

Cayman Chemical Company 1180 E. Ellsworth Rd. Ann Arbor, MI 48108

Revision: 09/13/2012 Supercedes Revision: 05/01/2012

1. Identification of the S	Substance/	Mixture and	of the Cor	mpany/Underta	king
Product Code:	400035				
Product Name:	Polysorbate 20				
Synonyms:	Tween 20 TM ;				
Intended Use:	For research use of	only, not for human	or veterinary use.		
Manufacturer Information					
Company Name:	Cayman Chemica	al Company			
Emergency Contact:	CHEMTREC Wit	thin USA and Canao	da: +1 (800)4	424-9300	
Alternate Emergency Contact:	CHEMTREC Out	tside USA and Cana	ida: +1 (703).	527-3887	
Information:	Cayman Chemica	al Company	+1 (734)971-33	335	
Web site address:	www.caymanche	m.com			
	2. Hazaı	rds Identifica	ation		
GHS Hazard Phrases:	Based on evaluati according to GHS	-	lable data this sub	stance or mixture is not cl	assifiable
GHS Precaution Phrases:	No data available				
GHS Response Phrases:	No data available				
GHS Storage and Disposal Phrases:	Please refer to Se	ction 7 for Storage a	and Section 13 for	Disposal information.	
Route(s) of Entry:	Inhalation? Yes	Skin? Yes Eye	s? Yes Ingestio	on? Yes Other: Injectio	on
Potential Health Effects (Acute and Chronic):	May be harmful b	irritating to the much by inhalation, ingest kin, or respiratory sy	ion, or skin absorp	d upper respiratory tract. ption.	
Target Organs:	No data available				
LD 50 / LC 50:	Please refer to Se	ction 11.			
Signs and Symptoms Of Exposure:	To the best of our	knowledge, the tox	icological properti	ies have not been thoroug	hly investigated.
Medical Conditions Generally Aggravated By Exposure:	No data available				
3. Con	nposition/Ir	nformation c	n Ingredie	nts	
Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases	RTECS #
 Polyoxyethylene (20) sorbitan monolaurate (Tween 20[™]) 	9005-64-5	100.0 %	500-018-3	No phrases apply.	TR7400000
	4. First	t Aid Measu	res		
Emergency and First Aid Procedures:					
In Case of Inhalation:		air. If not breathing, imediate medical att	e 1	piration or give oxygen by	trained
In Case of Skin Contact:	-	-		or at least 20 minutes. Rer ms occur. Wash clothing	
In Case of Eye Contact:		t and flush eyes wit ted by medical perso		for at least 20 minutes. Ha	ve eyes

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Cayman	Р	olysorbate 2	0	Revision: 09/13/2012
			Supercede	es Revision: 05/01/2012
In Case of Ingestion:			person is conscious. Never give an	
	unconscious perso medical personne		tion. Do NOT induce vomiting un	less directed to do so by
Indication of any immediate medical	No data available.			
attention and special treatment needed:		•		
	5. Fire Fi	ghting Meas	ures	
Suitable Extinguishing Media:	Use alcohol-resist	tant foam, carbon dio	xide, water, or dry chemical spray	<i>.</i>
	Use water spray to	o cool fire-exposed c	ontainers.	
Unsuitable Extinguishing Media:	A solid water stre	am may be inefficien	t.	
Flammable Properties and Hazards:	No data available.			
Flash Pt:	No data.			
Autoignition Pt:	No data available.			
Explosive Limits:	LEL: No data.	τ	JEL: No data.	
Hazardous Combustion Products:	No data available.			
Fire Fighting Instructions:	As in any fire, we	ear self-contained bre	athing apparatus pressure-demand	(NIOSH approved or
	-		prevent contact with skin and eye	
6	. Accidenta	I Release M	easures	
Protective Precautions, Protective	Avoid raising and	l breathing dust, and	provide adequate ventilation.	
Equipment and Emergency Procedures:			approved self-contained breathing	
		-	bber boots, safety goggles, and he	avy rubber gloves).
Environmental Precautions:	Take steps to avoi	id release into the env	vironment, if safe to do so.	
Steps To Be Taken In Case Material Is	-	collect, as appropriat		
Released Or Spilled:	Transfer to a cher	nical waste container	for disposal in accordance with lo	scal regulations.
	7. Handl	ling and Stor	age	
Precautions To Be Taken in Handling:	-	dust/fume/gas/mist/va or repeated exposure		
Precautions To Be Taken in Storing:	Keep container tig		•	
recautions to be taken in otoring.			isted on the product insert.	
Hazard Label Information:	Avoid contact wit		-	with adequate ventilation
	Wash thoroughly	•	o not reuse uns container. Ose	with adoquate ventilation
8. Ex	posure Con	trols/Person	al Protection	
Hazardous Components (Chemical Name)	CAS #	OSHA PEL		Other Limits
1. Polyoxyethylene (20) sorbitan monolaurate	9005-64-5	No data.	No data.	No data.
(Tween 20™)				
Hazardous Components (Chemical Name) 1. Polyoxyethylene (20) sorbitan monolaurate	CAS # 9005-64-5	Britain EH40 No data.	France VL No data.	Europe No data.
(Tween 20 [™])	3000-04-0	No data.	No data.	
Protective Equipment Summary - Hazard	Compatible chem	ical-resistant gloves	Eye wash station in work area	Lab coat Safety
Label Information:	glasses Safety s	shower in work area	Vent Hood	
Engineering Controls (Ventilation etc.):	-	osures, local exhaust mmended exposure l	ventilation, or other engineering co imits.	ontrols to control airborr
Eye Protection:	Safety glasses			
Protective Gloves:	Compatible chem	ical-resistant gloves		
Other Protective Clothing:	Lab coat	÷		



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Respiratory Equipment (Specify Type):	NIOSH approved	respirator, as o	onditions warrant.		
Work/Hygienic/Maintenance Practices:	Do not take interr	nally.			
	-	or utilizing this	material should be e	equipped with an eyewa	sh facility and a
	safety shower. Wash thoroughly	after handling			
Environmental Exposure Controls:	No data available	-			
-					
		d Chemi	cal Propertie	S	
Information on Basic Physical and Chemical	-				
Physical States:		•	Solid		
Appearance and Odor:	A clear, yellow v	iscous liquid			
Melting Point:	No data.				
Boiling Point:	No data.				
Flash Pt:	No data.				
Evaporation Rate:	No data.				
Vapor Pressure (vs. Air or mm Hg):	No data.				
Vapor Density (vs. Air = 1):	No data.				
Specific Gravity (Water = 1):	No data.				
Solubility in Water:	No data.				
Autoignition Pt:	No data.				
Explosive Properties:	No data available				
Oxidizing Properties:	No data available				
Other Information					
Percent Volatile:	N.A.				
	10. Stabil	ity and R	eactivity		
Reactivity:	No data available	•	,		
Stability:	Unstable []	Stable [X]			
Stability Note(s):	Stable if stored in	accordance wi	th information listed	on the product insert.	
Conditions To Avoid:	No data available				
Polymerization:	Will occur []	Will not occ	ur [X]		
Incompatibility - Materials To Avoid:	strong oxidizing a	agents			
Hazardous Decomposition Or Byproducts:	carbon dioxide	0			
	carbon monoxide				
	11. Toxicol	logical In	formation		
Toxicological Information:				en thoroughly studied.	
	-	-		7 ml/kg; Oral LD50 (ha human): 15 mg/3D mile	-
Chronic Toxicological Effects:			a tumorigen and repr	_	.,
	-	-		ibstances (RTECS) data	a is presented here.
		-	omplete information.		•
	Polysorbate 20 R	TECS Number	TR7400000		
Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
 Polyoxyethylene (20) sorbitan monolaurate (Tween 20[™]) 	9005-64-5	n.a.	n.a.	n.a.	n.a.



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Carcinogenicity:	NTP? No IA	ARC Monographs? 1	No OSHA Regu	lated? No	
	12. Ecolo	ogical Inform	nation		
General Ecological Information:		o the environment. control or dilution v	water may cause poll	ution.	
	13. Dispos	sal Conside	rations		
Waste Disposal Method:	Dispose in accord	dance with local, sta	ite, and federal regul	ations.	
	14. Trans	sport Inform	ation		
LAND TRANSPORT (US DOT)					
DOT Proper Shipping Name	Not dangerous go	oods.			
LAND TRANSPORT (European ADR/RID)					
ADR/RID Shipping Name	Not dangerous go	oods.			
AIR TRANSPORT (ICAO/IATA)					
ICAO/IATA Shipping Name	Not dangerous go	oods.			
Additional Transport Information:	Transport in acco	ordance with local, s	state, and federal reg	ulations.	
	15. Regul	latory Inforn	nation		
European Community Hazard Symbol codes		,			
No data available.					
European Community Risk and Safety Phrases	5				
S24/25 - Avoid contact with skin and eyes.					
S37/39 - Wear suitable gloves and eye/face	e protection.				
Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Polyoxyethylene (20) sorbitan monolaurate	9005-64-5		No	No	No
(Tween 20™)					
Other US EPA or State Lists		1	-		
Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
 Polyoxyethylene (20) sorbitan monolaurate (Tween 20[™]) 	9005-64-5	No	No	Inventory	No
Regulatory Information Statement:	This SDS was pre	epared in accordanc	e with 29 CFR 1910	.1200, Regulation (EC	C) No.1272/2008,
	and European Dir	rective 67/548/EEC	as amended.		
	16. Oth	ner Informat	ion		
Revision Date:	09/13/2012				
Company Policy or Disclaimer					
For research use only, not for human or veterin	ary use.				
DISCLAIMER: This information is believed to		-			
merchantability or any other warranty, express				liability resulting from it	s use. Users should
	suitability of the m	normation for their pa	niculai purposes.		
make their own investigations to determine the					
N.A.=Not available, N.P.=Not applicable, N.D	.=Not determined, N	N.E.=Not established,	N.R.=Not required		
-	.=Not determined, N	N.E.=Not established,	N.R.=Not required		
-	.=Not determined, N	N.E.=Not established,	N.R.=Not required		
-	.=Not determined, N	N.E.=Not established,	N.R.=Not required		
-	.=Not determined, N	N.E.=Not established,	N.R.=Not required		
-	.=Not determined, N	N.E.=Not established,	N.R.=Not required		



Cayman Chemical Company 1180 E. Ellsworth Rd. Ann Arbor, MI 48108

Revision: 11/02/2012 Supercedes Revision: 04/01/2011

1. Identification of the S	Substance/	Mixture and	of the Comp	any/Underta	king
Product Code:	400054				
Product Name:	Immunoassay Bu	ffer B Concentrate (1	10X)		
Intended Use:	For research use	only, not for human o	or veterinary use.		
Manufacturer Information					
Company Name:	Cayman Chemica	al Company			
Emergency Contact:	CHEMTREC Wi	thin USA and Canad	a: +1 (800)424-9	9300	
Alternate Emergency Contact:	CHEMTREC Ou	tside USA and Canad	da: +1 (703)527-3	3887	
Information:	Cayman Chemica	al Company	+1 (734)971-3335		
Web site address:	www.caymanche				
	-		4:		
		rds Identifica			
GHS Hazard Phrases:	Based on evaluation according to GHS	•	able data this substand	ce or mixture is not cl	assifiable
GHS Precaution Phrases:	No data available				
GHS Response Phrases:	No data available				
GHS Storage and Disposal Phrases:	Please refer to Se	ction 7 for Storage a	nd Section 13 for Disp	osal information.	
Route(s) of Entry:	Inhalation? Yes	Skin? Yes Eyes	? Yes Ingestion? Y	es Other: Injectio	n
Potential Health Effects (Acute and Chronic):	May be harmful b	-	us membranes and up on, or skin absorption. stem irritation.		
Target Organs:	No data available				
Signs and Symptoms Of Exposure:			g, abdominal pain, dia cological properties h		
Medical Conditions Generally Aggravated By Exposure:	No data available				
3. Con	nposition/Ir	nformation o	n Ingredients		
Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases	RTECS #
1. Potassium phosphate, dibasic	7758-11-4	13.3 %	231-834-5	No phrases apply.	TC5580000
2. Potassium phosphate, Monobasic	7778-77-0	3.21 %	231-913-4	No phrases apply.	TC6615500
3. Sodium azide	26628-22-8	0.1 %	247-852-1	R28-32-50/53	VY8050000
4. Sodium chloride	7647-14-5	23.4 %	231-598-3	R36	VZ4725000

194491-31-1

9048-46-8

7732-18-5

0.38 %

11.0 %

48.61 %

4. First Aid Measures

Emergency and First Aid Procedures:

EDTA, tetrasodium salt, hydrate

Bovine Serum Albumin (BSA)

In Case of Inhalation:

5.

6.

7.

Water

Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

NA

232-936-2

231-791-2

R22-41

No phrases apply.

No phrases apply.

