

# SAFETY DATA SHEET

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

Revision: 08/25/2017 Supersedes Revision: 03/03/2017

Caj	man		Plate	(strip or solid	l) s	Supersedes Revision: 03/03/2017
		accor	rding to Regulation (EC) No. 190	7/2006 as amended by	(EC) No. 1272/200	8
		Section 1. Ic	lentification of the Substan	ce/Mixture and of t	he Company/Ur	ndertaking
1.1	Product Product		400004/400006 Precoated (Mouse Anti-R	abbit IgG) EIA 96-W	'ell Plate (strip or	solid)
1.2	Relevan	t identified uses of	the substance or mixture a	nd uses advised ag	gainst:	
	Releva	ant identified uses:	For research use only, no	ot for human or veteri	inary use.	
1.3		of the Supplier of th any Name:	e Safety Data Sheet: Cayman Chemical Comp 1180 E. Ellsworth Rd. Ann Arbor, MI 48108	any		
	Web s	ite address:	www.caymanchem.com			
	Inform	ation:	Cayman Chemical Comp	any	+1 (734	4)971-3335
1.4	Emerge	ncy telephone num	ber:			
	Emerg	ency Contact:	CHEMTREC Within USA	and Canada:	+1 (80	0)424-9300
			CHEMTREC Outside US	A and Canada:	+1 (703	3)527-3887
			Section 2. Haz	zards Identific	ation	
2.1	Classifi	cation of the Substa	ance or Mixture:			
2.2	Label E	ements:				
	GHS S	ignal Word:	None			
	GHS I	lazard Phrases:				
	Based	on evaluation of cur	rently available data this subs	stance or mixture is n	not classifiable ac	cording to GHS.
	GHS F	Precaution Phrases:	:			
	No ph	rases apply.				
	GHS F	Response Phrases:				
	No ph	rases apply.				
	GHS S	Storage and Dispos	al Phrases:			
	Please	e refer to Section 7 fo	r Storage and Section 13 for	Disposal information	1.	
2.3			Material may be irritating to the			piratory tract.
	Effects		May be harmful by inhalation	-	-	
			May cause eye, skin, or respi To the best of our knowledge			been thoroughly investigated.
<u> </u>					-	
		Sectio	on 3. Composition	/Information c	on Ingrediei	nts
CAS RTE	;#/ CS#	Hazardous Compo REACH Registratio	onents (Chemical Name)/ on No.	Concentration	EC No./ EC Index No.	GHS Classification
NA NA		Precoated (Mouse Ant Plate	ti-Rabbit IgG) EIA 96-Well	100.0 %	NA NA	No data available.



#### SAFETY DATA SHEET coated (Mouse Anti-Rabbit IgG) EIA 96-

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

Plate (strip or solid)

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		Section 4. First Aid Measures
4.1	Description of First Aid	
	Measures:	
	In Case of Inhalation:	Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
	In Case of Skin Contact:	Immediately wash skin with soap and plenty of water for at least 20 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
	In Case of Eye Contact:	Hold eyelids apart and flush eyes with plenty of water for at least 20 minutes. Have eyes examined and tested by medical personnel.
	In Case of Ingestion:	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
		Section 5. Fire Fighting Measures
5.1	Suitable Extinguishing	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.
	Media:	Use water spray to cool fire-exposed containers.
	Unsuitable Extinguishing Media:	A solid water stream may be inefficient.
5.2	Flammable Properties an	dNo data available.
	Hazards:	
		No data available.
	Flash Pt:	No data.
	Explosive Limits:	LEL: No data. UEL: No data.
	Autoignition Pt:	No data.
5.3	Fire Fighting Instructions	<b>s:</b> As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
		Section 6. Accidental Release Measures
6.1	Protective Precautions,	Avoid raising and breathing dust, and provide adequate ventilation.
	Protective Equipment an Emergency Procedures:	<b>d</b> As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
6.2	Environmental Precautions:	Take steps to avoid release into the environment, if safe to do so.
6.3	Methods and Material Fo	r Contain spill and collect, as appropriate.
		ng Transfer to a chemical waste container for disposal in accordance with local regulations.
	Up:	
		Section 7. Handling and Storage
7.1	Precautions To Be Taker	Avoid breathing dust/fume/gas/mist/vapours/spray.
	in Handling:	Avoid prolonged or repeated exposure.
7.2		Keep container tightly closed.
	in Storing:	Store in accordance with information listed on the product insert.
	Sec	tion 8. Exposure Controls/Personal Protection
8.1	Exposure Parameters:	



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

Plate (strip or solid)

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			Trace (strip of solid)	supersedes Revision. 03/03/2017
8.2	Exposure Controls:			
8.2.1	Engineering Controls	Use pro	cess enclosures, local exhaust ventilation, or other enginee	ering controls to control airborne
	(Ventilation etc.):	levels b	elow recommended exposure limits.	
8.2.2	Personal protection equip	oment:		
	Eye Protection:	Safety g	glasses	
	Protective Gloves:	Compa	ible chemical-resistant gloves	
	Other Protective Clothing	:Lab coa	t	
	Respiratory Equipment	NIOSH	approved respirator, as conditions warrant.	
	(Specify Type):			
	Work/Hygienic/Maintenan	Do not	ake internally.	
	ce Practices:	Facilitie	s storing or utilizing this material should be equipped with a	n eyewash and a safety showe
		Wash th	noroughly after handling.	
		No data	available.	
	<u> </u>	ootion	0 Developl and Chamical Dropartice	
			9. Physical and Chemical Properties	
9.1	Information on Basic Phys		-	
	Physical States:		[]Gas []Liquid [X]Solid	
	Appearance and Odor:		Plate	
	pH:		No data.	
	Melting Point:		No data.	
	Boiling Point:		No data.	
	Flash Pt:		No data.	
	Evaporation Rate:		No data.	
	Flammability (solid, gas):		No data available.	
	Explosive Limits:		LEL: No data. UEL: No data.	
	Vapor Pressure (vs. Air or	r mm	No data.	
	Hg):			
	Vapor Density (vs. Air = 1	):	No data.	
	Specific Gravity (Water =	1):	No data.	
	Solubility in Water:		No data.	
	<b>Octanol/Water Partition</b>		No data.	
	Coefficient:			
	Autoignition Pt:		No data.	
	Decomposition Temperate	ure:	No data.	
	Viscosity:		No data.	
9.2	Other Information			
	Percent Volatile:		No data.	
		Se	ection 10. Stability and Reactivity	
10.1	Reactivity:		available.	
10.2	Stability:	Unstabl	e [ ] Stable [ X ]	
10.3	Stability Note(s):		f stored in accordance with information listed on the produc	t insert.
	Polymerization:	Will occ		
10.4	Conditions To Avoid:		available.	
10.5	Incompatibility - Materials			
. 0.0	To Avoid:			
10.6	Hazardous	No data	available.	
10.0	110201 0003	ino uala		
				Multi-region form



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

Plate (strip or solid)

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Decomposition or

Byproducts:

			Section 11. Toxico	logical Inforr	nation			
1.1		ation on	The toxicological effects of this	product have not be	een thoroughly stu	udied.		
	Toxicol	logical Effects:		1				
CAS	#	Hazardous Com	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA	
NA Precoated (Mou		Precoated (Mous	e Anti-Rabbit IgG) EIA 96-Well P	late n.a.	n.a.	n.a.	n.a.	
			Section 12. Ecolo	gical Inform	ation			
12.1	Toxicity	y:	Avoid release into the environm	ent.				
			Runoff from fire control or dilution water may cause pollution.					
12.2	Persistence and		No data available.					
	Degradability:							
12.3	Bioacc	umulative	No data available.					
	Potential:							
12.4	Mobility	y in Soil:	No data available.					
12.5	Results	s of PBT and vPvB	No data available.					
	assess	ment:						
12.6	Other a	dverse effects:	No data available.					
			Section 13. Dispos	al Consider	ations			
13.1	Waste	Disposal Method:	•					
		-	Section 14. Trans	sport Inform	ation			
14.1		TRANSPORT (US I						
	-	er Shipping Name:	Not dangerous goods.					
_	N/NA Nu	rd Class:						
	-							
14.1		•	opean ADR/RID):					
A		Shipping Name:	Not dangerous goods.					
	N Numbe							
-	anard Cl	ass.						
Н	azard Cla		A <b>T</b> A \					
H 14.3	AIR TR	ANSPORT (ICAO/	•					
H 14.3 IC	AIR TR CAO/IAT	ANSPORT (ICAO/ A Shipping Name:	Not dangerous goods.					
H 14.3 IC Addit	AIR TR CAO/IATA tional Tra	ANSPORT (ICAO/ A Shipping Name:	•	cal, state, and fede	ral regulations.			
H 14.3 IC Addit	AIR TR CAO/IAT	ANSPORT (ICAO/ A Shipping Name:	Not dangerous goods. Transport in accordance with lo					
H 14.3 IC Addit	AIR TR CAO/IATA tional Tra	ANSPORT (ICAO/ A Shipping Name:	Not dangerous goods.					
H 14.3 IC Addit Inforr	AIR TR CAO/IATA tional Tra mation:	ANSPORT (ICAO/I A Shipping Name: ansport	Not dangerous goods. Transport in accordance with lo	atory Inform				
H 14.3 IC Addit Inforr EPA	AIR TR CAO/IATA tional Tra mation: SARA (S	ANSPORT (ICAO/I A Shipping Name: ansport uperfund Amendm	Not dangerous goods. Transport in accordance with lo Section 15. Regul	atory Inform		S. 31	3 (TRI)	
H 14.3 IC Addit Inforr EPA	AIR TR CAO/IATA tional Tra mation: SARA (S	ANSPORT (ICAO/I A Shipping Name: ansport uperfund Amendm Hazardous Com	Not dangerous goods. Transport in accordance with lo Section 15. Regul	atory Inform of 1986) Lists	ation	<b>S. 31</b>	3 (TRI)	
H 14.3 IC Addit Inforr	AIR TR CAO/IATA tional Tra mation: SARA (S # NA	ANSPORT (ICAO/I A Shipping Name: ansport uperfund Amendm Hazardous Com Precoated (Mous Plate	Not dangerous goods. Transport in accordance with lo Section 15. Regul ents and Reauthorization Act of ponents (Chemical Name)	atory Inform of 1986) Lists S. 302 (EHS)	ation <b>S. 304 RQ</b> No		3 (TRI)	



#### SAFETY DATA SHEET coated (Mouse Anti-Rabbit IgG) EIA 96-

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

Revision: 08/25/2017 Supersedes Revision: 03/03/2017

CHEMICAL .	Trace (Strip of Sona) Supersedes Revision. 03/03/2017
Regulatory Information Statement:	This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.
	Section 16. Other Information
Revision Date:	08/25/2017
Additional Information About This Product:	No data available.
	DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.



