name)	Other US EPA o	or State Lists	
NA	AP Mouse IgG	CAA HAP,ODC: PROP.65: No	No; CWA NPDES: I	No; TSCA: No; CA
7647-14-5	Sodium chloride	CAA HAP,ODC: Inventory; CA P	No; CWA NPDES: I ROP.65: No	No; TSCA: Yes -
7778-77-0	Potassium phosphate, Monobasic	CAA HAP,ODC: Inventory; CA P	No; CWA NPDES: I PROP.65: No	No; TSCA: Yes -
7558-79-4	Sodium phosphate, Dibasic	CAA HAP,ODC: Inventory; CA P	No; CWA NPDES: I PROP.65: No	No; TSCA: Yes -
7447-40-7	Potassium chloride	CAA HAP,ODC: Inventory; CA P	No; CWA NPDES: I PROP.65: No	No; TSCA: Yes -
9048-46-8	Bovine Serum Albumin (BSA)	CAA HAP,ODC: Inventory; CA P	No; CWA NPDES: I PROP.65: No	No; TSCA: Yes -
26628-22-8	Sodium azide	CAA HAP,ODC: Inventory; CA P	No; CWA NPDES: I PROP.65: No	No; TSCA: Yes -
7732-18-5	Water	CAA HAP,ODC: Inventory; CA P	No; CWA NPDES: I PROP.65: No	No; TSCA: Yes -
		- 1		



Revision: 06/25/2015

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:	06/25/2015						
Additional Information About This Product:	No data available.						
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.						



according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008 Section 1. Identification of the Substance/Mixture and of the Company/Undertaking 1.1 Product Code: 400060 Product Name: EIA Buffer Concentrate (10X) 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 48108 Web site address: www.caymanchem.com Information: Cayman Chemical Company +1 (734)971-3335 1.4 Emergency Contact: CHEMTREC Within USA and Canada: +1 Emergency Contact: CHEMTREC Outside USA and Canada: +1 Classification of the Substance or Mixture: Classification of the Substance or Mixture: Classification according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.2 Labellements: 2.1		man	EIA Builer Concentrate (I	Revision: 01/09/201			
Section 1. Identification of the Substance/Mixture and of the Company/Undertaking 1.1 Product Code: 400060 Product Name: EIA Buffer Concentrate (10X) 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 48108 Web site address: www.caymanchem.com Information: Cayman Chemical Company ±1160 E. Elisworth Rd. Ann Arbor, MI 48108 Web site address: www.caymanchem.com Information: Cayman Chemical Company ±1160 FE. Elisworth Rd. Ann Arbor, MI 48108 Web site address: www.caymanchem.com Information: Cayman Chemical Company ±1 (734)971-3335 Emergency Contact: CHEMTREC Within USA and Canada: ±1 (703)627-3887 2.1 Classification according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.2 2.1 Classification of the Substance or Mi			parding to Regulation (EC) No. 1007/2006 as amonded by (EC)	Supersedes Revision: 04/02/2014			
1.1 Product Code: 400060 Product Name: EIA Buffer Concentrate (10X) 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 48108 Web site address: www.caymanchem.com Information: Cayman Chemical Company 1180 E. Elisworth Rd. Ann Arbor, MI 48108 Web site address: www.caymanchem.com Information: Cayman Chemical Company (Cayman Chemical Company) *1 (734)971-3335 1.4 Emergency telephone number: Emergency Contact: CHEMTREC Within USA and Canada: *1 2.1 Classification according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.1 Label Elements: 2.2.1 Label Elements: 2.2.1 Label Elements: 2.2.1 Label Elements: 2.2.1 Label Insertify: Oral, Category 3 2.2 Label Elements: 2.2.1 Label Insmediately acut fandling.							
Product Name: EIA Buffer Concentrate (10X) 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 48108 Web site address: www.caymanchem.com Information: Cayman Chemical Company (1160 F. Elisworth Rd. Ann Arbor, MI 48108 Web site address: www.caymanchem.com Information: Cayman Chemical Company (1160 F. Elisworth Rd. Ann Arbor, MI 48108 Web site address: www.caymanchem.com Information: Cayman Chemical Company (11734)971-3335 1.4 Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300 (2HEMTREC Outside USA and Canada: +1 (703)527-3887 2.1 Classification of the Substance or Mixture: . . . 2.1 Classification according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 . . 2.2 Label Elements: 2.1 Labelling according to Regulation (EC) No 1272/2008 [CLP]: 1 Danger . . <				company/ondenaking			
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. Ellsworth Rd. Ann Arbor, MI 48108 Web site address: www.caymanchem.com Information: Cayman Chemical Company +1 (734)971-3335 1.4 Emergency telephone number: Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300 CHEMTREC Outside USA and Canada: 2.1 Classification of the Substance or Mixture: 2.1 2.1 Classification according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.2 2.2 Label Elements: 2.3 2.3.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]: V Offs Hazard Phrases: H301: Toxic if swallowed. GHS Response Phrases: P264: Wash (hands) thoroughly after handling. GHS Response Phrases: P301:4310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330: Rinse mouth. P330: Rinse mouth.	1.1						
1.3 Details of the Supplier of the Safety Data Sheet: I.3 Details of the Supplier of the Safety Data Sheet: Company Name: Cayman Chemical Company H180 E. Elisworth Rd. Ann Arbor, MI 48108 Web site address: www.caymanchem.com Information: Cayman Chemical Company +1 (734)971-3335 1.4 Emergency telephone number: Emergency Contact: CHEMTREC Within USA and Canada: CHEMTREC Outside USA and Canada: +1 (800)424-9300 CHEMTREC Outside USA and Canada: +1 (703)527-3887 Company Name: Section 2. Hazards Identification 2.1 Classification of the Substance or Mixture: Acute Toxicity: Oral, Category 3 2.2 Label Elements: Acute Toxicity: Oral, Category 3 2.2 Label Elements: Danger GHS Signal Word: Danger GHS Response Phrases: P264: Wash (hands) thoroughly after handling. GHS Response Phrases: P264: Wash (hands) thoroughly after handling. GHS Response Phrases: P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330: Rinse mouth. POISON CENTER or doctor/physician.	1.2	Relevant identified uses o	of the substance or mixture and uses advised again	st:			
Company Name: Cayman Chemical Company 1180 E. Elisworth Rd. Ann Arbor, MI 48108 Web site address: www.caymanchem.com Information: Cayman Chemical Company +1 (734)971-3335 1.4 Emergency telephone number: Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300 CHEMTREC Outside USA and Canada: 2.1 Emergency Contact: CHEMTREC Within USA and Canada: +1 (703)527-3887 Section 2. Hazards Identification 2.1 Classification of the Substance or Mixture: 2.1 Classification according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.2 Label Elements: 2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.2 Labeling according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.2 Labeling according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.3 Labeling according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.4 Kabel Elements: H301: Toxic if swallowed. GHS Response Phrases: P264: Wash (hands) thoroughly after handling. GHS Response Phrases: P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P30: Rinse mouth.		Relevant identified uses	For research use only, not for human or veterinar	y use.			
1180 E. Ellsworth Rd. Ann Arbor, MI 48108 Web site address: www.caymanchem.com Information: Cayman Chemical Company +1 (734)971-3335 1.4 Emergency telephone number: Emergency telephone number: Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300 CHEMTREC Outside USA and Canada: +1 (703)527-3887 Section 2. Hazards Identification 2.1 Classification of the Substance or Mixture: 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.2 Label Elements: 2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]: GHS Signal Word: Danger GHS Hazard Phrases: Pade: H301: Toxici if swallowed. GHS Precaution Phrases: P264: Wash (hands) thoroughly after handling. GHS Response Phrases: P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330: Rinse mouth. P300: Rinse mouth.	1.3	Details of the Supplier of t	the Safety Data Sheet:				
Information: Cayman Chemical Company +1 (734)971-3335 1.4 Emergency telephone number: Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300 CHEMTREC Outside USA and Canada: +1 (703)527-3887 Section 2. Hazards Identification 2.1 Classification of the Substance or Mixture: 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.2 Label Elements: 2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]: GHS Signal Word: Danger GHS Hazard Phrases: H301: Toxic if swallowed. GHS Precaution Phrases: P264: Wash (hands) thoroughly after handling. GHS Response Phrases: P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330: Rinse mouth.		Company Name:	1180 E. Ellsworth Rd.				
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Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300 CHEMTREC Outside USA and Canada: +1 (703)527-3887 Section 2. Hazards Identification 2.1 Classification of the Substance or Mixture: 2.1 Classification according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.2 Label Elements: 2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]: Offs Signal Word: Danger GHS Signal Word: Danger GHS Hazard Phrases: H301: Toxic if swallowed. GHS Precaution Phrases: P264: Wash (hands) thoroughly after handling. GHS Response Phrases: P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P30: Rinse mouth.		Information:	Cayman Chemical Company	+1 (734)971-3335			
CHEMTREC Outside USA and Canada: +1 (703)527-3887 Section 2. Hazards Identification 2.1 Classification of the Substance or Mixture: 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.2 Label Elements: 2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]: Offer Signal Word: Danger GHS Signal Word: Danger GHS Hazard Phrases: H301: Toxic if swallowed. GHS Precaution Phrases: P264: Wash (hands) thoroughly after handling. GHS Response Phrases: P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330: Rinse mouth.	1.4	Emergency telephone nur	mber:				
 Classification of the Substance or Mixture: 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.2 Label Elements: 2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]: GHS Signal Word: Danger GHS Hazard Phrases: H301: Toxic if swallowed. GHS Precaution Phrases: P264: Wash {hands} thoroughly after handling. GHS Response Phrases: P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330: Rinse mouth. 		Emergency Contact:					
 2.1 Classification of the Substance or Mixture: 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]: Acute Toxicity: Oral, Category 3 2.2 Label Elements: 2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]: GHS Signal Word: Danger GHS Hazard Phrases: H301: Toxic if swallowed. GHS Precaution Phrases: P264: Wash {hands} thoroughly after handling. GHS Response Phrases: P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330: Rinse mouth. 			Section 2. Hazards Identificati	ion			
 GHS Hazard Phrases: H301: Toxic if swallowed. GHS Precaution Phrases: P264: Wash {hands} thoroughly after handling. GHS Response Phrases: P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330: Rinse mouth. 			guulon (20) no 1212/2000 [021].				
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 GHS Precaution Phrases: P264: Wash {hands} thoroughly after handling. GHS Response Phrases: P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330: Rinse mouth. 							
P264: Wash {hands} thoroughly after handling. GHS Response Phrases: P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330: Rinse mouth.							
GHS Response Phrases: P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330: Rinse mouth.							
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330: Rinse mouth.							
		P301+310: IF SWALLOWE		sician.			
GHS Storage and Disposal Phrases: Please refer to Section 7 for Storage and Section 13 for Disposal information.							