NA

MT6446000

ZC0110000



SAFETY DATA SHEET

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In Case of Skin Contact:	Immediately wash	n skin with soap and plen	ty of water for at least 20 minut	es. Remove
	contaminated clot	hing. Get medical attenti	on if symptoms occur. Wash clo	othing before reuse.
In Case of Eye Contact:		t and flush eyes with pler ted by medical personnel.	nty of water for at least 20 minu .	tes. Have eyes
In Case of Ingestion:		on. Get medical attention	on is conscious. Never give any . Do NOT induce vomiting unle	
Indication of any immediate medical attention and special treatment needed:	No data available			
	5 Fire Fi	ghting Measur	<u>es</u>	
Suitable Extinguishing Media:		<u> </u>	e, water, or dry chemical spray.	
Suitable Extinguishing Media.		o cool fire-exposed conta		
Unsuitable Extinguishing Media:	A solid water stre	am may be inefficient.		
Flammable Properties and Hazards:	Emits toxic fumes	s under fire conditions.		
Flash Pt:	No data.			
Autoignition Pt:	No data available			
Explosive Limits:	LEL: No data.		: No data.	
•			. NO uata.	
Hazardous Combustion Products:	No data available			
Fire Fighting Instructions:	-		ng apparatus pressure-demand (vent contact with skin and eyes.	
6.	Accidenta	l Release Mea	sures	
Protective Precautions, Protective	Avoid breathing v	apors and provide adequ	ate ventilation.	
Equipment and Emergency Procedures:			roved self-contained breathing a r boots, safety goggles, and hea	
Environmental Precautions:	Take steps to avo	id release into the environ	nment, if safe to do so.	
Steps To Be Taken In Case Material Is	Contain spill and	collect, as appropriate.		
Released Or Spilled:	Transfer to a cher	nical waste container for	disposal in accordance with loc	al regulations.
	7. Hand	ing and Storag	je	
Precautions To Be Taken in Handling:		lust/fume/gas/mist/vapou		
	Avoid prolonged	or repeated exposure.		
Precautions To Be Taken in Storing:	Keep container tig	ghtly closed.		
	Store in accordan	ce with information listed	d on the product insert.	
Hazard Label Information:	Avoid contact with	th skin and eyes. Do no	ot reuse this container. Use w	ith adequate ventilation
	Wash thoroughly	after handling.		
8. Exp	osure Con	trols/Personal	Protection	
Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TWA	Other Limits
1. Potassium phosphate, dibasic	7758-11-4	No data.	No data.	No data.
2. Potassium phosphate, Monobasic	7778-77-0	No data.	No data.	No data.
3. Sodium azide	26628-22-8	No data.	CEIL: 0.29 mg/m3	No data.
	7647-14-5	No data.	No data.	No data.
	1 40.400			No data.
5. EDTA, tetrasodium salt, hydrate	194491-31-1	No data.	No data.	
 EDTA, tetrasodium salt, hydrate Bovine Serum Albumin (BSA) 	9048-46-8	No data.	No data.	No data.
5. EDTA, tetrasodium salt, hydrate				



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Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe
Potassium phosphate, Monobasic	7778-77-0	No data.	No data.	No data.
Sodium azide	26628-22-8	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
. Sodium chloride	7647-14-5	No data.	No data.	No data.
. EDTA, tetrasodium salt, hydrate	194491-31-1	No data.	No data.	No data.
5. Bovine Serum Albumin (BSA)	9048-46-8	No data.	No data.	No data.
7. Water	7732-18-5	No data.	No data.	No data.
Protective Equipment Summary - Hazard Label Information:	-		e wash station in work area La nt Hood	ab coat Safety
Engineering Controls (Ventilation etc.):	Use process enclo		ation, or other engineering contr	rols to control airb
Eye Protection:	Safety glasses			
Protective Gloves:	Compatible chem	ical-resistant gloves		
Other Protective Clothing:	Lab coat			
Respiratory Equipment (Specify Type):	NIOSH approved	respirator, as conditions w	varrant.	
Work/Hygienic/Maintenance Practices:	Do not take interr	aally. or utilizing this material sh	ould be equipped with an eyewa	ash facility and a
Environmental Exposure Controls:	No data available			
9. Information on Basic Physical and Chemica	-	d Chemical Pro	perties	
Physical States:	-	T:::J [] [] []]		
•		Liquid [] Solid		
Appearance and Odor:	A yellowish, milk	solution		
pH:	7.0			
Melting Point:	No data.			
Boiling Point:	No data.			
Flash Pt:	No data.			
Evaporation Rate:	No data.			
Vapor Pressure (vs. Air or mm Hg):	No data.			
Vapor Density (vs. Air = 1):	No data.			
Specific Gravity (Water = 1):	No data.			
Solubility in Water:	No data.			
Autoignition Pt:	No data.			
Explosive Properties:	No data available			
Oxidizing Properties:	No data available			
	ino data avallable			
Other Information				
	No data.			
Percent Volatile:		ity and Reactivit	V	
Percent Volatile:	10. Stabil		<u> </u>	
Reactivity:	10. Stabil	•	<i>,</i>	



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Toxicological Information: Chronic Toxicological Effects: Iazardous Components (Chemical Name) Potassium phosphate, dibasic Potassium phosphate, Monobasic	No data available Will occur [] strong oxidizing a hydrogen chloride potassium oxides sodium oxides	Will not occur [2] agents gas ogical Infor effects of this com	mation	the product insert.	
Polymerization: Incompatibility - Materials To Avoid: Hazardous Decomposition Or Byproducts: Toxicological Information: Chronic Toxicological Effects: Iazardous Components (Chemical Name) . Potassium phosphate, dibasic . Potassium phosphate, Monobasic	Will occur [] strong oxidizing a hydrogen chlorida potassium oxides sodium oxides 11. Toxicol The toxicological No data available	Will not occur [2 agents e gas ogical Infor effects of this com	mation		
Incompatibility - Materials To Avoid: Hazardous Decomposition Or Byproducts: Toxicological Information: Chronic Toxicological Effects: Iazardous Components (Chemical Name) Potassium phosphate, dibasic Potassium phosphate, Monobasic	strong oxidizing a hydrogen chloride potassium oxides sodium oxides 11. Toxicol The toxicological No data available	e gas ogical Infor effects of this com	mation		
Hazardous Decomposition Or Byproducts: Toxicological Information: Chronic Toxicological Effects: Iazardous Components (Chemical Name) . Potassium phosphate, dibasic . Potassium phosphate, Monobasic	hydrogen chloride potassium oxides sodium oxides 11. Toxicol The toxicological No data available	ogical Infor			
Toxicological Information: Chronic Toxicological Effects: Iazardous Components (Chemical Name) . Potassium phosphate, dibasic . Potassium phosphate, Monobasic	potassium oxides sodium oxides 11. Toxicol The toxicological No data available	ogical Infor effects of this com			
Toxicological Information: Chronic Toxicological Effects: Iazardous Components (Chemical Name) . Potassium phosphate, dibasic . Potassium phosphate, Monobasic	potassium oxides sodium oxides 11. Toxicol The toxicological No data available	ogical Infor effects of this com			
Toxicological Information: Chronic Toxicological Effects: Iazardous Components (Chemical Name) Potassium phosphate, dibasic Potassium phosphate, Monobasic	11. Toxicol The toxicological No data available	effects of this com			
Toxicological Information: Chronic Toxicological Effects: Iazardous Components (Chemical Name) Potassium phosphate, dibasic Potassium phosphate, Monobasic	The toxicological No data available	effects of this com			
Chronic Toxicological Effects: lazardous Components (Chemical Name) . Potassium phosphate, dibasic . Potassium phosphate, Monobasic	No data available		nound have not have		
Iazardous Components (Chemical Name) . Potassium phosphate, dibasic . Potassium phosphate, Monobasic			pound have not been	thoroughly studied.	
Potassium phosphate, dibasicPotassium phosphate, Monobasic	CAS #				
Potassium phosphate, dibasicPotassium phosphate, Monobasic		NTP	IARC	ACGIH	OSHA
	7758-11-4	n.a.	n.a.	n.a.	n.a.
	7778-77-0	n.a.	n.a.	n.a.	n.a.
. Sodium azide	26628-22-8	n.a.	n.a.	A4	n.a.
. Sodium chloride	7647-14-5	n.a.	n.a.	n.a.	n.a.
. EDTA, tetrasodium salt, hydrate	194491-31-1	n.a.	n.a.	n.a.	n.a.
. Bovine Serum Albumin (BSA)	9048-46-8		n.a.	n.a.	n.a.
. Water	7732-18-5		n.a.	n.a.	n.a.
Carcinogenicity:	NTP? No IA	RC Monographs? I	No OSHA Regu	llated? No	
	12. Ecolo	gical Inform	nation		
General Ecological Information:	Avoid release into	the environment.			
	Runoff from fire	control or dilution v	water may cause pol	lution.	
	12 Dianaa	al Canaida	rationa		
	•	al Conside			
Waste Disposal Method:	Dispose in accord	ance with local, sta	te, and federal regul	ations.	
	14. Trans	sport Inform	ation		
LAND TRANSPORT (US DOT)					
DOT Proper Shipping Name	Not dangerous go	oda			
	Not daligerous go	ous.			
LAND TRANSPORT (European ADR/RID)					
ADR/RID Shipping Name	Not dangerous go	ods.			
AIR TRANSPORT (ICAO/IATA)					
ICAO/IATA Shipping Name	Not dangerous go	ods.			
Additional Transport Information:	Transport in acco	rdance with local.	tate, and federal reg	ulations.	
	-				
	15. Keyul	atory Inforn	ιαιισπ		
European Community Hazard Symbol codes					
No data available.					
European Community Risk and Safety Phrase					
S24/25 - Avoid contact with skin and eyes S37/39 - Wear suitable gloves and eye/fac					
US EPA SARA Title III	- rototion.				
lazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
. Potassium phosphate, dibasic	7758-11-4	Sec.302 (ЕПЗ) No	No	No	No
Potassium phosphate, Monobasic	7778-77-0	No	No	No	No
. Sodium azide	26628-22-8	Yes 500 LB	Yes 1000 LB	Yes	No



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Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
4. Sodium chloride	7647-14-5	No	No	No	No
5. EDTA, tetrasodium salt, hydrate	194491-31-1	No	No	No	No
6. Bovine Serum Albumin (BSA)	9048-46-8	No	No	No	No
7. Water	7732-18-5	No	No	No	No
Other US EPA or State Lists	·				
Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. Potassium phosphate, dibasic	7758-11-4	No	No	Inventory	No
2. Potassium phosphate, Monobasic	7778-77-0	No	No	Inventory	No
3. Sodium azide	26628-22-8	No	No	Inventory	No
4. Sodium chloride	7647-14-5	No	No	Inventory	No
5. EDTA, tetrasodium salt, hydrate	194491-31-1	No	No	No	No
6. Bovine Serum Albumin (BSA)	9048-46-8	No	No	Inventory	No
7. Water	7732-18-5	No	No	Inventory	No
Regulatory Information Statement:	-	-		.1200, Regulation (EC	C) No.1272/2008,
	and European Dir	rective 67/548/EEC	as amended.		

16. Other Information

Revision Date:

11/02/2012

Company Policy or Disclaimer

For research use only, not for human or veterinary use.