Revision: 08/25/2017 Supersedes Revision: 03/03/2017

				(= 0) ) )	
		rding to Regulation (EC) No. 1907			
	Section 1. Ic	lentification of the Substance	ce/Mixture and of	the Company/U	ndertaking
1.1	Product Code: Product Name:	400040 EIA Tracer Dye			
1.2	Relevant identified uses of	the substance or mixture ar	nd uses advised a	against:	
	Relevant identified uses:	For research use only, not	t for human or vete	erinary use.	
1.3	Details of the Supplier of the	e Safety Data Sheet:			
	Company Name:	Cayman Chemical Compa 1180 E. Ellsworth Rd. Ann Arbor, MI 48108	any		
	Web site address:	www.caymanchem.com			
	Information:	Cayman Chemical Compa	any	+1 (73	4)971-3335
1.4	Emergency telephone num	ber:			
	Emergency Contact:	CHEMTREC Within USA		-	0)424-9300
		CHEMTREC Outside USA	A and Canada:	+1 (70	3)527-3887
		Section 2. Haz	ards Identifi	cation	
2.1	Classification of the Substa	ance or Mixture:			
	Skin Corrosion/Irritation,	Category 3			
2.2	Label Elements:				
	GHS Signal Word:	Warning			
	GHS Signal Word: GHS Hazard Phrases: H216: Causas mild skin irri	Warning			
	-	tation.			
	GHS Hazard Phrases: H316: Causes mild skin irri	tation.			
	GHS Hazard Phrases: H316: Causes mild skin irri GHS Precaution Phrases	tation.			
	GHS Hazard Phrases: H316: Causes mild skin irri GHS Precaution Phrases No phrases apply. GHS Response Phrases:	tation.	ention.		
	GHS Hazard Phrases: H316: Causes mild skin irri GHS Precaution Phrases No phrases apply. GHS Response Phrases:	tation. : occurs, get medical advice/att	ention.		
	GHS Hazard Phrases: H316: Causes mild skin irri GHS Precaution Phrases No phrases apply. GHS Response Phrases: P332+313: If skin irritation GHS Storage and Dispos	tation. : occurs, get medical advice/att		on.	
2.3	GHS Hazard Phrases: H316: Causes mild skin irri GHS Precaution Phrases No phrases apply. GHS Response Phrases: P332+313: If skin irritation GHS Storage and Dispos Please refer to Section 7 for Adverse Human Health	tation. : occurs, get medical advice/att <b>al Phrases:</b> or Storage and Section 13 for I Causes mild skin irritation.	Disposal informatio		
2.3	GHS Hazard Phrases: H316: Causes mild skin irri GHS Precaution Phrases No phrases apply. GHS Response Phrases: P332+313: If skin irritation GHS Storage and Dispos Please refer to Section 7 fo Adverse Human Health Effects and Symptoms:	tation. coccurs, get medical advice/att <b>al Phrases:</b> or Storage and Section 13 for I Causes mild skin irritation. Material may be irritating to th	Disposal informatio	nes and upper res	spiratory tract.
2.3	GHS Hazard Phrases: H316: Causes mild skin irri GHS Precaution Phrases No phrases apply. GHS Response Phrases: P332+313: If skin irritation GHS Storage and Dispos Please refer to Section 7 fo Adverse Human Health Effects and Symptoms:	tation. coccurs, get medical advice/att <b>al Phrases:</b> or Storage and Section 13 for I Causes mild skin irritation. Material may be irritating to th May be harmful by inhalation,	Disposal information e mucous membra ingestion, or skin	nes and upper res	spiratory tract.
2.3	GHS Hazard Phrases: H316: Causes mild skin irri GHS Precaution Phrases No phrases apply. GHS Response Phrases: P332+313: If skin irritation GHS Storage and Dispos Please refer to Section 7 fo Adverse Human Health Effects and Symptoms:	tation. coccurs, get medical advice/att <b>al Phrases:</b> or Storage and Section 13 for I Causes mild skin irritation. Material may be irritating to th May be harmful by inhalation, May cause eye or respiratory	Disposal information e mucous membra ingestion, or skin	nes and upper res	spiratory tract.
2.3	GHS Hazard Phrases: H316: Causes mild skin irri GHS Precaution Phrases: No phrases apply. GHS Response Phrases: P332+313: If skin irritation GHS Storage and Dispos Please refer to Section 7 fo Adverse Human Health Effects and Symptoms:	tation. coccurs, get medical advice/att <b>al Phrases:</b> or Storage and Section 13 for I Causes mild skin irritation. Material may be irritating to th May be harmful by inhalation,	Disposal information e mucous membra ingestion, or skin a system irritation.	nes and upper res	
2.3	GHS Hazard Phrases: H316: Causes mild skin irri GHS Precaution Phrases: No phrases apply. GHS Response Phrases: P332+313: If skin irritation GHS Storage and Dispos Please refer to Section 7 fo Adverse Human Health Effects and Symptoms:	tation. coccurs, get medical advice/att al Phrases: or Storage and Section 13 for I Causes mild skin irritation. Material may be irritating to th May be harmful by inhalation, May cause eye or respiratory May temporarily stain skin. To the best of our knowledge,	Disposal information e mucous membra ingestion, or skin system irritation. the toxicological p	nes and upper res absorption. roperties have not	t been thoroughly investigate
2.3	GHS Hazard Phrases: H316: Causes mild skin irri GHS Precaution Phrases No phrases apply. GHS Response Phrases: P332+313: If skin irritation GHS Storage and Dispos Please refer to Section 7 fo Adverse Human Health Effects and Symptoms:	tation. coccurs, get medical advice/att <b>al Phrases:</b> or Storage and Section 13 for I Causes mild skin irritation. Material may be irritating to th May be harmful by inhalation, May cause eye or respiratory May temporarily stain skin. To the best of our knowledge, on 3. Composition/	Disposal information e mucous membra ingestion, or skin system irritation. the toxicological p	nes and upper res absorption. roperties have not	t been thoroughly investigate
CAS	GHS Hazard Phrases: H316: Causes mild skin irri GHS Precaution Phrases No phrases apply. GHS Response Phrases: P332+313: If skin irritation GHS Storage and Dispos Please refer to Section 7 fo Adverse Human Health Effects and Symptoms:	tation. coccurs, get medical advice/att al Phrases: or Storage and Section 13 for I Causes mild skin irritation. Material may be irritating to th May be harmful by inhalation, May cause eye or respiratory May temporarily stain skin. To the best of our knowledge, On 3. Composition/	Disposal information e mucous membra ingestion, or skin system irritation. the toxicological p information	nes and upper res absorption. oroperties have not on Ingredie	t been thoroughly investigate



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		Section 4. First Aid Measures
4.1	Description of First Aid	
	Measures:	
	In Case of Inhalation:	Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
	In Case of Skin Contact:	Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
	In Case of Eye Contact:	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.
	In Case of Ingestion:	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
		Section 5. Fire Fighting Measures
5.1	Suitable Extinguishing	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.
	Media:	Use water spray to cool fire-exposed containers.
	Unsuitable Extinguishing	A solid water stream may be inefficient.
	Media:	
5.2	Flammable Properties an Hazards:	dNo data available.
		No data available.
	Flash Pt:	No data.
	Explosive Limits:	LEL: No data. UEL: No data.
	Autoignition Pt:	No data.
5.3	Fire Fighting Instructions	<b>s:</b> As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
		Section 6. Accidental Release Measures
6.1	Protective Precautions,	Avoid breathing vapors and provide adequate ventilation.
	Protective Equipment an	d As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,
	Emergency Procedures:	and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
6.2	Environmental	Take steps to avoid release into the environment, if safe to do so.
	Precautions:	
6.3		r Contain spill and collect, as appropriate.
		ngTransfer to a chemical waste container for disposal in accordance with local regulations.
	Up:	
		Section 7. Handling and Storage
7.1	Precautions To Be Taken	Avoid breathing dust/fume/gas/mist/vapours/spray.
	in Handling:	Avoid prolonged or repeated exposure.
7.2	Precautions To Be Taken	Keep container tightly closed.
	in Storing:	Store in accordance with information listed on the product insert.
	Sec	tion 8. Exposure Controls/Personal Protection
8.1	Exposure Parameters:	



Cay		Supersedes Revision: 03/03/2017					
8.2	Exposure Controls:						
8.2.1	Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne					
	(Ventilation etc.):	levels below recommended exposure limits.					
8.2.2	Personal protection equip	oment:					
	Eye Protection:	Safety glasses					
	Protective Gloves:	Compatible chemical-resistant gloves					
	Other Protective Clothing:	NIOSH approved respirator, as conditions warrant.					
	Respiratory Equipment						
	(Specify Type):						
	Work/Hygienic/Maintenan						
		Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety					
		shower.					
	Wash thoroughly after handling.						
		No data available.					
	Sc	ection 9. Physical and Chemical Properties					
9.1	-	ical and Chemical Properties					
	Physical States:	[]Gas [X]Liquid []Solid					
	Appearance and Odor:	A red liquid No data.					
	pH: Molting Deint:	No data.					
	Melting Point:						
	Boiling Point:	No data. No data.					
	Flash Pt:						
	Evaporation Rate:	No data.					
	Flammability (solid, gas):	No data available. LEL: No data. UEL: No data.					
	Explosive Limits:						
	Vapor Pressure (vs. Air or						
	Hg): Vanar Dansity (va. Air – 1)	): No data.					
	Vapor Density (vs. Air = 1)						
	Specific Gravity (Water = 1						
	Solubility in Water:	No data.					
	Octanol/Water Partition	No data.					
	Coefficient:						
	Autoignition Pt:	No data.					
	Decomposition Temperatu						
	Viscosity:	No data.					
9.2	Other Information						
	Percent Volatile:	No data.					
		Section 10. Stability and Reactivity					
10.1	Reactivity:	No data available.					
10.2	Stability:	Unstable [ ] Stable [ X ]					
10.3	Stability Note(s):	Stable if stored in accordance with information listed on the product insert.					
	Polymerization:	Will occur [ ] Will not occur [ X ]					
10.4	Conditions To Avoid:	No data available.					
10.5	Incompatibility - Materials	organic materials					
		strong acids					
		strong oxidizing agents					
1							



Multi-region format

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10.6	Hazardo	us	No data available.						
	Decomp	osition or							
	Byprodu	icts:							
			Section 11 Toxicologica	Inform	ation				
			Section 11. Toxicologica						
11.1 Information on Toxicological Effects:		ion on	The toxicological effects of this product have not been thoroughly studied.						
		gical Effects:	Sodium Hydroxide - Toxicity Data: Intrap	eritoneal LD	950 (mouse): 40	mg/kg; Oral T	DLO (rat): 44		
			mg/kg						
Chronic Toxicological			Sodium Hydroxide - Investigated as a mutagen, reproductive effector, and tumorigen.						
	Effects:		Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.						
			See actual entry in RTECS for complete						
			Sodium Hydroxide RTECS Number: WB4900000						
Carci	nogenicity	:	NTP? No IARC Monographs? No	OSHA R	egulated? No				
CAS	#	Hazardous Com	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA		
	NA	EIA Tracer Dye		n.a.	n.a.	n.a.	n.a.		
		ł	Section 12. Ecological	Informat	tion		ł		
				monna					
12.1	Toxicity:		Avoid release into the environment.		- 11 - 42				
			Runoff from fire control or dilution water may cause pollution.						
12.2	Persiste		No data available.						
	Degrada	-							
12.3	Bioaccu		No data available.						
	Potentia	l:							
12.4	Mobility	in Soil:	No data available.						
12.5	Results	of PBT and vPvB	3 No data available.						
	assessm	ent:							
12.6	Other ad	verse effects:	No data available.						
			Section 13. Disposal Considerations						
13.1	Waste D	isposal Method:	Dispose in accordance with local, state, and federal regulations.						
			Section 14. Transport	Informa	tion				
14.1	LAND T	RANSPORT (US	DOT):						
D	OT Prope	r Shipping Name	Not dangerous goods.						
	OT Hazaro								
υ	N/NA Nun	nber:							
14.1	LAND T	RANSPORT (Euro	opean ADR/RID):						
		hipping Name:	Not dangerous goods.						
	N Number								
-	azard Cla								
14.3		NSPORT (ICAO/							
		Shipping Name:	Not dangerous goods.						
	ional Trar		Transport in accordance with local, state	and federa	l regulations				
	nation:	isport	Transport in accordance with local, state		a regulations.				



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		Section 15. Regu	,		
	i	ents and Reauthorization Act	1		
CAS #		ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
NA	EIA Tracer Dye		No	No	No
CAS #	Hazardous Components (Chemical Name)		Other US EPA or	State Lists	
NA	NA EIA Tracer Dye		CAA HAP,ODC: I PROP.65: No	No; CWA NPDES	: No; TSCA: No; CA
Regulatory Info	ormation	This SDS was prepared in accord No.1272/2008.	ordance with 29 CFR	1910.1200 and R	egulation (EC)
		Section 16. Otl	her Informatio	n	
Revision Date:		08/25/2017			
Additional Info	mation About	No data available.			
This Product:					
		their particular purposes.			



	Revision:	08/25/2017
Supersedes	Revision:	03/03/2017

NA		EIA Antiserum Dye		100.0 %	NA NA	Carcinogen 1B: H350
CAS : RTEC		Hazardous Compor REACH Registration	nents (Chemical Name)/ n No.	Concentration	EC No./ EC Index No.	GHS Classification
		Т	lay cause eye, skin, or resp o the best of our knowledge n 3. Composition	, the toxicological pro	operties have not	been thoroughly investigated
.3	GHS S Please Adverse	Storage and Disposa e refer to Section 7 for e Human Health M and Symptoms: M	Phrases: Storage and Section 13 for laterial may be irritating to th lay be harmful by inhalation lay cause cancer.	Disposal information ne mucous membran , ingestion, or skin ab	es and upper res osorption.	piratory tract.
		Response Phrases: 313: IF exposed or co	ncerned: Get medical atten	tion/advice.		
	P280:	Wear {protective glove	es/protective clothing/eye p	rotection/face protect	ion}.	
		•	safety precautions have be	en read and understo	ood.	
		Precaution Phrases: Obtain special instruc	tions before use			
		May cause cancer.				
	GHS H	lazard Phrases:	-			
	GHS S	Signal Word:	Danger			
.2		nogenicity, Category ements:	18			
.1		cation of the Substar				
			Section 2. Haz	zards Identific	ation	
	Emerg	ency Contact:	CHEMTREC Within USA CHEMTREC Outside US		-	0)424-9300 3)527-3887
.4	Emerge	ncy telephone numb	er:			
	Web s Inform	ite address: ation:	www.caymanchem.com Cayman Chemical Comp	any	+1 (734	4)971-3335
	Compa	any Name:	Cayman Chemical Comp 1180 E. Ellsworth Rd. Ann Arbor, MI 48108	any		
.3		ant identified uses: of the Supplier of the	For research use only, no	ot for human or veteri	nary use.	
.2			he substance or mixture a	-		
	Product	Name:	EIA Antiserum Dye			
	FIGUUCE	Code:	400042			
.1	Product				. ,	0



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4.1	Description of First Aid Measures: In Case of Inhalation:	
	In Case of Inhalation:	
		Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
	In Case of Skin Contact:	Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
	In Case of Eye Contact:	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.
	In Case of Ingestion:	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
		Section 5. Fire Fighting Measures
5.1	Suitable Extinguishing	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.
	Media:	Use water spray to cool fire-exposed containers.
		A solid water stream may be inefficient.
5.2	Media:	No dota available
5.2	Flammable Properties and Hazards:	gino data avaliable.
		No data available.
	Flash Pt:	No data.
	Explosive Limits:	LEL: No data. UEL: No data.
	Autoignition Pt:	No data.
5.3	Fire Fighting Instructions	: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
		Section 6. Accidental Release Measures
6.1	Protective Precautions,	Avoid breathing vapors and provide adequate ventilation.
	Protective Equipment and	As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,
	Emergency Procedures:	and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
6.2	Environmental Precautions:	Take steps to avoid release into the environment, if safe to do so.
6.3		Contain spill and collect, as appropriate.
		${f g}$ Transfer to a chemical waste container for disposal in accordance with local regulations.
		Section 7. Handling and Storage
7.1	Precautions To Be Taken	Avoid breathing dust/fume/gas/mist/vapours/spray.
	in Handling:	Avoid prolonged or repeated exposure.
7.2	Precautions To Be Taken	Keep container tightly closed.
	in Storing:	Store in accordance with information listed on the product insert.
	Sect	ion 8. Exposure Controls/Personal Protection
8.1	Exposure Parameters:	