SAFETY DATA SHEET **EIA Buffer Concentrate (10X)**

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2.3 **Adverse 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. May cause eye, skin, or respiratory system irritation.

Toxic if swallowed.

To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

Section 3. Composition/Information on Ingredients

CAS # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
7758-11-4 TC5580000	Potassium phosphate, dibasic	13.3 %	231-834-5 NA	No data available.
7778-77-0 TC6615500	Potassium phosphate, Monobasic	3.21 %	231-913-4 NA	No data available.
26628-22-8 VY8050000	Sodium azide	0.1 %	247-852-1 011-004-00-7	Acute Tox.(O) 2: H300 Aquatic (A) 1: H400 Aquatic (C) 1: H410
7647-14-5 √Z4725000	Sodium chloride	23.4 %	231-598-3 NA	No data available.
194491-31-1 NA	EDTA, tetrasodium salt, hydrate	0.38 %	NA NA	Acute Tox.(O) 4: H302 Eye Damage 1: H318
9048-46-8 MT6446000	Bovine Serum Albumin (BSA)	1.0 %	232-936-2 NA	Acute Tox.(O) 4: H302
7732-18-5 2C0110000	Water	58.61 %	231-791-2 NA	No data available.

Section 4. First Aid Measures

4.1	Description of First Aid	No data available.
	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.
12	Important Symptoms and	Expedition may actual addeminal pain, congration is internal organs, dehydration, diarrhad

4.2 Important Symptoms and Exposure may cause: abdominal pain, congestion in internal organs, dehydration, diarrhea, Effects, Both Acute and gastrointestinal disturbances, lowered blood pressure, nausea, and vomiting. **Delayed:**