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.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required



Cayman Chemical Company 1180 E. Ellsworth Rd. Ann Arbor, MI 48108

Revision: 09/13/2012 Supercedes Revision: 05/01/2012

Product Code:	400062	Mixture and			-
Product Name:					
	Wash Buffer Con		, .		
Intended Use:	For research use	only, not for humar	n or veterinary use.		
Manufacturer Information					
Company Name:	Cayman Chemica				
Emergency Contact:	CHEMTREC Wi	thin USA and Cana	()		
Alternate Emergency Contact:	CHEMTREC Ou	tside USA and Can	ada: +1 (703)5	527-3887	
Information:	Cayman Chemica	al Company	+1 (734)971-33	35	
Web site address:	www.caymanche	m.com			
	2. Haza	rds Identific	ation		
GHS Hazard Phrases:	Based on evaluate according to GHS	-	uilable data this sub	stance or mixture is not cl	assifiable
GHS Precaution Phrases:	No data available	.			
GHS Response Phrases:	No data available	2.			
GHS Storage and Disposal Phrases:	Please refer to Se	ection 7 for Storage	and Section 13 for	Disposal information.	
Route(s) of Entry:	Inhalation? Yes	Skin? Yes Ey	es? Yes Ingestio	n? Yes Other: Injectio	on
Potential Health Effects (Acute and Chronic):	-	-		nd upper respiratory tract.	
	-	kin, or respiratory s	tion, or skin absorp system irritation.	tion.	
Target Organs:	-	kin, or respiratory s	-	tion.	
	May cause eye, sh No data available Ingestion of large vomiting.	kin, or respiratory s e. e amounts can cause	system irritation. e abdominal pain, lo	tion. owered blood pressure, na es have not been thoroug	
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure:	May cause eye, sh No data available Ingestion of large vomiting. To the best of our	kin, or respiratory s e. e amounts can cause r knowledge, the to	system irritation. e abdominal pain, lo	owered blood pressure, na	
Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure:	May cause eye, sh No data available Ingestion of large vomiting. To the best of our No data available	kin, or respiratory s e. e amounts can cause r knowledge, the to e.	system irritation. e abdominal pain, lo	owered blood pressure, na es have not been thoroug	
Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr	May cause eye, sh No data available Ingestion of large vomiting. To the best of our No data available	kin, or respiratory s e. e amounts can cause r knowledge, the to e.	system irritation. e abdominal pain, lo xicological properti	owered blood pressure, na es have not been thoroug	
Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr Hazardous Components (Chemical Name) . Potassium phosphate, dibasic	May cause eye, si No data available Ingestion of large vomiting. To the best of our No data available nposition/Ir CAS # 7758-11-4	kin, or respiratory s e. e amounts can cause r knowledge, the to e. nformation 53.0 %	system irritation. e abdominal pain, lo xicological properti on Ingredie	owered blood pressure, na es have not been thoroug nts Risk Phrases No phrases apply.	hly investigat RTECS # TC5580000
Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr Hazardous Components (Chemical Name) . Potassium phosphate, dibasic 2. Potassium phosphate, Monobasic	May cause eye, si No data available Ingestion of large vomiting. To the best of our No data available nposition/Ir CAS # 7758-11-4 7778-77-0	kin, or respiratory s e. e amounts can cause r knowledge, the to e. Concentration 53.0 % 12.9 %	system irritation. e abdominal pain, lo xicological properti On Ingredie EC# 231-834-5 231-913-4	owered blood pressure, na es have not been thoroug MtS Risk Phrases No phrases apply. No phrases apply.	hly investigat RTECS # TC5580000 TC6615500
Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr Hazardous Components (Chemical Name) 1. Potassium phosphate, dibasic 2. Potassium phosphate, Monobasic	May cause eye, si No data available Ingestion of large vomiting. To the best of our No data available nposition/lr CAS # 7758-11-4 7778-77-0 7732-18-5	kin, or respiratory s e. e amounts can cause r knowledge, the to c. Concentration 53.0 % 12.9 % 34.1 %	system irritation. e abdominal pain, lo xicological properti On Ingredie 231-834-5 231-913-4 231-791-2	owered blood pressure, na es have not been thoroug nts Risk Phrases No phrases apply.	hly investigat
Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr Hazardous Components (Chemical Name) 1. Potassium phosphate, dibasic 2. Potassium phosphate, Monobasic	May cause eye, si No data available Ingestion of large vomiting. To the best of our No data available nposition/lr CAS # 7758-11-4 7778-77-0 7732-18-5	kin, or respiratory s e. e amounts can cause r knowledge, the to e. Concentration 53.0 % 12.9 %	system irritation. e abdominal pain, lo xicological properti On Ingredie 231-834-5 231-913-4 231-791-2	owered blood pressure, na es have not been thoroug MtS Risk Phrases No phrases apply. No phrases apply.	hly investigat RTECS # TC5580000 TC6615500
Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. Cor Hazardous Components (Chemical Name) 1. Potassium phosphate, dibasic 2. Potassium phosphate, Monobasic 3. Water	May cause eye, si No data available Ingestion of large vomiting. To the best of our No data available nposition/lr CAS # 7758-11-4 7778-77-0 7732-18-5	kin, or respiratory s e. e amounts can cause r knowledge, the to c. Concentration 53.0 % 12.9 % 34.1 %	system irritation. e abdominal pain, lo xicological properti On Ingredie 231-834-5 231-913-4 231-791-2	owered blood pressure, na es have not been thoroug MtS Risk Phrases No phrases apply. No phrases apply.	hly investigat RTECS # TC5580000 TC6615500
Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr Hazardous Components (Chemical Name) 1. Potassium phosphate, dibasic 2. Potassium phosphate, Monobasic	May cause eye, si No data available Ingestion of large vomiting. To the best of our No data available mposition/Ir CAS # 7758-11-4 7778-77-0 7732-18-5 4. First	kin, or respiratory s a mounts can cause r knowledge, the to b formation 53.0 % 12.9 % 34.1 % t Aid Measu	system irritation. e abdominal pain, lo xicological properti On Ingredie 231-834-5 231-913-4 231-913-4 231-791-2 Jres	owered blood pressure, na es have not been thoroug MtS Risk Phrases No phrases apply. No phrases apply.	RTECS # TC5580000 TC6615500 ZC0110000
Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr Hazardous Components (Chemical Name) 1. Potassium phosphate, dibasic 2. Potassium phosphate, Monobasic 3. Water Emergency and First Aid Procedures:	May cause eye, si No data available Ingestion of large vomiting. To the best of our No data available mposition/Ir CAS # 7758-11-4 7778-77-0 7732-18-5 4. First Remove to fresh a personnel. Get im Immediately was	kin, or respiratory s e amounts can cause r knowledge, the to s. Concentration 53.0 % 12.9 % 34.1 % t Aid Measu air. If not breathing mediate medical a h skin with soap an	system irritation. e abdominal pain, lo xicological properti On Ingredie 231-834-5 231-913-4 231-913-4 231-791-2 Jres g, give artificial resp ttention. d plenty of water for	owered blood pressure, na es have not been thoroug MtS Risk Phrases No phrases apply. No phrases apply. No phrases apply.	RTECS # TC5580000 TC6615500 ZC0110000 v trained nove



Cayman	Wash Buffer Concentrate (400X) Revision: 09/13/2012 Supercedes Revision: 05/01/2012					
			•			
In Case of Ingestion:		with water provided person is construction. Do N n. Get medical attention. Do N l.				
Indication of any immediate medical attention and special treatment needed:	No data available					
	5. Fire Fi	ghting Measures				
Suitable Extinguishing Media:	Use alcohol-resis	tant foam, carbon dioxide, wate	r, or dry chemical spray.			
	Use water spray t	o cool fire-exposed containers.				
Unsuitable Extinguishing Media:	A solid water stre	am may be inefficient.				
Flammable Properties and Hazards:	No data available					
Flash Pt:	No data.					
Autoignition Pt:	No data available	No data available.				
Explosive Limits:	LEL: No data.					
Hazardous Combustion Products:	No data available		atu.			
Fire Fighting Instructions:	-	ear self-contained breathing app full protective gear to prevent co	-	IIOSH approved or		
6	. Accidenta	I Release Measure	es			
Protective Precautions, Protective	Avoid breathing v	vapors and provide adequate ver	ntilation.			
Equipment and Emergency Procedures:		rrant, wear a NIOSH approved				
	and appropriate p	ersonal protection (rubber boots	s, safety goggles, and heav	y rubber gloves).		
Environmental Precautions:	Take steps to avo	id release into the environment,	if safe to do so.			
Steps To Be Taken In Case Material Is	Contain spill and	collect, as appropriate.				
Released Or Spilled:	Transfer to a cher	nical waste container for dispos	al in accordance with loca	l regulations.		
	7. Hand	ling and Storage				
Precautions To Be Taken in Handling:	-	dust/fume/gas/mist/vapours/spra or repeated exposure.	ıy.			
Precautions To Be Taken in Storing:	Keep container tig Store in accordan	ghtly closed. ce with information listed on th	e product insert.			
Hazard Label Information:	Avoid contact wit Wash thoroughly	•	e this container. Use wit	h adequate ventilation		
8. Ex	posure Con	trols/Personal Pro	tection			
Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits		
1. Potassium phosphate, dibasic	7758-11-4	No data.	No data.	No data.		
2. Potassium phosphate, Monobasic	7778-77-0	No data.	No data.	No data.		
3. Water	7732-18-5	No data.	No data.	No data.		
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe		
1. Potassium phosphate, dibasic	7758-11-4	No data.	No data.	No data.		
2. Potassium phosphate, Monobasic	7778-77-0		No data.	No data.		
3. Water Protective Equipment Summary - Hazard	7732-18-5 Compatible chem		No data. h station in work area L	No data. ab coat Safety		
Label Information:	-	shower in work area Vent Ho		ab coar Bartly		
Engineering Controls (Ventilation etc.):	Use process enclo	osures, local exhaust ventilation		rols to control airborn		
		mmended exposure limits.				
Eye Protection:	Safety glasses					



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Protective Gloves:	Compatible chemical-resistant gloves
Other Protective Clothing:	Lab coat
Respiratory Equipment (Specify Type):	NIOSH approved respirator, as conditions warrant.
Work/Hygienic/Maintenance Practices:	Do not take internally. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Wash thoroughly after handling.
Environmental Exposure Controls:	No data available.

9. Physical and Chemical Properties

Information on Basic Physical and Chemical	Properties					
Physical States:	[] Gas [X]	Liquid [] Solid				
Appearance and Odor:	A clear, colorless	s solution				
pH:	7.4					
Melting Point:	No data.					
Boiling Point:	No data.					
Flash Pt:	No data.					
Evaporation Rate:	No data.					
Vapor Pressure (vs. Air or mm Hg):	No data.					
Vapor Density (vs. Air = 1):	No data.					
Specific Gravity (Water = 1):	No data.					
Solubility in Water:	No data.					
Autoignition Pt:	No data.					
Explosive Properties:	No data available.					
Oxidizing Properties:	No data available	2.				
Other Information						
Percent Volatile:	No data.					
	10. Stabil	lity and Read	ctivity			
Reactivity:	No data available	<u>.</u>				
Stability:	Unstable []	Stable [X]				
Stability Note(s):	Stable if stored in	n accordance with info	ormation listed on the	e product insert.		
Conditions To Avoid:	No data available	2.				
Polymerization:	Will occur []	Will not occur [X]			
Incompatibility - Materials To Avoid:	strong oxidizing	agents				
Hazardous Decomposition Or Byproducts:	phosphorus oxide					
	potassium oxides	8				
	11. Toxico	logical Inforn	nation			
Toxicological Information:	The toxicological	l effects of this produ	ct have not been thore	oughly studied.		
Chronic Toxicological Effects:	No data available	2.				
Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA	

Hazardous Components (Chemical Nam	ie) CAS #	NTP	IARC	ACGIH	OSHA
1. Potassium phosphate, dibasic	7758-11-4	n.a.	n.a.	n.a.	n.a.
2. Potassium phosphate, Monobasic	7778-77-0	n.a.	n.a.	n.a.	n.a.



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Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
3. Water	7732-18-5	n.a.	n.a.	n.a.	n.a.
Carcinogenicity:	NTP? No IA	RC Monographs? N	No OSHA Regu	lated? No	
	12. Ecolo	gical Inform	ation		
General Ecological Information:	Avoid release inte	o the environment.			
	Runoff from fire	control or dilution v	vater may cause poll	ution.	
	13. Dispos	al Conside	ations		
Waste Disposal Method:	Dispose in accord	lance with local, sta	te, and federal regul	ations.	
	14. Trans	sport Inform	ation		
LAND TRANSPORT (US DOT)					
DOT Proper Shipping Name	Not dangerous go	oods.			
LAND TRANSPORT (European ADR/RID)					
ADR/RID Shipping Name	Not dangerous go	oods.			
AIR TRANSPORT (ICAO/IATA)					
ICAO/IATA Shipping Name	Not dangerous go	oods.			
Additional Transport Information:	Transport in acco	rdance with local, s	tate, and federal regu	ilations.	
	15. Regul	atory Inform	nation		
European Community Hazard Symbol codes	5	,			
No data available.					
European Community Risk and Safety Phrase	s				
S24/25 - Avoid contact with skin and eye					
S37/39 - Wear suitable gloves and eye/fac	e protection.				
US EPA SARA Title III					
Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
I. Potassium phosphate, dibasic	7758-11-4	No	No	No	No
2. Potassium phosphate, Monobasic	7778-77-0	No	No	No	No
3. Water	7732-18-5	No	No	No	No
Other US EPA or State Lists					
Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
. Potassium phosphate, dibasic	7758-11-4	No	No	Inventory	No
2. Potassium phosphate, Monobasic	7778-77-0	No	No	Inventory	No
3. Water	7732-18-5		No	Inventory	No
Regulatory Information Statement:	-	epared in accordance rective 67/548/EEC		.1200, Regulation (EC	²) No.1272/2008,
	16. Oth	ner Informat	ion		
Revision Date:	09/13/2012				

Company Policy or Disclaimer

For research use only, not for human or veterinary use.