8.2	Exposure Controls:		
8.2.1	Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering contr	ols to control airborno
0.2.1	(Ventilation etc.):	levels below recommended exposure limits.	
8.2.2			
0.2.2	Eye Protection:	Safety glasses	
	Protective Gloves:		
		Compatible chemical-resistant gloves	
	Other Protective Clothing		
		NIOSH approved respirator, as conditions warrant.	
	(Specify Type):		
	Work/Hygienic/Maintenan	-	
	ce Practices:	Facilities storing or utilizing this material should be equipped with an eyewasl	n facility and a safety
		shower. Wash thoroughly after handling.	
		No data available.	
	Se	ection 9. Physical and Chemical Properties	
9.1	Information on Basic Phys	ical and Chemical Properties	
	Physical States:	[]Gas [X]Liquid []Solid	
	Appearance and Odor:	A blue solution	
	pH:	No data.	
	Melting Point:	No data.	
	Boiling Point:	No data.	
	Flash Pt:	No data.	
	Evaporation Rate:	No data.	
	Flammability (solid, gas):	No data available.	
	Explosive Limits:	LEL: No data. UEL: No data.	
	Vapor Pressure (vs. Air or	mm No data.	
	Hg):		
	Vapor Density (vs. Air = 1	: No data.	
	Specific Gravity (Water =	I): No data.	
	Solubility in Water:	No data.	
	<b>Octanol/Water Partition</b>	No data.	
	Coefficient:		
	Autoignition Pt:	No data.	
	Decomposition Temperat	ire: No data.	
	Viscosity:	No data.	
9.2	Other Information		
	Percent Volatile:	No data.	
		Section 10. Stability and Reactivity	
10.1	Reactivity:	No data available.	
10.2	Stability:	Unstable [ ] Stable [ X ]	
10.3	Stability Note(s):	Stable if stored in accordance with information listed on the product insert.	
	Polymerization:	Will occur [ ] Will not occur [ X ]	
10.4	Conditions To Avoid:	No data available.	
10.5	Incompatibility - Materials	strong oxidizing agents	
	To Avoid:		
10.6	Hazardous	No data available.	
			Multi-region format
<u> </u>			



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	Decomposition or								
	Byprodu	icts:							
			Sectior	n 11. Toxicological	Informa	ation			
11.1	Informat	ion on	The toxicolog	ical effects of this product hav	/e not been	thoroughly stu	udied.		
	Toxicolo	gical Effects:							
		Toxicological	Contains a co	omponent that has been inves	tigated as	a carcinogen.			
	Effects:		- ·						
	Carcinogenicity/Other		Contains a component that has been reported to be probably carcinogenic based on its IARC,						
Carcin	Information: rcinogenicity:		OSHA, ACGIH, NTP, or EPA classification. NTP? No IARC Monographs? Yes OSHA Regulated? No						
CAS #		Hazardous Com	-		NTP		ACGIH	OSHA	
	r NA	EIA Antiserum Dy			n.a.	n.a.	n.a.	n.a.	
				an 10. Facloriant In			11.4.	11.0.	
40.4	Taniali			on 12. Ecological In	iormati	ION			
12.1	Toxicity:			ire control or dilution water ma	av cause po	ollution.			
12.2	Persiste	nce and	No data avail		ay baddo pt				
	Degrada								
12.3	Bioaccu	mulative	No data avail	able.					
	Potentia	l:							
12.4	Mobility	in Soil:	No data avail	able.					
12.5	Results	of PBT and vPvB	No data avai	lable.					
	assessm								
12.6	Other ad	verse effects:	No data avai						
			Sectio	n 13. Disposal Con	siderati	ions			
13.1	Waste D	isposal Method:	Dispose in ac	ccordance with local, state, an	d federal re	egulations.			
			Sect	ion 14. Transport Ir	format	ion			
14.1	LAND T	RANSPORT (US D	DOT):						
	=	r Shipping Name:	Not dang	jerous goods.					
	OT Hazaro								
	N/NA Num								
14.1		RANSPORT (Euro	-	ID): jerous goods.					
	N Number	hipping Name:	Not dang	jerous goods.					
	azard Clas								
14.3		ANSPORT (ICAO/I	ATA):						
IC	ΑΟ/ΙΑΤΑ	Shipping Name:	Not dang	jerous goods.					
Additi	ional Trar	nsport	Transport in	accordance with local, state, a	and federal	regulations.			
Inforn	nation:								



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		Section 15. Regu	ialory inform	allon		
EPA SARA (S	Superfund Amendn	nents and Reauthorization Act	of 1986) Lists			
CAS #	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
NA	EIA Antiserum D	уе	No	No	No	
CAS #	Hazardous Com	ponents (Chemical Name)	Other US EPA o	r State Lists		
NA	EIA Antiserum D	уе	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No			
Regulatory In Statement:	formation	This SDS was prepared in acco No.1272/2008.	ordance with 29 CFF	R 1910.1200 and R	egulation (EC)	
		Section 16. Ot	her Informatio	on		
Revision Date:		08/25/2017				
Additional Inf	ormation About	No data available.				
This Product:						



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	acc	cording to Regulation (EC) No. 1907/2006 as amended by	(EC) No. 1272/2008
	Section 1.	Identification of the Substance/Mixture and of t	he Company/Undertaking
.1	Product Code:	400080	
	Product Name:	Tris Buffer Concentrate (10X)	
.2	Relevant identified uses of	of the substance or mixture and uses advised ag	jainst:
	Relevant identified uses	For research use only, not for human or veter	inary use.
.3	Details of the Supplier of	the Safety Data Sheet:	
	Company Name:	Cayman Chemical Company	
		1180 E. Ellsworth Rd.	
		Ann Arbor, MI 48108	
	Web site address:	www.caymanchem.com	
	Information:	Cayman Chemical Company	+1 (734)971-3335
.4	Emergency telephone nu		
	Emergency Contact:	CHEMTREC Within USA and Canada:	+1 (800)424-9300
		CHEMTREC Outside USA and Canada:	+1 (703)527-3887
		Section 2. Hazards Identific	ation
.1	Classification of the Subs	stance or Mixture:	
	Acute Toxicity: Oral, Ca	itegory 4	
	Aquatic Toxicity (Acute	), Category 3	
	Aquatic Toxicity (Chron	iic), Category 3	
2.2	Label Elements:		
2.2			
.2	Label Elements:	Warning	
.2	GHS Signal Word: GHS Hazard Phrases:	-	
.2	GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallow	ed.	
.2	GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallow H402: Harmful to aquatic	ed.	
.2	GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallow H402: Harmful to aquatic	ed. life. life with long lasting effects.	
.2	GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallow H402: Harmful to aquatic H412: Harmful to aquatic	ed. life. life with long lasting effects.	
2	GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallow H402: Harmful to aquatic H412: Harmful to aquatic GHS Precaution Phrase	ed. life. life with long lasting effects. e <b>s:</b> oughly after handling.	
2	GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallow H402: Harmful to aquatic H412: Harmful to aquatic GHS Precaution Phrase P264: Wash {hands} thor	ed. life. life with long lasting effects. es: oughly after handling. e environment.	
2	GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallow H402: Harmful to aquatic H412: Harmful to aquatic GHS Precaution Phrase P264: Wash {hands} thor P273: Avoid release to th GHS Response Phrases	ed. life. life with long lasting effects. es: oughly after handling. e environment.	f you feel unwell.
.2	GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallow H402: Harmful to aquatic H412: Harmful to aquatic GHS Precaution Phrase P264: Wash {hands} thor P273: Avoid release to th GHS Response Phrases	ed. life. life with long lasting effects. es: oughly after handling. e environment.	f you feel unwell.
.2	GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallow H402: Harmful to aquatic H412: Harmful to aquatic GHS Precaution Phrase P264: Wash {hands} thor P273: Avoid release to th GHS Response Phrases P301+312: IF SWALLOW	ed. life. life with long lasting effects. es: oughly after handling. e environment. s: /ED: Call a POISON CENTER or doctor/physician it	f you feel unwell.
.2	GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallow H402: Harmful to aquatic H412: Harmful to aquatic GHS Precaution Phrase P264: Wash {hands} thor P273: Avoid release to th GHS Response Phrases P301+312: IF SWALLOW P330: Rinse mouth. GHS Storage and Dispo	ed. life. life with long lasting effects. es: oughly after handling. e environment. s: /ED: Call a POISON CENTER or doctor/physician it	
	GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallow H402: Harmful to aquatic H412: Harmful to aquatic GHS Precaution Phrase P264: Wash {hands} thor P273: Avoid release to th GHS Response Phrases P301+312: IF SWALLOW P330: Rinse mouth. GHS Storage and Dispo	ed. life. life with long lasting effects. es: oughly after handling. e environment. S: /ED: Call a POISON CENTER or doctor/physician it	
	GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallow H402: Harmful to aquatic H412: Harmful to aquatic GHS Precaution Phrase P264: Wash {hands} thor P273: Avoid release to th GHS Response Phrases P301+312: IF SWALLOW P330: Rinse mouth. GHS Storage and Dispon Please refer to Section 7	ed. life. life with long lasting effects. es: oughly after handling. e environment. CED: Call a POISON CENTER or doctor/physician it psal Phrases: for Storage and Section 13 for Disposal information	
2.2	GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallow H402: Harmful to aquatic H412: Harmful to aquatic GHS Precaution Phrase P264: Wash {hands} thor P273: Avoid release to th GHS Response Phrases P301+312: IF SWALLOW P330: Rinse mouth. GHS Storage and Dispon Please refer to Section 7 Adverse Human Health	ed. life. life with long lasting effects. es: oughly after handling. e environment. S: /ED: Call a POISON CENTER or doctor/physician it psal Phrases: for Storage and Section 13 for Disposal information Harmful if swallowed.	1.
	GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallow H402: Harmful to aquatic H412: Harmful to aquatic GHS Precaution Phrase P264: Wash {hands} thor P273: Avoid release to th GHS Response Phrases P301+312: IF SWALLOW P330: Rinse mouth. GHS Storage and Dispon Please refer to Section 7 Adverse Human Health	ed. life. life with long lasting effects. es: oughly after handling. e environment. : /ED: Call a POISON CENTER or doctor/physician it /Sal Phrases: for Storage and Section 13 for Disposal information Harmful if swallowed. Harmful if swallowed. Harmful to aquatic life with long lasting effects. Material is irritating to the mucous membranes an May be harmful by inhalation or skin absorption.	1.
	GHS Signal Word: GHS Hazard Phrases: H302: Harmful if swallow H402: Harmful to aquatic H412: Harmful to aquatic GHS Precaution Phrase P264: Wash {hands} thor P273: Avoid release to th GHS Response Phrases P301+312: IF SWALLOW P330: Rinse mouth. GHS Storage and Dispon Please refer to Section 7 Adverse Human Health	ed. life. life with long lasting effects. es: oughly after handling. e environment. S: /ED: Call a POISON CENTER or doctor/physician it bal Phrases: for Storage and Section 13 for Disposal information Harmful if swallowed. Harmful to aquatic life with long lasting effects. Material is irritating to the mucous membranes an	n. d upper respiratory tract.



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	: / S #	Hazardous Comp REACH Registra	oonents (Chemical Name)/ tion No.	Concentration	EC No./ EC Index No.	GHS Classification
NA		Tris[hydroxymethyl]a	aminomethane hydrochloride	13.2 %	214-684-5 NA	No data available.
	77-86-1 Trizma base 2900000			1.9 %	201-064-4 NA	
26628 VY8050	-	Sodium azide		0.5 %	247-852-1 011-004-00-7	Acute Tox.(O) 2: H300 Aquatic (A) 1: H400 Aquatic (C) 1: H410
7647-14-5 Sodium chloride VZ4725000		Sodium chloride		8.4 %	231-598-3 NA	No data available.
7646-85-7 Zinc chloride ZH1400000		Zinc chloride	Zinc chloride		231-592-0 030-003-00-2	Acute Tox.(O) 4: H302 Skin Corr. 1B: H314 Aquatic (A) 1: H400 Aquatic (C) 1: H410
7791- OM297		Magnesium chloride	, hexahydrate	0.4 %	NA NA	No data available.
9048- MT644		Bovine Serum Albur	nin (BSA)	5.0 %	232-936-2 NA	Acute Tox.(O) 4: H302
7732- ZC011(		Water		70.58 %	231-791-2 NA	No data available.
		·	Section 4. F	irst Aid Meas	ures	•
In Case of Inhalation: In Case of Skin Contact: In Case of Eye Contact: In Case of Ingestion:			Remove to fresh air. If not be personnel. Get immediate m Immediately wash skin with	edical attention.		
		·	contaminated clothing. Get r Hold eyelids apart and flush examined and tested by med Wash out mouth with water p unconscious person. Get me medical personnel.	nedical attention if s eyes with plenty of v dical personnel. provided person is c	ymptoms occur. W water for at least 1 onscious. Never g	/ash clothing before reuse. 5 minutes. Have eyes
		·	Hold eyelids apart and flush examined and tested by med Wash out mouth with water p unconscious person. Get me	nedical attention if s eyes with plenty of v dical personnel. provided person is c edical attention. Do N	ymptoms occur. W water for at least 1 onscious. Never g NOT induce vomiti	/ash clothing before reuse. 5 minutes. Have eyes ive anything by mouth to an
5.1	In Case Suitab Media: Unsuit	e of Ingestion: le Extinguishing able Extinguishing	Hold eyelids apart and flush examined and tested by med Wash out mouth with water p unconscious person. Get me medical personnel.	nedical attention if s eyes with plenty of w dical personnel. provided person is c edical attention. Do N E Fighting Me carbon dioxide, wate	ymptoms occur. W water for at least 1 onscious. Never g NOT induce vomiti <b>ASURES</b> er, or dry chemical	/ash clothing before reuse. 5 minutes. Have eyes ive anything by mouth to an ng unless directed to do so by
	In Case Suitabl Media: Unsuit Media:	e of Ingestion: le Extinguishing able Extinguishing able Properties an	Hold eyelids apart and flush examined and tested by med Wash out mouth with water unconscious person. Get me medical personnel. Section 5. Fire Use alcohol-resistant foam, Use water spray to cool fire-	nedical attention if s eyes with plenty of v dical personnel. provided person is c edical attention. Do N E Fighting Me carbon dioxide, wate	ymptoms occur. W water for at least 1 onscious. Never g NOT induce vomiti <b>ASURES</b> er, or dry chemical	/ash clothing before reuse. 5 minutes. Have eyes ive anything by mouth to an ng unless directed to do so by
5.1	In Case Suitabl Media: Unsuit Media: Flamm Hazard Flash F Explos	e of Ingestion: le Extinguishing able Extinguishing able Properties an Is:	Hold eyelids apart and flush examined and tested by med Wash out mouth with water unconscious person. Get me medical personnel. <b>Section 5. Fire</b> Use alcohol-resistant foam, Use water spray to cool fire- A solid water stream may be	nedical attention if s eyes with plenty of v dical personnel. provided person is c edical attention. Do N E Fighting Me carbon dioxide, wate	ymptoms occur. W water for at least 1 onscious. Never g NOT induce vomiti <b>ASURES</b> er, or dry chemical	/ash clothing before reuse. 5 minutes. Have eyes ive anything by mouth to an ng unless directed to do so by
	In Case Suitabl Media: Unsuit Media: Flamm Hazard Flash F Explos Autoig	e of Ingestion: le Extinguishing able Extinguishing able Properties an ls: Pt: sive Limits: nition Pt:	Hold eyelids apart and flush examined and tested by med Wash out mouth with water p unconscious person. Get me medical personnel. <b>Section 5. Fire</b> Use alcohol-resistant foam, Use water spray to cool fire- A solid water stream may be dNo data available. No data available. No data. LEL: No data.	nedical attention if sp eyes with plenty of v dical personnel. provided person is co edical attention. Do N <u>e Fighting Me</u> carbon dioxide, wate exposed containers e inefficient. UEL: No d tained breathing app	ymptoms occur. W water for at least 1 onscious. Never g NOT induce vomiti <b>ASURES</b> er, or dry chemical er, or dry chemical lata.	<pre>/ash clothing before reuse. 5 minutes. Have eyes ive anything by mouth to an ing unless directed to do so by spray. emand (NIOSH approved or</pre>