SAFETY DATA SHEET

SAFETY DATA SHEET Page: 3						
e é	2		EIA]	Buffer Concent	rate (10X)	Revision: 01/09/2015
Lay	nen				Supers	edes Revision: 04/02/2014
			Section 5.	Fire Fighting I	Measures	
5.1	Suitable	Extinguishing	Use alcohol-resistan	t foam, carbon dioxide,	water, or dry chemical spray	·
	Media:		Use water spray to c	ool fire-exposed contai	ners.	
	Unsuita	ble Extinguishing	A solid water stream	may be inefficient.		
	Media:					
5.2	Flamma Hazards	-	d No data available.			
	Flash P	t:	No data.			
	Explosi	ve Limits:	LEL: No data.	UEL: I	No data.	
	Autoign	ition Pt:	No data.			
5.3	Fire Fig	hting Instructions	•	•	apparatus pressure-demand	
			Section 6. Ac	cidental Releas	se Measures	
6.1	Protecti	ve Precautions,	Avoid breathing vap	ors and provide adequa	ate ventilation.	
	Protecti	ve Equipment and	As conditions warra	nt, wear a NIOSH appro	oved self-contained breathing	apparatus, or respirator,
	Emerge	ncy Procedures:	and appropriate pers	sonal protection (rubbe	r boots, safety goggles, and I	neavy rubber gloves).
6.2	Environ		Take steps to avoid	release into the enviror	nment, if safe to do so.	
	Precaut					
6.3			Contain spill and col		dianagal in apportance with l	and regulations
	Up:	ment and Cleanin	g transfer to a chemic	car waste container for (disposal in accordance with le	ocal regulations.
	op.					
			Section 7	. Handling and	Storage	
7.1	Precaut	ions To Be Taken	Avoid breathing dust	/fume/gas/mist/vapours	/spray.	
	in Hand	-	Avoid prolonged or re			
7.2			Keep container tight			
	in Storiı	ng:	Store in accordance	with information listed o	on the product insert.	
		Sec	tion 8. Exposu	ure Controls/Pe	rsonal Protection	
8.1	Exposur	e Parameters:				
CAS #	1	Partial Chemical	Name	Britain EH40	France VL	Europe
7758	3-11-4	Potassium phospl	nate, dibasic	No data.	No data.	No data.
7778	3-77-0	Potassium phospl	nate, Monobasic	No data.	No data.	No data.
2662	8-22-8	Sodium azide		TWA: 0.1 mg/m3 () STEL: 0.3 mg/m3 ()	TWA: 0.1 mg/m3 STEL: 0.3 mg/m3	TWA: 0.1 mg/m3 STEL: 0.3 mg/m3
7647-14-5 Sodium c		Sodium chloride		No data.	No data.	No data.
194491-31-1 EDTA, tetrasodiu		EDTA, tetrasodiur	n salt, hydrate	No data.	No data.	No data.
9048-46-8 Bovine Serum Albumi		umin (BSA)	No data.	No data.	No data.	
7732	2-18-5	Water		No data.	No data.	No data.
CAS #	1	Partial Chemical	Name	OSHA TWA	ACGIH TWA	Other Limits
7758	3-11-4	Potassium phospl	nate, dibasic	No data.	No data.	No data.
7778	3-77-0	Potassium phospl	nate, Monobasic	No data.	No data.	No data.
2662	8-22-8	Sodium azide		No data.	CEIL: 0.29 mg/m3	No data.
7647	7-14-5	Sodium chloride		No data.	No data.	No data.
19449	91-31-1	EDTA, tetrasodiur	n salt, hydrate	No data.	No data.	No data.



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	man	I		I		rsedes Revision: 04/02/2014
904	8-46-8	Bovine Serum Alt	bumin (BSA)	No data.	No data.	No data.
	2-18-5	Water		No data.	No data.	No data.
3.2	-	re Controls:				
8.2.1	-	ering Controls	•	ires, local exhaust ventilatio	n, or other engineering	controls to control airbor
	-	ation etc.):		nended exposure limits.		
8.2.2		al protection equi	-			
	-	otection:	Safety glasses			
		ive Gloves:	Compatible chemica	I-resistant gloves		
		Protective Clothing	-			
	Respiratory Equipment NIOSH approved respirator, as conditions warrant.					
		у Туре):	. De vest teles internell			
	ce Prac		Do not take internally	/. tilizing this material should I	a aquipped with an ev	wash facility and a safet
	ce Prac	tices:	shower.		be equipped with an ey	ewash lacinty and a sale
			Wash thoroughly after	er handling.		
			No data available.	5		
		S		sical and Chemica	l Properties	
9.1	Informa		-			
-	Information on Basic Physical and Chemical Properties Physical States: [] Gas [X] Liquid [] Solid					
	-	ance and Odor:	A clear, color			
	pH:		7.0			
	Melting	Point:	No data.			
	Boiling	Point:	No data.			
	Flash P	Pt:	No data.			
	Evapor	ation Rate:	No data.			
	Explosi	ive Limits:	LEL: No data	a. UEI	.: No data.	
	Vapor I	Pressure (vs. Air o	r mm No data.			
	Hg):					
	-	Density (vs. Air = ′	-			
	•	c Gravity (Water =	•			
	Solubil	ity in Water:	No data.			
	Autoig	nition Pt:	No data.			
9.2	Other In	nformation				
	Percen	t Volatile:	No data.			
			Section 10	. Stability and Rea	activity	
10.1	Reactiv	/ity:	No data available.			
10.2	Stabilit	y:		able [X]		
10.3	Stabilit	y Note(s):	Stable if stored in ac	cordance with information lis	sted on the product ins	sert.
	Polyme	erization:	Will occur [] W	ill not occur [X]		
10.4	Conditi	ions To Avoid:	No data available.			
10.5	-	-	s strong oxidizing ager	nts		
	To Avo					
10.6	Hazard		hydrogen chloride ga	as		
		position Or	potassium oxides			
	Byprod	lucts:	sodium oxides			
						Multi-rogion for
						Multi-region for



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CHEMICAL					S	upersedes Revis	sion: 04/02/2014	
		Section	on 11. Toxicologica	al Informa	ation			
I1.1 Informa Toxicol	ition on ogical Effects:	The toxicol	ogical effects of this compou	nd have not b	een thoroughl	y studied.		
Toxicological Effects.		Potassium phosphate, Monobasic - Toxicity Data: Skin LD50 (rabbit): >4,640 mg/kg; Sodium chloride - Toxicity Data: Oral LD50 (rat): 3,000 mg/kg; Oral LD50 (mouse): 4,000 mg/kg; Sodium chloride - Irritation Data: Eyes (rabbit): 100 mg (24h) moderate; Skin (rabbit): 500 mg (24h)						
	c Toxicological	-	Registry of Toxic Effects of		-	CS) data is pre	esented here.	
Effects:		Potassium	See actual entry in RTECS for complete information. Potassium phosphate, Monobasic RTECS Number: TC6615500 Sodium chloride RTECS Number: VZ4725000					
Carcinogenicit	y:	NTP? No	IARC Monographs? No		egulated? No			
CAS #	Hazardous Cor	mponents (C	hemical Name)	NTP	IARC	ACGIH	OSHA	
7758-11-4	Potassium phos	sphate, dibasi		n.a.	n.a.	n.a.	n.a.	
7778-77-0	Potassium phos	sphate, Monot	basic	n.a.	n.a.	n.a.	n.a.	
26628-22-8	Sodium azide			n.a.	n.a.	A4	n.a.	
7647-14-5	Sodium chloride	÷		n.a.	n.a.	n.a.	n.a.	
194491-31-1	EDTA, tetrasodi	ium salt, hydra	ate	n.a.	n.a.	n.a.	n.a.	
9048-46-8	Bovine Serum A	Albumin (BSA)	1	n.a.	n.a.	n.a.	n.a.	
7732-18-5	Water			n.a.	n.a.	n.a.	n.a.	
Potentia 2.4 Mobility	umulative al: / in Soil: of PBT and vPvI	No data av No data av B No data av	ailable.					
		Secti	on 13. Disposal Co	onsiderat	tions			
3.1 Waste I	Disposal Method:		accordance with local, state,					
		Sec	ction 14. Transport	Informat	tion			
14.1 LAND	TRANSPORT (US		· ·					
DOT Prope DOT Hazar UN/NA Nu		e: Not da	ngerous goods.					
14.1 LAND	TRANSPORT (Eu	ropean ADR/	RID):					
ADR/RID S UN Numbe Hazard Cla		Not da	ngerous goods.					