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.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required



Cayman Chemical Company 1180 E. Ellsworth Rd. Ann Arbor, MI 48108

Revision: 11/02/2012

Product Code:	400074				
Product Name:	TMB Substrate Soluti	ion			
Intended Use:	For research use only,	, not for human	or veterinary u	se.	
Manufacturer Information					
Company Name:	Cayman Chemical Co	ompany			
Emergency Contact:	CHEMTREC Within	USA and Canad	la: +1 (80	0)424-9300	
Alternate Emergency Contact:	CHEMTREC Outside	e USA and Cana	da: +1 (70	3)527-3887	
Information:	Cayman Chemical Company +1 (734)971-3335				
Web site address:	www.caymanchem.co	om			
	2. Hazards	s Identifica	ation		
GHS Hazard Phrases:	Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.				
GHS Precaution Phrases:	No data available.				
GHS Response Phrases:	No data available.				
GHS Storage and Disposal Phrases:	Please refer to Section	n 7 for Storage a	nd Section 13	for Disposal information.	
Route(s) of Entry:	Inhalation? Yes Sk	kin? Yes Eye	s? Yes Inge	stion? Yes Other: Injection	
Potential Health Effects (Acute and Chronic):	Material may be irrita	ating to the muc	ous membranes	and upper respiratory tract	
Potential Health Effects (Acute and Chronic):	May be harmful by in May cause eye, skin, o	nhalation, ingesti or respiratory sy	on, or skin abs stem irritation.	-	
	May be harmful by in May cause eye, skin, o	nhalation, ingesti or respiratory sy	on, or skin abs stem irritation.	orption.	
Target Organs:	May be harmful by in May cause eye, skin, o Overexposure may ca No data available.	nhalation, ingesti or respiratory sy ause reproductiv	on, or skin abs ystem irritation. e disorders base	orption.	
Potential Health Effects (Acute and Chronic): Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure:	May be harmful by in May cause eye, skin, o Overexposure may ca No data available. To the best of our kno No data available.	nhalation, ingesti or respiratory sy ause reproductiv owledge, the tox	on, or skin abs stem irritation. e disorders bas icological prop	orption. ed on tests with laboratory animals. erties have not been thoroughly inv	
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure:	May be harmful by in May cause eye, skin, o Overexposure may ca No data available. To the best of our kno No data available.	nhalation, ingesti or respiratory sy ause reproductiv owledge, the tox	on, or skin abs rstem irritation. e disorders base icological prop on Ingred	orption. ed on tests with laboratory animals. erties have not been thoroughly inv	
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr Hazardous Components (Chemical Name)	May be harmful by in May cause eye, skin, o Overexposure may ca No data available. To the best of our kno No data available. nposition/Info CAS # Co	nhalation, ingestion or respiratory sy ause reproductiv owledge, the tox ormation C oncentration	on, or skin abs rstem irritation. e disorders base icological prop n Ingred EC#	ed on tests with laboratory animals. erties have not been thoroughly inv ents Risk Phrases	
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr Hazardous Components (Chemical Name)	May be harmful by in May cause eye, skin, o Overexposure may ca No data available. To the best of our kno No data available. nposition/Info CAS # Co NA 10	nhalation, ingestion or respiratory sy ause reproductiv owledge, the tox ormation of oncentration	on, or skin abs rstem irritation. e disorders base icological prop on Ingred EC# NA	orption. ed on tests with laboratory animals. erties have not been thoroughly inv	
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr Hazardous Components (Chemical Name) . TMB Substrate Solution	May be harmful by in May cause eye, skin, o Overexposure may ca No data available. To the best of our kno No data available. nposition/Info CAS # Co	nhalation, ingestion or respiratory sy ause reproductiv owledge, the tox ormation of oncentration	on, or skin abs rstem irritation. e disorders base icological prop on Ingred EC# NA	ed on tests with laboratory animals. erties have not been thoroughly inv ents Risk Phrases	
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr Hazardous Components (Chemical Name)	May be harmful by in May cause eye, skin, o Overexposure may ca No data available. To the best of our kno No data available. nposition/Info CAS # Co NA 100 4. First A	ause reproductiv owledge, the tox owledge, the tox ormation concentration 00.0 % id Measu	on, or skin abs rstem irritation. e disorders base icological prop on Ingred EC# NA res	ed on tests with laboratory animals. erties have not been thoroughly inv ents Risk Phrases	estigat
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr Hazardous Components (Chemical Name) . TMB Substrate Solution Emergency and First Aid Procedures:	May be harmful by in May cause eye, skin, o Overexposure may ca No data available. To the best of our kno No data available. nposition/Info CAS # Co NA 100 4. First A Remove to fresh air. I personnel. Get immed Immediately wash ski	halation, ingestion or respiratory synause reproductive owledge, the toxe owledge, the toxe ormation of the owledge of the toxe of the owledge of the toxe of the owledge of the toxe owledge owle	on, or skin abs rstem irritation. e disorders base icological prop on Ingred EC# NA res give artificial r ention.	ed on tests with laboratory animals. erties have not been thoroughly inv erties have not been thoroughly inv Risk Phrases No phrases apply.	d
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: <u>3. Cor</u> Hazardous Components (Chemical Name) . TMB Substrate Solution Emergency and First Aid Procedures: In Case of Inhalation:	May be harmful by in May cause eye, skin, o Overexposure may ca No data available. To the best of our kno No data available. nposition/Info CAS # Co NA 100 4. First A Remove to fresh air. I personnel. Get immed Immediately wash ski contaminated clothing	halation, ingestion respiratory synause reproductive owledge, the toxe owledge, the toxe owledge, the toxe ormation of the synause of the synause of the synause of the synause reproductive owledge, the toxe owl	on, or skin abs rstem irritation. e disorders base icological prop on Ingred EC# NA res give artificial r ention. plenty of wate ttention if symp	ed on tests with laboratory animals. erties have not been thoroughly inv erties have not been thoroughly inv Risk Phrases No phrases apply. espiration or give oxygen by traine r for at least 20 minutes. Remove	d reuse.



Indication of any immediate medical attention and special treatment needed:	No data available				
	5. Fire Fi	ghting Measu	ires		
Suitable Extinguishing Media:		tant foam, carbon diox o cool fire-exposed co	-	chemical spray.	
Unsuitable Extinguishing Media:	A solid water stre	am may be inefficient.			
Flammable Properties and Hazards:	No data available				
Flash Pt:	170.00 F (76.7 C)	Method Used: Clo	sed Cup		
Autoignition Pt:	No data available				
Explosive Limits:	LEL: No data.	UI	EL: No data.		
Hazardous Combustion Products:	No data available				
Fire Fighting Instructions:	-	ar self-contained breat ull protective gear to p		essure-demand (NIOSI th skin and eyes.	H approved or
6.	. Accidenta	l Release Me	asures		
Protective Precautions, Protective Equipment and Emergency Procedures:	As conditions was		pproved self-cont	ained breathing appara goggles, and heavy rub	-
Environmental Precautions:	Take steps to avoid release into the environment, if safe to do so.				
Steps To Be Taken In Case Material Is Released Or Spilled:	-	collect, as appropriate nical waste container f		ordance with local regu	lations.
	7. Handl	ing and Stora	age		
Precautions To Be Taken in Handling:	-	lust/fume/gas/mist/vap or repeated exposure.	ours/spray.		
Precautions To Be Taken in Storing:	Keep container tig Store in accordan	ghtly closed. ce with information lis	ted on the produc	t insert.	
Hazard Label Information:	Avoid contact wit Wash thoroughly	-	not reuse this co	ntainer. Use with ade	equate ventilation.
8. Ex	posure Con	trols/Persona	I Protectic	'n	
Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGI	HTLV	Other Limits
1. TMB Substrate Solution	NA	No data.	No da		No data.
Hazardous Components (Chemical Name) 1. TMB Substrate Solution	CAS #	Britain EH40 No data.	Franc No da		Europe No data.
Protective Equipment Summary - Hazard		ical-resistant gloves	Eye wash statior		
Label Information:	-	shower in work area	Vent Hood		Saroty
Engineering Controls (Ventilation etc.):	-	osures, local exhaust ve mmended exposure lin		r engineering controls t	o control airborne
Eye Protection:	Safety glasses				
Protective Gloves:	Compatible chem	ical-resistant gloves			
Other Protective Clothing:	Lab coat				
Respiratory Equipment (Specify Type):	NIOSH approved	respirator, as conditio	ns warrant.		
Work/Hygienic/Maintenance Practices:	Do not take interr Facilities storing of shower. Wash thoroughly	or utilizing this materia	al should be equij	oped with an eyewash a	nd a safety



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Environmental Exposure Controls:	No data available	2.					
9.	Physical an	d Chemical	Properties	6			
Information on Basic Physical and Chemical	Properties						
Physical States:	[]Gas [X]	Liquid [] Solid					
Appearance and Odor:	No data available	e.					
pH:	5.9						
Melting Point:	No data.						
Boiling Point:	No data.						
Flash Pt:	170.00 F (76.7 C) Method Used: C	losed Cup				
Evaporation Rate:	No data.	No data.					
Vapor Pressure (vs. Air or mm Hg):	No data.	No data.					
Vapor Density (vs. Air = 1):	No data.	No data.					
Specific Gravity (Water = 1):	No data.	No data.					
Solubility in Water:	No data.	No data.					
Autoignition Pt:	No data.						
Explosive Properties:	No data available	2.					
Oxidizing Properties:	No data available	2.					
Other Information							
Percent Volatile:	No data.						
	10. Stabil	lity and Read	tivity				
Reactivity:	No data available	2.					
Stability:	Unstable []	Stable [X]					
Stability Note(s):	Stable if stored in	n accordance with inf	ormation listed of	n the product insert.			
Conditions To Avoid:	No data available	2.					
Polymerization:	Will occur []	Will not occur [X]				
Incompatibility - Materials To Avoid:	strong oxidizing	agents					
Hazardous Decomposition Or Byproducts:	carbon dioxide carbon monoxide nitrogen oxides	2					
	11. Toxico	logical Inform	nation				
Toxicological Information:		l effects of this produ		thoroughly studied.			
Chronic Toxicological Effects:	No data available						
Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA		
1. TMB Substrate Solution	NA	n.a.	n.a.	n.a.	n.a.		
Carcinogenicity:	NTP? No IA	ARC Monographs? No	o OSHA Re	gulated? No			
	12. Ecolo	ogical Information	ation				
General Ecological Information:		to the environment. control or dilution wa	ater may cause po	ollution.			