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Section 6. Accidental Release Measures 6.1 **Protective Precautions,** Avoid breathing vapors and provide adequate ventilation. Protective Equipment and As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves). **Emergency Procedures:** 6.2 Environmental Take steps to avoid release into the environment, if safe to do so. Precautions: 6.3 Methods and Material For Contain spill and collect, as appropriate. Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations. Up: Section 7. Handling and Storage 7.1 Precautions To Be Taken Avoid breathing dust/fume/gas/mist/vapours/spray. in Handling: Avoid prolonged or repeated exposure. 7.2 Precautions To Be Taken Keep container tightly closed. Store in accordance with information listed on the product insert. in Storing: Section 8. Exposure Controls/Personal Protection **Exposure Parameters:** 8.1 CAS # **Chemical Name** Jurisdiction **Recommended Exposure Limits** Notations ACGIH TLV 77-86-1 Trizma base CEIL: 5 mg/m3 (salts) France VL TWA: 5 mg/m3 **OSHA PELs** TWA: 5 mg/m3 Britain EH40 TWA: 5.0 mg/m3 Skin Absorption 26628-22-8 Sodium azide ACGIH TLV CEIL: 0.29 mg/m3 Europe TWA: 0.1 mg/m3 Skin Absorption STEL: 0.3 mg/m3 France VL TWA: 0.1 mg/m3 STEL: 0.3 mg/m3 Britain EH40 TWA: 0.1 mg/m3 () Skin Absorption STEL: 0.3 mg/m3 () 7646-85-7 ACGIH TLV Zinc chloride TLV: 1 mg/m3 STEL: 2 mg/m3 France VL TWA: 1 mg/m3 **OSHA PELs** PEL: 1 mg/m3 Britain EH40 TWA: 1 mg/m3 () STEL: 2 mg/m3 () 8.2 **Exposure Controls:** 8.2.1 **Engineering Controls** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. (Ventilation etc.): 8.2.2 Personal protection equipment: **Eye Protection:** Safety glasses **Protective Gloves:** Compatible chemical-resistant gloves Other Protective Clothing: Lab coat **Respiratory Equipment** NIOSH approved respirator, as conditions warrant. (Specify Type):

Work/Hygienic/Maintenan Do not take internally.

ce Practices:Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.Wash thoroughly after handling.



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	CHEMICAL	Supersedes Revision: 06/21/2010 No data available.				
		ection 9. Physical and Chemical Properties				
).1	Information on Basic Physical and Chemical Properties					
	Physical States:	[]Gas [X]Liquid []Solid				
	Appearance and Odor:	1 M Tris-HCl, pH 7.6, containing 5% BSA, 1.45 M sodium chloride, 20 mM MgCl2, 1 mM				
		ZnCl2, and 0.5% sodium azide				
	pH:	No data.				
	Melting Point:	No data.				
	Boiling Point:	No data.				
	Flash Pt:	No data.				
	Evaporation Rate: Flammability (solid, gas):	No data. No data available.				
	Explosive Limits:	LEL: No data. UEL: No data.				
	Vapor Pressure (vs. Air or					
	Hg):					
	Vapor Density (vs. Air = 1)	No data.				
	Specific Gravity (Water = 1)					
	Solubility in Water:	No data.				
	Octanol/Water Partition	No data.				
	Coefficient:	No data.				
	Autoignition Pt:	No data.				
	Decomposition Temperatu					
	Viscosity:	No data.				
9.2	Other Information					
J.Z	Percent Volatile:	No data.				
	reicent volatile.					
		Section 10. Stability and Reactivity				
10.1	,	No data available.				
10.2		Unstable [ ] Stable [ X ]				
10.3	• • • •	Stable if stored in accordance with information listed on the product insert.				
	-	Will occur [ ] Will not occur [ X ]				
10.4	Conditions To Avoid:	No data available.				
0.5	Incompatibility - Materials					
	To Avoid:	oxidizing agents				
0.6		carbon dioxide				
		carbon monoxide				
	<b>71</b>	hydrogen chloride gas				
		nitrogen oxides				
		sodium oxides				



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		Section 11. Toxicologic												
1.1 Information on Toxicological Effects:		The toxicological effects of this product have not been thoroughly studied. Bovine Serum Albumin - Toxicity Data: Intraperitoneal TDLO (mouse): 0.2 pph; Sodium Azide - Toxicity Data: Oral LDLO (rat): 27 mg/kg; Oral LDLO (woman): 14 mg/kg; Oral LDLO (man): 29 mg/kg;												
Chror	nic Toxicological	Bovine Serum Albumin - Investigated as a natural product. Sodium Azide - Investigated as an agricultural chemical, drug, mutagen, reproductive effector, and												
Effect	s:													
Carcinogenicity:		tumorigen. Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information. Bovine Serum Albumin RTECS Number: AY9296000 Sodium Azide RTECS Number: VY8050000												
								NTP? No IARC Monographs? No						
								CAS #	Hazardous Con	nponents (Chemical Name)	NTP	IARC	ACGIH	OSHA
								1185-53-1	Tris[hydroxymet	hyl]aminomethane hydrochloride	n.a.	n.a.	n.a.	n.a.
		77-86-1	Trizma base		n.a.	n.a.	n.a.	n.a.						
26628-22-8	Sodium azide		n.a.	n.a.	A4	n.a.								
7647-14-5	Sodium chloride		n.a.	n.a.	n.a.	n.a.								
7646-85-7	Zinc chloride		n.a.	n.a.	n.a.	n.a.								
7791-18-6	Magnesium chlo	ride, hexahydrate	n.a.	n.a.	n.a.	n.a.								
9048-46-8	Bovine Serum A	Ibumin (BSA)	n.a.	n.a.	n.a.	n.a.								
7732-18-5	Water		n.a.	n.a.	n.a.	n.a.								
2.1 Toxic	ity:	Section 12. Ecologica Avoid release into the environment. Runoff from fire control or dilution wate												
	stence and dability:	No data available.												
2.3 Bioac Poten	cumulative tial:	No data available.												
	ity in Soil:	No data available.												
2.4 Mobil		B No data available.												
	ts of PBT and vPvE	No data available.												
2.5 Resul	ts of PBT and vPvE sment:	3 No data available.												
2.5 Resul asses		3 No data available. No data available.												
I2.5 Resul asses	sment:		onsiderat	ions										



Cayman	Tris Buffer (	Concentrate (1		Revision: 08/25/2017 edes Revision: 06/21/2016	
	Section 14. Trans	sport Informa	•		
14.1 LAND	TRANSPORT (US DOT):	•			
	er Shipping Name: Not dangerous goods. rd Class:				
14.1 LAND	TRANSPORT (European ADR/RID):				
ADR/RID S UN Numbe Hazard Cla					
14.3 AIR TR	ANSPORT (ICAO/IATA):				
ICAO/IATA	A Shipping Name: Not dangerous goods.				
Additional Tra	ansport Transport in accordance with loc	cal, state, and federa	al regulations.		
	Section 15. Regul	atory Informa	tion		
EPA SARA (S	uperfund Amendments and Reauthorization Act o	of 1986) Lists			
CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
1185-53-1	Tris[hydroxymethyl]aminomethane hydrochloride	No	No	No	
77-86-1	Trizma base	No	No	Yes-Cat. N106	
26628-22-8	Sodium azide	Yes 500 LB	Yes 1000 LB	Yes	
7647-14-5	Sodium chloride	No	No	No	
7646-85-7	Zinc chloride	No	Yes 1000 LB	No	
7791-18-6	Magnesium chloride, hexahydrate	No	No	No	
9048-46-8	Bovine Serum Albumin (BSA)	No	No	No	
7732-18-5	Water	No	No	No	
CAS #	Hazardous Components (Chemical Name)	Other US EPA or	State Lists		
1185-53-1	Tris[hydroxymethyl]aminomethane hydrochloride		lo; CWA NPDES: N	o; TSCA: Yes -	
77-86-1	Trizma base	CAA HAP,ODC: Y Inventory; CA PR		DES: No; TSCA: Yes -	
26628-22-8	Sodium azide	CAA HAP,ODC: N Inventory; CA PR	lo; CWA NPDES: N OP.65: No	o; TSCA: Yes -	
7647-14-5	Sodium chloride	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No			
7646-85-7	Zinc chloride	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No			
7791-18-6	Magnesium chloride, hexahydrate	CAA HAP,ODC: N PROP.65: No	lo; CWA NPDES: N	o; TSCA: No; CA	
9048-46-8	Bovine Serum Albumin (BSA)	CAA HAP,ODC: N Inventory; CA PR	lo; CWA NPDES: N OP.65: No	o; TSCA: Yes -	
7732-18-5	Water	CAA HAP,ODC: N Inventory; CA PR	lo; CWA NPDES: N OP.65: No	o; TSCA: Yes -	



Revision: 08/25/2017 upersedes Revision: 06/21/2016

CHIMICAL	Supersedes Revision: 06/21/2016
Regulatory Information	This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)
Statement:	No.1272/2008.
	Section 16. Other Information
Revision Date:	08/25/2017
Additional Information About	No data available.
This Product:	
This Product: Company Policy or Disclaimer:	DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.



Revision: 08/25/2017 Supersedes Revision: 12/08/2016

- Cy					S	Supersedes Revision: 12/08/2016		
		accol	ding to Regulation (EC) No. 190	7/2006 as amended by	r (EC) No. 1272/200	8		
		Section 1. Ic	lentification of the Substan	ce/Mixture and of	the Company/Ur	ndertaking		
.1	Produc	t Code:	400089					
	Produc	t Name:	pNPP Substrate Solution					
2	Releva	nt identified uses of	the substance or mixture a	nd uses advised ag	gainst:			
	Relev	ant identified uses:	For research use only, no	ot for human or veter	inary use.			
.3			e Safety Data Sheet:					
	Comp	oany Name:	Cayman Chemical Comp 1180 E. Ellsworth Rd.	any				
			Ann Arbor, MI 48108					
	Web	site address:	www.caymanchem.com					
	Inforr	nation:	Cayman Chemical Comp	any	+1 (734	4)971-3335		
.4	Emerge	ency telephone num	ber:					
	Emer	gency Contact:	CHEMTREC Within USA	and Canada:	•	0)424-9300		
			CHEMTREC Outside US	A and Canada:	+1 (703	3)527-3887		
			Section 2. Haz	zards Identific	cation			
.1	Classif	ication of the Substa	ince or Mixture:					
.2	Label E	lements:						
	GHS	Signal Word:	None					
	GHS Hazard Phrases:							
			rently available data this subs	stance or mixture is i	not classifiable ac	cording to GHS.		
		Precaution Phrases:	₽S:					
		nrases apply.						
		Response Phrases:						
	-	nrases apply. Storage and Dispos	al Phrasas					
			r Storage and Section 13 for	Disposal information	า			
.3			Material may be irritating to the	•		piratory tract.		
			May be harmful by inhalation			. ,		
		l	May cause eye, skin, or respi	ratory system irritati	on.			
			To the best of our knowledge	, the toxicological pr	operties have not	been thoroughly investigated		
		Section	on 3. Composition	Information of	on Ingredier	nts		
CAS			nents (Chemical Name)/	Concentration	EC No./	GHS Classification		
RTEC	S #	REACH Registratio			EC Index No.			
JA A		pNPP Substrate Solut	on	100.0 %	NA NA	No data available.		



