

	CHEMICAL	ing to Regulation (EC) No. 1007/2006 as amonded by (Superseues Revision. 04/09/2015
		ing to Regulation (EC) No. 1907/2006 as amended by (I	
	Section 1. Ide	entification of the Substance/Mixture and of th	le Company/Undertaking
1.1	Product Code:	600744	
	Product Name:	Cell-Based Assay TBS (10X)	
1.2	Relevant identified uses of the	ne substance or mixture and uses advised aga	ainst:
	Relevant identified uses:	For research use only, not for human or veterin	nary use.
1.3	Details of the Supplier of the	Safety Data Sheet:	
	Company Name:	Cayman Chemical Company 1180 E. Ellsworth Rd. Ann Arbor, MI 48108	
	Web site address:	www.caymanchem.com	
	Information:	Cayman Chemical Company	+1 (734)971-3335
1.4	Emergency telephone number	er:	
	Emergency Contact:	CHEMTREC Within USA and Canada:	+1 (800)424-9300
		CHEMTREC Outside USA and Canada:	+1 (703)527-3887
		Section 2. Hazards Identifica	ation
	GHS Signal Word:	Warning	
	GHS Hazard Phrases:		
	H315: Causes skin irritation.		
	H319: Causes serious eye in	ritation.	
	GHS Precaution Phrases:		
	P264: Wash {hands} thoroug P280: Wear {protective glove	niy after nanoling. es/protective clothing/eye protection/face protectic	onl
	GHS Response Phrases:		ווע.
	P302+352: IF ON SKIN: Was	sh with plenty of soap and water. : Rinse cautiously with water for several minutes.	Remove contact lenses, if present and easy
	to do. Continue rinsing.		
		ccurs, get medical advice/attention.	
		ersists, get medical advice/attention.	
		l clothing and wash before re-use.	
	GHS Storage and Disposal		
	Please refer to Section 7 for	Storage and Section 13 for Disposal information.	



Effects and Symptoms: Causes serious eye irritation: Material is irritating to the mucous membranes and upper respiratory tract. May be harmfully infusition; ingestion, or skin absorption. May be harmfully inhibitation; ingestion, or skin absorption. To the best of our knowledge, the toxicological properties have not been thoroughly investigated Xes s/ REACH Registration No. EC No/ Generation on Ingredients Xes s/ REACH Registration No. EC No/ Generation on Ingredients 7847-14-6 Sodium chinical 10-15.0 % 231-598-3 Eye Damage 2A: H319 7738-10 Tizma base 1.0-10.0 % 231-598-3 Eye Damage 2A: H319 7738-11 Tizma base 1.0-10.0 % 231-598-3 Eye Damage 2A: H319 7738-13 Water 75.0-98.0 % 231-791-2 No data available. 1732-18-6 Water Tizma base 1.0-10.0 % Asin Conception In Case of Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained persone Geat inmediately wash skin with soap and plenty of water for at least 15 minutes. Have eyes examice Addita detable wash skin with soap and plenty of water for at least 15 minutes. Have eyes examice In Case of Skin Contact: Water gray	2.3	Advor		Causes skin irritation.			Supersedes Revision: 04/09/2015
Material is irritating to the muccus membranes and upper respiratory tract. May cause respiratory irritation. The best of our knowledge, the toxicological properties have not been thoroughly investigated Section 3. Composition/Information on Ingredients Ask <u>s</u> / <u>t</u> Maximum thioride 10.150 % Ask <u>s</u> / <u>t</u> Trans base 10.150 % Trans base 10.100 % Control 1 Scintable Kerner Trans base 10.0100 % Control 2 Scintable Kerner In Case of Nan Contable Kerner Medical attentint for symptoms							
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equivalent), and full protective gear to prevent contact with skin and eyes.		Autoig	nition Pt:	No data.			
equivalent), and full protective gear to prevent contact with skin and eyes.	.3	Fire Fi	ghting Instruction	s: As in any fire, wear self-cont	ained breathing app	paratus pressure-c	lemand (NIOSH approved or
Multi-region for				equivalent), and full protective	e gear to prevent c	ontact with skin ar	nd eyes.
Multi-region for							
							Multi-region form



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8.2

SAFETY DATA SHEET Cell-Based Assay TBS (10X)

Revision: 07/26/2016

Supersedes Revision: 04/09/2015 Section 6. Accidental Release Measures **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:** Environmental Take steps to avoid release into the environment, if safe to do so. **Precautions:** 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 Precautions To Be Taken Avoid breathing dust/fume/gas/mist/vapours/spray. in Handling: Avoid prolonged or repeated exposure. 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:** CAS # Partial Chemical Name **Britain EH40** France VL Europe 7647-14-5 Sodium chloride No data. No data. No data. 77-86-1 Trizma base No data. No data. No data. No data. No data. 7732-18-5 Water No data. CAS # **Partial Chemical Name OSHA TWA ACGIH TWA** Other Limits 7647-14-5 Sodium chloride No data. No data. No data. 77-86-1 Trizma base No data. No data. No data. 7732-18-5 Water No data. No data. No data. **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. Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower. ce Practices: Wash thoroughly after handling. No data available.



Revision: 07/26/2016 Supersedes Revision: 04/09/2015

4		Supersedes Revision: 04/09/2015
	Se	ection 9. Physical and Chemical Properties
).1	Information on Basic Physi	ical and Chemical Properties
	Physical States:	[]Gas [X]Liquid []Solid
	Appearance and Odor:	10 ml of 10X TBS, pH 7.4
	pH:	7.4
	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):	
	Specific Gravity (Water = 1): No data.
	Solubility in Water:	No data.
	Autoignition Pt:	No data.
9.2	Other Information	
	Percent Volatile:	No data.
		Section 10. Stability and Reactivity
0.1	Reactivity:	No data available.
0.2	Stability:	Unstable [] Stable [X]
0.3	Stability Note(s):	Stable if stored in accordance with information listed on the product insert.
	Polymerization:	Will occur [] Will not occur [X]
0.4	Conditions To Avoid:	No data available.
0.5	Incompatibility - Materials	strong oxidizing agents
	To Avoid:	
0.6	Hazardous	carbon dioxide
	Decomposition or	carbon monoxide
	Byproducts:	hydrogen chloride gas
		nitrogen oxides
	\$	sodium oxides
		Multi-region for



	HEMICAL					S	upersedes Revis	ion: 04/09/20
			Sectio	n 11. Toxicologi	cal Informa	ation		
11.1		jical Effects:	Trizma base mg/kg; Oral mg/kg;	gical effects of this produ - Toxicity Data: Oral LDI LD50 (rat) >3,000 mg/kg	LO (rabbit): 1,000 ; Oral LD50 (mot	0 mg/kg; Oral use): 5,500 mg	TDLO (mouse)	
Carcir	Chronic 1 Effects: nogenicity:	oxicological	Only select F See actual e	 Investigated as a repro Registry of Toxic Effects of entry in RTECS for complete RTECS Number: TY290 IARC Monographs? N 	of Chemical Sub ete information. 0000		CS) data is pre	sented here.
CAS		Hazardous Com			NTP	IARC	ACGIH	OSHA
		Sodium chloride			n.a.	n.a.	n.a.	n.a.
-		Trizma base			n.a.	n.a.	n.a.	n.a.
		Water			n.a.	n.a.	n.a.	n.a.
								1
			Secti	on 12. Ecologica	al Informat	ion		
12.1	Toxicity:		Runoff from	e into the environment. fire control or dilution wa	ter may cause po	ollution.		
12.2	Persisten Degradab	ility:	No data avai					
12.3	Bioaccun Potential:		No data avai	ilable.				
12.4	Mobility i	n Soil:	No data avai	ilable.				
12.5	Results o assessme		No data available.					
12.6	Other adv	verse effects:	No data ava	ilable.				
			Sectio	on 13. Disposal (Considerat	ions		
13.1	Waste Dis	sposal Method:	Dispose in a	ccordance with local, sta	te, and federal re	egulations.		
			Sect	tion 14. Transpo	rt Informat	ion		
14.1	LAND TR	ANSPORT (US I	DOT):					
D	OT Proper OT Hazard N/NA Numi		Not dan	gerous goods.				
14.1	LAND TR	ANSPORT (Euro	opean ADR/R	RID):				
Α	DR/RID Sh N Number:	ipping Name:	Not dan	gerous goods.				
-	azard Clas	S:						
H		s: NSPORT (ICAO/I	ATA):					
Ha 14.3	AIR TRA		-	gerous goods.				



		Section 15. Regu	latory Inform	ation	
EPA SARA (S	uperfund Amendm	ents and Reauthorization Act	of 1986) Lists		
CAS #	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
7647-14-5	Sodium chloride		No	No	No
77-86-1	Trizma base		No	No	Yes-Cat. N106
7732-18-5	Water		No	No	No
CAS #	Hazardous Com	ponents (Chemical Name)	Other US EPA o	r State Lists	
7647-14-5	Sodium chloride		CAA HAP,ODC: Inventory; CA P	No; CWA NPDES ROP.65: No	: No; TSCA: Yes -
77-86-1	Trizma base		CAA HAP,ODC: Inventory; CA P		S: No; TSCA: Yes -
7732-18-5	Water		CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No		
Regulatory Inf 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	:	07/26/2016			
Additional Info This Product:	ormation About	No data available.			
Company Poli	cy or Disclaimer:	DISCLAIMER: This information currently available to us. Howevexpress or implied, with respectuse. Users should make their of their particular purposes.	ver, we make no wa t to such informatior	rranty of merchanta n, and we assume r	ability or any other warranty no liability resulting from its



1.1

1.2

1.3

1.4

2.1

2.2

SAFETY DATA SHEET **O-Propargyl-Puromycin Stock Solution** Revision: 07/25/2016 Supersedes Revision: 08/28/2014 according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008 Section 1. Identification of the Substance/Mixture and of the Company/Undertaking **Product Code:** 601101 Product Name: O-Propargyl-Puromycin Stock Solution Relevant identified uses of the substance or mixture and uses advised against: **Relevant identified uses:** For research use only, not for human or veterinary use. 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 Emergency telephone number: **Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300 CHEMTREC Outside USA and Canada: +1 (703)527-3887 Section 2. Hazards Identification **Classification of the Substance or Mixture:** Serious Eye Damage/Eye Irritation, Category 2A Skin Corrosion/Irritation, Category 2 Flammable Liquids, Category 4 Label Elements: **GHS Signal Word:** Warning **GHS Hazard Phrases:** H319: Causes serious eye irritation H315: Causes skin irritation. H227: Combustible liquid. **GHS Precaution Phrases:** P264: Wash hands thoroughly after handling. P280: Wear protective gloves/clothing and eye/face protection as specified by the manufacturer/supplier or the competent authority. P210: Keep away from {heat/sparks/open flames/hot surfaces}. - No smoking. **GHS Response Phrases:** P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+313: If eye irritation persists, get medical advice/attention. P302+352: IF ON SKIN: Wash with plenty of soap and water. P332+313: If skin irritation occurs, get medical advice/attention. P362: Take off contaminated clothing and wash before re-use. **GHS Storage and Disposal Phrases:** Please refer to Section 7 for Storage and Section 13 for Disposal information.



Multi-region format

Revision: 07/25/2016 Supersedes Revision: 08/28/2014

2.3 Adverse Human Health Causes skin and serious eye irritation.
 Effects and Symptoms: DMSO has the potential to carry toxic materials or materials of unknown toxicity into the body. DMSO is readily absorbed through skin. Material may be irritating to the mucous membranes and upper respiratory tract. May be harmful by inhalation, ingestion, or skin absorption. May cause respiratory system irritation. To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

Section 3. Composition/Information on Ingredients

CAS # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
1416561-90-4 NA	O-Propargyl-Puromycin	0.0 -5.0 %	NA NA	No data available.
67-68-5 PV6210000	Dimethyl sulfoxide, anhydrous	95.0 -100.0 %	200-664-3 NA	Flam. Liq. 4: H227 Eye Damage 2A: H319 Skin Corr. 2: H315

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:	
	In Case of Eye Contact:	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.
	In Case of Ingestion:	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
4.2	Important Symptoms and	d Exposure may cause: hematuria or shortness of breath (dyspnea).
	Effects, Both Acute and	Exposure may cause: gastrointestinal irritation with nausea, vomiting, diarrhea, headache,
	Delayed:	dizziness, and drowsiness.
		Eye contact may cause blurry vision, burning sensation, redness, tearing, and vasodilation.
		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	dCan release vapors that form explosive mixtures at temperatures at or above the flashpoint.
	Hazards:	Container explosion may occur under fire conditions.
		Emits toxic fumes under fire conditions.
		Sensitive to static discharge.
		Vapors can travel to a source of ignition and flash back.
		No data available.
	Flash Pt:	89.00 C Method Used: Closed Cup
	Explosive Limits:	LEL: 3.5% at 25.0 C UEL: 42.0% at 25.0 C
	Autoignition Pt:	215.00 C
1		