14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name:

Not dangerous goods.

Additional Transport Information:

Section 15. Regulatory Information

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

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI
7758-11-4	Potassium phosphate, dibasic	No	No	No
7778-77-0	Potassium phosphate, Monobasic	No	No	No
26628-22-8	Sodium azide	Yes 500 LB	Yes 1000 LB	Yes
7647-14-5	Sodium chloride	No	No	No
194491-31-1	EDTA, tetrasodium salt, hydrate	No	No	No
9048-46-8	Bovine Serum Albumin (BSA)	No	No	No
7732-18-5	Water	No	No	No

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
7758-11-4	Potassium phosphate, dibasic	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
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
194491-31-1	EDTA, tetrasodium salt, hydrate	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; CA PROP.65: No
7732-18-5	Water	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

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:	01/09/2015
Additional Information About	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.

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		acc	cording to Regulation (EC) No. 190)7/2006 as amended b	oy (EC) No. 1272/200	08
		Section 1.	Identification of the Substar	nce/Mixture and of	the Company/U	ndertaking
1.1	Product Product		400062 Wash Buffer Concentrate	e (400X)		
1.2	Relevan	t identified uses c	of the substance or mixture a	and uses advised a	igainst:	
	Releva	ant identified uses	: For research use only, n	ot for human or vete	erinary use.	
1.3	Details	of the Supplier of	the Safety Data Sheet:			
	Comp	any Name:	Cayman Chemical Comp 1180 E. Ellsworth Rd. Ann Arbor, MI 48108	bany		
		ite address:	www.caymanchem.com			
	Inform		Cayman Chemical Comp	bany	+1 (73	4)971-3335
1.4	Emerge	ncy telephone nur	mber:			
	Emerg	ency Contact:	CHEMTREC Within USA CHEMTREC Outside US		•	0)424-9300 3)527-3887
			Section 2. Ha	zards Identifi	cation	
2.2 2.2.1 2.3	Labelin GHS Sig GHS Ha Based o GHS Pr No phra GHS Ra OHS St Please Advers	gnal Word: azard Phrases: on evaluation of cur recaution Phrases ases apply. esponse Phrases: ases apply. orage and Dispos refer to Section 7 fo e Human Health and Symptoms:	al Phrases: or Storage and Section 13 for I Material may be irritating to t May be harmful by inhalatior May cause eye, skin, or resp To the best of our knowledge	Disposal information he mucous membra i, ingestion, or skin a iratory system irritat e, the toxicological p	i. ines and upper res absorption. tion. iroperties have no	spiratory tract. t been thoroughly investigated.
		1	tion 3. Composition	1		1
CAS RTE(Hazardous Comp REACH Registra	oonents (Chemical Name)/ tion No.	Concentration	EC No./ EC Index No.	GHS Classification
	8-11-4 80000	Potassium phosphat	te, dibasic	53.0 %	231-834-5 NA	No data available.
	8-77-0 15500	Potassium phosphat	te, Monobasic	12.9 %	231-913-4 NA	No data available.
	2-18-5 10000	Water		34.1 %	231-791-2 NA	No data available.



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-		
		Section 4. First Aid Measures
4.1	Description of First Aid	No data available.
	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.
4.2	Important Symptoms and	d Ingestion of large amounts can cause abdominal pain, lowered blood pressure, nausea, and
+.2	Effects, Both Acute and	vomiting.
	Delayed:	· criming.
	,	
		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.
		g A solid water stream may be inefficient.
-	Media:	
.2	Flammable Properties an	idNo data available.
	Hazards:	
	Flash Pt:	No data.
	Explosive Limits:	LEL: No data. UEL: No data. No data.
	Autoignition Pt:	
5.3	Fire Fighting Instructions	s : 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
5.1	Protective Precautions,	Avoid breathing vapors and provide adequate ventilation.
		d As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
	Emergency Procedures: Environmental	
6.2	Precautions:	Take steps to avoid release into the environment, if safe to do so.
5.3		. Contain anill and collect as appropriate
		r Contain spill and collect, as appropriate. ngTransfer to a chemical waste container for disposal in accordance with local regulations.
	Up:	
	о р.	
		Section 7. Handling and Storage
7.1		Avoid breathing dust/fume/gas/mist/vapours/spray.
	in Handling:	Avoid prolonged or repeated exposure.
7.2		N Keep container tightly closed.
	in Storing:	Store in accordance with information listed on the product insert.



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			ersonal Protection	
ure Paramet	ers:			
Partial Ch	emical Name	Britain EH40	France VL	Europe
Potassium	phosphate, dibasic	No data.	No data.	No data.
7778-77-0Potassium phosphate, Monobasic7732-18-5WaterCAS #Partial Chemical Name7758-11-4Potassium phosphate, dibasic		c No data.	No data.	No data. No data. Other Limits No data.
		No data.	No data.	
		OSHA TWA	ACGIH TWA	
		No data.	No data.	
Potassium	phosphate, Monobasio	No data.	No data.	No data.
7778-77-0 Potassium phosp 7732-18-5 Water		No data.	No data.	No data.
ure Controls	:			
eering Contr	ols Use process e	nclosures, local exhaust ven	tilation, or other engineering c	ontrols to control airb
ation etc.):	levels below re	ecommended exposure limits	ð.	
nal protectio	n equipment:			
otection:	Safety glasses	5		
tive Gloves	Compatible ch	emical-resistant gloves		
Protective C	lothing:Lab coat			
atory Equip	ment NIOSH approv	ed respirator, as conditions	warrant.	
fy Type):				
Hygienic/Ma	ntenan Do not take int	ernally.		
ctices:	Facilities storing	ng or utilizing this material sh	ould be equipped with an eyev	wash facility and a sa
	shower.			
	Wash thoroug	hly after handling.		
	No data availa	ble.		
	Section 9.	Physical and Chen	nical Properties	
ation on Bas	ic Physical and Chem		•	
al States:	, []Ga	•	d	
rance and C		, colorless solution		
	7.4			
g Point:	No dat	a.		
g Point:	No dat	a.		
Pt:	No dat	a.		
ration Rate:	No dat	a.		
sive Limits:	LEL: N	lo data.	UEL: No data.	
Pressure (v	s. Air or mm No dat	a.		
Density (vs.	Air = 1): No dat	a.		
ic Gravity (V	/ater = 1): No dat	a.		
lity in Water	No dat	a.		
nition Pt:	No dat	a.		
nition Pt:	No d	at	ata.	ata.