Revision: 08/25/2017 Supersedes Revision: 12/08/2016

		Section 4. First Aid Measures
4.1	Description of First Aid	
	Measures:	
	In Case of Inhalation:	Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
	In Case of Skin Contact:	Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
	In Case of Eye Contact:	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.
	In Case of Ingestion:	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
		Section 5. Fire Fighting Measures
5.1	Suitable Extinguishing	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.
	Media:	Use water spray to cool fire-exposed containers.
	Unsuitable Extinguishing	A solid water stream may be inefficient.
	Media:	
5.2	Flammable Properties an	dNo data available.
	Hazards:	
		No data available.
	Flash Pt:	No data.
	Explosive Limits:	LEL: No data. UEL: No data.
	Autoignition Pt:	No data.
5.3	Fire Fighting Instructions	<b>s:</b> As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
		Section 6. Accidental Release Measures
6.1	Protective Precautions,	Avoid raising and breathing dust, and provide adequate ventilation.
	Protective Equipment an	d As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,
	Emergency Procedures:	and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
6.2	Environmental	Take steps to avoid release into the environment, if safe to do so.
	Precautions:	
6.3		r Contain spill and collect, as appropriate.
		ngTransfer to a chemical waste container for disposal in accordance with local regulations.
	Up:	
		Section 7. Handling and Storage
7.1	Precautions To Be Taken	Avoid breathing dust/fume/gas/mist/vapours/spray.
	in Handling:	Avoid prolonged or repeated exposure.
7.2	Precautions To Be Taken	Keep container tightly closed.
	in Storing:	Store in accordance with information listed on the product insert.
	Sec	tion 8. Exposure Controls/Personal Protection
8.1	Exposure Parameters:	



	HEMTERI	Supersedes Revision: 12/08/2016					
8.2	Exposure Controls:						
8.2.1		Jse process enclosures, local exhaust ventilation, or other engineering controls to control airborne					
	(Ventilation etc.):	evels below recommended exposure limits.					
8.2.2	Personal protection equipr	nent:					
	Eye Protection: Safety glasses						
	Protective Gloves: Compatible chemical-resistant gloves						
	Other Protective Clothing:	Lab coat					
	Respiratory Equipment	NIOSH approved respirator, as conditions warrant.					
	(Specify Type):						
	Work/Hygienic/Maintenan	Do not take internally.					
	ce Practices:	Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower					
	١	Nash thoroughly after handling.					
	1	No data available.					
	Se	ction 9. Physical and Chemical Properties					
9.1		cal and Chemical Properties					
	Physical States:	[]Gas [X]Liquid []Solid					
	Appearance and Odor:	A liquid					
	pH:	No data.					
	Melting Point:	No data.					
	Boiling Point:	No data.					
	Flash Pt:	No data.					
	Evaporation Rate:	No data.					
	Flammability (solid, gas):	No data available.					
	Explosive Limits:	LEL: No data. UEL: No data.					
	Vapor Pressure (vs. Air or						
	Hg):						
	Vapor Density (vs. Air = 1):	No data.					
	Specific Gravity (Water = 1)						
		No data.					
	Solubility in Water: Octanol/Water Partition	No data.					
	Coefficient:	NU Udid.					
	Autoignition Pt:	No data.					
	Decomposition Temperatur						
	Viscosity:	No data.					
9.2	Other Information						
	Percent Volatile:	No data.					
		Section 10. Stability and Reactivity					
10.1	Reactivity:	No data available.					
10.2	•	Jnstable [ ] Stable [ X ]					
10.3	Stability Note(s):	Stable if stored in accordance with information listed on the product insert.					
	Polymerization:	Nill occur [ ] Will not occur [ X ]					
10.4	Conditions To Avoid:	No data available.					
10.5	Incompatibility - Materials	strong oxidizing agents					
	To Avoid:						
10.6	Hazardous	carbon dioxide					
	(	carbon monoixde					
		Multi-region forma					



Multi-region format

Revision: 08/25/2017 Supersedes Revision: 12/08/2016

	Decom Byprod	oosition or ucts:					
			Section 11. Toxico	ological Info	rmation		
11.1	Informa Toxicol	tion on ogical Effects:	The toxicological effects of this			udied.	
CAS	#	Hazardous Com	ponents (Chemical Name)	NTF	IARC	ACGIH	OSHA
	NA pNPP Su		Solution n.a. n.a.				n.a.
			Section 12. Ecol	ogical Inforr	nation		
12.1 12.2	Toxicity	: ence and	Avoid release into the environr Runoff from fire control or dilut No data available.	nent.			
	Degrad						
12.3	Bioaccu Potentia	ımulative al:	No data available.				
12.4	Mobility	in Soil:	No data available.				
12.5	Results	of PBT and vPvB	No data available.				
	assessi						
12.6	Other a	dverse effects:	No data available.				
			Section 13. Dispo	sal Conside	erations		
13.1	Waste I	Disposal Method:	Dispose in accordance with loc	cal, state, and fede	eral regulations.		
			Section 14. Trar	nsport Inforr	nation		
14.1	LAND 1	RANSPORT (US	DOT):				
0	OT Haza		Not dangerous goods.				
	IN/NA Nu						
14.1		RANSPORT (Euro	opean ADR/RID): Not dangerous goods.				
	IN Numbe	hipping Name:	Not dangerous goods.				
	lazard Cla						
14.3	AIR TR	ANSPORT (ICAO/	IATA):				
10		Shipping Name:	Not dangerous goods.				
Addi	tional Tra	nsport	Transport in accordance with I	ocal, state, and fe	deral regulations.		
Infor	mation:						
			Section 15. Regu	latory Infor	mation		
EPA	SARA (Si	perfund Amendm	nents and Reauthorization Act	of 1986) Lists			
CAS	#	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 31:	B (TRI)
	NA	pNPP Substrate	Solution	No	No	No	
CAS	#	Hazardous Com	ponents (Chemical Name)	Other US EPA	or State Lists		
	NA	pNPP Substrate	Solution	CAA HAP,OD PROP.65: No	C: No; CWA NPDE	ES: No; TSCA	No; CA



Page: 5 of 5

Regulatory Information Statement:	This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.
Statement.	
	Section 16. Other Information
Revision Date:	08/25/2017
Additional Information About This Product:	No data available.
This Product: Company Policy or Disclaimer:	DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.



Revision:	04/10/2017

		according to Regulation (EC) No. 1907								
	Section 1	. Identification of the Substan	ce/Mixture and o	of the Company/Ur	ndertaking					
.1	Product Code: Product Name:	401590 Oxycodone AP Tracer								
.2	Relevant identified uses	s of the substance or mixture a	nd uses advised	against:						
	Relevant identified us			-						
1.3	Details of the Supplier of	of the Safety Data Sheet:								
	Company Name:	Cayman Chemical Compa 1180 E. Ellsworth Rd. Ann Arbor, MI 48108	any							
	Web site address:	www.caymanchem.com								
	Information:	Cayman Chemical Comp	any	+1 (734	4)971-3335					
1.4	Emergency telephone n	umber:								
	Emergency Contact:	CHEMTREC Within USA	and Canada:	+1 (80	0)424-9300					
		CHEMTREC Outside US/	A and Canada:	+1 (703	3)527-3887					
		Section 2. Haz	ards Identif	ication						
2.1	Classification of the Su	bstance or Mixture:								
2.2	Label Elements:									
	GHS Signal Word:	None								
	GHS Hazard Phrases:									
	Based on evaluation of	currently available data this subs	stance or mixture is	s not classifiable ac	cording to GHS.					
	GHS Precaution Phra	ses:								
	No phrases apply.									
	GHS Response Phras	es:								
	No phrases apply.									
	1 11 2									
	GHS Storage and Dis	posal Phrases:								
	GHS Storage and Dis	posal Phrases: 7 for Storage and Section 13 for	Disposal informati	ion.						
2.3	GHS Storage and Dis	7 for Storage and Section 13 for	-		piratory tract.					
2.3	GHS Storage and Dis Please refer to Section	7 for Storage and Section 13 for Material may be irritating to th	ne mucous membr	anes and upper res	piratory tract.					
2.3	GHS Storage and Dis Please refer to Section Adverse Human Health	<ul> <li>7 for Storage and Section 13 for</li> <li>Material may be irritating to the</li> <li>May be harmful by inhalation,</li> <li>May cause eye, skin, or respination</li> </ul>	ne mucous membr ingestion, or skin ratory system irrita	anes and upper res absorption. ation.						
2.3	GHS Storage and Dis Please refer to Section Adverse Human Health	7 for Storage and Section 13 for Material may be irritating to th May be harmful by inhalation,	ne mucous membr ingestion, or skin ratory system irrita	anes and upper res absorption. ation.						
2.3	GHS Storage and Dis Please refer to Section Adverse Human Health Effects and Symptoms	<ul> <li>7 for Storage and Section 13 for</li> <li>Material may be irritating to the</li> <li>May be harmful by inhalation,</li> <li>May cause eye, skin, or respination</li> </ul>	ne mucous membr ingestion, or skin ratory system irrita , the toxicological	anes and upper res absorption. ation. properties have not	been thoroughly investigated					
CAS	GHS Storage and Dis Please refer to Section Adverse Human Health Effects and Symptoms Se	<ul> <li>7 for Storage and Section 13 for Material may be irritating to th</li> <li>May be harmful by inhalation, May cause eye, skin, or respi To the best of our knowledge</li> <li>Ction 3. Composition/</li> </ul>	ne mucous membr ingestion, or skin ratory system irrita , the toxicological	anes and upper res absorption. ation. properties have not ON Ingredieu EC No./	been thoroughly investigated					
CAS	GHS Storage and Dis Please refer to Section Adverse Human Health Effects and Symptoms Se	<ul> <li>7 for Storage and Section 13 for Material may be irritating to th</li> <li>May be harmful by inhalation, May cause eye, skin, or respi To the best of our knowledge</li> <li>Ction 3. Composition/</li> </ul>	ne mucous membr ingestion, or skin ratory system irrita , the toxicological /Information	anes and upper res absorption. ation. properties have not on Ingredieu	been thoroughly investigated					
CAS	GHS Storage and Dis Please refer to Section Adverse Human Health Effects and Symptoms Se	<ul> <li>7 for Storage and Section 13 for Material may be irritating to the May be harmful by inhalation, May cause eye, skin, or respind To the best of our knowledge</li> <li>Ction 3. Composition/</li> <li>mponents (Chemical Name)/</li> <li>ration No.</li> </ul>	ne mucous membr ingestion, or skin ratory system irrita , the toxicological /Information	anes and upper res absorption. ation. properties have not ON Ingredieu EC No./	been thoroughly investigated					



Revision: 04/10/2017

		Section 4. First Aid Measures
4.1	Description of First Aid	
	Measures:	
	In Case of Inhalation:	Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
	In Case of Skin Contact:	Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
	In Case of Eye Contact:	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.
	In Case of Ingestion:	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
		Section 5. Fire Fighting Measures
5.1	Suitable Extinguishing	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.
	Media:	Use water spray to cool fire-exposed containers.
	Unsuitable Extinguishing Media:	a A solid water stream may be inefficient.
5.2	Flammable Properties an Hazards:	I <b>d</b> No data available.
		No data available.
	Flash Pt:	No data.
	Explosive Limits:	LEL: No data. UEL: No data.
	Autoignition Pt:	No data.
5.3	Fire Fighting Instructions	<b>s:</b> As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
		Section 6. Accidental Release Measures
6.1	Protective Precautions,	Avoid raising and breathing dust, and provide adequate ventilation.
	Protective Equipment an	d As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,
	Emergency Procedures:	and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
6.2	Environmental Precautions:	Take steps to avoid release into the environment, if safe to do so.
6.3		r Contain spill and collect, as appropriate.
		ngTransfer to a chemical waste container for disposal in accordance with local regulations.
	Up:	
		Section 7. Handling and Storage
7.1	Precautions To Be Taker	Avoid breathing dust/fume/gas/mist/vapours/spray.
	in Handling:	Avoid prolonged or repeated exposure.
7.2	Precautions To Be Taker	Keep container tightly closed.
	in Storing:	Store in accordance with information listed on the product insert.
	Sec	tion 8. Exposure Controls/Personal Protection
8.1	Exposure Parameters:	



	Experiero Controlo					
8.2	Exposure Controls:					
8.2.1	Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne				
	,	levels below recommended exposure limits.				
8.2.2						
	Eye Protection:	Safety glasses				
	Protective Gloves:	Compatible chemical-resistant gloves				
	Other Protective Clothing:	Lab coat				
	Respiratory Equipment	NIOSH approved respirator, as conditions warrant.				
	(Specify Type):					
	Work/Hygienic/Maintenan	Do not take internally.				
	ce Practices:	Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower				
		Wash thoroughly after handling.				
		No data available.				
	Se	ection 9. Physical and Chemical Properties				
9.1	Information on Basic Phys	ical and Chemical Properties				
	Physical States:	[ ] Gas [ ] Liquid [ X ] Solid				
	Appearance and Odor:	A lyophilized solid				
	pH:	No data.				
	Melting Point:	No data.				
	Boiling Point:	No data.				
	Flash Pt:	No data.				
	Evaporation Rate:	No data.				
	Flammability (solid, gas):	No data available.				
	Explosive Limits:	LEL: No data. UEL: No data.				
	Vapor Pressure (vs. Air or	mm No data.				
	Hg):					
	Vapor Density (vs. Air = 1)	: No data.				
	Specific Gravity (Water = 2	I): No data.				
	Solubility in Water:	No data.				
	Octanol/Water Partition	No data.				
	Coefficient:					
	Autoignition Pt:	No data.				
	Decomposition Temperatu					
	Viscosity:	No data.				
9.2	Other Information					
J.Z	Percent Volatile:	No data.				
	Based 14	Section 10. Stability and Reactivity				
10.1	Reactivity:	No data available.				
10.2	Stability:	Unstable [ ] Stable [ X ]				
10.3	Stability Note(s):	Stable if stored in accordance with information listed on the product insert.				
	-	Will occur [ ] Will not occur [ X ]				
10.4	Conditions To Avoid:	No data available.				
10.5	Incompatibility - Materials	No data available.				
	To Avoid:					
10.6	Hazardous	No data available.				
		Multi-region forma				