	Revision:	07/25/2016
upersedes	Revision:	08/28/2014

	a tarteat					
5.3	Fire Fig	hting Instruction	s: As in any fire, wear s	self-contained breathing	apparatus pressure-demand	(NIOSH approved or
			equivalent), and full p	protective gear to prever	nt contact with skin and eyes.	
			Note: Combustible a	s diluted in dimethyl sulf	oxide.	
			Section 6. Ac	cidental Releas	e Measures	
.1		ve Precautions,		ors and provide adequat		
	Protecti	ve Equipment ar			ved self-contained breathing	
	Emerge	ncy Procedures:	and appropriate pers	sonal protection (rubber	boots, safety goggles, and he	eavy rubber gloves).
.2	Environ	mental	Take steps to avoid	release into the environ	ment, if safe to do so.	
	Precaut	ions:				
5.3			or Contain spill and col			
	Contain	ment and Cleani	ngTransfer to a chemic	cal waste container for d	isposal in accordance with lo	cal regulations.
	Up:					
			Section 7	. Handling and	Storage	
' .1			-	/fume/gas/mist/vapours/	spray.	
	in Hand	ling:	Avoid prolonged or re			
			Keep away from sou	-		
				measures against static	discharge.	
7.2			n Keep away from hea			
	in Storing: Keep container tigh		· · · ·			
			Store in accordance	with information listed o	n the product incort	
				with information listed of	n the product insert.	
	Other P	recautions:	Store in accordance Hygroscopic.	with information listed o	n the product insert.	
	Other P		Hygroscopic.		n the product insert.	
3.1			Hygroscopic.	ure Controls/Per	rsonal Protection	
	Exposur	Sec	Hygroscopic.			Europe
CAS	Exposur	Sec e Parameters:	Hygroscopic. ction 8. Exposu	ure Controls/Per	rsonal Protection	Europe No data.
CAS #	Exposur #	Sec e Parameters: Partial Chemica	Hygroscopic. tion 8. Exposu I Name omycin	ure Controls/Per Britain EH40	rsonal Protection	
CAS 1 14165 67	Exposur # 561-90-4 -68-5	Sec e Parameters: Partial Chemica O-Propargyl-Pure	Hygroscopic. ction 8. Exposu I Name omycin le, anhydrous	ure Controls/Per Britain EH40 No data.	France VL No data.	No data.
CAS i 14165 67 CAS i	Exposur # 561-90-4 -68-5	Sec e Parameters: Partial Chemica O-Propargyl-Pure Dimethyl sulfoxid	Hygroscopic. tion 8. Exposu I Name omycin le, anhydrous I Name	Ure Controls/Per Britain EH40 No data. No data.	rsonal Protection France VL No data. No data.	No data. No data.
CAS = 14165 67 CAS = 14165	Exposur # 561-90-4 -68-5 #	Sec e Parameters: Partial Chemica O-Propargyl-Puro Dimethyl sulfoxid Partial Chemica	Hygroscopic. tion 8. Exposu I Name omycin le, anhydrous I Name omycin	Ure Controls/Per Britain EH40 No data. No data. OSHA TWA	rsonal Protection France VL No data. No data. ACGIH TWA	No data. No data. Other Limits
CAS # 14165 67 CAS # 14165 67	Exposur # 561-90-4 -68-5 # 561-90-4 -68-5	Sec e Parameters: Partial Chemica O-Propargyl-Puro Dimethyl sulfoxid Partial Chemica O-Propargyl-Puro	Hygroscopic. tion 8. Exposu I Name omycin le, anhydrous I Name omycin	Britain EH40 No data. No data. OSHA TWA No data.	rsonal Protection France VL No data. No data. ACGIH TWA No data.	No data. No data. Other Limits No data.
CAS = 14165 67 CAS = 14165 67 3.2	Exposur # 561-90-4 -68-5 # 561-90-4 -68-5 Exposur	Sec e Parameters: Partial Chemica O-Propargyl-Puro Dimethyl sulfoxid Partial Chemica O-Propargyl-Puro Dimethyl sulfoxid	Hygroscopic. tion 8. Exposu I Name omycin le, anhydrous I Name omycin le, anhydrous	Britain EH40 No data. No data. OSHA TWA No data. No data.	rsonal Protection France VL No data. No data. ACGIH TWA No data.	No data. No data. Other Limits No data. No data. No data.
CAS = 14165 67 CAS = 14165 67 3.2	Exposur # -68-5 # -68-5 -68-5 Exposur Enginee	Sec e Parameters: Partial Chemica O-Propargyl-Puro Dimethyl sulfoxid Partial Chemica O-Propargyl-Puro Dimethyl sulfoxid re Controls:	Hygroscopic. tion 8. Exposu I Name omycin le, anhydrous I Name omycin le, anhydrous Use process enclosu	Britain EH40 No data. No data. OSHA TWA No data. No data.	rsonal Protection France VL No data. No data. ACGIH TWA No data. No data.	No data. No data. Other Limits No data. No data. No data.
CAS = 14165 67 CAS = 14165 67 3.2 3.2	Exposur # 561-90-4 -68-5 # 561-90-4 -68-5 Exposur Enginee (Ventila	Sec e Parameters: Partial Chemica O-Propargyl-Puro Dimethyl sulfoxid Partial Chemica O-Propargyl-Puro Dimethyl sulfoxid re Controls: ering Controls	Hygroscopic. tion 8. Exposu I Name omycin le, anhydrous I Name omycin le, anhydrous Use process enclosu levels below recomm	Britain EH40 No data. No data. OSHA TWA No data. No data.	rsonal Protection France VL No data. No data. ACGIH TWA No data. No data.	No data. No data. Other Limits No data. No data. No data.
CAS = 14165 67 CAS = 14165 67 3.2 3.2	Exposur # 561-90-4 -68-5 # 561-90-4 -68-5 Exposur Enginee (Ventila	Sec e Parameters: Partial Chemica O-Propargyl-Puro Dimethyl sulfoxid Partial Chemica O-Propargyl-Puro Dimethyl sulfoxid re Controls: ering Controls tion etc.): al protection equ	Hygroscopic. tion 8. Exposu I Name omycin le, anhydrous I Name omycin le, anhydrous Use process enclosu levels below recomm	Britain EH40 No data. No data. OSHA TWA No data. No data.	rsonal Protection France VL No data. No data. ACGIH TWA No data. No data.	No data. No data. Other Limits No data. No data. No data.
CAS = 14165 67 CAS = 14165 67 3.2 3.2.1	Exposur # 561-90-4 -68-5 # 561-90-4 -68-5 Exposur Enginee (Ventila Persona Eye Pro	Sec e Parameters: Partial Chemica O-Propargyl-Puro Dimethyl sulfoxid Partial Chemica O-Propargyl-Puro Dimethyl sulfoxid re Controls: ering Controls tion etc.): al protection equ	Hygroscopic. tion 8. Exposu I Name omycin le, anhydrous I Name omycin le, anhydrous Use process enclosu levels below recomm ipment:	Britain EH40 No data. No data. OSHA TWA No data. No data. ures, local exhaust ventil nended exposure limits.	rsonal Protection France VL No data. No data. ACGIH TWA No data. No data.	No data. No data. Other Limits No data. No data. No data.
CAS = 14165 67 CAS = 14165 67 3.2 3.2.1	Exposur # 561-90-4 -68-5 # 561-90-4 -68-5 Exposur Enginee (Ventila Persona Eye Pro Protecti	Sec e Parameters: Partial Chemica O-Propargyl-Pure Dimethyl sulfoxid Partial Chemica O-Propargyl-Pure Dimethyl sulfoxid re Controls: ering Controls tion etc.): al protection equitection:	Hygroscopic. tion 8. Exposu I Name omycin le, anhydrous I Name omycin le, anhydrous Use process enclosu levels below recomm ipment: Safety glasses Compatible chemical	Britain EH40 No data. No data. OSHA TWA No data. No data. ures, local exhaust ventil nended exposure limits.	rsonal Protection France VL No data. No data. ACGIH TWA No data. No data.	No data. No data. Other Limits No data. No data. No data.
CAS = 14165 67 CAS = 14165 67 3.2 3.2	Exposur # 561-90-4 -68-5 # 561-90-4 -68-5 Exposur Enginee (Ventila Persona Eye Pro Protecti Other P	Sec e Parameters: Partial Chemica O-Propargyl-Pure Dimethyl sulfoxid Partial Chemica O-Propargyl-Pure Dimethyl sulfoxid re Controls: ering Controls tion etc.): al protection equi tection: ve Gloves:	Hygroscopic. tion 8. Exposu I Name omycin le, anhydrous I Name omycin le, anhydrous Use process enclosu levels below recomm ipment: Safety glasses Compatible chemical g:Lab coat	Britain EH40 No data. No data. OSHA TWA No data. No data. ures, local exhaust ventil nended exposure limits.	rsonal Protection France VL No data. No data. ACGIH TWA No data. No data.	No data. No data. Other Limits No data. No data. No data.
CAS = 14165 67 CAS = 14165 67 3.2 3.2.1	Exposur # 561-90-4 -68-5 # 561-90-4 -68-5 Exposur Enginee (Ventila Persona Eye Pro Protecti Other P	Sec e Parameters: Partial Chemica O-Propargyl-Pure Dimethyl sulfoxid Partial Chemica O-Propargyl-Pure Dimethyl sulfoxid re Controls: ering Controls tion etc.): al protection equi tection: ve Gloves: rotective Clothin tory Equipment	Hygroscopic. tion 8. Exposu I Name omycin le, anhydrous I Name omycin le, anhydrous Use process enclosu levels below recomm ipment: Safety glasses Compatible chemical g:Lab coat	Britain EH40 No data. No data. OSHA TWA No data. No data. OSHA TWA No data. Inters, local exhaust ventil nended exposure limits. I-resistant gloves	rsonal Protection France VL No data. No data. ACGIH TWA No data. No data.	No data. No data. Other Limits No data. No data. No data.
CAS = 14165 67 CAS = 14165 67 3.2 3.2	Exposur # 561-90-4 -68-5 # 561-90-4 -68-5 Exposur Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify	Sec e Parameters: Partial Chemica O-Propargyl-Pure Dimethyl sulfoxid Partial Chemica O-Propargyl-Pure Dimethyl sulfoxid re Controls: ering Controls tion etc.): al protection equi tection: ve Gloves: rotective Clothin tory Equipment r Type):	Hygroscopic. tion 8. Exposu I Name omycin le, anhydrous I Name omycin le, anhydrous Use process enclosu levels below recomm ipment: Safety glasses Compatible chemical g:Lab coat	Britain EH40 No data. No data. OSHA TWA No data. No data. OSHA TWA No data. Inters, local exhaust ventil nended exposure limits. I-resistant gloves spirator, as conditions water	rsonal Protection France VL No data. No data. ACGIH TWA No data. No data.	No data. No data. Other Limits No data. No data. No data.
CAS = 14165 67 CAS = 14165 67 3.2 3.2	Exposur # 561-90-4 -68-5 # 561-90-4 -68-5 Exposur Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify	Sec e Parameters: Partial Chemica O-Propargyl-Pure Dimethyl sulfoxid Partial Chemica O-Propargyl-Pure Dimethyl sulfoxid re Controls: ering Controls tion etc.): al protection equitection: ve Gloves: rotective Clothin tory Equipment r Type): ygienic/Maintena	Hygroscopic. tion 8. Exposu I Name omycin le, anhydrous I Name omycin le, anhydrous Use process enclosu levels below recomm ipment: Safety glasses Compatible chemical g:Lab coat NIOSH approved res	Britain EH40 No data. No data. OSHA TWA No data. No data. In odata. No data. In odata. In odata.	rsonal Protection France VL No data. No data. ACGIH TWA No data. No data.	No data. No data. Other Limits No data. No data. ontrols to control airbor
67 CAS : 14165	Exposur # 561-90-4 -68-5 # 561-90-4 -68-5 Exposur Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify Work/Hy	Sec e Parameters: Partial Chemica O-Propargyl-Pure Dimethyl sulfoxid Partial Chemica O-Propargyl-Pure Dimethyl sulfoxid re Controls: ering Controls tion etc.): al protection equitection: ve Gloves: rotective Clothin tory Equipment r Type): ygienic/Maintena	Hygroscopic. tion 8. Exposu I Name omycin le, anhydrous I Name omycin le, anhydrous Use process enclosu levels below recomm ipment: Safety glasses Compatible chemical g:Lab coat NIOSH approved res	Britain EH40 No data. No data. OSHA TWA No data. No data. In odata. No data. In odata. In odata.	rsonal Protection France VL No data. ACGIH TWA No data. No data. ation, or other engineering comparison of the engineering comparison o	No data. No data. Other Limits No data. No data. ontrols to control airbor



	S	Section 9. Physical and Chemical Properties
9.1	Information on Basic Phy	sical and Chemical Properties
	Physical States:	[]Gas [X]Liquid []Solid
	Appearance and Odor:	A solution in DMSO
	Melting Point:	No data.
	Boiling Point:	No data.
	Flash Pt:	89.00 C Method Used: Closed Cup
	Evaporation Rate:	No data.
	Flammability (solid, gas)	No data available.
	Explosive Limits:	LEL: 3.5% at 25.0 C UEL: 42.0% at 25.0 C
	Vapor Pressure (vs. Air o	or mm 0.37 MM_HG at 20.0 C
	Hg):	
	Vapor Density (vs. Air = 1	1): No data.
	Specific Gravity (Water =	a 1): No data.
	Solubility in Water:	No data.
	Autoignition Pt:	215.00 C
9.2	Other Information	
	Percent Volatile:	No data.
	Molecular Formula & We	ight: C24H29N7O5 495.5
		Section 10. Stability and Reactivity
10.1	Reactivity:	No data available.
	•	
10.2	Stability:	Unstable [] Stable [X]
10.2 10.3	Stability: Stability Note(s):	Unstable [] Stable [X] Stable if stored in accordance with information listed on the product insert.
	-	Stable if stored in accordance with information listed on the product insert.
	Stability Note(s):	Stable if stored in accordance with information listed on the product insert. Will occur [] Will not occur [X]
10.3 10.4	Stability Note(s): Polymerization: Conditions To Avoid:	Stable if stored in accordance with information listed on the product insert. Will occur [] Will not occur [X] heat, flames and sparks
10.3	Stability Note(s): Polymerization:	Stable if stored in accordance with information listed on the product insert. Will occur [] Will not occur [X] heat, flames and sparks s acid chlorides
10.3 10.4	Stability Note(s): Polymerization: Conditions To Avoid: Incompatibility - Material	Stable if stored in accordance with information listed on the product insert. Will occur [] Will not occur [X] heat, flames and sparks
10.3 10.4	Stability Note(s): Polymerization: Conditions To Avoid: Incompatibility - Material	Stable if stored in accordance with information listed on the product insert. Will occur [] Will not occur [X] heat, flames and sparks s acid chlorides phosphorus halides
10.3 10.4	Stability Note(s): Polymerization: Conditions To Avoid: Incompatibility - Material	Stable if stored in accordance with information listed on the product insert. Will occur [] Will not occur [X] heat, flames and sparks s acid chlorides phosphorus halides strong acids
10.3 10.4	Stability Note(s): Polymerization: Conditions To Avoid: Incompatibility - Material	Stable if stored in accordance with information listed on the product insert. Will occur [] Will not occur [X] heat, flames and sparks stores acid chlorides phosphorus halides strong acids alkali metals
10.3 10.4	Stability Note(s): Polymerization: Conditions To Avoid: Incompatibility - Material	Stable if stored in accordance with information listed on the product insert. Will occur [] Will not occur [X] heat, flames and sparks acid chlorides phosphorus halides strong acids alkali metals strong oxidizing agents
10.3 10.4 10.5	Stability Note(s): Polymerization: Conditions To Avoid: Incompatibility - Material To Avoid:	Stable if stored in accordance with information listed on the product insert. Will occur [] Will not occur [X] heat, flames and sparks acid chlorides phosphorus halides strong acids alkali metals strong oxidizing agents strong reducing agents