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9.2	Other Info	ormation								
	Percent	Volatile:	No d	ata.						
			Secti	on 10. Stability and	Reactiv	vity				
10.1	Reactivit	y:	No data ava	ilable.						
10.2	Stability	:	Unstable [] Stable [X]							
10.3	Stability	Note(s):	Stable if stored in accordance with information listed on the product insert.							
	Polymer	ization:	Will occur [] Will not occur [X]							
10.4			No data available.							
10.5	Incompa	tibility - Materials	strong oxidizing agents							
	To Avoid	l:								
10.6	Hazardo	us	phosphorus	oxides						
	Decomposition Or		potassium o	xides						
-	Byprodu	cts:								
			Sectio	n 11. Toxicological	Informa	ation				
11.1	Informat	ion on	The toxicolo	gical effects of this product ha	ave not been	thoroughly st	udied.			
		gical Effects:								
Carcir	nogenicity	:	NTP? No	IARC Monographs? No	OSHA Re	gulated? No				
CAS	#	Hazardous Com	ponents (Ch	emical Name)	NTP	IARC	ACGIH	OSHA		
775	8-11-4	Potassium phosp	hate, dibasic		n.a.	n.a.	n.a.	n.a.		
777	8-77-0	Potassium phosp	ohate, Monobasic		n.a.	n.a.	n.a.	n.a.		
773	2-18-5	Water			n.a.	n.a.	n.a.	n.a.		
			Secti	on 12. Ecological I	nformati	ion				
12.1	Toxicity:		Avoid releas	e into the environment.						
			Runoff from fire control or dilution water may cause pollution.							
12.2	Persister	nce and	No data ava	ilable.						
	Degrada	bility:								
12.3	Bioaccu	mulative	No data ava	ilable.						
	Potentia	l:								
12.4	Mobility	in Soil:	No data ava	ilable.						
12.5	Results	of PBT and vPvB	No data ava	ilable.						
	assessm	ent:								
			Sectio	n 13. Disposal Cor	nsiderati	ions				
13.1	Waste Di	isposal Method:	Dispose in a	ccordance with local, state, a	nd federal re	egulations.				



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		Section 14. Trans	sport Informa	ation		
14.1 LAND T	RANSPORT (US	DOT):				
DOT Prope DOT Hazar UN/NA Nur		Not dangerous goods.				
14.1 LAND T	RANSPORT (Eur	opean ADR/RID):				
ADR/RID S UN Numbe Hazard Cla		Not dangerous goods.				
14.3 AIR TR	ANSPORT (ICAO/	IATA):				
ICAO/IATA	Shipping Name:	Not dangerous goods.				
Additional Trai	nsport	Transport in accordance with lo	cal, state, and fede	ral regulations.		
		Section 15. Regul	atory Informa	ation		
EPA SARA (Su	perfund Amendn	nents and Reauthorization Act o	of 1986) Lists			
CAS #	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
7758-11-4	Potassium phosp	hate, dibasic	No	No	No	
7778-77-0	Potassium phosp	hate, Monobasic	No	No	No	
7732-18-5	Water		No	No	No	
CAS #	Hazardous Com	ponents (Chemical Name)	Other US EPA or	State Lists		
7758-11-4	Potassium phosp	hate, dibasic	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No			
7778-77-0	Potassium phosp	hate, Monobasic	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No			
7732-18-5	Water		CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No			
Regulatory Info Statement:	ormation	This SDS was prepared in accor No.1272/2008.			egulation (EC)	
		Section 16. Oth	er Informatio	on		
Revision Date:		01/09/2015				
Additional Info This Product:	rmation About	No data available.				
Company Polic	y or Disclaimer:	DISCLAIMER: This information currently available to us. Howev express or implied, with respect use. Users should make their or their particular purposes.	er, we make no wa to such information	rranty of merchanta , and we assume n	bility or any other warranty, o liability resulting from its	