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	13. Dispos	sal Conside	rations		
Waste Disposal Method:	Dispose in accord	dance with local, sta	ate, and federal regul	ations.	
	14. Trans	sport Inform	nation		
LAND TRANSPORT (US DOT)		-			
DOT Proper Shipping Name	Not dangerous go	oods.			
LAND TRANSPORT (European ADR/RID)					
ADR/RID Shipping Name	Not dangerous go	oods.			
AIR TRANSPORT (ICAO/IATA)					
ICAO/IATA Shipping Name	Not dangerous go	oods.			
Additional Transport Information:	Transport in acco	ordance with local, s	state, and federal reg	ulations.	
	15 Regu	latory Inforn	nation		
European Community Hazard Symbol code			nation		
	-5				
No data available.					
European Community Risk and Safety Phra	ases				
S24/25 - Avoid contact with skin and e	eyes.				
S37/39 - Wear suitable gloves and eye	/face protection.				
S37/39 - Wear suitable gloves and eye US EPA SARA Title III	/face protection.				
US EPA SARA Title III	/face protection.	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
US EPA SARA Title III Hazardous Components (Chemical Name)	-	Sec.302 (EHS)	Sec.304 RQ No	Sec.313 (TRI) No	Sec.110
US EPA SARA Title III Hazardous Components (Chemical Name)	CAS #				
US EPA SARA Title III Hazardous Components (Chemical Name) 1. TMB Substrate Solution Other US EPA or State Lists	CAS #				No
US EPA SARA Title III Hazardous Components (Chemical Name) 1. TMB Substrate Solution Other US EPA or State Lists Hazardous Components (Chemical Name) 1. TMB Substrate Solution	CAS # NA CAS # NA	No CAA HAP,ODC No	No CWA NPDES No	No TSCA No	No CA PROP.65 No
US EPA SARA Title III Hazardous Components (Chemical Name) 1. TMB Substrate Solution Other US EPA or State Lists Hazardous Components (Chemical Name)	CAS # NA CAS # NA This SDS was pr	No CAA HAP,ODC No epared in accordance	No CWA NPDES No ce with 29 CFR 1910	No TSCA	No CA PROP.65 No
US EPA SARA Title III Hazardous Components (Chemical Name) 1. TMB Substrate Solution Other US EPA or State Lists Hazardous Components (Chemical Name) 1. TMB Substrate Solution	CAS # NA CAS # NA This SDS was pr	No CAA HAP,ODC No	No CWA NPDES No ce with 29 CFR 1910	No TSCA No	No CA PROP.65 No
US EPA SARA Title III Hazardous Components (Chemical Name) 1. TMB Substrate Solution Other US EPA or State Lists Hazardous Components (Chemical Name) 1. TMB Substrate Solution	CAS # NA CAS # NA This SDS was pr and European Di	No CAA HAP,ODC No epared in accordance	No CWA NPDES No ce with 29 CFR 1910 c as amended.	No TSCA No	No CA PROP.65 No
US EPA SARA Title III Hazardous Components (Chemical Name) 1. TMB Substrate Solution Other US EPA or State Lists Hazardous Components (Chemical Name) 1. TMB Substrate Solution	CAS # NA CAS # NA This SDS was pr and European Di	No CAA HAP,ODC No epared in accordance rective 67/548/EEC	No CWA NPDES No ce with 29 CFR 1910 c as amended.	No TSCA No	No CA PROP.65 No
US EPA SARA Title III Hazardous Components (Chemical Name) 1. TMB Substrate Solution Other US EPA or State Lists Hazardous Components (Chemical Name) 1. TMB Substrate Solution Regulatory Information Statement:	CAS # NA CAS # NA This SDS was pr and European Di 16. Oth	No CAA HAP,ODC No epared in accordance rective 67/548/EEC	No CWA NPDES No ce with 29 CFR 1910 c as amended.	No TSCA No	No CA PROP.65 No
US EPA SARA Title III Hazardous Components (Chemical Name) 1. TMB Substrate Solution Other US EPA or State Lists Hazardous Components (Chemical Name) 1. TMB Substrate Solution Regulatory Information Statement: Revision Date:	CAS # NA CAS # NA This SDS was pr and European Di 16. Oth 11/02/2012	No CAA HAP,ODC No epared in accordance rective 67/548/EEC	No CWA NPDES No ce with 29 CFR 1910 c as amended.	No TSCA No	No CA PROP.65 No
US EPA SARA Title III Hazardous Components (Chemical Name) 1. TMB Substrate Solution Other US EPA or State Lists Hazardous Components (Chemical Name) 1. TMB Substrate Solution Regulatory Information Statement: Revision Date: Company Policy or Disclaimer	CAS # NA CAS # NA This SDS was pr and European Di 16. Oth 11/02/2012	No CAA HAP,ODC No epared in accordance rective 67/548/EEC ner Informat	No CWA NPDES No with 29 CFR 1910 as amended. tion	No TSCA No .1200, Regulation (EC	CA PROP.65 No C) No.1272/2008,
US EPA SARA Title III Hazardous Components (Chemical Name) 1. TMB Substrate Solution Other US EPA or State Lists Hazardous Components (Chemical Name) 1. TMB Substrate Solution Regulatory Information Statement: Revision Date: Company Policy or Disclaimer For research use only, not for human or very	CAS # NA CAS # NA This SDS was pr and European Di and European Di 16. Oth 11/02/2012	No CAA HAP,ODC No epared in accordance rective 67/548/EEC ner Informat presents the best infor	No CWA NPDES No with 29 CFR 1910 as amended. tion	No TSCA No .1200, Regulation (EC	No CA PROP.65 No C) No.1272/2008,
US EPA SARA Title III Hazardous Components (Chemical Name) 1. TMB Substrate Solution Other US EPA or State Lists Hazardous Components (Chemical Name) 1. TMB Substrate Solution Regulatory Information Statement: Revision Date: Company Policy or Disclaimer For research use only, not for human or ve DISCLAIMER: This information is believed	CAS # NA CAS # NA This SDS was pr and European Di 16. Oth 11/02/2012	No CAA HAP,ODC No epared in accordance rective 67/548/EEC ner Informat presents the best infor spect to such information	No CWA NPDES No e with 29 CFR 1910 as amended. tion mation currently availa ion, and we assume no	No TSCA No .1200, Regulation (EC	No CA PROP.65 No C) No.1272/2008,
US EPA SARA Title III Hazardous Components (Chemical Name) 1. TMB Substrate Solution Other US EPA or State Lists Hazardous Components (Chemical Name) 1. TMB Substrate Solution Regulatory Information Statement: Revision Date: Company Policy or Disclaimer For research use only, not for human or ve DISCLAIMER: This information is believ merchantability or any other warranty, exp make their own investigations to determine	CAS # NA CAS # NA This SDS was prand European Dia 11/02/2012 eterinary use. red to be accurate and repress or implied, with responses or implied, with responses or implied, with responses or implied, with responses or the suitability of the implication of t	No CAA HAP,ODC No epared in accordance rective 67/548/EEC ner Informate presents the best informate formation for their part	No CWA NPDES No ce with 29 CFR 1910 C as amended. tion tion tion, and we assume no rticular purposes.	No TSCA No .1200, Regulation (EC	No CA PROP.65 No C) No.1272/2008,
US EPA SARA Title III Hazardous Components (Chemical Name) 1. TMB Substrate Solution Other US EPA or State Lists Hazardous Components (Chemical Name) 1. TMB Substrate Solution Regulatory Information Statement: Revision Date: Company Policy or Disclaimer For research use only, not for human or ve DISCLAIMER: This information is believ merchantability or any other warranty, exp	CAS # NA CAS # NA This SDS was prand European Dia 11/02/2012 eterinary use. red to be accurate and repress or implied, with responses or implied, with responses or implied, with responses or implied, with responses or the suitability of the implication of t	No CAA HAP,ODC No epared in accordance rective 67/548/EEC ner Informate presents the best informate formation for their part	No CWA NPDES No ce with 29 CFR 1910 C as amended. tion tion tion, and we assume no rticular purposes.	No TSCA No .1200, Regulation (EC	No CA PROP.65 No C) No.1272/2008,



Cayman Chemical Company 1180 E. Ellsworth Rd. Ann Arbor, MI 48108

Revision: 01/11/2013

Product Code:	400961			any/Undertaking		
Product Name:		Assay HRP-Conjuga				
Intended Use:	For research use of	only, not for human o	or veterinary use.			
Manufacturer Information						
Company Name:	Cayman Chemica					
Emergency Contact:		hin USA and Canada				
Alternate Emergency Contact:	CHEMTREC Outside USA and Canada: +1 (703)527-3887					
Information:	Cayman Chemical Company +1 (734)971-3335					
Web site address:	www.caymanchem.com					
	2. Hazar	ds Identifica	ition			
GHS Hazard Phrases:	Based on evaluati according to GHS	-	able data this substan	ce or mixture is not classifiable		
GHS Precaution Phrases:	No data available.					
GHS Response Phrases:	No data available.					
GHS Storage and Disposal Phrases:	Please refer to Sec	ction 7 for Storage a	nd Section 13 for Dis	posal information.		
Route(s) of Entry:	Inhalation? Yes	Skin? Yes Eyes	? Yes Ingestion?	Yes Other: Injection		
Potential Health Effects (Acute and Chronic):						
Target Organs:	No data available					
Signs and Symptoms Of Exposure:	To the best of our	knowledge, the toxi	cological properties h	nave not been thoroughly investigated		
Medical Conditions Generally Aggravated By Exposure:	No data available					
3. Cor	nposition/Ir	formation o	n Ingredients	5		
Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases		
1. Therapeutic IgG2 Assay HRP-Conjugate	NA	100.0 %	NA	No phrases apply.		
	4. First	Aid Measur	es			
Emergency and First Aid Procedures:						
In Case of Inhalation:		ir. If not breathing, g mediate medical atte		ion or give oxygen by trained		
In Case of Skin Contact:	-	-		least 20 minutes. Remove occur. Wash clothing before reuse.		
In Case of Eye Contact:		t and flush eyes with ed by medical person		t least 20 minutes. Have eyes		
				Never give anything by mouth to an		



Suitable Extinguishing Media: Unsuitable Extinguishing Media: Flammable Properties and Hazards: Flash Pt:	Use alcohol-resist Use water spray to	o cool fire-exposed contain am may be inefficient.	water, or dry chemical spray	1.			
Unsuitable Extinguishing Media: Flammable Properties and Hazards: Flash Pt:	Use water spray to A solid water stre No data available.	o cool fire-exposed contain am may be inefficient.	• • • •	1.			
Flammable Properties and Hazards: Flash Pt:	No data available.	-	Use water spray to cool fire-exposed containers. A solid water stream may be inefficient.				
Flash Pt:		No data available.					
	No data.						
	No data available.						
Autoignition Pt:	No data available.						
Explosive Limits:	LEL: No data.	UEL:	No data.				
Hazardous Combustion Products:	No data available.						
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.						
6.	Accidenta	I Release Meas	sures				
Protective Precautions, Protective Equipment and Emergency Procedures:	As conditions was		te ventilation. oved self-contained breathing boots, safety goggles, and he				
Environmental Precautions:	Take steps to avoid release into the environment, if safe to do so.						
Steps To Be Taken In Case Material Is Released Or Spilled:	-	collect, as appropriate. nical waste container for d	isposal in accordance with lo	ocal regulations.			
	7. Handl	ing and Storage	Э				
Precautions To Be Taken in Handling:	-	lust/fume/gas/mist/vapours or repeated exposure.	s/spray.				
Precautions To Be Taken in Storing:	Keep container tig Store in accordance	ghtly closed. ce with information listed	on the product insert.				
Hazard Label Information:	Avoid contact wit Wash thoroughly	-	reuse this container. Use	with adequate ventilation			
8. Exp	osure Con	trols/Personal F	Protection				
Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits			
1. Therapeutic IgG2 Assay HRP-Conjugate	NA	No data.	No data.	No data.			
Hazardous Components (Chemical Name) 1. Therapeutic IgG2 Assay HRP-Conjugate	CAS #	Britain EH40 No data.	France VL No data.	Europe No data.			
1. Therapeutic IgG2 Assay HRP-Conjugate Protective Equipment Summary - Hazard Label Information:	Compatible chem	ical-resistant gloves Eye	e wash station in work area nt Hood	Lab coat Safety			
Engineering Controls (Ventilation etc.):	-	osures, local exhaust ventil mmended exposure limits.	ation, or other engineering co	ontrols to control airborn			
Eye Protection:	Safety glasses						
Protective Gloves:	Compatible chem	ical-resistant gloves					
Other Protective Clothing:	Lab coat						
Respiratory Equipment (Specify Type):	NIOSH approved	respirator, as conditions w	/arrant.				
Work/Hygienic/Maintenance Practices:	Do not take intern Facilities storing of shower. Wash thoroughly	or utilizing this material sh	ould be equipped with an ey	ewash and a safety			



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2	Dhuaia al Ohamia d D
	Physical and Chemical Properties
Information on Basic Physical and Chemical	
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.
Vapor Pressure (vs. Air or mm Hg):	No data.
Vapor Density (vs. Air = 1):	No data.
Specific Gravity (Water = 1):	No data.
Solubility in Water:	No data.
Autoignition Pt:	No data.
Explosive Properties:	No data available.
Oxidizing Properties:	No data available.
Other Information	
Percent Volatile:	No data.
	10. Stability and Reactivity
Reactivity:	No data available.
Stability:	Unstable [] Stable [X]
Stability Note(s):	Stable if stored in accordance with information listed on the product insert.
Conditions To Avoid:	No data available.
Polymerization:	Will occur [] Will not occur [X]
Incompatibility - Materials To Avoid:	No data available.
Hazardous Decomposition Or Byproducts:	carbon dioxide
	carbon monoxide
	nitrogen oxides
	11. Toxicological Information
Toxicological Information:	The toxicological effects of this product have not been thoroughly studied.
Chronic Toxicological Effects:	No data available.
lazardous Components (Chemical Name)	CAS # NTP IARC ACGIH OSHA
. Therapeutic IgG2 Assay HRP-Conjugate Carcinogenicity:	NA n.a. n.a. n.a. NTP? No IARC Monographs? No OSHA Regulated? No
Carcinogenicity.	
	12. Ecological Information
General Ecological Information:	Avoid release into the environment.
	Runoff from fire control or dilution water may cause pollution.
	13. Disposal Considerations
	Dispose in accordance with local, state, and federal regulations.



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	14. Trans	sport Inform	nation		
LAND TRANSPORT (US DOT)					
DOT Proper Shipping Name	Not dangerous go	oods.			
LAND TRANSPORT (European ADR/RID)	0 0				
ADR/RID Shipping Name	Not dangerous go	oods			
AIR TRANSPORT (ICAO/IATA)	Not dangerous ge	0003.			
	NT / 1	1			
ICAO/IATA Shipping Name	Not dangerous go				
Additional Transport Information:	-		state, and federal reg	ulations.	
	15. Regu	latory Inforn	nation		
European Community Hazard Symbol codes No data available. European Community Risk and Safety Phrase S24/25 - Avoid contact with skin and eyes S37/39 - Wear suitable gloves and eye/fac	s.				
US EPA SARA Title III					
Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Therapeutic IgG2 Assay HRP-Conjugate	NA	No	No	No	No
Other US EPA or State Lists					
Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. Therapeutic IgG2 Assay HRP-Conjugate	NA	No	No	No	No
Revision Date:	01/11/2013				
For research use only, not for human or veter DISCLAIMER: This information is believed merchantability or any other warranty, expres make their own investigations to determine th N.A.=Not available, N.P.=Not applicable, N.I	to be accurate and re ss or implied, with res ne suitability of the in	spect to such information for their particular	ion, and we assume no rticular purposes.		-

Product Information



Anti-Human IgG₂ Precoated 96-Well Strip Plate Item No. 400962

COMMENTS:

Each plate is coated with anti-human IgG_2 polyclonal antibody. This Safety Data Sheet (SDS) is for the antibody only. An SDS on this material is not required as this substance is a naturally occurring animal product. However, we do recommend the following minimum precautions when using this substance:

- Do NOT get in eyes, on skin, or on clothing.
- Do NOT take internally.
- Wear protective gloves and safety glasses.
- Keep container closed.
- Store at correct temperature.
- Do NOT reuse this container.
- Do NOT release this material to the environment; dispose of by incineration in accordance with federal, state, and local regulations.
- Wash thoroughly after handling.