SAFETY DATA SHEET

O-Propargyl-Puromycin Stock Solution

			Section 11. Toxicological	Informa	ation		
1.1	Information on Toxicological Effects: Chronic Toxicological Effects:		The toxicological effects of this product has DMSO - Toxicity Data: Oral LD50 (rat): 14 (mouse): 7,920 mg/kg; Skin LD50 (mouse) Inhalation LC50 (rat): >1,600 mg/m3 (4h); DMSO - Irritation Data: Eyes (rabbit): 100 DMSO - Investigated as a mutagen, repro Only select Registry of Toxic Effects of CH See actual entry in RTECS for complete in DMSO RTECS Number: PV6210000	l,500 mg/kg e): 50,000 m mg mild; Sł oductive effe nemical Sub	; Skin LD50 (ra g/kg; Skin TDL kin (rabbit): 500 ctor, and tumo	at): 40,000 mg/ .O (woman): 1 0 mg (24h) mile rigen.	,800 mg/kg; d;
	nogenicity	ł	NTP? No IARC Monographs? No	-	egulated? No		
CAS #	-		ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA
	61-90-4	O-Propargyl-Purc	•	n.a.	n.a.	n.a.	n.a.
67.	-68-5	Dimethyl sulfoxid	e, anhydrous	n.a.	n.a.	n.a.	n.a.
			Section 12. Ecological I	nformat	ion		
12.1	Toxicity:		Avoid release into the environment.				
			Runoff from fire control or dilution water m	nay cause p	ollution.		
12.2	Persister	nce and	No data available.				
	Degrada	bility:					
2.3	Bioaccu	mulative	No data available.				
	Potentia	l:					
2.4	Mobility	in Soil:	No data available.				
2.5	Results of assessm		No data available.				
12.6	Other ad	verse effects:	No data available.				
			Section 13. Disposal Cor	nsiderat	ions		
13.1	Waste Di	isposal Method:	Dispose in accordance with local, state, a	nd federal re	egulations.		
			Section 14. Transport I	nformat	ion		
14.1	LAND T	RANSPORT (US I	DOT):				
D	OT Prope OT Hazaro N/NA Num		Not dangerous goods.				
14.1	LAND T	RANSPORT (Euro	ppean ADR/RID):				
A	DR/RID Sł	nipping Name:	Not dangerous goods.				
-	N Number						
Ha	azard Clas						
14.3		NSPORT (ICAO/I	-				
		Shipping Name:	Not dangerous goods.				
	ional Tran nation:	nsport	Transport in accordance with local, state,	and federal	regulations.		



		Section 15. Regu	latory Inform	ation	
EPA SARA (Sι	perfund Amendn	nents and Reauthorization Act			
CAS #	-	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
1416561-90-4	O-Propargyl-Pure	omycin	No	No	No
67-68-5	Dimethyl sulfoxid	e, anhydrous	No	No	No
CAS #	Hazardous Com	ponents (Chemical Name)	Other US EPA o	r State Lists	
1416561-90-4 O-Propargyl-Pur		omycin	CAA HAP,ODC: PROP.65: No	No; CWA NPDES:	: No; TSCA: No; CA
67-68-5	Dimethyl sulfoxid	e, anhydrous	CAA HAP,ODC: Inventory; CA P	No; CWA NPDES: ROP.65: No	: No; TSCA: Yes -
Regulatory Info	ormation	This SDS was prepared in acc No.1272/2008.	ordance with 29 CFF	R 1910.1200 and R	egulation (EC)
		Section 16. Ot	her Information	on	
Revision Date:		07/25/2016			
Additional Info	rmation About	No data available.			
This Product:					
		express or implied, with respectuse. Users should make their of their particular purposes.			



	man	Copper Sulfate Soluti	ON Revision: 07/25/201 Supersedes Revision: 08/28/201
	accord	ing to Regulation (EC) No. 1907/2006 as amended by	
	Section 1. Ide	entification of the Substance/Mixture and of th	ne Company/Undertaking
.1	Product Code:	601102	1 5 5
	Product Name:	Copper Sulfate Solution	
2	Relevant identified uses of t	he substance or mixture and uses advised ag	ainst:
	Relevant identified uses:	For research use only, not for human or veterin	
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 numb	er:	
	Emergency Contact:	CHEMTREC Within USA and Canada: CHEMTREC Outside USA and Canada:	+1 (800)424-9300 +1 (703)527-3887
		Section 2. Hazards Identification	ation
2	Aquatic Toxicity (Acute), C Aquatic Toxicity (Chronic) Label Elements:		
	GHS Signal Word:		
		Danger	
	GHS Hazard Phrases:	Danger	
	H301: Toxic if swallowed.		
	H301: Toxic if swallowed. H315: Causes skin irritation.		
	H301: Toxic if swallowed. H315: Causes skin irritation. H319: Causes serious eye ii	ritation.	
	H301: Toxic if swallowed. H315: Causes skin irritation. H319: Causes serious eye in H400: Very toxic to aquatic l	ritation. ife.	
	H301: Toxic if swallowed. H315: Causes skin irritation. H319: Causes serious eye in H400: Very toxic to aquatic I H410: Very toxic to aquatic I	ritation. ife.	
	 H301: Toxic if swallowed. H315: Causes skin irritation. H319: Causes serious eye in H400: Very toxic to aquatic I H410: Very toxic to aquatic I GHS Precaution Phrases: 	ritation. ife. ife with long lasting effects.	
	 H301: Toxic if swallowed. H315: Causes skin irritation. H319: Causes serious eye in H400: Very toxic to aquatic l H410: Very toxic to aquatic l GHS Precaution Phrases: P264: Wash {hands} thoroug 	ritation. ife. ife with long lasting effects. ghly after handling.	
	 H301: Toxic if swallowed. H315: Causes skin irritation. H319: Causes serious eye in H400: Very toxic to aquatic I H410: Very toxic to aquatic I GHS Precaution Phrases: P264: Wash {hands} thoroug P273: Avoid release to the experimental statemental statemental	ritation. ife. ife with long lasting effects. ghly after handling. nvironment.	on}.
	 H301: Toxic if swallowed. H315: Causes skin irritation. H319: Causes serious eye in H400: Very toxic to aquatic l H410: Very toxic to aquatic l GHS Precaution Phrases: P264: Wash {hands} thoroug P273: Avoid release to the e P280: Wear {protective glow 	ritation. ife. ife with long lasting effects. ghly after handling.	on}.
	 H301: Toxic if swallowed. H315: Causes skin irritation. H319: Causes serious eye in H400: Very toxic to aquatic l H410: Very toxic to aquatic l GHS Precaution Phrases: P264: Wash {hands} thoroug P273: Avoid release to the e P280: Wear {protective glow GHS Response Phrases: 	ritation. ife. ife with long lasting effects. ghly after handling. nvironment.	
	 H301: Toxic if swallowed. H315: Causes skin irritation. H319: Causes serious eye in H400: Very toxic to aquatic l H410: Very toxic to aquatic l GHS Precaution Phrases: P264: Wash {hands} thoroug P273: Avoid release to the e P280: Wear {protective glow GHS Response Phrases: P301+310: IF SWALLOWED 	ritation. ife. ife with long lasting effects. ghly after handling. nvironment. es/protective clothing/eye protection/face protecti	
	 H301: Toxic if swallowed. H315: Causes skin irritation. H319: Causes serious eye in H400: Very toxic to aquatic I H410: Very toxic to aquatic I GHS Precaution Phrases: P264: Wash {hands} thoroug P273: Avoid release to the e P280: Wear {protective glov GHS Response Phrases: P301+310: IF SWALLOWED P302+352: IF ON SKIN: Wa 	ritation. ife. ife with long lasting effects. ghly after handling. nvironment. es/protective clothing/eye protection/face protecti 0: Immediately call a POISON CENTER or doctor	/physician.
	 H301: Toxic if swallowed. H315: Causes skin irritation. H319: Causes serious eye in H400: Very toxic to aquatic I H410: Very toxic to aquatic I GHS Precaution Phrases: P264: Wash {hands} thoroug P273: Avoid release to the e P280: Wear {protective glov GHS Response Phrases: P301+310: IF SWALLOWED P302+352: IF ON SKIN: Wa 	ritation. ife. ife with long lasting effects. ghly after handling. nvironment. es/protective clothing/eye protection/face protecti D: Immediately call a POISON CENTER or doctor sh with plenty of soap and water.	/physician.



Revision: 07/25/2016 Supersedes Revision: 08/28/2014

	P337+313: If eye irritation	n persists, get medical advice/attention.				
	P362+364: Take off contaminated clothing and wash it before reuse. P391: Collect spillage.					
	GHS Storage and Dispo	osal Phrases:				
	Please refer to Section 7	for Storage and Section 13 for Disposal information.				
2.3	Adverse Human Health	Causes serious eye irritation.				
	Effects and Symptoms:	Causes skin irritation.				
		Material may be irritating to the mucous membranes and upper respiratory tract.				
		May be harmful by inhalation or skin absorption.				
		May cause respiratory system irritation.				
		Toxic if swallowed.				
		Very toxic to aquatic life with long lasting effects.				
		To the best of our knowledge, the toxicological properties have not been thoroughly investigated.				

Section 3. Composition/Information on Ingredients

CAS # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
7758-99-8 GL8900000	Copper (II) sulfate pentahydrate	10.0 -25.0 %	231-847-6 NA	Acute Tox.(O) 3: H301 Skin Corr. 2: H315 Eye Damage 2A: H319 Aquatic (A) 1: H400 Aquatic (C) 1: H410
7732-18-5 ZC0110000	Water	75.0 -90.0 %	231-791-2 NA	No data available.

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.



		Se	ection 5. Fire Fig	inting Meas	sures		
5.1	Suitabl		phol-resistant foam, carbo			у.	
	Media:		er spray to cool fire-expos			, ,	
	Unsuita	able Extinguishing A solid v	vater stream may be ineffi	cient.			
	Media:						
.2	Flamm	able Properties andNo data	available.				
	Hazard	s:					
			available.				
	Flash F						
	-	ive Limits: LEL: No		UEL: No data	l.		
_	-	nition Pt: No data					
.3	Fire Fiç	hting Instructions: As in an equivale	y fire, wear self-contained nt), and full protective gea		-		
		Sectio	on 6. Accidental	Release M	easures		
5.1			reathing vapors and provi	-			
	Protect	ive Equipment and As conc					
		ency Procedures: and app	and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).				
	-						
6.2	Enviro	mental Take st	eps to avoid release into t	he environment, i	f safe to do so.		
	Enviro Precau	tions:			f safe to do so.		
5.2 5.3	Enviror Precau Method	mmental Take sto tions: Is and Material For Contain	spill and collect, as appro	opriate.		local regulations	
	Enviror Precau Methoo Contain	tions:	spill and collect, as appro	opriate.		local regulations.	
	Enviror Precau Method	nmental Take sto tions: Is and Material For Contain nment and CleaningTransfe	spill and collect, as appro	opriate. tainer for disposa	I in accordance with	local regulations.	
	Enviror Precau Methoo Contain	nmental Take sto tions: Is and Material For Contain nment and CleaningTransfe	spill and collect, as appro	opriate. tainer for disposa	I in accordance with	local regulations.	
5.3	Environ Precau Method Contain Up:	nmental Take sto tions: Is and Material For Contain nment and CleaningTransfe	spill and collect, as appro r to a chemical waste con ection 7. Handlin	opriate. tainer for disposa ng and Stor	I in accordance with	local regulations.	
5.3	Environ Precau Method Contain Up:	nmental Take sta tions: Is and Material For Contain nment and CleaningTransfe S tions To Be Taken Avoid br	spill and collect, as appro r to a chemical waste con ection 7. Handlin	opriate. tainer for disposa ng and Stor st/vapours/spray.	I in accordance with	local regulations.	
7.1	Environ Precau Methoo Contain Up: Precau in Hano Precau	Inmental Take stations: Is and Material For Contain Is and Material For Contain Is and Cleaning Transfe S tions To Be Taken Avoid br Iling: Avoid pr tions To Be Taken Keep co	spill and collect, as appro r to a chemical waste con ection 7. Handlin eathing dust/fume/gas/mi olonged or repeated expo ntainer tightly closed.	opriate. tainer for disposa ng and Stor st/vapours/spray. sure.	I in accordance with	local regulations.	
5.3 7.1	Environ Precau Method Contain Up: Precau in Hand	Inmental Take stations: Is and Material For Contain Is and Material For Contain Is and Cleaning Transfe S tions To Be Taken Avoid br Iling: Avoid pr tions To Be Taken Keep co	spill and collect, as appro r to a chemical waste con ection 7. Handlin eathing dust/fume/gas/mi olonged or repeated expo	opriate. tainer for disposa ng and Stor st/vapours/spray. sure.	I in accordance with	local regulations.	
7.1	Environ Precau Methoo Contain Up: Precau in Hano Precau	Inmental Take stations: Is and Material For Contain Is and Material For Contain Is and CleaningTransfe Store provided by Store in Store in	spill and collect, as appro r to a chemical waste con ection 7. Handlin eathing dust/fume/gas/mi olonged or repeated expo ntainer tightly closed.	opriate. tainer for disposa ng and Stor st/vapours/spray. sure. fon listed on the p	I in accordance with age	local regulations.	
5.3 7.1 7.2	Environ Precau Methoo Contain Up: Precau in Hand Precau in Stori	Inmental Take stations: Is and Material For Contain Is and Material For Contain Is and CleaningTransfe Store provided by Store in Store in	spill and collect, as appro r to a chemical waste con ection 7. Handlin eathing dust/fume/gas/mi olonged or repeated expo ntainer tightly closed. accordance with informat	opriate. tainer for disposa ng and Stor st/vapours/spray. sure. fon listed on the p	I in accordance with age	local regulations.	
2.3 7.1 7.2	Environ Precau Methoo Contain Up: Precau in Hand Precau in Stori	Inmental Take stations: Is and Material For Contain Is and Material For Contain Imment and CleaningTransfe Stions To Be Taken Avoid br Iling: Avoid pr tions To Be Taken Keep co ng: Store in Section 8.	spill and collect, as appro r to a chemical waste con ection 7. Handlin eathing dust/fume/gas/mi olonged or repeated expo ntainer tightly closed. accordance with informat	opriate. tainer for disposa ng and Stor st/vapours/spray. sure. on listed on the p	I in accordance with age	local regulations.	
3.3 7.1 7.2 3.1 CAS	Environ Precau Methoo Contain Up: Precau in Hand Precau in Stori	Inmental Take stations: Is and Material For Contain Is and Material For Contain Imment and CleaningTransfe Stions To Be Taken Avoid br Iling: Avoid pr tions To Be Taken Keep co ng: Store in Section 8. re Parameters:	spill and collect, as appro r to a chemical waste con ection 7. Handlin eathing dust/fume/gas/mi olonged or repeated expo ntainer tightly closed. accordance with informat Exposure Contri Britain EH	opriate. tainer for disposa ng and Stor st/vapours/spray. sure. on listed on the p	I in accordance with		
5.3 7.1 7.2 775	Environ Precau Methoo Contain Up: Precau in Hand Precau in Stori Exposu	Inmental Take stations: Is and Material For Contain Inment and CleaningTransfe Stions To Be Taken Avoid br Iling: Avoid pr tions To Be Taken Keep co ng: Store in Section 8. re Parameters: Partial Chemical Name	spill and collect, as appro r to a chemical waste con ection 7. Handlin eathing dust/fume/gas/mi olonged or repeated expo ntainer tightly closed. accordance with informat Exposure Contri Britain EH	opriate. tainer for disposa ng and Stor st/vapours/spray. sure. on listed on the p	I in accordance with age roduct insert. al Protection France VL	Europe	
5.3 7.1 7.2 775	Environ Precau Methoo Contain Up: Precau in Hand Precau in Stori Exposu 5# 58-99-8 32-18-5	Inmental Take stations: Is and Material For Contain Is and Material For Contain Imment and CleaningTransfe Stions To Be Taken Avoid br Iling: Avoid pr tions To Be Taken Keep co ng: Store in Section 8. re Parameters: Partial Chemical Name Copper (II) sulfate pentahyo	spill and collect, as appro r to a chemical waste con ection 7. Handlin eathing dust/fume/gas/mi olonged or repeated expo ntainer tightly closed. accordance with informat Exposure Conti Britain EH drate No data.	opriate. tainer for disposa ng and Stor st/vapours/spray. sure. on listed on the p ols/Person 40	I in accordance with Tage Troduct insert. Troduct insert. Trance VL No data.	Europe No data.	
5.3 7.1 7.2 775 775 CAS	Environ Precau Methoo Contain Up: Precau in Hand Precau in Stori Exposu 5# 58-99-8 32-18-5	Inmental Take stations: Is and Material For Contain Is and Material For Contain Imment and CleaningTransfe Stions To Be Taken Avoid br Iling: Avoid pr tions To Be Taken Keep co ng: Store in Section 8. re Parameters: Partial Chemical Name Copper (II) sulfate pentahyo Water	spill and collect, as approring to a chemical waste considered and the second section 7. Handling eathing dust/fume/gas/mite olonged or repeated export natiner tightly closed. Accordance with informat Exposure Control Britain EH drate No data. No data. No data.	opriate. tainer for disposa ng and Stor st/vapours/spray. sure. on listed on the p ols/Person 40	I in accordance with Cage Oroduct insert. al Protection France VL No data. No data.	Europe No data. No data.	