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	accor	rding to Regulation (EC) No. 1907/2006 as amended by	(EC) No. 1272/2008				
	Section 1. Id	lentification of the Substance/Mixture and of the	ne Company/Undertaking				
.1	Product Code:	400035					
	Product Name:	Polysorbate 20					
	Synonyms:	nonyms: Tween 20™;					
2	Relevant identified uses of	the substance or mixture and uses advised ag	ainst:				
	Relevant identified uses:	For research use only, not for human or vetering	nary use.				
.3	Details of the Supplier of th	e 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 numl						
	Emergency Contact:	CHEMTREC Within USA and Canada: CHEMTREC Outside USA and Canada:	+1 (800)424-9300 +1 (703)527-3887				
		Section 2. Hazards Identific	ation				
.2.1	Labeling according to Reg	ulation (EC) No 4070/2009 [CLD].					
		ulation (EC) No 1272/2008 [CLP]:					
	CHS Signal Word:						
	GHS Signal Word:	ulation (EC) No 1272/2008 [CLP]: Warning					
	GHS Hazard Phrases:	Warning					
	GHS Hazard Phrases: H319: Causes serious eye in	Warning ritation.					
	GHS Hazard Phrases: H319: Causes serious eye iri H317: May cause an allergic	Warning ritation.					
	GHS Hazard Phrases: H319: Causes serious eye in	Warning ritation. skin reaction.					
	GHS Hazard Phrases: H319: Causes serious eye in H317: May cause an allergic GHS Precaution Phrases: P264: Wash hands thorough	Warning ritation. skin reaction.	the manufacturer/supplier or the competent				
	GHS Hazard Phrases: H319: Causes serious eye in H317: May cause an allergic GHS Precaution Phrases: P264: Wash hands thorough	Warning ritation. skin reaction. ly after handling.	the manufacturer/supplier or the competent				
	GHS Hazard Phrases: H319: Causes serious eye in H317: May cause an allergic GHS Precaution Phrases: P264: Wash hands thorough P280: Wear protective gloves	Warning ritation. skin reaction. ly after handling. s/clothing and eye/face protection as specified by	the manufacturer/supplier or the competent				
	GHS Hazard Phrases: H319: Causes serious eye in H317: May cause an allergic GHS Precaution Phrases: P264: Wash hands thorough P280: Wear protective gloves authority. P261: Avoid breathing dust/fi	Warning ritation. skin reaction. ly after handling. s/clothing and eye/face protection as specified by					
	GHS Hazard Phrases: H319: Causes serious eye in H317: May cause an allergic GHS Precaution Phrases: P264: Wash hands thorough P280: Wear protective gloves authority. P261: Avoid breathing dust/fi P272: Contaminated work clo	Warning ritation. skin reaction. ly after handling. s/clothing and eye/face protection as specified by ume/gas/mist/vapours/spray.					
	GHS Hazard Phrases: H319: Causes serious eye in H317: May cause an allergic GHS Precaution Phrases: P264: Wash hands thorough P280: Wear protective gloves authority. P261: Avoid breathing dust/fi P272: Contaminated work cle P362+364: Take off contamin GHS Response Phrases:	Warning ritation. skin reaction. ly after handling. s/clothing and eye/face protection as specified by ume/gas/mist/vapours/spray. othing should not be allowed out of the workplace. nated clothing and wash it before reuse.					
	GHS Hazard Phrases: H319: Causes serious eye in H317: May cause an allergic GHS Precaution Phrases: P264: Wash hands thorough P280: Wear protective gloves authority. P261: Avoid breathing dust/fi P272: Contaminated work cle P362+364: Take off contamin GHS Response Phrases: P305+351+338: IF IN EYES:	Warning ritation. skin reaction. ly after handling. s/clothing and eye/face protection as specified by ume/gas/mist/vapours/spray. othing should not be allowed out of the workplace.					
	GHS Hazard Phrases: H319: Causes serious eye in H317: May cause an allergic GHS Precaution Phrases: P264: Wash hands thorough P280: Wear protective gloves authority. P261: Avoid breathing dust/ft P272: Contaminated work clo P362+364: Take off contamin GHS Response Phrases: P305+351+338: IF IN EYES: to do. Continue rinsing.	Warning ritation. skin reaction. ly after handling. s/clothing and eye/face protection as specified by ume/gas/mist/vapours/spray. othing should not be allowed out of the workplace. nated clothing and wash it before reuse.					
	GHS Hazard Phrases: H319: Causes serious eye in H317: May cause an allergic GHS Precaution Phrases: P264: Wash hands thorough P280: Wear protective gloves authority. P261: Avoid breathing dust/fr P272: Contaminated work cle P362+364: Take off contamin GHS Response Phrases: P305+351+338: IF IN EYES: to do. Continue rinsing. P337+313: If eye irritation pe	Warning ritation. skin reaction. Iy after handling. s/clothing and eye/face protection as specified by ume/gas/mist/vapours/spray. othing should not be allowed out of the workplace. nated clothing and wash it before reuse. E Rinse cautiously with water for several minutes. For several minutes.					
	GHS Hazard Phrases: H319: Causes serious eye in H317: May cause an allergic GHS Precaution Phrases: P264: Wash hands thorough P280: Wear protective gloves authority. P261: Avoid breathing dust/fi P272: Contaminated work cle P362+364: Take off contamin GHS Response Phrases: P305+351+338: IF IN EYES: to do. Continue rinsing. P337+313: If eye irritation pe P302+352: IF ON SKIN: Was	Warning ritation. skin reaction. ly after handling. s/clothing and eye/face protection as specified by ume/gas/mist/vapours/spray. othing should not be allowed out of the workplace. nated clothing and wash it before reuse. t Rinse cautiously with water for several minutes. For ersists, get medical advice/attention. sh with plenty of soap and water.					
	GHS Hazard Phrases: H319: Causes serious eye in H317: May cause an allergic GHS Precaution Phrases: P264: Wash hands thorough P280: Wear protective gloves authority. P261: Avoid breathing dust/fr P272: Contaminated work cle P362+364: Take off contamin GHS Response Phrases: P305+351+338: IF IN EYES: to do. Continue rinsing. P337+313: If eye irritation pe P302+352: IF ON SKIN: Was P333+313: If skin irritation or	Warning ritation. skin reaction. ly after handling. s/clothing and eye/face protection as specified by ume/gas/mist/vapours/spray. othing should not be allowed out of the workplace. nated clothing and wash it before reuse. : Rinse cautiously with water for several minutes. F ersists, get medical advice/attention. sh with plenty of soap and water. rash occurs, seek medical advice/attention.					
	GHS Hazard Phrases: H319: Causes serious eye in H317: May cause an allergic GHS Precaution Phrases: P264: Wash hands thorough P280: Wear protective gloves authority. P261: Avoid breathing dust/fi P272: Contaminated work cle P362+364: Take off contamin GHS Response Phrases: P305+351+338: IF IN EYES: to do. Continue rinsing. P337+313: If eye irritation pe P302+352: IF ON SKIN: Was	Warning ritation. skin reaction. ly after handling. s/clothing and eye/face protection as specified by ume/gas/mist/vapours/spray. othing should not be allowed out of the workplace. nated clothing and wash it before reuse. : Rinse cautiously with water for several minutes. F ersists, get medical advice/attention. sh with plenty of soap and water. rash occurs, seek medical advice/attention.					

4
~
Cauman
CHIMICAL

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 Please refer to Section 7 for Storage and Section 13 for Disposal information.

 2.3
 Adverse Human Health
 Causes serious eye irritation.

 Effects and Symptoms:
 Material may be irritating to the mucous membranes and upper respiratory tract.

 May be harmful by inhalation, ingestion, or skin absorption.
 May cause an allergic skin reaction.

 May cause respiratory system irritation.
 To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

Section 3. Composition/Information on Ingredients

ACH Registration No.		EC No./ EC Index No.	GHS Classification
yoxyethylenesorbitan Monolaurate (polysorbate Sorbitan, monododecanoate, y(oxy-1,2-ethanediyl) derivatives)	100.0 %	500-018-3 NA	No data available.
y	roxyethylenesorbitan Monolaurate (polysorbate Sorbitan, monododecanoate,	roxyethylenesorbitan Monolaurate (polysorbate 100.0 % Sorbitan, monododecanoate,	roxyethylenesorbitan Monolaurate (polysorbate 100.0 % 500-018-3 NA

		Section 4.	First Aid Measures
1	Description of First Aid Measures:	No data available.	
	In Case of Inhalation:	Remove to fresh air. If not personnel. Get immediate	breathing, give artificial respiration or give oxygen by trained medical attention.
	In Case of Skin Contact:	-	th soap and plenty of water for at least 15 minutes. Remove at medical attention if symptoms occur. Wash clothing before reuse.
	In Case of Eye Contact:	Hold eyelids apart and flue examined and tested by n	sh eyes with plenty of water for at least 15 minutes. Have eyes nedical personnel.
	In Case of Ingestion:		er provided person is conscious. Never give anything by mouth to an medical attention. Do NOT induce vomiting unless directed to do so by
		Section 5. Fi	re Fighting Measures
1	Suitable Extinguishing	Use alcohol-resistant foar	n, carbon dioxide, water, or dry chemical spray.
	Media:	Use water spray to cool fi	re-exposed containers.
	Unsuitable Extinguishing	A solid water stream may	be inefficient.
	Media:		
2	Flammable Properties an	d No data available.	
	Hazards:		
	Flash Pt:	No data.	
	Explosive Limits:	LEL: No data.	UEL: No data.
	Autoignition Pt:	No data.	
3	Fire Fighting Instructions	-	ontained breathing apparatus pressure-demand (NIOSH approved or ctive gear to prevent contact with skin and eyes.