WARNING:

Not for human or animal disease diagnostics or therapeutic drug 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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Revision Date: 01/11/2013

Cayman Chemical

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E-Mail custserv@caymanchem.com

Web www.caymanchem.com



Cayman Chemical Company 1180 E. Ellsworth Rd. Ann Arbor, MI 48108

Revision: 01/11/2013

Product Code:	400964				
Product Name:	IgG2 (human) EL	A Standard			
Intended Use:	For research use	only, not for human	or veterinary use.		
Manufacturer Information					
Company Name:	Cayman Chemica	al Company			
Emergency Contact:	CHEMTREC Wi	thin USA and Cana	da: +1 (800)4	424-9300	
Alternate Emergency Contact:	CHEMTREC Ou	tside USA and Cana	ada: +1 (703).	527-3887	
Information:	Cayman Chemica	al Company	+1 (734)971-33	335	
Web site address:	www.caymanche	m.com			
	2. Hazai	rds Identific	ation		
GHS Hazard Phrases:	Based on evaluation according to GHS	-	ilable data this sub	stance or mixture is not c	lassifiable
GHS Precaution Phrases:	No data available				
GHS Response Phrases:	No data available				
GHS Storage and Disposal Phrases:	Please refer to Se	ction 7 for Storage	and Section 13 for	Disposal information.	
Route(s) of Entry:	Inhalation? Yes	Skin? Yes Eye	es? Yes Ingestio	on? Yes Other: Injecti	on
Potential Health Effects (Acute and Chronic):					
(, , , , , , , , , , , , , , , , , , ,	May be harmful b	irritating to the muc by inhalation, ingest kin, or respiratory s	ion, or skin absorp	d upper respiratory tract. tion.	
	May be harmful b	by inhalation, ingest kin, or respiratory sy	ion, or skin absorp		
Target Organs:	May be harmful b May cause eye, sl No data available	by inhalation, ingest kin, or respiratory s	ion, or skin absorp ystem irritation.		hly investigat
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure:	May be harmful b May cause eye, sl No data available To the best of our	by inhalation, ingest kin, or respiratory s	ion, or skin absorp ystem irritation.	ption.	hly investigat
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure:	May be harmful to May cause eye, sh No data available To the best of our No data available	by inhalation, ingest kin, or respiratory s	ion, or skin absorp ystem irritation. kicological properti	ies have not been thoroug	hly investigat
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure:	May be harmful to May cause eye, sh No data available To the best of our No data available	by inhalation, ingest kin, or respiratory s	ion, or skin absorp ystem irritation. kicological properti	ies have not been thoroug	hly investigat
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr lazardous Components (Chemical Name) IgG2 (human) EIA Standard	May be harmful to May cause eye, sl No data available To the best of our No data available nposition/Ir Cas # NA	by inhalation, ingest kin, or respiratory sy knowledge, the tox formation c 99.99 %	ion, or skin absorp ystem irritation. kicological properti bn Ingredie EC# NA	nts No phrases apply.	RTECS #
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr azardous Components (Chemical Name)	May be harmful b May cause eye, sl No data available To the best of our No data available nposition/Ir CAS # NA 26628-22-8	by inhalation, ingest kin, or respiratory sy knowledge, the tox Information c Concentration 99.99 % 0.01 %	ion, or skin absorp ystem irritation. Accological propertion Con Ingredie EC# NA 247-852-1	nts	RTECS #
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr lazardous Components (Chemical Name) IgG2 (human) EIA Standard Sodium azide	May be harmful b May cause eye, sl No data available To the best of our No data available nposition/Ir CAS # NA 26628-22-8	by inhalation, ingest kin, or respiratory sy knowledge, the tox formation c 99.99 %	ion, or skin absorp ystem irritation. Accological propertion Con Ingredie EC# NA 247-852-1	nts No phrases apply.	RTECS #
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr azardous Components (Chemical Name) IgG2 (human) EIA Standard Sodium azide Emergency and First Aid Procedures:	May be harmful to May cause eye, sl No data available To the best of our No data available nposition/Ir Cas # A. First	by inhalation, ingest kin, or respiratory sy knowledge, the tox formation c Concentration 99.99 % 0.01 % t Aid Measu	ion, or skin absorp ystem irritation. Accological propertion DN Ingredie EC# NA 247-852-1 IRES	nts Risk Phrases No phrases apply. R28-32-50/53	RTECS # NA VY8050000
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr azardous Components (Chemical Name) IgG2 (human) EIA Standard Sodium azide Emergency and First Aid Procedures:	May be harmful to May cause eye, sl No data available To the best of our No data available nposition/Ir CAS # 26628-22-8 4. First Remove to fresh	by inhalation, ingest kin, or respiratory sy knowledge, the tox formation c Concentration 99.99 % 0.01 % t Aid Measu	ion, or skin absorp ystem irritation. ticological properti DN Ingredie EC# NA 247-852-1 IRES	nts No phrases apply.	RTECS # NA VY8050000
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COr lazardous Components (Chemical Name) IgG2 (human) EIA Standard	May be harmful to May cause eye, sl No data available To the best of our No data available nposition/Ir CAS # A. First Remove to fresh a personnel. Get int Immediately was	by inhalation, ingest kin, or respiratory sy kin, or respiratory sy knowledge, the tox by formation of 99.99 % 0.01 % t Aid Measu air. If not breathing, mediate medical att h skin with soap and	ion, or skin absorp ystem irritation. ticological properti on Ingredie EC# NA 247-852-1 IFES , give artificial resp tention. d plenty of water for	nts Risk Phrases No phrases apply. R28-32-50/53	RTECS # NA VY8050000 y trained move
Target Organs: Signs and Symptoms Of Exposure: Medical Conditions Generally Aggravated By Exposure: 3. COR azardous Components (Chemical Name) IgG2 (human) EIA Standard Sodium azide Emergency and First Aid Procedures: n Case of Inhalation:	May be harmful to May cause eye, sl No data available To the best of our No data available nposition/Ir CAS # A. First Remove to fresh a personnel. Get int Immediately wash contaminated clout	by inhalation, ingest kin, or respiratory sy kin, or respiratory sy knowledge, the tox hord concentration 99.99 % 0.01 % t Aid Measu air. If not breathing, mediate medical att h skin with soap and thing. Get medical a	ion, or skin absorp ystem irritation. Accological properti DN Ingredie EC# NA 247-852-1 IRES , give artificial resp tention. d plenty of water for attention if sympton h plenty of water f	ntion. No phrases apply. Risk Phrases No phrases apply. R28-32-50/53 Piration or give oxygen by pr at least 20 minutes. Re	RTECS # NA VY8050000 y trained move before reuse.



SAFETY DATA SHEET IgG2 (human) EIA Standard

attention and special treatment needed:	No data available			
	5. Fire Fi	ghting Measure	S	
Suitable Extinguishing Media:	Use alcohol-resist	ant foam, carbon dioxide,	water, or dry chemical spray.	
	Use water spray to	o cool fire-exposed contair	iers.	
Unsuitable Extinguishing Media:	A solid water stre	am may be inefficient.		
Flammable Properties and Hazards:	No data available			
Flash Pt:	No data.			
Autoignition Pt:	No data available			
Explosive Limits:	LEL: No data.	UEL:	No data.	
Hazardous Combustion Products:	No data available			
Fire Fighting Instructions:	As in any fire, we	ar self-contained breathing	apparatus pressure-demand (NI nt contact with skin and eyes.	OSH approved or
6	. Accidenta	I Release Meas	ures	
Protective Precautions, Protective	Avoid raising and	breathing dust, and provid	le adequate ventilation.	
Equipment and Emergency Procedures:			ved self-contained breathing app boots, safety goggles, and heavy	-
Environmental Precautions:	Take steps to avoi	id release into the environr	nent, if safe to do so.	
Steps To Be Taken In Case Material Is	Contain spill and	collect, as appropriate.		
Released Or Spilled:			isposal in accordance with local	-
	After removal, flu solution.	ish contaminated area and	all cleaning materials with a 10%	bleach aqueous
	7. Handl	ing and Storage	9	
Precautions To Be Taken in Handling:	-	lust/fume/gas/mist/vapours	/spray.	
		or repeated exposure.		
Precautions To Be Taken in Storing:	Keep container tig			
		ce with information listed		1 ()
Hazard Label Information:	Avoid contact wit Wash thoroughly	h skin and eyes. Do not	reuse this container. Use with	adequate ventilat
		_		
		trols/Personal F		
lazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TWA	Other Limi
IgG2 (human) EIA Standard	NA	No data.	No data.	No data.
Sodium azide azardous Components (Chemical Name)	26628-22-8 CAS #	No data. Britain EH40	CEIL: 0.29 mg/m3	No data.
IgG2 (human) EIA Standard	NA		No data.	Europe No data.
Sodium azide	26628-22-8		TWA: 0.1 mg/m3	TWA: 0.1
		STEL: 0.3 mg/m3 ()	STEL: 0.3 mg/m3	mg/m3
				STEL: 0.3
				mg/m3
Protective Equipment Summary - Hazard Label Information:	-		wash station in work area La ht Hood	b coat Safety
Engineering Controls (Ventilation etc.):	-	osures, local exhaust ventila mmended exposure limits.	ation, or other engineering contro	ols to control airb
Eye Protection:	Safety glasses			



SAFETY DATA SHEET IgG2 (human) EIA Standard

Other Protective Clothing:	Lab coat				
Respiratory Equipment (Specify Type):	NIOSH approved	l respirator, as	conditions warrant.		
Work/Hygienic/Maintenance Practices:	Do not take inter	nally.			
	U U	or utilizing the	is material should be e	equipped with an eyewa	ash and a safety
	shower.	often hendling			
Environmental Exposure Controls:	Wash thoroughly No data available	-			
-					
		d Chem	ical Propertie	S	
Information on Basic Physical and Chemical	-				
Physical States:		-] Solid		
Appearance and Odor:	A lyophilized po	wder			
Melting Point:	No data.				
Boiling Point:	No data.				
Flash Pt:	No data.				
Evaporation Rate:	No data.				
Vapor Pressure (vs. Air or mm Hg):	No data.				
Vapor Density (vs. Air = 1):	No data.				
Specific Gravity (Water = 1):	No data.				
Solubility in Water:	No data.				
Autoignition Pt:	No data.				
Explosive Properties:	No data available	2.			
Oxidizing Properties:	No data available	2.			
Other Information					
Percent Volatile:	No data.				
	10. Stabil	ity and F	Reactivity		
Reactivity:	No data available				
Stability:	Unstable []	Stable [X]			
Stability Note(s):	Stable if stored in	n accordance v	with information listed	on the product insert.	
Conditions To Avoid:	No data available	e.			
Polymerization:	Will occur []	Will not oc	cur [X]		
Incompatibility - Materials To Avoid:	No data available	2.			
Hazardous Decomposition Or Byproducts:	No data available	2.			
	11. Toxico	logical Ir	formation		
Toxicological Information:			s product have not bee	n thoroughly studied.	
Chronic Toxicological Effects:	No data available).			
Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. IgG2 (human) EIA Standard	NA	n.a.	n.a.	n.a.	n.a.
2. Sodium azide	26628-22-8	n.a.	n.a.	A4	n.a.
	12. Ecolo	gical Inf	ormation		
General Ecological Information:	Avoid release int				
	Runoff from fire	control or dilu	tion water may cause	pollution.	