	CHEMICAL	Supersedes Revision: 08/28/2014
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 equ	ipment:
	Eye Protection:	Safety glasses
	Protective Gloves:	Compatible chemical-resistant gloves
	Other Protective Clothin	
	Respiratory Equipment	NIOSH approved respirator, as conditions warrant.
	(Specify Type):	
	Work/Hygienic/Maintena	n Do not tako intornally
	ce Practices:	Facilities storing or utilizing this material should be equipped with an eyewash and a safety showe
	ce Flactices.	Wash thoroughly after handling.
		No data available.
	S	Section 9. Physical and Chemical Properties
9.1	Information on Basic Phy	vsical and Chemical Properties
	Physical States:	[]Gas [X]Liquid []Solid
	Appearance and Odor:	A solution in distilled water
	Melting Point:	No data.
	Boiling Point:	No data.
	Flash Pt:	No data.
	Evaporation Rate:	No data.
	Flammability (solid, gas)): No data available.
	Explosive Limits:	LEL: No data. UEL: No data.
	Vapor Pressure (vs. Air o	or mm No data.
	Hg):	
	Vapor Density (vs. Air =	1): No data.
	Specific Gravity (Water =	
	Solubility in Water:	No data.
	Autoignition Pt:	No data.
	-	No data.
9.2	Other Information	
	Percent Volatile:	No data.
	Molecular Formula & We	
		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 - Materia	Is powdered metals
	To Avoid:	reacts violently with: hydroxylamine, magnesium
10.6	Hazardous	copper oxides
	Decomposition or	sulfur oxides
	Byproducts:	
	Byproducts.	



			0	· · · · · ·			•	
				11. Toxicolog				
1.1		ion on ogical Effects: Toxicological	Copper (II) Sulfa mg/kg; Intraperi Copper (II) Sulfa Only select Reg	al effects of this produ ate - Toxicity Data: In toneal LD50 (mouse) ate - Investigated as jistry of Toxic Effects / in RTECS for comp	traperitoneal LD5 : 20 mg/kg; an agricultural cho of Chemical Subs	i0 (rat): 18700 emical, mutag) ug/kg; Oral LI jen, and tumori	igen.
			Copper (II) Sulfa	ate RTECS Number:	GL8900000			
Carcinogenicity:			NTP? No I	ARC Monographs? N	lo OSHA Re	gulated? No		
CAS # Hazardous Com		oonents (Chemi	ical Name)	NTP	IARC	ACGIH	OSHA	
775	8-99-8	Copper (II) sulfate	e pentahydrate		n.a.	n.a.	n.a.	n.a.
773	2-18-5	Water			n.a.	n.a.	n.a.	n.a.
			Sectior	n 12. Ecologic	al Informati	on		
2.1	Toxicity	:	Avoid release in	to the environment.				
			Runoff from fire	control or dilution wa	iter may cause po	ollution.		
2.2	Persiste		No data availab	le.				
1.2.2	Degrada	bility: mulative	No data availab	lo.				
2.3	Potentia		NU Uala avallad	ie.				
2.4	Mobility		No data availab	le.				
2.5	Results	of PBT and vPvB	No data availab	le.				
	assessm	nent:						
2.6	Other ad	lverse effects:	No data availab	le.				
			Section	13. Disposal	Considerati	ons		
3.1	Waste D	isposal Method:	Dispose in acco	ordance with local, sta	ate, and federal re	gulations.		
			Sectio	n 14. Transpo	ort Informati	on		
14.1	LAND T	RANSPORT (US I)OT):					
D	OT Prope	r Shipping Name:	Environmer	ntally hazardous subs	stances, solid, n.o	.s. (Copper s	ulphate pentah	ydrate)
D	OT Hazar	d Class:	9	CLASS 9				
U	N/NA Nun	nber:	UN3077		Packing Grou	p:	III	
				•				
14.1	LAND T	RANSPORT (Euro	opean ADR/RID)	:				
A	DR/RID SI	hipping Name:	Environmer	ntally hazardous subs	stances, solid, n.o	.s. (Copper s	ulphate pentah	ydrate)
	N Numbe		3077	•	Packing Grou	p:	111	
Ha	azard Cla	SS:	9 - CLASS	9				



Revision: 07/25/2016 Supersedes Revision: 08/28/2014

14.3 AIR TRANSPORT	(ICAO/IATA)
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ICAO/IATA Shipping Name:	Environmentally hazardous substances, solid, n.o.s. (Copper sulphate pentahydrate)				
UN Number:	3077 Packing Group:		III		
Hazard Class:	9 - CLASS 9	IATA Classification:	9		
Additional Transport	Transport in accordance with local, state, and federal regulations.				
Information:	When sold in quantities of less than or equal to 1 mL, or 1 g, with an Excepted Quantity Code of				
	E1, E2, E4, or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10.				
	Therefore packaging does not have to be labeled as Dangerous Goods/Excepted Quantity.				

Section 15. Regulatory Information

Statement: No.127 Revision Date: 07/25/ Additional Information About No data	ydrate s (Chemical Name) hydrate DS was prepared in acco 72/2008. Section 16. Oth 2016	PROP.65: No CAA HAP,ODC: Inventory; CA P ordance with 29 CFF	No; CWA NPDES No; CWA NPDES ROP.65: No R 1910.1200 and R	
7732-18-5 Water CAS # Hazardous Components 7758-99-8 Copper (II) sulfate pentah 7732-18-5 Water 7732-18-5 Water Regulatory Information This SI Statement: No.127 Revision Date: 07/25/ Additional Information About No data	s (Chemical Name) hydrate DS was prepared in acco 72/2008. Section 16. Oth 2016	No Other US EPA o CAA HAP,ODC: PROP.65: No CAA HAP,ODC: Inventory; CA P ordance with 29 CFF	No r State Lists No; CWA NPDES No; CWA NPDES ROP.65: No R 1910.1200 and R	No No; TSCA: No; CA No; TSCA: Yes -
CAS # Hazardous Components 7758-99-8 Copper (II) sulfate pentah 7732-18-5 Water Regulatory Information This SI Statement: No.127 Revision Date: 07/25/2 Additional Information About No data	DS was prepared in acco 72/2008. Section 16. Oth 2016	Other US EPA o CAA HAP,ODC: PROP.65: No CAA HAP,ODC: Inventory; CA P ordance with 29 CFF	r State Lists No; CWA NPDES No; CWA NPDES ROP.65: No R 1910.1200 and R	: No; TSCA: No; CA : No; TSCA: Yes -
7758-99-8 Copper (II) sulfate pentah 7732-18-5 Water Regulatory Information This SI Statement: No.127 Revision Date: 07/25/ Additional Information About No data	DS was prepared in acco 72/2008. Section 16. Oth 2016	CAA HAP,ODC: PROP.65: No CAA HAP,ODC: Inventory; CA P ordance with 29 CFF	No; CWA NPDES No; CWA NPDES ROP.65: No R 1910.1200 and R	: No; TSCA: Yes -
7732-18-5 Water Regulatory Information This SI Statement: No.127 Revision Date: 07/25/2 Additional Information About No data	DS was prepared in acco 72/2008. Section 16. Oth 2016	PROP.65: No CAA HAP,ODC: Inventory; CA P ordance with 29 CFF	No; CWA NPDES ROP.65: No R 1910.1200 and R	: No; TSCA: Yes -
Regulatory Information This SI Statement: No.127 Revision Date: 07/25/2 Additional Information About No data	^{22/2008.} Section 16. Oth 2016	Inventory; CA P	ROP.65: No R 1910.1200 and R	
Statement: No.127 Revision Date: 07/25/ Additional Information About No data	^{22/2008.} Section 16. Oth 2016			egulation (EC)
Additional Information About No data	2016	ner Informatio	on	
Additional Information About No data				
	o ovoiloblo			
This Product:	a avallable.			
current express use. U	s or implied, with respect	ver, we make no wa to such informatior	rranty of merchanta n, and we assume r	ents the best information ability or any other warrant no liability resulting from its tability of the information fo



Revision: 07/26/2016 Supersedes Revision: 08/28/2014

		accordi	ng to Regulation (EC) No. 190	7/2006 as amended by	(EC) No. 1272/200	8
		Section 1. Ide	ntification of the Substan	nce/Mixture and of t	he Company/Ur	ndertaking
1.1	Product Product		601103 Ascorbic Acid Solution			
1.2	Relevan	t identified uses of th	e substance or mixture a	ind uses advised ag	gainst:	
	Releva	nt identified uses:	For research use only, no	ot for human or veter	inary use.	
1.3	Details o	of the Supplier of the	Safety Data Sheet:			
	Compa	any Name:	Cayman Chemical Comp 1180 E. Ellsworth Rd. Ann Arbor, MI 48108	any		
		te address:	www.caymanchem.com			
	Inform	ation:	Cayman Chemical Comp	any	+1 (734	4)971-3335
1.4	-	ncy telephone numbe				
	Emerg	ency Contact:	CHEMTREC Within USA CHEMTREC Outside US			0)424-9300 3)527-3887
			Section 2. Haz			5/621 0001
2.1	Classific	ation of the Substan			allon	
2.1	Label El					
	GHS S	ignal Word:	None			
	GHS F	azard Phrases:				
	Based	on evaluation of curre	ntly available data this sub	stance or mixture is r	not classifiable ac	cording to GHS.
	GHS F	Precaution Phrases:				
	No phr	ases apply.				
	GHS F	esponse Phrases:				
	No phr	ases apply.				
	GHS S	storage and Disposal	Phrases:			
			Storage and Section 13 for			
2.3			aterial may be irritating to the		• •	piratory tract.
	Effects		ay be harmful by inhalation			
			ay cause eye, skin, or resp o the best of our knowledge			been thoroughly investigated.
			n 3. Composition		-	
CAS	#/		ents (Chemical Name)/	Concentration	EC No./	GHS Classification
	 CS #	REACH Registration		Concentration	EC Index No.	
)-81-7 50000	L-Ascorbic acid		10.0 -35.0 %	200-066-2 NA	No data available.
	82-18-5 10000	Water		65.0 -90.0 %	231-791-2 NA	No data available.



Revision: 07/26/2016 Supersedes Revision: 08/28/2014

		Section 4	4. First Aid Measure	es		
4.1	Description of First Aid					
	Measures:					
	In Case of Inhalation:	Remove to fresh air. If Get immediate medica	f not breathing, give artificial re al attention.	espiration or give oxygen by	trained personnel.	
	In Case of Skin Contact:	-	n with soap and plenty of wate attention if symptoms occur. W		move contaminated	
	In Case of Eye Contact:	-	flush eyes with plenty of wate	-	ve eyes examined	
	In Case of Ingestion:		water provided person is cons Get medical attention. Do NOT		-	
		Section 5.	Fire Fighting Meas	ures		
5.1	Suitable Extinguishing	Use alcohol-resistant	foam, carbon dioxide, water, c	or dry chemical spray.		
	Media:	Use water spray to co	ol fire-exposed containers.			
	Unsuitable Extinguishing A solid water stream may be inefficient. Media:					
5.2	Flammable Properties ar	d No data available				
0.2	Hazards:					
		No data available.				
	Flash Pt:	No data.				
			LIEL · No data			
	Explosive Limits: LEL: No data. UEL: No data. Autoignition Pt: No data.					
5.2	Autoignition Pt:		olf contained breathing appare	tue pressure demand (NIOS	Happroved or	
5.3	Fire Fighting Instruction	-	elf-contained breathing appara rotective gear to prevent conta		H approved or	
		Section 6. Acc	cidental Release Me	easures		
6.1	Protective Precautions,	Avoid breathing vapo	ors and provide adequate venti	lation.		
	Protective Equipment an	d As conditions warran	t, wear a NIOSH approved sel	f-contained breathing appara	atus, or respirator,	
	Emergency Procedures:	and appropriate pers	onal protection (rubber boots,	safety goggles, and heavy re	ubber gloves).	
6.2	Environmental	Take steps to avoid r	elease into the environment, if	safe to do so.		
	Precautions:					
6.3	Methods and Material Fo	r Contain spill and coll	ect, as appropriate.			
	Containment and Cleaning	ngTransfer to a chemica	al waste container for disposal	in accordance with local reg	julations.	
	Up:					
		Section 7.	Handling and Stor	age		
7.1	Precautions To Be Taker	Avoid breathing dust/	fume/gas/mist/vapours/spray.	-		
	in Handling:	Avoid prolonged or re				
7.2	Precautions To Be Taker	Keep container tightly	closed.			
	in Storing:	Store in accordance v	vith information listed on the p	roduct insert.		
	Sec	tion 8. Exposu	re Controls/Persona	al Protection		
8.1	Exposure Parameters:					
CAS	# Partial Chemica	I Name	Britain EH40	France VL	Europe	
50	-81-7 L-Ascorbic acid		No data.	No data.	No data.	