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			• • •	· · · · - ·				
				cidental Releas				
6.1		ive Precautions,	-		de adequate ventilation.			
					ved self-contained breathing			
	Emergency Procedures:and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).EnvironmentalTake steps to avoid release into the environment, if safe to do so.Precautions:Image: Comparison of the environment of the environm							
6.2	Enviror	nmental	Take steps to avoid	release into the environ	ment, if safe to do so.			
	Precaut	tions:						
6.3			Contain spill and collect, as appropriate.					
Containment and CleaningTransfer to a chemical waste container for disposal in accordance with local regulations. Up:								
	Up:							
			Section 7.	Handling and	Storage			
7.1	Precaut	tions To Be Taken	Avoid breathing dust/	fume/gas/mist/vapours	/spray.			
	in Hand	lling:	Avoid prolonged or re	epeated exposure.				
7.2	Precaut	tions To Be Taken	Keep container tightly					
	in Storing: Store in accordance with information listed on the product insert.							
		Sec	tion 8. Exposu	ire Controls/Pe	rsonal Protection			
8.1	Exposu	re Parameters:						
CAS	#	Partial Chemical	Name	Britain EH40	France VL	Europe		
900	5-64-5	1	orbitan Monolaurate	No data.	No data.	No data.		
		(polysorbate 20; Sorbitan,						
		monododecanoate, poly(oxy-1,2-ethanediyl) derivatives)						
		noly(oxy-1.2-etha)	nadivl) darivativas)					
<u></u>	#					Other Limite		
		Partial Chemical	Name	OSHA TWA	ACGIH TWA	Other Limits		
	# 5-64-5	Partial Chemical Polyoxyethylenes	Name orbitan Monolaurate	OSHA TWA No data.	ACGIH TWA No data.	Other Limits No data.		
		Partial Chemical	Name orbitan Monolaurate Sorbitan,					
		Partial Chemical Polyoxyethylenes (polysorbate 20; monododecanoat	Name orbitan Monolaurate Sorbitan,					
900	5-64-5	Partial Chemical Polyoxyethylenes (polysorbate 20; monododecanoat	Name orbitan Monolaurate Sorbitan, e,					
900 8.2	5-64-5 Exposu	Partial Chemical Polyoxyethylenes (polysorbate 20; monododecanoat poly(oxy-1,2-etha	Name orbitan Monolaurate Sorbitan, e, nediyl) derivatives)	No data.		No data.		
900 8.2	5-64-5 Exposu Engine	Partial Chemical Polyoxyethylenes (polysorbate 20; monododecanoat poly(oxy-1,2-etha re Controls:	Name orbitan Monolaurate Sorbitan, e, nediyl) derivatives) Use process enclosu	No data.	No data.	No data.		
900 8.2 8.2.1	5-64-5 Exposu Engined (Ventila	Partial Chemical Polyoxyethylenes (polysorbate 20; monododecanoat poly(oxy-1,2-ethat re Controls: ering Controls	Name orbitan Monolaurate Sorbitan, e, nediyl) derivatives) Use process enclosu levels below recomm	No data. res, local exhaust venti	No data.	No data.		
900 8.2 8.2.1	5-64-5 Exposu Engine (Ventila Person	Partial Chemical Polyoxyethylenes (polysorbate 20; monododecanoat poly(oxy-1,2-etha re Controls: ering Controls ttion etc.):	Name orbitan Monolaurate Sorbitan, e, nediyl) derivatives) Use process enclosu levels below recomm	No data. res, local exhaust venti	No data.	No data.		
900 8.2 8.2.1	5-64-5 Exposu Engined (Ventila Person Eye Pro	Partial Chemical Polyoxyethylenes (polysorbate 20; monododecanoat poly(oxy-1,2-ethat re Controls: ering Controls tion etc.): al protection equi	Name orbitan Monolaurate Sorbitan, e, nediyl) derivatives) Use process enclosu levels below recomm pment:	No data. res, local exhaust venti ended exposure limits.	No data.	No data.		
900 8.2 8.2.1	5-64-5 Exposu Engined (Ventila Person Eye Pro Protect	Partial Chemical Polyoxyethylenes (polysorbate 20; monododecanoat poly(oxy-1,2-etha re Controls: ering Controls ttion etc.): al protection equi	Name orbitan Monolaurate Sorbitan, e, nediyl) derivatives) Use process enclosu levels below recomm pment: Safety glasses Compatible chemical	No data. res, local exhaust venti ended exposure limits.	No data.	No data.		
900 8.2 8.2.1	5-64-5 Exposu Engined (Ventila Person Eye Pro Protect Other P	Partial Chemical Polyoxyethylenes (polysorbate 20; monododecanoat poly(oxy-1,2-ethat re Controls: ering Controls tion etc.): al protection equi otection: ive Gloves:	Name orbitan Monolaurate Sorbitan, e, nediyl) derivatives) Use process enclosu levels below recomm pment: Safety glasses Compatible chemical g:Lab coat	No data. res, local exhaust venti ended exposure limits.	No data.	No data.		
900 8.2 8.2.1	5-64-5 Exposu Engined (Ventila Person Eye Pro Protect Other P Respira	Partial Chemical Polyoxyethylenes (polysorbate 20; monododecanoat poly(oxy-1,2-etha re Controls: ering Controls ttion etc.): al protection equi otection: ive Gloves: protective Clothing	Name orbitan Monolaurate Sorbitan, e, nediyl) derivatives) Use process enclosu levels below recomm pment: Safety glasses Compatible chemical g:Lab coat	No data. res, local exhaust venti ended exposure limits. -resistant gloves	No data.	No data.		
900 8.2 8.2.1	5-64-5 Exposur Engined (Ventila Person Eye Pro Protect Other P Respira (Specify	Partial Chemical Polyoxyethylenes (polysorbate 20; monododecanoat poly(oxy-1,2-etha re Controls: ering Controls al protection equi otection: ive Gloves: Protective Clothing atory Equipment y Type):	Name orbitan Monolaurate Sorbitan, e, nediyl) derivatives) Use process enclosu levels below recomm pment: Safety glasses Compatible chemical g:Lab coat	No data. res, local exhaust venti ended exposure limits. -resistant gloves pirator, as conditions w	No data.	No data.		
900 8.2 8.2.1	5-64-5 Exposur Engined (Ventila Person Eye Pro Protect Other P Respira (Specify	Partial Chemical Polyoxyethylenes (polysorbate 20; monododecanoati poly(oxy-1,2-ethat re Controls: ering Controls al protection equi otection: ive Gloves: Protective Clothing atory Equipment y Type): ygienic/Maintenar	Name orbitan Monolaurate Sorbitan, e, nediyl) derivatives) Use process enclosu levels below recomm pment: Safety glasses Compatible chemical g:Lab coat NIOSH approved res	No data. res, local exhaust venti ended exposure limits. -resistant gloves pirator, as conditions w	No data.	No data.		
CAS ; 900 8.2 8.2.1 8.2.2	5-64-5 Exposu Engined (Ventila Person Eye Pro Protect Other P Respira (Specify Work/H	Partial Chemical Polyoxyethylenes (polysorbate 20; monododecanoati poly(oxy-1,2-ethat re Controls: ering Controls al protection equi otection: ive Gloves: Protective Clothing atory Equipment y Type): ygienic/Maintenar	Name orbitan Monolaurate Sorbitan, e, nediyl) derivatives) Use process enclosu levels below recomm pment: Safety glasses Compatible chemical g:Lab coat NIOSH approved res Do not take internally Facilities storing or ut shower.	No data. res, local exhaust venti ended exposure limits. -resistant gloves pirator, as conditions w /. tilizing this material sho	No data. lation, or other engineering c	No data.		
900 8.2 8.2.1	5-64-5 Exposu Engined (Ventila Person Eye Pro Protect Other P Respira (Specify Work/H	Partial Chemical Polyoxyethylenes (polysorbate 20; monododecanoati poly(oxy-1,2-ethat re Controls: ering Controls al protection equi otection: ive Gloves: Protective Clothing atory Equipment y Type): ygienic/Maintenar	Name orbitan Monolaurate Sorbitan, e, nediyl) derivatives) Use process enclosu levels below recomm pment: Safety glasses Compatible chemical g:Lab coat NIOSH approved res	No data. res, local exhaust venti ended exposure limits. -resistant gloves pirator, as conditions w /. tilizing this material sho	No data. lation, or other engineering c	No data.		