SAFETY DATA SHEET IgG2 (human) EIA Standard

Revision: 01/11/2013

	13. Dispos	al Conside	rations		
Waste Disposal Method:	Dispose in accord	lance with local, sta	ate, and federal regul	ations.	
	14. Trans	sport Inform	ation		
LAND TRANSPORT (US DOT)					
DOT Proper Shipping Name	Not dangerous go	oods.			
LAND TRANSPORT (European ADR/RID)					
ADR/RID Shipping Name	Not dangerous go	oods.			
AIR TRANSPORT (ICAO/IATA)					
ICAO/IATA Shipping Name	Not dangerous go	oods.			
Additional Transport Information:			state, and federal reg	ulations	
	-			ulations.	
	15. Regul	atory Inforn	nation		
European Community Hazard Symbol codes	Biological Hazard	d: B			
European Community Risk and Safety Phrase	es				
S24/25 - Avoid contact with skin and eye					
S37/39 - Wear suitable gloves and eye/fa	ce protection.				
US EPA SARA Title III			-		
Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
 IgG2 (human) EIA Standard Sodium azide 	NA	No Yes 500 LB	No Yes 1000 LB	No	No
Other US EPA or State Lists	26628-22-8	Tes 500 LB	Tes 1000 LB	Yes	No
Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. IgG2 (human) EIA Standard	NA	No	No	No	No
2. Sodium azide	26628-22-8	No	No	Inventory	No
Regulatory Information Statement:	This SDS was pre	epared in accordanc	e with 29 CFR 1910	0.1200, Regulation (EC	C) No.1272/2008,
	and European Dir	rective 67/548/EEC	as amended.		
	16. Oth	ner Informat	tion		
Revision Date:	01/11/2013				
Company Policy or Disclaimer					
For research use only, not for human or veter	rinary use.				
DISCLAIMER: This information is believed	•	presents the best infor	mation currently availa	ble to us. However, we r	nake no warranty of
merchantability or any other warranty, expres	ss or implied, with res	pect to such information	ion, and we assume no	liability resulting from it	s use. Users should
make their own investigations to determine the	he suitability of the in	formation for their par	rticular purposes.		
N.A.=Not available, N.P.=Not applicable, N.	.D.=Not determined, N	N.E.=Not established,	N.R.=Not required		
			-		



Revision: 11/02/2012 Supercedes Revision: 09/01/2011

Cayman Chemical Company 1180 E. Ellsworth Rd. Ann Arbor, MI 48108



Product Code:	10011355				
Product Name:	HRP Stop Solutio	n			
Intended Use:	For research use of	only, not for hun	nan or veter	inary use.	
Manufacturer Information					
Company Name:	Cayman Chemica	l Company			
Emergency Contact:	CHEMTREC Wit	hin USA and C	anada:	+1 (800)424-9300	
Alternate Emergency Contact:	CHEMTREC Out	side USA and C	Canada:	+1 (703)527-3887	
Information:	Cayman Chemica	l Company	+1 (7	734)971-3335	
Web site address:	www.caymancher				
	2 Hazar	ds Identif	ication		
GHS Classification	Placard	Key word		Hazard	
Skin Corrosion/Irritation, Category 1A	Corrosive	Danger		es severe skin burns	and eye damage
GHS Hazard Phrases:	H314: Causes sev	ere skin burns a	nd eye dam	age.	
GHS Precaution Phrases:	P260: Do not brea	the dust/fume/g	as/mist/vap	ours/spray.	
GUS Paspansa Phrasas	manufacturer/supj	ctive gloves/clo plier or the com	thing and ey	ye/face protection as prity.	
GHS Response Phrases:	P303+361+353: I Rinse skin with w		hair): Remo	ove/take off immedia	ately all contaminated clothing
	lenses, if present a P301+330+331: II P304+340: IF INF for breathing.	F IN EYES: Rir and easy to do. (F SWALLOWE HALED: Remov	ase cautious Continue rir 2D: Rinse m 2e victim to	ly with water for sev using. outh. Do NOT induc	t rest in a position comfortable
GHS Storage and Disposal Phrases:	Please refer to Sec	ction 7 for Stora	ge and Sect	ion 13 for Disposal	information.
Route(s) of Entry:	Inhalation? Yes	Skin? Yes	Eyes? Yes	Ingestion? Yes	Other: Injection
Potential Health Effects (Acute and Chronic):	Chronic exposure Harmful if swallo Inhalation may ca Long-term exposu	to mists contair wed, inhaled, or use lung edema ire to mist or va	ning sulfurio absorbed th pors may ca	c acid is a cancer haz	
Target Organs:	Eyes, Lungs, Teet	h, Respiratory s	ystem, Skir	1.	
LD 50 / LC 50:	Please refer to Sec	ction 11.			
Signs and Symptoms Of Exposure:	Circulatory collap urine may follow Ingestion may cau Irritating to the sk To the best of our	ingestion or skin ise: Sore throat, in, eyes, nose, t	n contact. vomiting, a hroat, and r	nd diarrhea. espiratory tract.	llow respirations, and scanty



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Medical Conditions Generally Aggravated By No data available. Exposure: 3. Composition/Inform

Hazardous Components (Chemical Name)	CAS #	Concentration	on Ingredie	Risk Phrases	RTECS #
1. Sulfuric acid	7664-93-9	4.904 %	231-639-5	RISK FILASES	WS5600000
2. Water	7732-18-5		231-791-2	No phrases apply.	ZC0110000
	4 First	Aid Measu	ires		
Emergency and First Aid Procedures:					
In Case of Inhalation:		ir. If not breathing mediate medical a		piration or give oxygen b	y trained
In Case of Skin Contact:	-	-		or at least 20 minutes. Re ms occur. Wash clothing	
In Case of Eye Contact:		t and flush eyes wi ed by medical pers		for at least 20 minutes. H	ave eyes
In Case of Ingestion:		-	mouth with water s person. Get medi	provided person is consc cal attention.	ious. Never giv
Indication of any immediate medical attention and special treatment needed:	No data available.				
	5. Fire Fi	ghting Mea	sures		
Suitable Extinguishing Media:		<u> </u>		ry chemical spray.	
Unsuitable Extinguishing Media:	DO NOT USE W	ATER.			
Flammable Properties and Hazards:	Emits toxic and co	prrosive fumes und	ler fire conditions.	ering and liberating heat. ammable hydrogen gas.	
Flash Pt:	No data.				
Autoignition Pt:	No data available.				
Explosive Limits:	LEL: No data.		UEL: No data.		
Hazardous Combustion Products:	No data available.				
Fire Fighting Instructions:	-			pressure-demand (NIOS with skin and eyes.	H approved or
6	. Accidenta	I Release I	<i>Aeasures</i>		
Protective Precautions, Protective Equipment and Emergency Procedures:	As conditions was	rant, wear a NIOS		on. ontained breathing appara ty goggles, and heavy rub	
Environmental Precautions:	Take steps to avoi	d release into the	environment, if saf	e to do so.	
Steps To Be Taken In Case Material Is Released Or Spilled:	-	collect, as appropr nical waste contair		accordance with local reg	ulations.
	7. Handl	ing and Sto	orage		
Precautions To Be Taken in Handling:	Avoid breathing d	lust/fume/gas/mist or repeated exposu	/vapours/spray.		
Precautions To Be Taken in Storing:	Keep container tig Store in accordance		n listed on the prod	luct insert.	
Hazard Label Information:	Avoid contact wit Wash thoroughly	-	Do not reuse this	container. Use with add	equate ventilati



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	-	trols/Personal F		OthersLin
Hazardous Components (Chemical Name)	CAS # 7664-93-9	OSHA PEL PEL: 1 mg/m3	TLV: (1 mg/m3)	Other Limit No data.
	7004-93-9		STEL: (3 mg/m3)	NO data.
2. Water	7732-18-5	No data.	No data.	No data.
Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe
. Sulfuric acid	7664-93-9	No data.	TWA: 1.0 mg/m3	No data.
2. Water	7732-18-5	No data.	STEL: 3.0 mg/m3 No data.	No data.
Protective Equipment Summary - Hazard				ab coat Safety
Label Information:	-		nt Hood	
Engineering Controls (Ventilation etc.):	-	osures, local exhaust ventil mmended exposure limits	lation, or other engineering contr	ols to control airbo
Eye Protection:	Safety glasses			
Protective Gloves:	Compatible chem	ical-resistant gloves		
Other Protective Clothing:	Lab coat	-		
Respiratory Equipment (Specify Type):	NIOSH approved	respirator, as conditions v	varrant.	
Work/Hygienic/Maintenance Practices:	Do not take interr	-		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		•	hould be equipped with an eyewa	ash facility and a
	safety shower.			
	Wash thoroughly	after handling.		
Environmental Exposure Controls:	No data available			
9.	Physical an	d Chemical Pro	perties	
Information on Basic Physical and Chemica	-		•	
Physical States:	[]Gas [X]	Liquid [] Solid		
Appearance and Odor:	No data available	-		
pH:	4.4			
Melting Point:	No data.			
Boiling Point:	No data.			
Flash Pt:	No data.			
Evaporation Rate:	No data.			
-				
Vapor Pressure (vs. Air or mm Hg):	No data.			
Vapor Density (vs. Air = 1):	No data.			
Specific Gravity (Water = 1):	No data.			
Solubility in Water:	No data.			
Autoignition Pt:	No data.			
Explosive Properties:	No data available			
Oxidizing Properties:	No data available			
Other Information				
	No data.			
Percent Volatile:			4.7	
Percent Volatile:	10 Stahili	ity and Reactivi	IV	
		ity and Reactivi	ly	
Percent Volatile: Reactivity: Stability:	10. Stabil No data available Unstable []	-	ty	