Revision: 07/26/2016

773	2-18-5 V	/ater		No data.	No data.	No data.
CAS # Partial Chemical 50-81-7 L-Ascorbic acid		artial Chemical Nam	e	OSHA TWA	ACGIH TWA	Other Limits
				No data.	No data.	
773	2-18-5 V	/ater		No data.	No data.	No data.
3.2	Exposure	Controls:			4	I
8.2.1	Engineeri	ng Controls Use	process enclosur	es, local exhaust ve	ntilation, or other engineering co	ntrols to control airbo
	(Ventilatio	on etc.): leve	s below recomme	ended exposure limit	S.	
8.2.2	Personal	protection equipmen	t:			
	Eye Prote	ction: Safe	ty glasses			
	Protective	Gloves: Corr	patible chemical-	resistant gloves		
	Other Pro	tective Clothing:Lab	coat			
	Respirato	ry Equipment NIO	SH approved resp	pirator, as conditions	warrant.	
	(Specify T	ype):				
	Work/Hyg	ienic/Maintenan Do r	ot take internally.			
	ce Practic	es: Faci	lities storing or uti	lizing this material s	hould be equipped with an eyew	ash and a safety show
		Was	h thoroughly after	handling.		
		No c	ata available.			
		Secti	on 9. Phys	ical and Che	nical Properties	
9 .1	Informatio	n on Basic Physical				
	Physical S	-		<]Liquid []So	id	
	•	ce and Odor:	A solution in d			
	Melting Po		No data.			
	Boiling Po		No data.			
	Flash Pt:		No data.			
	Evaporati	on Rate:	No data.			
	=	lity (solid, gas):	No data availa	ble.		
	Explosive		LEL: No data.		UEL: No data.	
	•	ssure (vs. Air or mm	No data.			
	Hg):	·				
		nsity (vs. Air = 1):	No data.			
	Specific G	iravity (Water = 1):	No data.			
	Solubility		No data.			
	Autoigniti		No data.			
9.2	Other Info					
v.£	Percent V		No data.			
		Formula & Weight:		176.1		
	morooului	•			Popotivity	
40.4	De carl la			Stability and	ινσαυινιιγ	
10.1	Reactivity Stability:		ata available.			
10.2 10.3	Stability:			ole [X]	ation listed on the product insert.	
10.3	Stability N				ation instea on the product insert.	
	Polymeriz			I not occur [X]		
10.4			ata available.			
10.5	=	bility - Materials No c	ata available.			
	To Avoid:					
10.6	Hazardou	s carb	on dioxide			
						Multi-region for



	Decomp	osition or	carbon monoxide			·			
	Byproducts:								
			Section 11. Toxicological	Informa	ation				
11.1	Informat	ion on	The toxicological effects of this product have not been thoroughly studied.						
	Toxicolo	gical Effects:	Ascorbic Acid - Toxicity Data: Oral LD50 (I	at): 11900 i	mg/kg; Subcut	aneous LD50	(rat): >10 gm/kg;		
			Oral LD50 (mouse): 3367 mg/kg; Intraperit	oneal LD50) (mouse): 643	mg/kg;			
	Chronic	Toxicological	Ascorbic Acid - Investigated as a drug, hor	mone, muta	agen, natural p	product, reprod	luctive effector,		
	Effects:		and tumorigen.						
			Only select Registry of Toxic Effects of Ch		stances (RTEC	CS) data is pre	sented here.		
			See actual entry in RTECS for complete in						
			Ascorbic Acid RTECS Number: CI7650000						
	nogenicity		NTP? No IARC Monographs? No	1	gulated? No				
CAS			ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA		
	-81-7	L-Ascorbic acid		n.a.	n.a.	n.a.	n.a.		
773	2-18-5	Water		n.a.	n.a.	n.a.	n.a.		
			Section 12. Ecological Ir	nformati	on				
12.1	Toxicity:		Avoid release into the environment.						
			Runoff from fire control or dilution water m	ay cause po	ollution.				
12.2	Persister	nce and	No data available.						
	Degrada	bility:							
12.3	Bioaccu	mulative	No data available.						
	Potentia	l:							
12.4	Mobility	in Soil:	No data available.						
12.5	Results of	of PBT and vPvB	3 No data available.						
	assessm	ent:							
12.6	Other ad	verse effects:	No data available.						
			Section 13. Disposal Con						
13.1	Waste Di	isposal Method:	Dispose in accordance with local, state, ar		-				
			Section 14. Transport Ir	nformat	on				
14.1	LAND TI	RANSPORT (US D	ЮОТ):						
D	OT Prope	Shipping Name:	Not dangerous goods.						
D	OT Hazaro	d Class:							
U	N/NA Num	nber:							
14.1	LAND TI	RANSPORT (Euro	ppean ADR/RID):						
Α	DR/RID Sh	nipping Name:	Not dangerous goods.						
_	N Number								
H	azard Clas								
14.3		NSPORT (ICAO/I							
		Shipping Name:	Not dangerous goods.						
	ional Tran	sport	Transport in accordance with local, state,	and federal	regulations.				
Inforr	nation:								
I						N	Iulti-region format		



		Section 15. Regu	latory inform	ation	
EPA SARA (S	uperfund Amendn	nents and Reauthorization Act	of 1986) Lists		
CAS #	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
50-81-7	L-Ascorbic acid		No	No	No
7732-18-5	Water		No	No	No
CAS #	Hazardous Com	ponents (Chemical Name)	Other US EPA o	r State Lists	
50-81-7	L-Ascorbic acid		CAA HAP,ODC: Inventory; CA P	No; CWA NPDES ROP.65: No	: No; TSCA: Yes -
7732-18-5	Water		CAA HAP,ODC: Inventory; CA P	No; CWA NPDES ROP.65: No	: No; TSCA: Yes -
Regulatory Inf Statement:	ormation	This SDS was prepared in acc No.1272/2008.	ordance with 29 CFF	R 1910.1200 and R	egulation (EC)
		Section 16. Ot	her Information	on	
Revision Date	:	07/26/2016			
Additional Info	ormation About	No data available.			
his Product:					
		their particular purposes.			



SAFETY DATA SHEET

Cell-Based Assay 5 FAM-Azide Stock Solution

	CHEMICAL		Supersedes Revision: 08/28/201				
	acc	ording to Regulation (EC) No. 1907/2006 as amended by	(EC) No. 1272/2008				
	Section 1.	Identification of the Substance/Mixture and of th	ne Company/Undertaking				
1.1	Product Code:	601104					
	Product Name:	Cell-Based Assay 5 FAM-Azide Stock Solution	1				
.2	Relevant identified uses o	f the substance or mixture and uses advised ag	ainst:				
	Relevant identified uses	•					
2							
1.3	Details of the Supplier of the Safety Data Sheet:						
	Company Name:	Cayman Chemical Company 1180 E. Ellsworth Rd.					
	Web site address:	Ann Arbor, MI 48108					
	Information:	www.caymanchem.com	.1 (724)074 2225				
		Cayman Chemical Company	+1 (734)971-3335				
1.4	Emergency telephone nur						
	Emergency Contact:	CHEMTREC Within USA and Canada:	+1 (800)424-9300				
		CHEMTREC Outside USA and Canada:	+1 (703)527-3887				
		Section 2. Hazards Identification	ation				
.1	Classification of the Subs	tance or Mixture:					
	Flammable Liquids, Cat	egory 4					
	Acute Toxicity: Oral, Ca	tegory 3					
	Skin Corrosion/Irritation	, Category 2					
	Serious Eye Damage/Ey	e Irritation, Category 2A					
	Aquatic Toxicity (Acute)	, Category 2					
	Aquatic Toxicity (Chron						
.2	Label Elements:						
	GHS Signal Word:	Danger					
	GHS Hazard Phrases:						
	H227: Combustible liquid.						
	H301: Toxic if swallowed.						
	H315: Causes skin irritation						
	H319: Causes serious eye						
	H401: Toxic to aquatic life						
	H411: Toxic to aquatic life with long lasting effects.						
	GHS Precaution Phrase	S:					
	P280: Wear {protective gloves/protective clothing/eye protection/face protection}.						
		eat/sparks/open flames/hot surfaces} No smoking	l.				
	P264: Wash {hands} thore						
		minated clothing and wash it before reuse.					
	P273: Avoid release to the						
	GHS Response Phrases						
		ED: Immediately call a POISON CENTER or doctor	/physician.				
	P330: Rinse mouth.						
			Multi-rogion fo				
			Multi-rogion f				

Revision: 07/26/2016 Supersedes Revision: 08/28/2014

P302+352: IF ON SKIN: Wash with plenty of soap and water. P332+313: If skin irritation occurs, get medical advice/attention. P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+313: If eye irritation persists, get medical advice/attention. P391: Collect spillage. **GHS Storage and Disposal Phrases:** Please refer to Section 7 for Storage and Section 13 for Disposal information. 2.3 Causes skin and serious eye irritation. Adverse Human Health DMSO has the potential to carry toxic materials or materials of unknown toxicity into the body. **Effects and Symptoms:** DMSO is readily absorbed through skin. Material may be irritating to the mucous membranes and upper respiratory tract. May be harmful by inhalation or skin absorption. May cause respiratory system irritation. Toxic if swallowed. Toxic to aquatic life with long lasting effects. To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

Section 3. Composition/Information on Ingredients

CAS # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
NA NA	5-Carboxyfluorescein-azide	0.0 -5.0 %	NA NA	Acute Tox.(O) 2: H300 Aquatic (A) 1: H400 Aquatic (C) 1: H410
67-68-5 PV6210000	Dimethyl sulfoxide, anhydrous	95.0 -100.0 %	200-664-3 NA	Flam. Liq. 4: H227 Eye Damage 2A: H319 Skin Corr. 2: H315

Section 4. First Aid Measures

4.1 Description of First Aid

1.1	Decemption of The Ald	
	Measures:	
	In Case of Inhalation:	Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
	In Case of Skin Contact:	Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
	In Case of Eye Contact:	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.
	In Case of Ingestion:	Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
4.2	Important Symptoms and	Exposure may cause: hematuria or shortness of breath (dyspnea).
	Effects, Both Acute and	Exposure may cause: gastrointestinal irritation with nausea, vomiting, diarrhea, headache,
	Delayed:	dizziness, and drowsiness.
		Eye contact may cause blurry vision, burning sensation, redness, tearing, and vasodilation.