	Byprodu	icts:							
			Section 11. Toxico	ological Inform	nation				
1.1	Informat Toxicolo	tion on ogical Effects:	The toxicological effects of this	product have not be	en thoroughly stu	udied.			
CAS	#	Hazardous Com	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA		
	NA	Oxycodone AP T	racer	n.a.	n.a.	n.a.	n.a.		
			Section 12. Ecol	ogical Informa	ation				
2.1	.1 Toxicity:		Avoid release into the environment.						
		Runoff from fire control or dilution water may cause pollution.							
2.2	Persiste	nce and	No data available.						
	Degrada	ıbility:							
2.3	Bioaccu	mulative	No data available.						
	Potentia	l:							
2.4	Mobility	in Soil:	No data available.						
2.5	Results	of PBT and vPvB	No data available.						
	assessn	nent:							
2.6	Other ad	lverse effects:	No data available.						
			Section 13. Dispo	sal Considera	ations				
3.1	Waste D	isposal Method:	Dispose in accordance with loo	cal, state, and federa	l regulations.				
			Section 14. Trar	nsport Informa	ation				
14.1	LAND T	RANSPORT (US I	DOT):						
D	OT Prope	r Shipping Name:	Not dangerous goods.						
D	OT Hazar	d Class:							
U	N/NA Nur	nber:							
14.1	LAND T	RANSPORT (Euro	opean ADR/RID):						
Α	DR/RID S	hipping Name:	Not dangerous goods.						
U	N Numbe	r:							
н	azard Cla	SS:							
14.3		ANSPORT (ICAO/I	ATA):						
IC	CAO/IATA	Shipping Name:	Not dangerous goods.						
	ional Tra	nsport	Transport in accordance with I	ocal, state, and fede	ral regulations.				
nfor	mation:								
			Section 15. Regu	latory Inform	ation				
EPA	SARA (Su	perfund Amendm	ents and Reauthorization Act	of 1986) Lists					
CAS	#	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313	3 (TRI)		
	NA	Oxycodone AP T	racer	No	No	No			
CAS	#	Hazardous Com	ponents (Chemical Name)	Other US EPA o	r State Lists				
NA         Oxycodone AP Tracer		CAA HAP,ODC: PROP.65: No	No; CWA NPDE	S: No; TSCA:	No; CA				



Regulatory Information	This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)
Statement:	No.1272/2008.
	Section 16. Other Information
Revision Date:	04/10/2017
Additional Information About	No data available.
This Product:	
This Product: Company Policy or Disclaimer:	DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.



			ing to Regulation (EC) No. 190								
	Sec	ction 1. Ide	entification of the Substan	nce/Mixture and of	the Company/	Undertaking					
.1	Product Code:		401592								
	Product Name:		Oxycodone ELISA Antis	erum							
.2	Relevant identifie	d uses of t	ne substance or mixture	and uses advised a	against:						
	Relevant identif	ied uses:	For research use only, n	ot for human or vete	erinary use.						
.3	Details of the Sup	plier of the	Safety Data Sheet:								
	Company Name	:	Cayman Chemical Com	pany							
			1180 E. Ellsworth Rd.								
	Web site addres		Ann Arbor, MI 48108								
	Information:	55.	www.caymanchem.com Cayman Chemical Com	nany	±1 (7	34)971-3335					
.4	Emergency teleph	hono numh		Jany	τι ( <i>i</i>	34)97 1-3333					
.4	Emergency Con		CHEMTREC Within USA	and Canada.	+1 (8	800)424-9300					
	Emergency con		CHEMTREC Outside US		-	/03)527-3887					
			Section 2. Ha	zards Identif	cation						
2.1	Classification of t	the Substar	ice or Mixture:								
2.2	Label Elements:										
	GHS Signal Wor		None								
	GHS Hazard Ph										
			ently available data this sub	Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.							
	GHS Precaution Phrases:										
						-					
	No phrases appl	у.									
	No phrases appl GHS Response	y. Phrases:									
	No phrases appl <b>GHS Response</b> No phrases appl	y. <b>Phrases:</b> y.									
	No phrases appl GHS Response No phrases appl GHS Storage ar	y. Phrases: y. nd Disposal									
	No phrases appl GHS Response No phrases appl GHS Storage ar Please refer to S	y. Phrases: y. nd Disposa Section 7 for	Storage and Section 13 fo	-							
2.3	No phrases appl GHS Response No phrases appl GHS Storage ar Please refer to S Adverse Human	y. Phrases: y. nd Disposa Section 7 for Health M	Storage and Section 13 fo aterial may be irritating to t	the mucous membra	anes and upper r	espiratory tract.					
2.3	No phrases appl GHS Response No phrases appl GHS Storage ar Please refer to S	y. Phrases: y. nd Disposal Section 7 for Health M ptoms: M	Storage and Section 13 fo aterial may be irritating to t ay be harmful by inhalatior	the mucous membra n, ingestion, or skin	anes and upper r absorption.	espiratory tract.					
2.3	No phrases appl GHS Response No phrases appl GHS Storage ar Please refer to S Adverse Human	y. Phrases: y. nd Disposal Section 7 for Health M ptoms: M	Storage and Section 13 fo laterial may be irritating to ay be harmful by inhalatior lay cause eye, skin, or resp	the mucous membra n, ingestion, or skin piratory system irrita	anes and upper r absorption. tion.	espiratory tract. ot been thoroughly investiga					
2.3	No phrases appl GHS Response No phrases appl GHS Storage ar Please refer to S Adverse Human	y. Phrases: y. nd Disposal Section 7 for Health M ptoms: M T	Storage and Section 13 fo laterial may be irritating to ay be harmful by inhalatior lay cause eye, skin, or resp	the mucous membra n, ingestion, or skin piratory system irrita e, the toxicological p	anes and upper r absorption. tion. properties have n	ot been thoroughly investiga					
	No phrases appl GHS Response No phrases appl GHS Storage ar Please refer to S Adverse Human Effects and Symp	y. Phrases: y. d Disposal Section 7 for Health M ptoms: M T Sectio	Storage and Section 13 fo laterial may be irritating to lay be harmful by inhalation lay cause eye, skin, or resp o the best of our knowledge	the mucous membra n, ingestion, or skin piratory system irrita e, the toxicological p	anes and upper r absorption. tion. properties have n	ot been thoroughly investiga					
CAS	No phrases appl GHS Response No phrases appl GHS Storage ar Please refer to S Adverse Human Effects and Symp	y. Phrases: y. d Disposal Section 7 for Health M ptoms: M T Sectio	Storage and Section 13 fo laterial may be irritating to t lay be harmful by inhalation lay cause eye, skin, or resp o the best of our knowledge n 3. Composition rents (Chemical Name)/	the mucous membra n, ingestion, or skin piratory system irrita e, the toxicological p n/Information	anes and upper r absorption. tion. properties have n on Ingredie	ot been thoroughly investiga ENTS GHS Classification					
CAS	No phrases appl GHS Response No phrases appl GHS Storage ar Please refer to S Adverse Human Effects and Symp # / Hazardo CS # REACH I	y. Phrases: y. d Disposal Section 7 for Health M ptoms: M T Sectio us Compon	Storage and Section 13 fo laterial may be irritating to t lay be harmful by inhalation lay cause eye, skin, or resp to the best of our knowledge n 3. Composition tents (Chemical Name)/ n No.	the mucous membra n, ingestion, or skin piratory system irrita e, the toxicological p n/Information	anes and upper r absorption. tion. properties have n On Ingredic EC No./	ot been thoroughly investiga ENTS GHS Classification					



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		Section 4. First Aid Measures
4.1	Description of First Aid	
	Measures:	
	In Case of Inhalation:	Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
	In Case of Skin Contact:	Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
	In Case of Eye Contact:	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.
	In Case of Ingestion:	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
		Section 5. Fire Fighting Measures
5.1	Suitable Extinguishing	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.
	Media:	Use water spray to cool fire-exposed containers.
	Unsuitable Extinguishing	a A solid water stream may be inefficient.
	Media:	
5.2	Flammable Properties an	dNo data available.
	Hazards:	
		No data available.
	Flash Pt:	No data.
	Explosive Limits:	LEL: No data. UEL: No data.
	Autoignition Pt:	No data.
5.3	Fire Fighting Instructions	s: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
		Section 6. Accidental Release Measures
6.1	Protective Precautions, Protective Equipment an Emergency Procedures:	<ul><li>Avoid raising and breathing dust, and provide adequate ventilation.</li><li>d As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).</li></ul>
6.2	Environmental Precautions:	Take steps to avoid release into the environment, if safe to do so.
6.3	Methods and Material Fo	r Contain spill and collect, as appropriate.
	Containment and Cleanir	hgTransfer to a chemical waste container for disposal in accordance with local regulations.
	Up:	
		Section 7. Handling and Storage
7.1	Precautions To Be Taken	Avoid breathing dust/fume/gas/mist/vapours/spray.
	in Handling:	Avoid prolonged or repeated exposure.
7.2	Precautions To Be Taken	Keep container tightly closed.
	in Storing:	Store in accordance with information listed on the product insert.
	Sec	tion 8. Exposure Controls/Personal Protection
8.1	Exposure Parameters:	



	HEMICAL						
8.2	Exposure Controls:						
8.2.1	Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborn					
	(Ventilation etc.):	evels below recommended exposure limits.					
8.2.2	Personal protection equipment:						
	Eye Protection:	Safety glasses					
	Protective Gloves:	patible chemical-resistant gloves					
	Other Protective Clothing:Lab coat						
	Respiratory Equipment	SH approved respirator, as conditions warrant.					
	(Specify Type):						
	Work/Hygienic/Maintenan Do not take internally.						
		Facilities storing or utilizing this material should be equipped with an eyewash and a safety showe					
	,	Wash thoroughly after handling.					
		No data available.					
	Se	ction 9. Physical and Chemical Properties					
0.1		· · · · ·					
9.1	Physical States:	cal and Chemical Properties []Gas []Liquid [X]Solid					
	Appearance and Odor:	A lyophilized solid					
	pH:	No data.					
	Melting Point:	No data.					
	Boiling Point:	No data.					
	Flash Pt:	No data.					
	Evaporation Rate:	No data.					
	-	No data available.					
	Flammability (solid, gas):	LEL: No data. UEL: No data.					
	Explosive Limits:						
	Vapor Pressure (vs. Air or	IIII NU Uala.					
	Hg):	No data.					
	Vapor Density (vs. Air = 1):						
	Specific Gravity (Water = 1						
	Solubility in Water:	No data.					
	Octanol/Water Partition	No data.					
	Coefficient:						
	Autoignition Pt:	No data.					
	Decomposition Temperatu	re: No data.					
	Viscosity:	No data.					
9.2	Other Information						
	Percent Volatile:	No data.					
		Section 10. Stability and Reactivity					
10.1	Reactivity:	No data available.					
10.2	Stability:	Unstable [ ] Stable [ X ]					
10.3	Stability Note(s):	Stable if stored in accordance with information listed on the product insert.					
		Will occur [ ] Will not occur [ X ]					
10.4	-	No data available.					
10.5	Incompatibility - Materials						
	To Avoid:						
10.6		No data available.					
10.0	112201 UUUS	יט עמנע מימוומטוב.					



	Decomposition or							
Byproducts:								
Section 11. Toxicological Information								
11.1	Informa	The toxicological effects of this product have not been thoroughly studied.						
Toxicological Effects:								
CAS #		Hazardous Components (Chemical Name)		NTP	IARC	ACGIH	OSHA	
NA		Oxycodone ELISA Antiserum		n.a.	n.a.	n.a.	n.a.	
Section 12. Ecological Information								
12.1	Toxicity:         Avoid release into the environ           Runoff from fire control or dil		nent.					
			Runoff from fire control or dilution water may cause pollution. No data available.					
12.2 Persistence a		ence and						
	Degrada	ability:						
12.3 Bioaccumula		umulative	No data available.					
	Potentia	I:						
12.4	.4 Mobility in Soil: No data available.							
12.5	5 Results of PBT and vPvB No data available.							
	assessment:							
12.6 Other adverse effects: No data available.								
Section 13. Disposal Considerations								
<b>13.1 Waste Disposal Method:</b> Dispose in accordance with local, state, and federal regulations.								
Section 14. Transport Information								
14.1 LAND TRANSPORT (US DOT):								
DOT Proper Shipping Name: Not dangerous goods.								
DOT Hazard Class:								
UN/NA Number:								
14.1 LAND TRANSPORT (European ADR/RID):								
ADR/RID Shipping Name: Not dangerous goods.								
UN Number:								
Hazard Class:								
14.3 AIR TRANSPORT (ICAO/IATA):								
ICAO/IATA Shipping Name: Not dangerous goods.								
Additional Transport Transport in accordance with local, state, and federal regulations.								
Information:								
			Section 15. Regu	latory Inform	nation			
EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists								
CAS #		Hazardous Components (Chemical Name)		S. 302 (EHS)	S. 304 RQ	S. 31	3 (TRI)	
NA		Oxycodone ELISA Antiserum		No	No	No		
CAS	S # Hazardous Compor		nponents (Chemical Name)	Other US EPA or State Lists				
NA		Oxycodone ELISA Antiserum		CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No				



## SAFETY DATA SHEET Oxycodone ELISA Antiserum

Regulatory Information	This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)
Statement:	No.1272/2008.
	Section 16. Other Information
Revision Date:	04/10/2017
Additional Information About	No data available.
This Product:	
	It o take available. DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.