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	Stable if stored in	accordance with	n information listed o	n the product incert	Revision: 09/01/20
Stability Note(s):			i information listed o	ii the product insert.	
Conditions To Avoid:	No data available				
Polymerization:	Will occur []	Will not occur	: [X]		
Incompatibility - Materials To Avoid:	bases				
	halogens hydrides				
	lithium				
	metal acetylides				
	metals				
	organic material				
	oxides				
	potassium chlorat	te			
	potassium perchlo	orate			
	potassium permai	nganate			
	sodium				
	strong oxidizing a				
	strong reducing a	gents			
	water				
Hazardous Decomposition Or Byproducts:	carbon dioxide				
	hydrogen cyanide	e			
	hydrogen sulfide				
	11. Toxicol	logical Inf	ormation		
Toxicological Information:			roduct have not been	thoroughly studied.	
	Sulfuric acid - To	oxicity Data: Ora	l LD50 (rat): 2,140 m	g/kg; Inhalation TCI	LO (human): 0.63
	mg/m3; Inhalation	n LC50 (mouse)	: 320 mg/m3; Inhalat	ion LC50 (guinea pig	g): 18 mg/m3 (8hr)
	Sulfuric acid - Irr	itation Data: Eye	es (rabbit): 5 mg (30s) severe;	
Chronic Toxicological Effects:					
J		-	productive effector.		
	Only select Regis	stry of Toxic Effe	ects of Chemical Sub	stances (RTECS) data	a is presented here
	Only select Regis See actual entry in	stry of Toxic Effe n RTECS for co	ects of Chemical Sub mplete information.	stances (RTECS) dat	a is presented here
	Only select Regis See actual entry in Sulfuric Acid RT	stry of Toxic Effe n RTECS for cos ECS Number: W	ects of Chemical Sub mplete information. 7S5600000		
lazardous Components (Chemical Name)	Only select Regis See actual entry in Sulfuric Acid RT CAS #	stry of Toxic Effe n RTECS for co ECS Number: W	ects of Chemical Sub mplete information. /S5600000 IARC	ACGIH	OSHA
Hazardous Components (Chemical Name) 1. Sulfuric acid	Only select Regis See actual entry in Sulfuric Acid RT CAS # 7664-93-9	stry of Toxic Effe n RTECS for co ECS Number: W NTP Known	ects of Chemical Sub mplete information. /S5600000 IARC Unknown	ACGIH A2	OSHA n.a.
Hazardous Components (Chemical Name) 1. Sulfuric acid 2. Water	Only select Regis See actual entry in Sulfuric Acid RT CAS # 7664-93-9 7732-18-5	stry of Toxic Effe n RTECS for con ECS Number: W NTP Known n.a.	ects of Chemical Sub mplete information. 7S5600000 IARC Unknown n.a.	ACGIH A2 n.a.	OSHA
Hazardous Components (Chemical Name) 1. Sulfuric acid	Only select Regis See actual entry in Sulfuric Acid RT CAS # 7664-93-9 7732-18-5 NTP? No IA	stry of Toxic Effe n RTECS for con ECS Number: W NTP Known n.a. RC Monographs	ects of Chemical Sub mplete information. 7S5600000 IARC Unknown n.a. S? No OSHA Re	ACGIH A2	OSHA n.a.
Hazardous Components (Chemical Name) Sulfuric acid Water Carcinogenicity:	Only select Regis See actual entry in Sulfuric Acid RT CAS # 7664-93-9 7732-18-5 NTP? No IA 12. Ecolo	stry of Toxic Effe n RTECS for co ECS Number: W NTP Known n.a. RC Monographs ogical Info	ects of Chemical Sub mplete information. /S5600000 IARC Unknown n.a. s? No OSHA Re rmation	ACGIH A2 n.a.	OSHA n.a.
Hazardous Components (Chemical Name) 1. Sulfuric acid 2. Water	Only select Regis See actual entry in Sulfuric Acid RT CAS # 7664-93-9 7732-18-5 NTP? No IA 12. Ecolo Avoid release interest	stry of Toxic Effe n RTECS for con ECS Number: W NTP Known n.a. RC Monographe ogical Infor	ects of Chemical Sub mplete information. 7S5600000 IARC Unknown n.a. s? No OSHA Re mation	ACGIH A2 n.a. gulated? No	OSHA n.a.
Hazardous Components (Chemical Name) Sulfuric acid Water Carcinogenicity:	Only select Regis See actual entry in Sulfuric Acid RT CAS # 7664-93-9 7732-18-5 NTP? No IA 12. Ecolo Avoid release interest	stry of Toxic Effe n RTECS for con ECS Number: W NTP Known n.a. RC Monographe ogical Infor	ects of Chemical Sub mplete information. /S5600000 IARC Unknown n.a. s? No OSHA Re rmation	ACGIH A2 n.a. gulated? No	OSHA n.a.
Hazardous Components (Chemical Name) Sulfuric acid Water Carcinogenicity:	Only select Regis See actual entry in Sulfuric Acid RT CAS # 7664-93-9 7732-18-5 NTP? No IA 12. Ecolo Avoid release interest	stry of Toxic Effe n RTECS for con ECS Number: W NTP Known n.a. RC Monographe of the environment control or dilution	ects of Chemical Sub mplete information. /S5600000 IARC Unknown n.a. s? No OSHA Re mation nt. on water may cause p	ACGIH A2 n.a. gulated? No	OSHA n.a.
Hazardous Components (Chemical Name) Sulfuric acid Water Carcinogenicity:	Only select Regis See actual entry in Sulfuric Acid RT 7664-93-9 7732-18-5 NTP? No IA 12. Ecolo Avoid release into Runoff from fire of 13. Dispos	stry of Toxic Effe n RTECS for con ECS Number: W NTP Known n.a. RC Monographe of the environment control or dilution sal Consid	ects of Chemical Sub mplete information. /S5600000 IARC Unknown n.a. s? No OSHA Re mation nt. on water may cause p	ACGIH A2 n.a. gulated? No	OSHA n.a.
Hazardous Components (Chemical Name) Sulfuric acid Water Carcinogenicity: General Ecological Information:	Only select Regis See actual entry in Sulfuric Acid RT CAS # 7664-93-9 7732-18-5 NTP? No IA 12. Ecolo Avoid release into Runoff from fire of 13. Dispose Dispose in accord	stry of Toxic Effe n RTECS for con ECS Number: W NTP Known n.a. RC Monographe of the environment control or dilution control or dil dilution contr	ects of Chemical Sub mplete information. /S5600000 IARC Unknown n.a. s? No OSHA Re rmation nt. on water may cause p erations state, and federal reg	ACGIH A2 n.a. gulated? No	OSHA n.a.
Hazardous Components (Chemical Name) Sulfuric acid Vater Carcinogenicity: General Ecological Information: Waste Disposal Method:	Only select Regis See actual entry in Sulfuric Acid RT 7664-93-9 7732-18-5 NTP? No IA 12. Ecolo Avoid release into Runoff from fire of 13. Dispos Dispose in accord 14. Trans	stry of Toxic Effe n RTECS for con ECS Number: W NTP Known n.a. RC Monographe of the environment control or dilution sal Consid	ects of Chemical Sub mplete information. /S5600000 IARC Unknown n.a. s? No OSHA Re rmation nt. on water may cause p erations state, and federal reg	ACGIH A2 n.a. gulated? No	OSHA n.a.
Hazardous Components (Chemical Name) . Sulfuric acid 2. Water Carcinogenicity: General Ecological Information: Waste Disposal Method: Globally Harmonized System of Classification	Only select Regis See actual entry in Sulfuric Acid RT 7664-93-9 7732-18-5 NTP? No IA 12. Ecolo Avoid release into Runoff from fire of 13. Dispos Dispose in accord 14. Trans	stry of Toxic Effor n RTECS for con ECS Number: W NTP Known n.a. RC Monographer of the environmer control or dilution control	ects of Chemical Sub mplete information. /S5600000 IARC Unknown n.a. s? No OSHA Re mation t. on water may cause p erations state, and federal reg mation	ACGIH A2 n.a. gulated? No	OSHA n.a.
Hazardous Components (Chemical Name) Sulfuric acid Vater Carcinogenicity: General Ecological Information: Waste Disposal Method: Globally Harmonized System of Classification Skin Corrosion/Irritation, Category 1A - Da	Only select Regis See actual entry in Sulfuric Acid RT 7664-93-9 7732-18-5 NTP? No IA 12. Ecolo Avoid release into Runoff from fire of 13. Dispos Dispose in accord 14. Trans	stry of Toxic Effor n RTECS for con ECS Number: W NTP Known n.a. RC Monographer of the environmer control or dilution control	ects of Chemical Sub mplete information. /S5600000 IARC Unknown n.a. s? No OSHA Re mation t. on water may cause p erations state, and federal reg mation	ACGIH A2 n.a. gulated? No	OSHA n.a.
Hazardous Components (Chemical Name) Sulfuric acid Water Carcinogenicity: General Ecological Information: Waste Disposal Method: Globally Harmonized System of Classification	Only select Regis See actual entry in Sulfuric Acid RT 7664-93-9 7732-18-5 NTP? No IA 12. Ecolo Avoid release into Runoff from fire of 13. Dispos Dispose in accord 14. Trans	stry of Toxic Effor n RTECS for con ECS Number: W NTP Known n.a. RC Monographer of the environmer control or dilution control	ects of Chemical Sub mplete information. /S5600000 IARC Unknown n.a. s? No OSHA Re mation erations state, and federal reg mation amage	ACGIH A2 n.a. gulated? No	OSHA n.a.



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DOT Hazard Class: DOT Hazard Label: UN/NA Number: Packing Group:	8			Supercedes Rev	101011. (00/01/201
UN/NA Number:	0					
	CORROSIVE					
Packing Group	2796					
	П					
LAND TRANSPORT (European ADR/RID)						
ADR/RID Shipping Name	Sulfuric acid [wit	h 51% or less acid]				
UN Number:	2796					
Hazard Class:	8 - CORROSIVE					
Packing Group:	II					
AIR TRANSPORT (ICAO/IATA)						
ICAO/IATA Shipping Name	Sulfuric acid [wit	h 51% or less acid]				
UN Number:	2796					
Hazard Class:	8 - CORROSIVE					
Packing Group:	II					
IATA Classification:	8					
Additional Transport Information:	Transport in acco	rdance with local, s	state, and federal regu	ulations.		
	15 Dogul	atory Inform	action			
		atory Inforn	lation			
European Community Risk and Safety Phrase R36/38 - Irritating to eyes and skin. S24/25 - Avoid contact with skin and eye S26 - In case of contact with eyes, rinse	es. ₅ immediately with pla		medical advice.			
European Community Risk and Safety PhraseR36/38- Irritating to eyes and skin.S24/25- Avoid contact with skin and eyeS26- In case of contact with eyes, rinseS36/37/39- Wear suitable protective clothinS45- In case of accident or if you feel	es. e immediately with plong, gloves and eye/fac	ce protection.		r possible.)		
European Community Risk and Safety Phrase R36/38 - Irritating to eyes and skin. S24/25 - Avoid contact with skin and eye S26 - In case of contact with eyes, rinse S36/37/39 - Wear suitable protective clothi S45 - In case of accident or if you feel US EPA SARA Title III	es. e immediately with plong, gloves and eye/fac	ce protection.		r possible.) Sec.313 (TRI)	Se	ec.110
European Community Risk and Safety Phrase R36/38 - Irritating to eyes and skin. S24/25 - Avoid contact with skin and eye S26 - In case of contact with eyes, rinse S36/37/39 - Wear suitable protective clothi S45 - In case of accident or if you feel JS EPA SARA Title III azardous Components (Chemical Name)	es. immediately with plang, gloves and eye/fac unwell, seek medical a	ce protection. advice immediately (sl	how the label whenever		Se No	
European Community Risk and Safety Phrase R36/38 - Irritating to eyes and skin. S24/25 - Avoid contact with skin and eye S26 - In case of contact with skin and eye S36/37/39 - Wear suitable protective clothi S45 - In case of accident or if you feel JS EPA SARA Title III azardous Components (Chemical Name) Sulfuric acid Water	es. e immediately with ple ng, gloves and eye/fac unwell, seek medical a CAS #	Sec.302 (EHS) Yes 1000 LB	how the label whenever	Sec.313 (TRI))
European Community Risk and Safety Phrase R36/38 - Irritating to eyes and skin. S24/25 - Avoid contact with skin and eye S26 - In case of contact with skin and eye S36/37/39 - Wear suitable protective clothi S45 - In case of accident or if you feel JS EPA SARA Title III azardous Components (Chemical Name) Sulfuric acid Water	ess immediately with ple ng, gloves and eye/fac unwell, seek medical a CAS # 7664-93-9 7732-18-5	Sec.302 (EHS) Yes 1000 LB No	how the label whenever Sec.304 RQ Yes 1000 LB No	Sec.313 (TRI) Yes No	No No)
European Community Risk and Safety Phrase R36/38 - Irritating to eyes and skin. S24/25 - Avoid contact with skin and eye S26 - In case of contact with eyes, rinse S36/37/39 - Wear suitable protective clothi S45 - In case of accident or if you feel JS EPA SARA Title III azardous Components (Chemical Name) Sulfuric acid Water Dther US EPA or State Lists azardous Components (Chemical Name)	ess immediately with plan ng, gloves and eye/fac unwell, seek medical a CAS # 7664-93-9 7732-18-5 CAS #	Sec.302 (EHS) Yes 1000 LB No CAA HAP,ODC	how the label whenever Sec.304 RQ Yes 1000 LB No CWA NPDES	Sec.313 (TRI) Yes No TSCA	No No CA	A PROP.6
European Community Risk and Safety Phrase R36/38 - Irritating to eyes and skin. S24/25 - Avoid contact with skin and eye S26 - In case of contact with skin and eye S36/37/39 - Wear suitable protective clothi S45 - In case of accident or if you feel JS EPA SARA Title III azardous Components (Chemical Name) Sulfuric acid Water Dther US EPA or State Lists azardous Components (Chemical Name) Sulfuric acid	ess. e immediately with plending, gloves and eye/factor inwell, seek medical at CAS # 7664-93-9 7664-93-9 CAS # 7664-93-9 7664-93-9	Sec.302 (EHS) Yes 1000 LB No CAA HAP,ODC No	how the label whenever Sec.304 RQ Yes 1000 LB No CWA NPDES No	Sec.313 (TRI) Yes No TSCA Inventory	No No CA No	A PROP.6
European Community Risk and Safety Phrase R36/38 - Irritating to eyes and skin. S24/25 - Avoid contact with skin and eye S26 - In case of contact with eyes, rinse S36/37/39 - Wear suitable protective clothi S45 - In case of accident or if you feel JS EPA SARA Title III azardous Components (Chemical Name) Sulfuric acid Water Other US EPA or State Lists azardous Components (Chemical Name) Sulfuric acid Water	ess. e immediately with plending, gloves and eye/factor inwell, seek medical at CAS # 7664-93-9 7732-18-5 CAS # 7664-93-9 7664-93-9 7664-93-9 7664-93-9 7664-93-9 7664-93-9 7664-93-9 7664-93-9	Sec.302 (EHS) Yes 1000 LB No CAA HAP,ODC No No	how the label whenever Sec.304 RQ Yes 1000 LB No CWA NPDES No No	Sec.313 (TRI) Yes No TSCA Inventory Inventory	No No CA No No	A PROP.6
European Community Risk and Safety Phrase R36/38 - Irritating to eyes and skin. S24/25 - Avoid contact with skin and eye S26 - In case of contact with eyes, rinse S36/37/39 - Wear suitable protective clothi S45 - In case of accident or if you feel JS EPA SARA Title III azardous Components (Chemical Name) Sulfuric acid Water Other US EPA or State Lists azardous Components (Chemical Name) Sulfuric acid Water	ess e immediately with plending, gloves and eye/factures and	Sec.302 (EHS) Yes 1000 LB No CAA HAP,ODC No No epared in accordance	how the label whenever Sec.304 RQ Yes 1000 LB No CWA NPDES No No No e with 29 CFR 1910	Sec.313 (TRI) Yes No TSCA Inventory	No No CA No No	A PROP.6
European Community Risk and Safety Phrase R36/38 - Irritating to eyes and skin. S24/25 - Avoid contact with skin and eye S26 - In case of contact with eyes, rinse S36/37/39 - Wear suitable protective clothi S45 - In case of accident or if you feel JS EPA SARA Title III azardous Components (Chemical Name) Sulfuric acid Water Dther US EPA or State Lists azardous Components (Chemical Name) Sulfuric acid Water	ess is. immediately with plend ng, gloves and eye/fac inwell, seek medical a CAS # 7664-93-9 7732-18-5 CAS # 7664-93-9 7732-18-5 This SDS was pre- and European Din	Sec.302 (EHS) Yes 1000 LB No CAA HAP,ODC No Pared in accordance rective 67/548/EEC	how the label whenever Sec.304 RQ Yes 1000 LB No CWA NPDES No No No e with 29 CFR 1910 as amended.	Sec.313 (TRI) Yes No TSCA Inventory Inventory	No No CA No No	A PROP.6
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