SAFETY DATA SHEET

Cell-Based Assay 5 FAM-Azide Stock Solution

Revision: 07/26/2016 Supersedes Revision: 08/28/2014

			Section	Fire Fighting M	leasures	
5.1	Suitab	e Extinguishing	Use alcohol-resista	ant foam, carbon dioxide, w	vater, or dry chemical spray	
	Media:		Use water spray to	cool fire-exposed containe	ers.	
	Unsuit	able Extinguishin	g A solid water strea	m may be inefficient.		
	Media:					
.2	Flamm	able Properties a	ndCan release vapor	s that form explosive mixtu	ires at temperatures at or al	pove the flashpoint.
	-			n may occur under fire cor	nditions.	
				under fire conditions.		
			Sensitive to static o	•	flack back	
			-	to a source of ignition and f	nash dack.	
			No data available.			
	Flash I			Used: Closed Cup		
	-	ive Limits:		at 25.0 C UEL: 42.	.0% at 25.0 C	
_	-	nition Pt:	215.00 C			
5.3	Fire Fi	ghting Instruction	equivalent), and fu	•	apparatus pressure-demand It contact with skin and eyes oxide	
				anidantal Dalana	e Measures	
			Section 6. A	Accidental Releas		
5.1	Protec	tive Precautions,				
5.1		tive Precautions, tive Equipment ar	Avoid breathing va	apors and provide adequat	e ventilation.	g apparatus, or respirato
5.1	Protec		Avoid breathing vand As conditions war	apors and provide adequaterant, wear a NIOSH approv		
	Protec Emerg	tive Equipment ar	Avoid breathing vand As conditions ware and appropriate pe	apors and provide adequaterant, wear a NIOSH approv	e ventilation. ved self-contained breathing boots, safety goggles, and h	
	Protec Emerg	tive Equipment ar ency Procedures: nmental	Avoid breathing vand As conditions ware and appropriate pe	apors and provide adequat rant, wear a NIOSH approv ersonal protection (rubber l	e ventilation. ved self-contained breathing boots, safety goggles, and h	
5.1 5.2 5.3	Protec Emerg Enviro Precau	tive Equipment ar ency Procedures: nmental tions:	Avoid breathing vand As conditions war and appropriate pa Take steps to avoi	apors and provide adequat rant, wear a NIOSH approv ersonal protection (rubber l	e ventilation. ved self-contained breathing boots, safety goggles, and h	
5.2	Protec Emerg Enviro Precau Methoo	tive Equipment ar ency Procedures: nmental ttions: ds and Material Fo	Avoid breathing vand As conditions warr and appropriate pa Take steps to avoid or Contain spill and c	apors and provide adequat rant, wear a NIOSH approversonal protection (rubber l id release into the environr	e ventilation. ved self-contained breathing boots, safety goggles, and h	neavy rubber gloves).
5.2	Protec Emerg Enviro Precau Methoo	tive Equipment ar ency Procedures: nmental ttions: ds and Material Fo	Avoid breathing vand As conditions warr and appropriate pa Take steps to avoid or Contain spill and c	apors and provide adequat rant, wear a NIOSH approversonal protection (rubber l id release into the environr	e ventilation. ved self-contained breathing boots, safety goggles, and h nent, if safe to do so.	neavy rubber gloves).
5.2	Protec Emerg Enviro Precau Methoo Contai	tive Equipment ar ency Procedures: nmental ttions: ds and Material Fo	Avoid breathing vand As conditions warr and appropriate pa Take steps to avoid or Contain spill and cong Transfer to a chem	apors and provide adequat rant, wear a NIOSH approv ersonal protection (rubber l id release into the environr collect, as appropriate. nical waste container for di	e ventilation. ved self-contained breathing boots, safety goggles, and h nent, if safe to do so. sposal in accordance with h	neavy rubber gloves).
5.2 5.3	Protec Emerg Enviro Precau Method Contai Up:	tive Equipment ar ency Procedures: nmental tions: ds and Material Fo nment and Cleani	Avoid breathing vand As conditions warr and appropriate pe Take steps to avoid or Contain spill and cong Transfer to a chem	apors and provide adequater rant, wear a NIOSH approversonal protection (rubber l id release into the environr collect, as appropriate. nical waste container for di	e ventilation. /ed self-contained breathing boots, safety goggles, and h nent, if safe to do so. sposal in accordance with h Storage	neavy rubber gloves).
.2 .3	Protec Emerg Enviro Precau Method Contai Up:	tive Equipment ar ency Procedures: nmental tions: ds and Material Fo nment and Cleani	Avoid breathing vand As conditions warr and appropriate part Take steps to avoid or Contain spill and cong Transfer to a chen Section n Avoid breathing du	apors and provide adequat rant, wear a NIOSH approv ersonal protection (rubber l id release into the environr collect, as appropriate. nical waste container for di	e ventilation. /ed self-contained breathing boots, safety goggles, and h nent, if safe to do so. sposal in accordance with h Storage	neavy rubber gloves).
.2 .3	Protec Emerg Enviro Precau Method Contai Up: Precau	tive Equipment ar ency Procedures: nmental tions: ds and Material Fo nment and Cleani	Avoid breathing vand As conditions warr and appropriate part Take steps to avoid or Contain spill and cong Transfer to a chen Section n Avoid breathing du	apors and provide adequate rant, wear a NIOSH approversional protection (rubber l id release into the environr collect, as appropriate. nical waste container for di 7. Handling and est/fume/gas/mist/vapours/st	e ventilation. /ed self-contained breathing boots, safety goggles, and h nent, if safe to do so. sposal in accordance with h Storage	neavy rubber gloves).
.2 .3	Protec Emerg Enviro Precau Method Contai Up: Precau	tive Equipment ar ency Procedures: nmental tions: ds and Material Fo nment and Cleani	Avoid breathing vand As conditions warr and appropriate per Take steps to avoid or Contain spill and cong Transfer to a chem Section n Avoid breathing du Avoid prolonged or Keep away from so	apors and provide adequate rant, wear a NIOSH approversional protection (rubber l id release into the environr collect, as appropriate. nical waste container for di 7. Handling and est/fume/gas/mist/vapours/st	e ventilation. ved self-contained breathing boots, safety goggles, and h nent, if safe to do so. sposal in accordance with h <u>Storage</u> spray.	neavy rubber gloves).
5.2 5.3 7.1	Protec Emerg Enviro Precau Method Contai Up: Precau in Han	tive Equipment ar ency Procedures: nmental itions: ds and Material Fo nment and Cleani itions To Be Taker dling:	Avoid breathing vand As conditions warr and appropriate per Take steps to avoid or Contain spill and cong Transfer to a chem Section n Avoid breathing du Avoid prolonged or Keep away from so Take precautionary	apors and provide adequat rant, wear a NIOSH approv ersonal protection (rubber l id release into the environr collect, as appropriate. nical waste container for di 7. Handling and st/fume/gas/mist/vapours/s r repeated exposure. purces of ignition.	e ventilation. ved self-contained breathing boots, safety goggles, and h nent, if safe to do so. sposal in accordance with h <u>Storage</u> spray.	neavy rubber gloves).
5.2	Protec Emerg Enviro Precau Method Contai Up: Precau in Han	tive Equipment ar ency Procedures: nmental tions: ds and Material Fo nment and Cleani tions To Be Taker dling:	Avoid breathing vand As conditions warr and appropriate per Take steps to avoid or Contain spill and cong Transfer to a chem Section n Avoid breathing du Avoid prolonged or Keep away from so Take precautionary	apors and provide adequate rant, wear a NIOSH approversonal protection (rubber lease into the environner collect, as appropriate. inical waste container for di 7. Handling and est/fume/gas/mist/vapours/sone repeated exposure. pources of ignition. y measures against static content, sparks and flame.	e ventilation. ved self-contained breathing boots, safety goggles, and h nent, if safe to do so. sposal in accordance with h <u>Storage</u> spray.	neavy rubber gloves).
5.2 5.3 7.1	Protec Emerg Enviro Precau Method Contai Up: Precau in Han	tive Equipment ar ency Procedures: nmental tions: ds and Material Fo nment and Cleani tions To Be Taker dling:	Avoid breathing van and As conditions warr and appropriate per Take steps to avoid or Contain spill and cong Transfer to a chem Section n Avoid breathing du Avoid prolonged or Keep away from so Take precautionary n Keep away from he Keep container tigh	apors and provide adequate rant, wear a NIOSH approversonal protection (rubber lease into the environner collect, as appropriate. inical waste container for di 7. Handling and est/fume/gas/mist/vapours/sone repeated exposure. pources of ignition. y measures against static content, sparks and flame.	e ventilation. /ed self-contained breathing boots, safety goggles, and h nent, if safe to do so. sposal in accordance with h Storage spray.	neavy rubber gloves).
5.2 5.3 7.1	Protec Emerg Enviro Precau Method Contai Up: Precau in Han Precau in Stor	tive Equipment ar ency Procedures: nmental tions: ds and Material Fo nment and Cleani tions To Be Taker dling:	Avoid breathing van and As conditions warr and appropriate per Take steps to avoid or Contain spill and cong Transfer to a chem Section n Avoid breathing du Avoid prolonged or Keep away from so Take precautionary n Keep away from he Keep container tigh	apors and provide adequat rant, wear a NIOSH approv ersonal protection (rubber l id release into the environr collect, as appropriate. nical waste container for di 7. Handling and est/fume/gas/mist/vapours/s r repeated exposure. purces of ignition. y measures against static of eat, sparks and flame. ntly closed.	e ventilation. /ed self-contained breathing boots, safety goggles, and h nent, if safe to do so. sposal in accordance with h Storage spray.	neavy rubber gloves).
5.2 5.3 7.1	Protec Emerg Enviro Precau Method Contai Up: Precau in Han Precau in Stor	tive Equipment ar ency Procedures: nmental itions: ds and Material Fo nment and Cleani tions To Be Taker dling: itions To Be Taker ing:	Avoid breathing van and As conditions warr and appropriate per Take steps to avoid or Contain spill and cong Transfer to a chen Section n Avoid breathing du Avoid prolonged or Keep away from se Take precautionary n Keep away from he Keep container tigh Store in accordance Hygroscopic.	apors and provide adequat rant, wear a NIOSH approv ersonal protection (rubber l id release into the environr collect, as appropriate. nical waste container for di 7. Handling and est/fume/gas/mist/vapours/s r repeated exposure. purces of ignition. y measures against static of eat, sparks and flame. ntly closed.	e ventilation. ved self-contained breathing boots, safety goggles, and h nent, if safe to do so. sposal in accordance with h <u>Storage</u> spray. discharge.	neavy rubber gloves).
5.2 5.3 7.1	Protec Emerg Enviro Precau Method Contai Up: Precau in Han Precau in Stor	tive Equipment ar ency Procedures: nmental itions: ds and Material Fo nment and Cleani tions To Be Taker dling: itions To Be Taker ing:	Avoid breathing van and As conditions warr and appropriate per Take steps to avoid or Contain spill and cong Transfer to a chen Section n Avoid breathing du Avoid prolonged or Keep away from se Take precautionary n Keep away from he Keep container tigh Store in accordance Hygroscopic.	apors and provide adequat rant, wear a NIOSH approv ersonal protection (rubber l id release into the environr collect, as appropriate. nical waste container for di 7. Handling and est/fume/gas/mist/vapours/s r repeated exposure. purces of ignition. y measures against static of eat, sparks and flame. ntly closed. ee with information listed or	e ventilation. ved self-contained breathing boots, safety goggles, and h nent, if safe to do so. sposal in accordance with h <u>Storage</u> spray. discharge.	neavy rubber gloves).
.2 .3 .1	Protec Emerg Enviro Precau Method Contai Up: Precau in Han Precau in Stor Other I	tive Equipment ar ency Procedures: nmental itions: ds and Material Fo nment and Cleani tions To Be Taker dling: tions To Be Taker ing: Precautions:	Avoid breathing van and appropriate per Take steps to avoid or Contain spill and cong Transfer to a chem Section n Avoid breathing du Avoid prolonged or Keep away from se Take precautionary n Keep away from he Keep container tigh Store in accordance Hygroscopic.	apors and provide adequat rant, wear a NIOSH approv ersonal protection (rubber l id release into the environr collect, as appropriate. nical waste container for di 7. Handling and est/fume/gas/mist/vapours/s r repeated exposure. purces of ignition. y measures against static of eat, sparks and flame. ntly closed. ee with information listed or	e ventilation. ved self-contained breathing boots, safety goggles, and h nent, if safe to do so. sposal in accordance with h <u>Storage</u> spray. discharge.	neavy rubber gloves).
5.2 5.3 7.1	Protec Emerg Enviro Precau Method Contai Up: Precau in Han Precau in Stor Other I	tive Equipment ar ency Procedures: nmental itions: ds and Material Fo nment and Cleani tions To Be Taker dling: tions To Be Taker ing: Precautions: Sec re Parameters:	Avoid breathing vand and As conditions warr and appropriate per Take steps to avoid or Contain spill and cong Transfer to a chem Section n Avoid breathing du Avoid prolonged or Keep away from so Take precautionary n Keep away from he Keep container tigh Store in accordance Hygroscopic.	apors and provide adequate rant, wear a NIOSH approversional protection (rubber lease into the environner collect, as appropriate. inical waste container for di 7. Handling and est/fume/gas/mist/vapours/ser repeated exposure. burces of ignition. y measures against static of eat, sparks and flame. intly closed. the with information listed or source Controls/Per	e ventilation. /ed self-contained breathing boots, safety goggles, and h nent, if safe to do so. sposal in accordance with h Storage spray. discharge. the product insert. Sonal Protection	neavy rubber gloves).



Page: 4 of 6

Revision: 07/26/2016

CAS	#	Partial Chemica	I Name	OSHA TWA	ACGIH TWA	Other Limits
	NA	5-Carboxyfluores	scein-azide	No data.	No data.	No data.
67	-68-5	Dimethyl sulfoxic		No data.	No data.	No data.
3.2	Exposi	ure Controls:	-,,			
3.2.1	Engine	eering Controls	Use process encl	osures, local exhaust vent	ilation, or other engineering c	ontrols to control airbor
	(Ventil	ation etc.):	levels below reco	mmended exposure limits.		
8.2.2	Perso	nal protection equ	ipment:			
	Eye Pr	otection:	Safety glasses			
	Protec	tive Gloves:	Compatible chem	ical-resistant gloves		
	Other	Protective Clothin	g: Lab coat			
	Respir	atory Equipment	NIOSH approved	respirator, as conditions w	varrant.	
	(Speci	fy Type):				
	Work/I	Hygienic/Maintena	n Do not take intern	ally.		
	ce Pra	ctices:	•	•	ould be equipped with an eyev	wash and a safety show
			Wash thoroughly	-		
			No data available			
		S	Section 9. Ph	ysical and Chem	ical Properties	
9.1	Informa	ation on Basic Phy	sical and Chemica	al Properties		
	Physic	al States:	[] Gas	[X] Liquid [] Solid		
	Appea	rance and Odor:	A solution	in DMSO		
	Melting	g Point:	No data.			
	-	g Point:	No data.			
	Flash		89.00 C	Method Used: Closed Co	up	
	=	ration Rate:	No data.			
		hability (solid, gas)			-	
	-	sive Limits:	LEL: 3.5		EL: 42.0% at 25.0 C	
	-	Pressure (vs. Air		_HG at 20.0 C		
	Hg): Vapor	Density (vs. Air =	1): No data.			
	-	2 .	-			
	-	ic Gravity (Water = lity in Water:	No data.			
		-	215.00 C			
	-	Inition Pt:	215.00 C			
9.2		nformation	N. data			
	Percer	nt Volatile:	No data.			
				10. Stability and I	Reactivity	
10.1	Reacti	-	No data available			
10.2	Stabili	-		Stable [X]		
10.3		ty Note(s):			on listed on the product inser	t.
	-	erization:	Will occur []	Will not occur [X]		
10.4		tions To Avoid:	heat, flames and	sparks		
0.5		patibility - Materia				
	Το Ανα	oid:	phosphorus halide	es		
			strong acids alkali metals			
			strong oxidizing a	gents		
			<u> </u>			
						Multi-region for