	Spotin	according to Regulation (EC) No. 1907 n 1. Identification of the Substance			
					indentaking
.1	Product Code: Product Name:	401594 Oxycodone ELISA Standa	ard		
•		-			
.2		ses of the substance or mixture ar		-	
	Relevant identified	,	t for numan or vet	ennary use.	
1.3		er of the Safety Data Sheet:			
	Company Name:	Cayman Chemical Compa 1180 E. Ellsworth Rd.	any		
		Ann Arbor, MI 48108			
	Web site address:	www.caymanchem.com			
	Information:	Cayman Chemical Compa	any	+1 (73	34)971-3335
1.4	Emergency telephon	e number:			
	Emergency Contac	t: CHEMTREC Within USA a	and Canada:	+1 (80	00)424-9300
		CHEMTREC Outside USA	and Canada:	+1 (70	03)527-3887
		Section 2. Haz	ards Identif	ication	
2.1	Classification of the	Substance or Mixture:			
	Flammable Liquids				
2.2	Label Elements:	,			
	GHS Signal Word:	Danger			
2.3	GHS Hazard Phras H225: Highly flamma GHS Precaution Ph P210: Keep away fro P280: Wear {protect GHS Response Phi P303+361+353: IF C water/shower. GHS Storage and D Please refer to Section	es: able liquid and vapor. arases: om {heat/sparks/open flames/hot surf ive gloves/protective clothing/eye pro rases: DN SKIN (or hair): Remove/take off ir Disposal Phrases: on 7 for Storage and Section 13 for I	otection/face prote mmediately all cor Disposal informati	ection}. ntaminated clothing on.	-
2.3	GHS Hazard Phras H225: Highly flamma GHS Precaution Pr P210: Keep away fro P280: Wear {protect GHS Response Phi P303+361+353: IF C water/shower. GHS Storage and D	es: able liquid and vapor. arases: om {heat/sparks/open flames/hot surf ive gloves/protective clothing/eye pro rases: DN SKIN (or hair): Remove/take off ir Disposal Phrases: on 7 for Storage and Section 13 for I alth Material may be irritating to th	Disposal informati e mucous membr ingestion, or skin ratory system irrita	ection}. ntaminated clothing on. anes and upper re- absorption. ution.	spiratory tract.
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CAS	GHS Hazard Phras H225: Highly flamma GHS Precaution Pr P210: Keep away fro P280: Wear {protect GHS Response Phi P303+361+353: IF C water/shower. GHS Storage and D Please refer to Secti Adverse Human Hea Effects and Sympton	es: able liquid and vapor. arases: om {heat/sparks/open flames/hot surf ive gloves/protective clothing/eye pro rases: DN SKIN (or hair): Remove/take off in Disposal Phrases: on 7 for Storage and Section 13 for I alth Material may be irritating to th ms: May be harmful by inhalation, May cause eye, skin, or respir To the best of our knowledge, Section 3. Composition/	btection/face prote mmediately all cor Disposal informati e mucous membr ingestion, or skin ratory system irrita the toxicological	ection}. ntaminated clothing on. anes and upper re- absorption. ition. properties have no	spiratory tract. t been thoroughly investigate
CAS	GHS Hazard Phras H225: Highly flamma GHS Precaution Pr P210: Keep away fro P280: Wear {protect GHS Response Phi P303+361+353: IF C water/shower. GHS Storage and D Please refer to Secti Adverse Human Hea Effects and Sympton	es: able liquid and vapor. arases: om {heat/sparks/open flames/hot surf ive gloves/protective clothing/eye pro- rases: ON SKIN (or hair): Remove/take off in Disposal Phrases: on 7 for Storage and Section 13 for I of Material may be irritating to th ms: May be harmful by inhalation, May cause eye, skin, or respir To the best of our knowledge, Section 3. Composition/ Components (Chemical Name)/ istration No.	btection/face protection/face protection/face protection mmediately all com Disposal informati e mucous membr ingestion, or skin ratory system irritation the toxicological	on. anes and upper re- absorption. ation. oroperties have no On Ingredie	spiratory tract. t been thoroughly investigate : <b>nts</b>



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ts, Both Acute and yed: ble Extinguishing a: hitable Extinguishing a: mable Properties an rds:	<ul> <li>clothing. Get medical attention if symptoms occur. Wash clothing before reuse.</li> <li>Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examiner and tested by medical personnel.</li> <li>Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.</li> <li>May cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects.</li> <li>Section 5. Fire Fighting Measures</li> <li>Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.</li> <li>Use water spray to cool fire-exposed containers.</li> <li>A solid water stream may be inefficient.</li> <li>ad Can release vapors that form explosive mixtures at temperatures at or above the flashpoint.</li> <li>Container explosion may occur under fire conditions.</li> <li>Emits toxic fumes under fire conditions.</li> <li>Sensitive to static discharge.</li> <li>Vapors can travel to a source of ignition and flash back.</li> <li>No data available.</li> </ul>
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	Vapors can travel to a source of ignition and flash back. No data available.
	No data available.
abra Limitar	14.00 C Method Used: Closed Cup
osive Limits:	LEL: 3.3% at 25.0 C UEL: 19.0% at 25.0 C
ignition Pt:	363.00 C
-	<b>s:</b> As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes. Note: Flammable as diluted in ethanol.
	Section 6. Accidental Release Measures
	<ul> <li>Avoid raising and breathing dust, and provide adequate ventilation.</li> <li>d As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).</li> </ul>
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	<b>r</b> Contain spill and collect, as appropriate.
	ngTransfer to a chemical waste container for disposal in accordance with local regulations.
	ctive Equipment an gency Procedures: onmental utions: ods and Material Fo



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cuy	nan			
		Section 7. Ha	Indling and Storage	
7.1	Precautions To Be Taken in Handling:	Avoid breathing dust/fume/g Avoid prolonged or repeate Keep away from sources of	d exposure.	
7.2	Precautions To Be Taken in Storing:	Take precautionary measur Keep away from heat, flame Keep container tightly close Store in accordance with int	es, and sparks.	
	Other Precautions:	Hygroscopic		
	Sect	ion 8. Exposure C	Controls/Personal Protection	
8.1	Exposure Parameters:			
CAS #	Chemical Name	Jurisdiction	Recommended Exposure Limits	Notations
64 <b>-</b> 17·	5 Ethyl alcohol	ACGIH TLV	TLV: 1000 ppm STEL: 1000 ppm	
		France VL	TWA: 1900 mg/m3 (1000 ppm) STEL: 9500 mg/m3 (5000 ppm)	
		OSHA PELs	PEL: 1000 ppm	
		Britain EH40	TWA: 1920 mg/m3 (1000 ppm) STEL: ()	
8.2.1	Engineering Controls (Ventilation etc.): Personal protection equip Eye Protection: Protective Gloves: Other Protective Clothing Respiratory Equipment (Specify Type): Work/Hygienic/Maintenan ce Practices:	levels below recommended oment: Safety glasses Compatible chemical-resista :Lab coat NIOSH approved respirator Do not take internally. Facilities storing or utilizing Wash thoroughly after hand No data available.	ant gloves , as conditions warrant. this material should be equipped with an eyewa	
ـــــــــــــــــــــــــــــــــــــ		•	•	
9.1	Physical States: Appearance and Odor: pH: Melting Point: Boiling Point: Flash Pt: Evaporation Rate: Flammability (solid, gas): Explosive Limits: Vapor Pressure (vs. Air of Hg): Vapor Density (vs. Air = 1	No data. No data available. LEL: 3.3% at r mm 43 MM_HG at 3	uid [] Solid	



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	CATALCA1							
	-	Gravity (Water =	•					
	Solubilit	y in Water:	No data.					
	Octanol/	Water Partition	No data.					
	Coefficie	ent:						
	Autoigni	tion Pt:	363.00 C					
	Decomp	osition Tempera	ture: No data.					
	Viscosity	<b>y</b> :	No data.					
9.2	Other Infe	ormation						
	Percent	Volatile:	No data.					
			Section 10. Stabilit	y and Reactiv	vity			
10.1	Reactivit	ty:	No data available.					
10.2	Stability	:	Unstable [ ] Stable [ X ]					
10.3	Stability	Note(s):	Stable if stored in accordance with	n information listed o	on the product	insert.		
	Polymer	ization:	Will occur [ ] Will not occur [	X ]				
10.4	-	ns To Avoid:	heat, flames, and sparks	-				
10.5		tibility - Material	· · ·					
10.0	To Avoid	-	ammonia					
		••	peroxides					
			strong oxidizing agents					
10.6	0.6 Hazardous		carbon dioxide					
			carbon dioxide					
	Decomposition or Byproducts:							
-	Бургоци	cis.						
			Section 11. Toxicological Information					
11.1	Informat	ion on	The toxicological effects of this product have not been thoroughly studied.					
	Toxicolo	gical Effects:	Ethanol - Toxicity Data: Oral TDLO (man): 1.14 ml/kg; Oral TDLO (man): 650 mg/kg; Oral LD50					
			(rat): 7,060 mg/kg; Oral LD50 (mo		-	-	-	
			(rabbit): 6,300 mg/kg; Inhalation L			-	-	
			ppm (30m); Inhalation TCLO (hun		20m); Inhalati	on LC50 (rat):	5,900 mg/m3	
			(6h); Inhalation LCLO (mouse): 29					
			Ethanol - Irritation Data: Eyes (rat		-		h) moderate;	
	Chronic	Toxicological	Ethanol - Investigated as a mutag	-		-		
	Effects:		Only select Registry of Toxic Effect		stances (RTE	CS) data is pre	esented here.	
			See actual entry in RTECS for co	-				
			Ethanol RTECS Number: KQ6300	0000				
CAS	#	Hazardous Con	nponents (Chemical Name)	NTP	IARC	ACGIH	OSHA	
	NA	Oxycodone ELIS	SA Standard	n.a.	n.a.	n.a.	n.a.	
64	-17-5	Ethyl alcohol		n.a.	1	A4	n.a.	
			Section 12. Ecolog	ical Informat	ion			
12.1	Toxicity:		Avoid release into the environmer	nt.				
			Runoff from fire control or dilution	water may cause po	ollution.			
12.2	Persiste	nce and	No data available.					
	Degrada	bility:						
12.3	Bioaccu	-	No data available.					
.2.0	Potentia							
10.4			No data availabla					
12.4	Mobility	in 2011:	No data available.					
						r	Aulti-region format	



-	esults of PBT and vPvB ssessment:	No data available.			
12.6 O	ther adverse effects:	No data available.			
		Section 13. Dispo	sal Considera	itions	
13.1 W	aste Disposal Method:	Dispose in accordance with loo	cal, state, and federal	regulations.	
		Section 14. Trar	nsport Informa	ation	
14.1 L	AND TRANSPORT (US	DOT):			
DOT	Proper Shipping Name	: Ethyl alcohol solution			
DOT	Hazard Class:	3 FLAMMA	BLE LIQUID		
UN/N	NA Number:	UN1170	Packing Gro	oup:	II
		FLEDMABELE LIQUID			
14.1 L	AND TRANSPORT (Euro	opean ADR/RID):			
ADR	R/RID Shipping Name:	Ethyl alcohol solution			
-	Number:	1170 Packing Group:		oup:	II
Haza	ard Class:	3 - FLAMMABLE LIQUID			
14.3 A	AIR TRANSPORT (ICAO/	IATA):			
ICAC	O/IATA Shipping Name:	Ethyl alcohol solution			
UNN	Number:	1170	Packing Gro	oup:	II
Haza	ard Class:	3 - FLAMMABLE LIQUID	IATA Classi	fication:	3
Addition	nal Transport	Transport in accordance with	local, state, and feder	al regulations.	
Informat	tion:	When sold in quantities of less	s than or equal to 1 m	L, or 1 g, with an E	xcepted Quantity Code of
		E1, E2, E4, or E5, this item me		•	•
-		Therefore packaging does not	have to be labeled a	s Dangerous Good	s/Excepted Quantity.
		Section 15. Regu	ulatory Informa	ation	
EPA SA	RA (Superfund Amendm	nents and Reauthorization Act	t of 1986) Lists		
CAS #	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
NA	A Oxycodone ELIS	A Standard	No	No	No
64-17	7-5 Ethyl alcohol		No	No	No
CAS #	Hazardous Com	ponents (Chemical Name)	Other US EPA or		
NA	A Oxycodone ELIS	A Standard	CAA HAP,ODC: PROP.65: No	No; CWA NPDES:	No; TSCA: No; CA
64-17	7-5 Ethyl alcohol		CAA HAP,ODC: Inventory; CA PF	No; CWA NPDES: ROP.65: No	No; TSCA: Yes -



Regulatory Information Statement:	This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.
	Section 16. Other Information
Revision Date:	04/10/2017
Additional Information About This Product:	No data available.
Company Policy or Disclaimer:	DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.