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9.1	Informatio			n 9. Physic			1			
	Physical	-	Sisur all	-	Liquid []So	blid				
	•	ice and Odor:		A clear, yellow vi						
	Melting P			No data.						
	Boiling P			No data.						
	Flash Pt:			No data.						
	Evaporati	ion Rate:		No data.						
	-	sive Limits:		LEL: No data.		UEL: No	o data			
	Vapor Pressure (vs. Air or mm		No data.		022. 110	, data.				
	Hg):									
		nsity (vs. Air = ⁻	1):	No data.						
	-		-	No data.						
	Specific Gravity (Water = 1):		- /-	No data.						
	Solubility in Water: Autoignition Pt:			No data.						
9.2	Other Info			No data.						
9.2										
	Percent V	olatile:		N.A.						
			S	ection 10. S	Stability and	d Reactiv	vity			
0.1	Reactivity	/:	No dat	a available.						
0.2	Stability:		Unstat	Unstable [] Stable [X]						
0.3	Stability I	Note(s):	Stable	Stable if stored in accordance with information listed on the product insert.						
	Polymeriz	zation:	Will oc	cur [] Will n	ot occur [X]					
0.4	Condition	ns To Avoid:	No dat	a available.						
0.5	Incompat	ibility - Material	Is strong	oxidizing agents						
	To Avoid	:								
0.6	Hazardou	IS	carbor	arbon dioxide						
	Decompo	sition Or	carbor	arbon monoxide						
	Byproducts:									
			Se	ction 11. To	oxicological	Informa	ation			
1.1	Informatio	on on						tudied.		
	Toxicoloo	gical Effects:		he toxicological effects of this product have not been thoroughly studied.						
	•		Polysc	Polysorbate 20 - Toxicity Data: Oral LD50 (rat): 36.7 ml/kg; Oral LD50 (hamster): 18 ml/kg; Oral						
			-	LD50 (mouse): >33 g/kg; Irritation Data: Skin (human): 15 mg/3D mild;						
	Chronic T	Foxicological	Polysc	Polysorbate 20 - Investigated as a tumorigen and reproductive effector.						
	Effects:	-	Only s	Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.						
			See ad	ctual entry in RTE	CS for complete i	information.				
			Polysc	rbate 20 RTECS	Number: TR7400	0000				
Carcir	nogenicity:		NTP?	No IARC Mo	nographs? No	OSHA Re	egulated? No			
CAS	¥	Hazardous Con	nponent	s (Chemical Nam	ne)	NTP	IARC	ACGIH	OSHA	
900	5-64-5	Polyoxyethylene	sorbitan	Monolaurate (poly	ysorbate 20;	n.a.	n.a.	n.a.	n.a.	
			lodecand	pate, poly(oxy-1,2-	ethanediyl)					
		derivatives)								



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					Capolo			
			Section 12. Ecolo	ogical Informa	ation			
12.1	Toxicity	:	Avoid release into the environm	ient.				
			Runoff from fire control or dilution	on water may cause	pollution.			
12.2	Persiste	ence and	No data available.					
	Degrada	ability:						
12.3	Bioaccu	Imulative	No data available.					
	Potentia	al:						
12.4	Mobility	in Soil:	No data available.					
12.5	Results	of PBT and vPvB	No data available.					
	assessr	nent:						
			Section 13. Dispos	sal Considera	ations			
13.1	Waste D	isposal Method:	Dispose in accordance with loc	al, state, and federal	regulations.			
			Section 14. Tran	sport Informa	ation			
14.1	LAND 1	RANSPORT (US	DOT):					
D	DOT Proper Shipping Name: Not dangerous goods.							
	DOT Hazard Class:							
	UN/NA Number:							
14.1	14.1 LAND TRANSPORT (European ADR/RID):							
	ADR/RID Shipping Name: Not dangerous goods.							
-	UN Number: Hazard Class:							
14.3 AIR TRANSPORT (ICAO/IATA):								
	ICAO/IATA Shipping Name: Not dangerous goods.							
	Additional Transport Transport in accordance with local, state, and federal regulations.							
	mation:				0			
			Section 15. Regu	latory Informa	ation			
EPA	SARA (Sı	perfund Amendn	nents and Reauthorization Act	of 1986) Lists				
CAS	#	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)		
900	5-64-5		sorbitan Monolaurate	No	No	No		
			Sorbitan, monododecanoate, anediyl) derivatives)					
CAS #		Hazardous Components (Chemical Name)		Other US EPA or State Lists				
9005-64-5		Polyoxyethylenesorbitan Monolaurate (polysorbate 20; Sorbitan, monododecanoate,		CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No				
			anediyl) derivatives)		COF.05. NO			
		1 - 3 (- 3 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7	,					



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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:	01/09/2015
Additional Information About	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.