	HEMICAL				Su	persedes Revis	ion: 08/28/2014		
10.6	Hazardo	us	strong reducing agents carbon monoxide						
0.0		osition or	carbon dioxide						
	Byprodu		sulfur oxides						
	Dyproud		Section 11. Toxicological	Informat	ion				
11.1	Informat	ion on	The toxicological effects of this product ha			Idied			
		gical Effects:	DMSO - Toxicity Data: Oral LD50 (rat): 14		0 1		/kg· Oral I D50		
	IOXIOOIC		(mouse): 7,920 mg/kg; Skin LD50 (mouse)	0.01			•		
			Inhalation LC50 (rat): >1,600 mg/m3 (4h);		0.	,			
			DMSO - Irritation Data: Eyes (rabbit): 100	mg mild; Skir	n (rabbit): 500	mg (24h) mil	d;		
	Chronic	Toxicological	DMSO - Investigated as a mutagen, repro-	ductive effect	or, and tumor	igen.			
	Effects:		Only select Registry of Toxic Effects of Ch	emical Subst	ances (RTEC	S) data is pre	esented here.		
			See actual entry in RTECS for complete in	formation.					
			DMSO RTECS Number: PV6210000						
Carcii	nogenicity	/:	NTP? No IARC Monographs? No	OSHA Reg	ulated? No				
CAS	#	Hazardous Com	ponents (Chemical Name)	NTP	IARC	ACGIH	OSHA		
	NA	5-Carboxyfluores		n.a.	n.a.	n.a.	n.a.		
67	-68-5	Dimethyl sulfoxid	e, anhydrous	n.a.	n.a.	n.a.	n.a.		
			Section 12. Ecological Ir	nformatio	on				
12.1	Toxicity	:	Avoid release into the environment.						
			Runoff from fire control or dilution water may cause pollution.						
12.2	Persiste	nce and	No data available.						
	Degrada	bility:							
12.3	Bioaccu	mulative	No data available.						
	Potentia	l:							
12.4	Mobility	in Soil:	No data available.						
12.5	Results	of PBT and vPvB	B No data available.						
	assessm	nent:							
12.6	Other ad	verse effects:	No data available.						
			Section 13. Disposal Con	sideratio	ons				
13.1	Waste D	isposal Method:	Dispose in accordance with local, state, ar	nd federal reg	julations.				
			Section 14. Transport Ir	nformatio	on				
14.1	LAND T	RANSPORT (US	DOT):						
D	OT Prope	r Shipping Name	Not dangerous goods.						
	OT Hazar								
U	N/NA Nun	nber:							
14.1	LAND T	RANSPORT (Eur	opean ADR/RID):						
Α	DR/RID SI	hipping Name:	Not dangerous goods.						
-	N Number								
Н	azard Cla	SS:							
						N	/ulti-region for		
						n			



Page: 6 of 6

Revision: 07/26/2016 Supersedes Revision: 08/28/2014

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. Regulatory Information

CAS #	Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
NA	5-Carboxyfluores	scein-azide	No	No	No
67-68-5	Dimethyl sulfoxic	le, anhydrous	No	No	No
CAS #	Hazardous Com	ponents (Chemical Name)	Other US EPA or	State Lists	
NA	5-Carboxyfluorescein-azide		CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No		
67-68-5	Dimethyl sulfoxic	le, anhydrous	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No		
Regulatory In	formation	This SDS was prepared in acc	cordance with 29 CFF	R 1910.1200 and R	egulation (EC)
Statement:		No.1272/2008.			
		Section 16. Of	ther Information	on	
Revision Date	e:	07/26/2016			
Additional Information About		No data available.			
This Product:					

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.



SAFETY DATA SHEET

Caj	man	Cell-Based Assay Cyclohex	Revision: 07/26/2016 Supersedes Revision: 08/28/2014
	accord	ing to Regulation (EC) No. 1907/2006 as amended by (E	EC) No. 1272/2008
	Section 1. Ide	entification of the Substance/Mixture and of the	e Company/Undertaking
1.1	Product Code:	601105	
	Product Name:	Cell-Based Assay Cycloheximide	
.2	Relevant identified uses of the	he substance or mixture and uses advised aga	inst:
	Relevant identified uses:	For research use only, not for human or veterina	
1.3	Details of the Supplier of the		
	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 numb	er:	
	Emergency Contact:	CHEMTREC Within USA and Canada:	+1 (800)424-9300
		CHEMTREC Outside USA and Canada:	+1 (703)527-3887
		Section 2. Hazards Identifica	ition
2.2	Germ Cell Mutagenicity, Ca Toxic To Reproduction, Ca Aquatic Toxicity (Chronic) Label Elements:	itegory 1B	
	GHS Signal Word: GHS Hazard Phrases:	Danger	
	H315: Causes skin irritation.		
	H227: Combustible liquid.		
	H300: Fatal if swallowed.		
	H319: Causes serious eye ir	ritation.	
	H341: Suspected of causing		
	H360: May damage fertility c	-	
	H412: Harmful to aquatic life		
	GHS Precaution Phrases:		
	P264: Wash hands thorough	ly after handling.	
	-	s/clothing and eye/face protection as specified by	the manufacturer/supplier or the competent
	authority.		•••••••
	-	t/sparks/open flames/hot surfaces} No smoking.	
	P280: Wear {protective glove	es/protective clothing/eye protection/face protection nated clothing and wash it before reuse.	n}.



2.3

SAFETY DATA SHEET Cell-Based Assay Cycloheximide

AT MICKI						
P201: Obtain special inst	ructions before use.					
P202: Do not handle until	all safety precautions have been read and understood.					
P281: Use personal protective equipment as required.						
P273: Avoid release to the environment.						
GHS Response Phrases	S:					
P305+351+338: IF IN EY	ES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy					
to do. Continue rinsing.						
P337+313: If eye irritatior	n persists, get medical advice/attention.					
P302+352: IF ON SKIN:	Wash with plenty of soap and water.					
P332+313: If skin irritation	n occurs, get medical advice/attention.					
P362: Take off contamina	ated clothing and wash before re-use.					
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.						
P330: Rinse mouth.						
P308+313: IF exposed or	concerned: Get medical attention/advice.					
GHS Storage and Dispo	sal Phrases:					
Please refer to Section 7	for Storage and Section 13 for Disposal information.					
Adverse Human Health	Causes skin and serious eye irritation.					
Effects and Symptoms:	DMSO has the potential to carry toxic materials or materials of unknown toxicity into the body.					
	DMSO is readily absorbed through skin.					
	Fatal if swallowed.					
	Harmful to aquatic life with long lasting effects.					
	Material may be irritating to the mucous membranes and upper respiratory tract.					
	May be harmful by inhalation or skin absorption.					
	May cause respiratory system irritation.					
	May damage fertility or the unborn child.					
	Suspected of causing genetic defects.					
	To the best of our knowledge, the toxicological properties have not been thoroughly investigated.					
 Soci	tion 3 Composition/Information on Ingredients					

Section 3. Composition/Information on Ingredients

CAS # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
66-81-9 MA4375000	Cycloheximide	1.0 -15.0 %	200-636-0 613-140-00-8	Acute Tox.(O) 2: H300 Mutagen 2: H341 Toxic Repro. 1B: H360D Aquatic (C) 2: H411
67-68-5 PV6210000	Dimethyl sulfoxide, anhydrous	85.0 -99.0 %	200-664-3 NA	Flam. Liq. 4: H227 Eye Damage 2A: H319 Skin Corr. 2: H315



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Multi-region format

	REMICAL					
			Section	7. Handling and	Storage	
7.1	Precaut	ions To Be Taken	Avoid breathing du	ust/fume/gas/mist/vapours/	/spray.	
	in Hand	ling:	Avoid prolonged or	r repeated exposure.		
			Keep away from so	ources of ignition.		
				y measures against static	discharge.	
7.2				eat, sparks and flame.		
in Stor		ng:	Keep container tig	-		
				ce with information listed o	n the product insert.	
	Other P	recautions:	Hygroscopic.			
		Secti	ion 8. Expos	sure Controls/Pe	rsonal Protection	
3.1	Exposur	re Parameters:				
CAS #	#	Partial Chemical I	Name	Britain EH40	France VL	Europe
66-	-81-9	Cycloheximide		No data.	No data.	No data.
67-	-68-5	Dimethyl sulfoxide,	, anhydrous	No data.	No data.	No data.
CAS #	#	Partial Chemical I	Name	OSHA TWA	ACGIH TWA	Other Limits
66-	-81-9	Cycloheximide		No data.	No data.	No data.
67-	-68-5	Dimethyl sulfoxide,	, anhydrous	No data.	No data.	No data.
~ ~	Eveneeuu	-	-	•	•	•
3.2.1	Enginee (Ventila Persona Eye Pro Protecti	tion etc.): al protection equip otection: ive Gloves:	levels below recom oment: Safety glasses Compatible chemic	osures, local exhaust ventil nmended exposure limits. cal-resistant gloves	ation, or other engineering	controls to control airborn
8.2.1	Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify	ering Controls tion etc.): al protection equip otection: ive Gloves: rotective Clothing: troty Equipment y Type): ygienic/Maintenan tices:	levels below recom oment: Safety glasses Compatible chemic Lab coat NIOSH approved r	nmended exposure limits. cal-resistant gloves respirator, as conditions w ally. r utilizing this material sho		
3.2.1	Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify) Work/H	ering Controls tion etc.): al protection equip otection: ive Gloves: trotective Clothing: troty Equipment y Type): ygienic/Maintenan tices:	levels below recom ment: Safety glasses Compatible chemic Lab coat NIOSH approved r Do not take interna Facilities storing or	nmended exposure limits. cal-resistant gloves respirator, as conditions w ally. r utilizing this material sho after handling.	arrant.	
3.2.1	Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify) Work/H	ering Controls tion etc.): al protection equip otection: ive Gloves: rotective Clothing: tory Equipment y Type): ygienic/Maintenan tices:	levels below recom ment: Safety glasses Compatible chemic Lab coat NIOSH approved r Do not take interna Facilities storing or Wash thoroughly a No data available.	nmended exposure limits. cal-resistant gloves respirator, as conditions w ally. r utilizing this material sho after handling.	arrant. uld be equipped with an ey	
3.2.1 3.2.2	Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify Work/Hy ce Prac	ering Controls tion etc.): al protection equip otection: ive Gloves: rotective Clothing: tory Equipment y Type): ygienic/Maintenan tices:	levels below recompenent: Safety glasses Compatible chemic Lab coat NIOSH approved r Do not take interna Facilities storing or Wash thoroughly a No data available.	nmended exposure limits. cal-resistant gloves respirator, as conditions w ally. r utilizing this material sho after handling. ysical and Chem	arrant. uld be equipped with an ey	
3.2.1 3.2.2	Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify) Work/H ce Prac	ering Controls tion etc.): al protection equip otection: ive Gloves: trotective Clothing: troty Equipment y Type): ygienic/Maintenan tices:	levels below recompenent: Safety glasses Compatible chemic Lab coat NIOSH approved r Do not take interna Facilities storing or Wash thoroughly a No data available.	nmended exposure limits. cal-resistant gloves respirator, as conditions w ally. r utilizing this material sho after handling. ysical and Chem	arrant. uld be equipped with an ey	
3.2.1 3.2.2	Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify Work/Hy ce Prac	ering Controls tion etc.): al protection equip otection: ive Gloves: rotective Clothing: tory Equipment y Type): ygienic/Maintenan tices: <u>Se</u> tion on Basic Phys	levels below recomponent: Safety glasses Compatible chemic Lab coat NIOSH approved r Do not take interna Facilities storing or Wash thoroughly a No data available.	nmended exposure limits. cal-resistant gloves respirator, as conditions w ally. r utilizing this material sho after handling. ysical and Chem I Properties [X] Liquid [] Solid	arrant. uld be equipped with an ey	
3.2.1 3.2.2	Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify Work/Hy ce Praction Informate Physica Appeara Melting	ering Controls tion etc.): al protection equip otection: ive Gloves: rotective Clothing: tory Equipment y Type): ygienic/Maintenan tices: <u>Se</u> tion on Basic Phys al States: ance and Odor: Point:	levels below recomponent: Safety glasses Compatible chemic Lab coat NIOSH approved r Do not take interna Facilities storing or Wash thoroughly a No data available. Ection 9. Phy ical and Chemical [] Gas A solution i No data.	nmended exposure limits. cal-resistant gloves respirator, as conditions w ally. r utilizing this material sho after handling. ysical and Chem I Properties [X] Liquid [] Solid	arrant. uld be equipped with an ey	
3.2.1 3.2.2	Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify) Work/Hy ce Pract	ering Controls tion etc.): al protection equip otection: ive Gloves: trotective Clothing: troty Equipment y Type): ygienic/Maintenan tices: <u>Se</u> tion on Basic Phys al States: ance and Odor: Point: Point:	levels below recomponent: Safety glasses Compatible chemic Lab coat NIOSH approved r Do not take interna Facilities storing or Wash thoroughly a No data available. Ection 9. Phy ical and Chemical [] Gas A solution i No data. No data.	nmended exposure limits. cal-resistant gloves respirator, as conditions w ally. r utilizing this material sho after handling. ysical and Chem I Properties [X] Liquid [] Solid in DMSO	arrant. uld be equipped with an ey	
3.2.1 3.2.2	Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify) Work/Hy ce Praction Mork/Hy ce Praction Physica Appeara Melting Boiling Flash P	ering Controls tion etc.): al protection equip otection: ive Gloves: rotective Clothing: tory Equipment y Type): ygienic/Maintenan tices: <u>Se</u> tion on Basic Phys al States: ance and Odor: Point: Point: t:	levels below recomponent: Safety glasses Compatible chemic Lab coat NIOSH approved r Do not take interna Facilities storing or Wash thoroughly a No data available. Ection 9. Phy ical and Chemical [] Gas A solution i No data. No data. 89.00 C	nmended exposure limits. cal-resistant gloves respirator, as conditions w ally. r utilizing this material sho after handling. ysical and Chem I Properties [X] Liquid [] Solid	arrant. uld be equipped with an ey	
3.2.1 3.2.2	Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify) Work/Hy ce Pract Nork/Hy ce Pract Informat Physica Appeara Melting Boiling Flash P Evapora	ering Controls tion etc.): al protection equip otection: ive Gloves: rotective Clothing: tory Equipment y Type): ygienic/Maintenan tices: <u>Se</u> tion on Basic Phys al States: ance and Odor: Point: Point: t: ation Rate:	levels below recomponent: Safety glasses Compatible chemic Lab coat NIOSH approved r Do not take interna Facilities storing or Wash thoroughly a No data available. Ection 9. Phy ical and Chemical [] Gas A solution i No data. No data. 89.00 C M No data.	nmended exposure limits. cal-resistant gloves respirator, as conditions w ally. r utilizing this material sho after handling. ysical and Chem I Properties [X] Liquid [] Solid in DMSO Method Used: Closed Cu	arrant. uld be equipped with an ey	
3.2.1 3.2.2	Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify) Work/Hy ce Praction Mork/Hy ce Praction Physica Appeara Melting Boiling Flash P Evapora Flamma	ering Controls tion etc.): al protection equip otection: ive Gloves: rotective Clothing: tory Equipment y Type): ygienic/Maintenan tices: <u>Se</u> tion on Basic Phys al States: ance and Odor: Point: Point: t: ation Rate: ability (solid, gas):	levels below recom ment: Safety glasses Compatible chemic Lab coat NIOSH approved r Do not take interna Facilities storing or Wash thoroughly a No data available. Ection 9. Phy ical and Chemical []Gas A solution i No data. 89.00 C No data. No data available.	nmended exposure limits. cal-resistant gloves respirator, as conditions w ally. r utilizing this material sho after handling. ysical and Chem I Properties [X] Liquid [] Solid in DMSO Method Used: Closed Cu ailable.	arrant. uld be equipped with an ey ical Properties	rewash and a safety show
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8.2 8.2.1 8.2.2	Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify) Work/Hy ce Pract Nork/Hy ce Pract Informat Physica Appeara Melting Boiling Flash P Evapora Flamma Explosi Vapor P	ering Controls tion etc.): al protection equip otection: ive Gloves: rotective Clothing: tory Equipment y Type): ygienic/Maintenan tices: <u>Se</u> tion on Basic Phys al States: ance and Odor: Point: Point: t: ation Rate: ability (solid, gas):	levels below recomponent: Safety glasses Compatible chemic Lab coat NIOSH approved r Do not take interna Facilities storing or Wash thoroughly a No data available. Ection 9. Phy ical and Chemical [] Gas A solution i No data. No data. 89.00 C No data. No data available. Solution i	nmended exposure limits. cal-resistant gloves respirator, as conditions w ally. r utilizing this material sho after handling. ysical and Chem I Properties [X] Liquid [] Solid in DMSO Method Used: Closed Cu ailable.	arrant. uld be equipped with an ey ical Properties	rewash and a safety show
8.2.1 8.2.2	Enginee (Ventila Persona Eye Pro Protecti Other P Respira (Specify Work/Hy ce Pract Work/Hy ce Pract Informat Physica Appeara Melting Boiling Flash P Evapora Flamma Explosi Vapor P Hg):	ering Controls tion etc.): al protection equip otection: ive Gloves: rotective Clothing: tory Equipment y Type): ygienic/Maintenan tices: Section on Basic Phys al States: ance and Odor: Point: Point: t: ation Rate: ability (solid, gas): ve Limits:	levels below recomponent: Safety glasses Compatible chemic Lab coat NIOSH approved r Do not take interna Facilities storing or Wash thoroughly a No data available. Ection 9. Phy ical and Chemical [] Gas A solution i No data. No data. No data. No data. No data. No data. S9.00 C No data. No data.	nmended exposure limits. cal-resistant gloves respirator, as conditions w ally. r utilizing this material sho after handling. ysical and Chem ysical and Chem ysical and Chem [X] Liquid [] Solid in DMSO Method Used: Closed Cu ailable. % at 25.0 C Ul	arrant. uld be equipped with an ey ical Properties	rewash and a safety show