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		acco	ording to Regulation (EC) No. 19	007/2006 as amended	by (EC) No. 1272/20	08			
		Section 1. I	dentification of the Substa	ince/Mixture and	of the Company/U	Indertaking			
.1	Produc	t Code:	411007						
	Produc	t Name:	AP Wash Buffer Concer	ntrate (150X)					
2	Releva	nt identified uses o	f the substance or mixture	and uses advised	l against:				
	Relev	ant identified uses:	For research use only, r	not for human or ve	eterinary use.				
.3	Details of the Supplier of the Safety Data Sheet:								
	Comp	oany Name:	Cayman Chemical Com	ipany					
			1180 E. Ellsworth Rd.						
	Web	site address:	Ann Arbor, MI 48108 www.caymanchem.com						
		nation:	Cayman Chemical Com		+1 (73	34)971-3335			
.4		ency telephone nun	-	party					
	-	gency Contact:	CHEMTREC Within US	A and Canada:	+1 (80	00)424-9300			
		gene) eennen	CHEMTREC Outside US			)3)527-3887			
			Section 2. Ha	zarda Idanti					
	01				IICALIOIT				
.1		ication of the Subst Elements:	ance or Mixture:						
.2									
		HS Signal Word: None							
		IS Hazard Phrases:							
		ed on evaluation of currently available data this substance or mixture is not classifiable according to GHS.							
		brecaution Phrases:							
	-	ohrases apply. S Response Phrases:							
		nrases apply.	,						
	NO PI	Storage and Dispos	al Phrasas						
	GHS								
				or Disposal informa	tion.				
.3	Pleas	e refer to Section 7 f	or Storage and Section 13 fo	-		spiratory tract.			
.3	Pleas Advers	e refer to Section 7 f		the mucous memb	ranes and upper re	spiratory tract.			
.3	Pleas Advers	e refer to Section 7 f se Human Health	or Storage and Section 13 fo Material may be irritating to	the mucous memb n, ingestion, or skir	ranes and upper re	spiratory tract.			
.3	Pleas Advers	e refer to Section 7 f se Human Health	or Storage and Section 13 fo Material may be irritating to May be harmful by inhalatio	the mucous memb n, ingestion, or skir piratory irritation.	ranes and upper re n absorption.				
2.3	Pleas Advers	e refer to Section 7 f se Human Health s and Symptoms:	or Storage and Section 13 fo Material may be irritating to May be harmful by inhalatio May cause eye, skin, or resp	the mucous memb n, ingestion, or skin piratory irritation. ge, the toxicological	ranes and upper re n absorption. I properties have no	t been thoroughly investigate			
	Pleas Advers Effects	e refer to Section 7 f se Human Health s and Symptoms: Sect	or Storage and Section 13 fo Material may be irritating to May be harmful by inhalatio May cause eye, skin, or res To the best of our knowledg	the mucous memb n, ingestion, or skir piratory irritation. ge, the toxicological	ranes and upper re n absorption. I properties have no	t been thoroughly investigate nts			
2.3 CAS	Pleas Advers Effects	e refer to Section 7 f se Human Health s and Symptoms: Sect	or Storage and Section 13 for Material may be irritating to May be harmful by inhalation May cause eye, skin, or resp To the best of our knowledg ion 3. Composition onents (Chemical Name)/	the mucous memb n, ingestion, or skin piratory irritation. ge, the toxicological	n absorption. I properties have no	t been thoroughly investigate			
CAS	Pleas Advers Effects	e refer to Section 7 f se Human Health s and Symptoms: Secti Hazardous Comp REACH Registrat	or Storage and Section 13 for Material may be irritating to May be harmful by inhalation May cause eye, skin, or resp To the best of our knowledg ion 3. Composition onents (Chemical Name)/	the mucous memb n, ingestion, or skir piratory irritation. ge, the toxicological	n absorption. I properties have no n on Ingredie EC No./	t been thoroughly investigate nts			
2 <b>AS</b> 8 <b>TE</b> 118	Pleas Advers Effects	e refer to Section 7 f se Human Health s and Symptoms: Secti Hazardous Comp REACH Registrat	or Storage and Section 13 fo Material may be irritating to May be harmful by inhalatio May cause eye, skin, or res To the best of our knowledg ion 3. Composition onents (Chemical Name)/ ion No.	the mucous memb n, ingestion, or skir piratory irritation. ge, the toxicological n/Information Concentration	n absorption. I properties have no n on Ingredie EC No./ EC Index No.	t been thoroughly investigate nts GHS Classification			
CAS RTE 118 JA 77	Pleas Advers Effects # # / CS # 35-53-1 7-86-1	e refer to Section 7 f se Human Health s and Symptoms: Secti Hazardous Comp REACH Registrat	or Storage and Section 13 fo Material may be irritating to May be harmful by inhalatio May cause eye, skin, or res To the best of our knowledg ion 3. Composition onents (Chemical Name)/ ion No.	the mucous memb n, ingestion, or skir piratory irritation. ge, the toxicological n/Information Concentration	n absorption. I properties have no n on Ingredie EC No./ EC Index No. 214-684-5 NA 201-064-4	t been thoroughly investigate nts GHS Classification			
CAS RTE( 118 NA 77 (Y29)	Pleas Advers Effects	e refer to Section 7 f se Human Health s and Symptoms: Secti Hazardous Comp REACH Registrat Tris[hydroxymethyl]a Trizma base	or Storage and Section 13 for Material may be irritating to May be harmful by inhalation May cause eye, skin, or resp To the best of our knowledg ion 3. Composition onents (Chemical Name)/ ion No.	the mucous memb n, ingestion, or skin piratory irritation. ge, the toxicological <b>n/Information</b> <b>Concentration</b> 19.8 % 2.91 %	n absorption.  I properties have no n on Ingredie EC No./ EC Index No. 214-684-5 NA 201-064-4 NA	t been thoroughly investigate TS GHS Classification No data available.			
CAS RTEC 118 JA 77 (Y29) 900	Pleas Advers Effects # / CS # 35-53-1 7-86-1 000000	e refer to Section 7 f se Human Health s and Symptoms: Secti Hazardous Comp REACH Registrat Tris[hydroxymethyl]a Trizma base Polyoxyethylenesorb	or Storage and Section 13 for Material may be irritating to May be harmful by inhalation May cause eye, skin, or resp To the best of our knowledg ion 3. Composition onents (Chemical Name)/ ion No.	the mucous memb n, ingestion, or skin piratory irritation. ge, the toxicological <b>n/Information</b> <b>Concentration</b> 19.8 %	n absorption.	t been thoroughly investigate nts GHS Classification			
CAS RTEC 118 NA 77 (Y29) 900	Pleas Advers Effects	e refer to Section 7 f se Human Health s and Symptoms: Secti Hazardous Comp REACH Registrat Tris[hydroxymethyl]a Trizma base	or Storage and Section 13 for Material may be irritating to May be harmful by inhalation May cause eye, skin, or resp To the best of our knowledg ion 3. Composition onents (Chemical Name)/ ion No. minomethane hydrochloride	the mucous memb n, ingestion, or skin piratory irritation. ge, the toxicological <b>n/Information</b> <b>Concentration</b> 19.8 % 2.91 %	n absorption.  I properties have no n on Ingredie EC No./ EC Index No. 214-684-5 NA 201-064-4 NA	t been thoroughly investigate TS GHS Classification No data available.			
CAS TEC 118 JA 77 Y29 900 R74	Pleas Advers Effects # / CS # 35-53-1 7-86-1 000000	e refer to Section 7 f se Human Health s and Symptoms:	or Storage and Section 13 for Material may be irritating to May be harmful by inhalation May cause eye, skin, or resp To the best of our knowledg ion 3. Composition onents (Chemical Name)/ ion No. minomethane hydrochloride	the mucous memb n, ingestion, or skin piratory irritation. ge, the toxicological <b>n/Information</b> <b>Concentration</b> 19.8 % 2.91 %	n absorption.	t been thoroughly investigate TS GHS Classification No data available.			



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		Section 4. First Aid Measures
4.1	Description of First Aid	
	Measures:	
	In Case of Inhalation:	Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
	In Case of Skin Contact:	Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
	In Case of Eye Contact:	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.
	In Case of Ingestion:	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
		Section 5. Fire Fighting Measures
5.1	Suitable Extinguishing	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.
	Media:	Use water spray to cool fire-exposed containers.
	Unsuitable Extinguishing Media:	A solid water stream may be inefficient.
5.2	Flammable Properties an Hazards:	dNo data available.
		No data available.
	Flash Pt:	No data.
	Explosive Limits:	LEL: No data. UEL: No data.
	Autoignition Pt:	No data.
5.3	Fire Fighting Instructions	<b>s:</b> As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
		Section 6. Accidental Release Measures
6.1	Protective Precautions,	Avoid breathing vapors and provide adequate ventilation.
	Protective Equipment an	d As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,
	Emergency Procedures:	
6.2	Environmental Precautions:	Take steps to avoid release into the environment, if safe to do so.
6.3		r Contain spill and collect, as appropriate.
		ng Transfer to a chemical waste container for disposal in accordance with local regulations.
		Section 7. Handling and Storage
7.1	Precautions To Be Taken	Avoid breathing dust/fume/gas/mist/vapours/spray.
	in Handling:	Avoid prolonged or repeated exposure.
7.2	Precautions To Be Taken	Keep container tightly closed.
	in Storing:	Store in accordance with information listed on the product insert.
	Other Precautions:	Hygroscopic.



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#### Section 8. Exposure Controls/Personal Protection

CAS	t Chemical Name	Jurisdiction	Recommended Exposure Limits	Notations			
77-86		ACGIH TLV	CEIL: 5 mg/m3 (salts)				
/ / -00		France VL	TWA: 5 mg/m3				
		OSHA PELs	TWA: 5 mg/m3				
		Britain EH40	TWA: 5 mg/m3	Skin Absorptio			
3.2	Exposure Controls:	Dinain Erito					
3.2.1	-	l lse process enclosures lor	cal exhaust ventilation, or other engineering cont	trols to control airborr			
	• •	levels below recommended					
.2.2	Personal protection equip						
.2.2		Safety glasses					
	-	Compatible chemical-resista	ant doves				
			ant gioves				
	Other Protective Clothing: Lab coat         Respiratory Equipment       NIOSH approved respirator, as conditions warrant.						
		NIOSH approved respirator,	as condutons warrant.				
	(Specify Type):						
	Work/Hygienic/Maintenan		this motorial should be activized with an available	h facility and a cofat			
		Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety					
		shower. Wash thoroughly after handling.					
			ing.				
		No data available.					
	Se	ction 9. Physical	and Chemical Properties				
.1	Information on Basic Physi	cal and Chemical Properti	es				
	Physical States:	[]Gas [X]Liq	uid [] Solid				
	Appearance and Odor:	A solution					
	pH:	No data.					
	Melting Point:	No data.					
	Boiling Point:	No data.					
	Flash Pt:	No data.					
	Evaporation Rate:	No data.					
	Flammability (solid, gas):	No data available.					
	Explosive Limits:	LEL: No data.	UEL: No data.				
	-	mm No data.					
	Vapor Pressure (vs. Air or						
	Hg):	No data.					
	Hg): Vapor Density (vs. Air = 1):						
	Hg): Vapor Density (vs. Air = 1): Specific Gravity (Water = 1	): No data.					
	Hg): Vapor Density (vs. Air = 1):						



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	men					Su	upersedes Revis	ion: 11/27/2
	Autoignition P	t:	No data	a.				
	Decomposition	1 Temperati	ure: No data	a.				
	Viscosity:		No data	a.				
9.2	Other Informati	on						
	Percent Volatil	e:	No data.					
			Section	n 10. Stability an	d Reacti	vity		
10.1	Reactivity:		No data availal	ble.				
0.2	Stability:		Unstable [ ]	Stable [ X ]				
0.3	Stability Note(	3):	Stable if stored	d in accordance with inforr	nation listed of	on the product	insert.	
	Polymerization	12	Will occur [ ]	Will not occur [ X ]				
0.4	Conditions To	Avoid:	No data availal	ble.				
0.5	Incompatibility - Materia		strong oxidizin	g agents				
	To Avoid:							
0.6	Hazardous		carbon dioxide	•				
	Decomposition		carbon monoxi					
	Byproducts:		nitrogen oxides	S				
			Section	11. Toxicologica	I Informa	ation		
11.1	Information on	I	The toxicologic	cal effects of this product h	nave not beer	n thoroughly st	udied.	
	Toxicological Effects:							
Carci	arcinogenicity:		NTP? No	IARC Monographs? No	OSHA Re	egulated? No		
CAS	# Haza	dous Comp	ponents (Chem	nical Name)	NTP	IARC	ACGIH	OSHA
118	5-53-1 Tris[h	ydroxymethy	yl]aminomethan	ne hydrochloride	n.a.	n.a.	n.a.	n.a.
77	-86-1 Trizm	a base			n.a.	n.a.	n.a.	n.a.
900	5-64-5 Polyo	xyethylenes	orbitan Monola	urate (polysorbate 20;	n.a.	n.a.	n.a.	n.a.
			decanoate, poly	y(oxy-1,2-ethanediyl)				
		atives)						
773	2-18-5 Wate				n.a.	n.a.	n.a.	n.a.
			Sectio	n 12. Ecological	Informat	ion		
	Toxicity:							
2.1	1 Toxicity:		Avoid release i	into the environment.				
2.1	TOXICITY.			into the environment. e control or dilution water	may cause p	ollution.		
	Persistence ar			e control or dilution water	may cause p	ollution.		
	-		Runoff from fire	e control or dilution water	may cause p	ollution.		
2.2	Persistence ar	ıd	Runoff from fire	e control or dilution water ble.	may cause p	ollution.		
2.2	Persistence ar Degradability:	ıd	Runoff from fire	e control or dilution water ble.	may cause p	ollution.		
12.2 12.3	Persistence ar Degradability: Bioaccumulati	ıd ve	Runoff from fire	e control or dilution water ble. ble.	may cause p	ollution.		
2.2 2.3 2.4	Persistence ar Degradability: Bioaccumulati Potential:	nd ve I:	Runoff from fire No data availat No data availat No data availat	e control or dilution water ble. ble. ble.	may cause p	ollution.		
12.1 12.2 12.3 12.4 12.5	Persistence ar Degradability: Bioaccumulati Potential: Mobility in Soi	nd ve I:	Runoff from fire No data availat No data availat No data availat	e control or dilution water ble. ble. ble.	may cause p	ollution.		



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0.4	Section 13. Dispos			
3.1 Waste	<b>Disposal Method:</b> Dispose in accordance with loca	I, state, and federa	al regulations.	
	Section 14. Trans	sport Inform	ation	
14.1 LAND	TRANSPORT (US DOT):			
DOT Prop	er Shipping Name: Not dangerous goods.			
DOT Haza				
UN/NA Nu				
	TRANSPORT (European ADR/RID): Shipping Name: Not dangerous goods.			
Hazard Cl				
14.3 AIR TF	RANSPORT (ICAO/IATA):			
ICAO/IAT	A Shipping Name: Not dangerous goods.			
Additional Tra	ansport Transport in accordance with loc	cal, state, and fede	eral regulations.	
Information:				
	Section 15. Regul	atory Inform	nation	
EPA SARA (S	uperfund Amendments and Reauthorization Act o	of 1986) Lists		
CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
1185-53-1	Tris[hydroxymethyl]aminomethane hydrochloride	No	No	No
77-86-1	Trizma base	No	No	Yes-Cat. N106
9005-64-5	Polyoxyethylenesorbitan Monolaurate (polysorbate 20; Sorbitan, monododecanoate,	No	No	No
	poly(oxy-1,2-ethanediyl) derivatives)			
7732-18-5	Water	No	No	No
CAS #	Hazardous Components (Chemical Name)	Other US EPA o	or State Lists	<b>F</b>
1185-53-1	Tris[hydroxymethyl]aminomethane hydrochloride	CAA HAP,ODC: Inventory; CA F	: No; CWA NPDES PROP.65: No	: No; TSCA: Yes -
77-86-1	Trizma base	CAA HAP,ODC: Inventory; CA F		NPDES: No; TSCA: Yes
9005-64-5	Polyoxyethylenesorbitan Monolaurate	CAA HAP,ODC:	No; CWA NPDES	: No; TSCA: Yes -
	(polysorbate 20; Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivatives)	Inventory; CA F	PROP.65: No	
7732-18-5	Water	· ·	No; CWA NPDES	: No; TSCA: Yes -
		Inventory; CA F	PROP.65: No	
Regulatory In	formation This SDS was prepared in account	rdance with 29 CF	R 1910.1200 and R	egulation (EC)
· • • • •				



A) Revision: 06/16/2017 Supersedes Revision: 11/27/2015

Section 16. Other Information	
Revision Date:	06/16/2017
Additional Information About	No data available.
This Product:	
Company Policy or Disclaimer:	DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.