	Revision:	07/26/2016
Supersedes	Revision:	08/28/2014

	REMICAL								sion: 08/28/20 ⁻
	Specific	Gravity (Water :	•	data.					
	Solubilit	y in Water:	No	data.					
	Autoign	ition Pt:	21	5.00 C					
9.2	Other Inf	ormation							
	Percent	Volatile:	No	data.					
	Molecul	ar Formula & We	eight: C1	5H23NO4	281.3				
			Sec	tion 10.	Stability and	d Reacti	vity		
10.1	Reactivi	ty:	No data av	/ailable.	-		•		
10.2	Stability	:	Unstable [] Stat	ole [X]				
10.3 Stability Note(s):		Note(s):	Stable if st	ored in acc	ordance with inform	nation listed of	on the product	insert.	
	Polymer	ization:	Will occur	[] Wil	I not occur [X]				
10.4	Conditio	ons To Avoid:	heat, flame	es and spar	ks				
10.5	Incompa	atibility - Materia	Is acid chlori	des					
	To Avoi	-	phosphoru						
			strong acid	ds					
			alkali meta	ıls					
			strong oxic	dizing agent	S				
			strong reducing agents						
10.6	Hazardo	ous	carbon dio	xide					
	Decomp	osition or	carbon monoxide						
	Byprodu	ucts:	nitrogen oxides						
		sulfur oxides							
			Secti	on 11. ⁻	Foxicologica	I Informa	ation		
11.1	Informat	tion on	The toxico	logical effect	cts of this product h	nave not beer	n thoroughly s	tudied.	
	Toxicolo	ogical Effects:	DMSO - To	oxicity Data	: Oral LD50 (rat): 1	4,500 mg/kg	; Skin LD50 (r	at): 40,000 mg	/kg; Oral LD5
			(mouse): 7,920 mg/kg; Skin LD50 (mouse): 50,000 mg/kg; Skin TDLO (woman): 1,800 mg/kg;						
				~ /	>1,600 mg/m3 (4h)	, .			
					a: Eyes (rabbit): 100	-			
			•		ity Data: Intraperito	•	, 0	•	•
				-	0 (mouse): 133 mg mouse): 160 mg/kg		neal LD50 (m	ouse): 100 mg	/кд;
Chronic Toxicological Effects:		Taviaslasiasl				-	otor and turn	rigon	
		DMSO - Investigated as a mutagen, reproductive effector, and tumorigen. Cycloheximide - Investigated as an agricultural chemical, drug, mutagen, and reproductive effect							
		Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.							
		See actual entry in RTECS for complete information.							
				•	er: PV6210000				
					S Number: MA437	5000			
Carcir	nogenicity	/ :	NTP? No		/lonographs? No	OSHA Re	egulated? No		
CAS # Hazardous Cor		mponents (C	hemical Na	ame)	NTP	IARC	ACGIH	OSHA	
CAS						n.a.	n.a.	n.a.	n.a.
	-81-9	Cycloheximide							1



Revision: 07/26/2016 Supersedes Revision: 08/28/2014

		Section 12. Ecol	ogical Informa	•		
12.1	Toxicity:	Avoid release into the environr	~			
		Runoff from fire control or dilut	ion water may cause	pollution.		
12.2	Persistence and Degradability:	No data available.				
12.3	Bioaccumulative Potential:	No data available.				
12.4	Mobility in Soil:	No data available.				
12.5	Results of PBT and vPvB assessment:	No data available.				
12.6	Other adverse effects:	No data available.				
		Section 13. Dispo	sal Considera	ations		
13.1	Waste Disposal Method:	Dispose in accordance with loo	cal, state, and federa	l regulations.		
		Section 14. Trar	nsport Informa	ation		
14.1	LAND TRANSPORT (US	DOT):				
D	OT Proper Shipping Name OT Hazard Class: N/NA Number:	: Not dangerous goods.				
0 14.1	LAND TRANSPORT (Eur	onean ADR/RID).				
	DR/RID Shipping Name:	Not dangerous goods.				
	N Number:					
н	azard Class:					
14.3	AIR TRANSPORT (ICAO/	IATA):				
IC	AO/IATA Shipping Name:	Not dangerous goods.				
Addit	ional Transport	Transport in accordance with	local, state, and fede	ral regulations.		
Inform	mation:					
		Section 15. Regu	latory Inform	ation		
EPA	SARA (Superfund Amendn	nents and Reauthorization Act	t of 1986) Lists			
CAS	# Hazardous Com	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
66	-81-9 Cycloheximide		Yes 100 LB	No	No	
67	-68-5 Dimethyl sulfoxid	le, anhydrous	No	No	No	
CAS	# Hazardous Com	Hazardous Components (Chemical Name)		Other US EPA or State Lists		
	-81-9 Cycloheximide	Cycloheximide		CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: Yes		
67	67-68-5 Dimethyl sulfoxide, anhydrous		CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No			
	1		-			



ayman	Supersedes Revision: 08/28/2014
egulatory Information	This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)
tatement:	No.1272/2008.
	Section 16. Other Information
evision Date:	07/26/2016
dditional Information About	No data available.
nis Product:	
nis Product: ompany 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.



1.1

1.2

1.3

1.4

2.1 2.2

2.3

ZC0110000

SAFETY DATA SHEET Chalasteral Detection Wash Buffer

Caj	man				S	Revision: 07/26/2016 Supersedes Revision: 08/28/2014
			cording to Regulation (EC) No. 190 Identification of the Substar			
1.1	Product Product	Code:	10009866 Cholesterol Detection Wa			lucitaking
1.2	Relevan	t identified uses c	of the substance or mixture a	and uses advised a	gainst:	
	Releva	ant identified uses	For research use only, no	ot for human or vete	rinary use.	
1.3	Details	of the Supplier of	the Safety Data Sheet:			
	Comp	any Name:	Cayman Chemical Comp 1180 E. Ellsworth Rd. Ann Arbor, MI 48108	pany		
		ite address:	www.caymanchem.com			
	Inform		Cayman Chemical Comp	pany	+1 (734	4)971-3335
1.4		ncy telephone nui		and Canada	.4 (00	0)424.0200
	Emerg	ency Contact:	CHEMTREC Within USA CHEMTREC Outside US			0)424-9300 3)527-3887
			Section 2. Ha			-,
2.1	Classifi	cation of the Subs			cation	
2.1		ements:				
	GHS S	Signal Word:	None			
		lazard Phrases:	None			
			urrently available data this sub	stance or mixture is	not classifiable ac	cording to GHS.
	GHS F	Precaution Phrase	S:			-
	No ph	rases apply.				
	GHS F	Response Phrases	5:			
	No ph	rases apply.				
	GHS S	Storage and Dispo	sal Phrases:			
			for Storage and Section 13 for	•		
2.3		e Human Health	Material may be irritating to t			spiratory tract.
	Effects	and Symptoms:	May be harmful by inhalation May cause eye, skin, or resp	-	-	
				• •		been thoroughly investigated.
		Sect	tion 3. Composition	/Information	on Ingredie	nts
CAS RTE		Hazardous Comp	oonents (Chemical Name)/ tion No.	Concentration	EC No./ EC Index No.	GHS Classification
764	7-14-5	Sodium chloride		< 1.0 %	231-598-3	Eye Damage 2A: H319
VZ47	25000				NA	
	7-86-1 00000	Trizma base		< 1.0 %	201-064-4 NA	Skin Corr. 2: H315 Eye Damage 2: H319 STOT (SE) 3: H335
	5-64-5 00000	Polyoxyethylenesort 20; Sorbitan, monoc poly(oxy-1,2-ethane		< 1.0 %	500-018-3 NA	Skin Sens. 1: H317 Eye Damage 2A: H319
773	2-18-5	Water		>97.0 %	231-791-2	No data available.

NA



		Section 4. First Aid Measures
.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 contaminate 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 Media:	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.
		A solid water stream may be inefficient.
5.2	Flammable Properties an Hazards:	d 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	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	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.
5.5		gTransfer 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.
/.1	in Handling:	Avoid breatining dustrume/gas/mis/vapours/spray.
7.2	-	Keep container tightly closed.
	in Storing:	Store in accordance with information listed on the product insert.



Revision: 07/26/2016 Supersedes Revision: 08/28/2014

Section 8. Exposure Controls/Personal Protection 8.1 **Exposure Parameters:** CAS # **Partial Chemical Name Britain EH40** France VL Europe No data. 7647-14-5 Sodium chloride No data. No data. No data. No data. No data. 77-86-1 Trizma base Polyoxyethylenesorbitan Monolaurate No data. No data. No data. 9005-64-5 (polysorbate 20; Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivatives) 7732-18-5 No data. No data. No data. Water **OSHA TWA** CAS # **Partial Chemical Name ACGIH TWA Other Limits** 7647-14-5 Sodium chloride No data. No data. No data. 77-86-1 No data. No data. No data. Trizma base No data. No data. No data. 9005-64-5 Polyoxyethylenesorbitan Monolaurate (polysorbate 20; Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivatives) 7732-18-5 No data. No data. No data. Water 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 equipment: Safety glasses Eye Protection: Compatible chemical-resistant gloves **Protective Gloves:** Other Protective Clothing: Lab coat **Respiratory Equipment** NIOSH 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 shower. ce Practices: Wash thoroughly after handling. No data available. Section 9. Physical and Chemical Properties 9.1 Information on Basic Physical and Chemical Properties **Physical States:** []Gas [X] Liquid [] Solid 100 ml of TBS buffer, pH 7.4, with 0.1% Polysorbate 20 Appearance and Odor: pH: 7.4 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.



	Revision:	07/26/2016
Supersedes	Revision:	08/28/2014

	-			-				-	
	-	Gravity (Water =	•						
	-	in Water:	No c						
	Autoignit		No c	lata.					
9.2	Other Info Percent V		No	loto					
	Percent	olatile:	No c		Toxicological Information Toxicological Information etts of this product have not been thoroughly studied. Monographs? No OSHA Regulated? No Name) NTP IARC ACGIH OSHA n.a. n.a. n.a. n.a. n.a. polysorbate 20; n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. polysorbate 20; n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. polysorbate 20; n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a. NTP IARC ACGIH OSHA				
			Secti	on 10. Stal	bility and	Reactiv	vity		
10.1	Reactivity	y :	No data ava						
10.2	Stability:		Unstable [
10.3	Stability I					tion listed o	on the product	insert.	
	Polymeria		Will occur [-	cur [X]				
10.4		ns To Avoid:	No data ava						
10.5	-	ibility - Materials	No data ava	ilable.					
	To Avoid								
10.6	Hazardou		No data ava	ilable.					
	Decompo								
	Byproduc	cts:							
			Sectio	on 11. Toxic	cological	Informa	ation		
11.1	Informati	on on	The toxicolo	gical effects of th	nis product ha	ve not beer	n thoroughly st	udied.	
	Toxicolog	gical Effects:							
Carci	Toxicological Effects:								
CAS	#	Hazardous Com	ponents (Ch	emical Name)		NTP	IARC	ACGIH	OSHA
764	7-14-5	Sodium chloride				n.a.	n.a.	n.a.	n.a.
77	'-86-1	Trizma base				n.a.	n.a.	n.a.	n.a.
900			sorbitan Monolaurate (polysorbate 20;			n.a.	n.a.	n.a.	n.a.
		Sorbitan, monodo	odecanoate, p	ooly(oxy-1,2-etha	inediyl)				
		derivatives)							
//3	82-18-5	Water						n.a.	n.a.
			Sect	ion 12. Ecc	ological Ir	nformat	ion		
12.1	Toxicity:			se into the enviro					
			Runoff from	fire control or dil	ution water ma	ay cause po	ollution.		
12.2	Persisten	ice and	No data ava	ilable.					
	Degradat	oility:							
12.3	Bioaccun	nulative	No data ava	ilable.					
	Potential	:							
12.4	12.4 Mobility in Soil:		No data ava	ilable.					
12.5	12.5 Results of PBT and vPvB		No data ava	ailable.					
	assessm	ent:							
12.6	Other adv	verse effects:	No data ava	ailable.					



Page: 5 of 6

	Section 13. Dispos	sal Consider	ations	
13.1 Waste	Disposal Method: Dispose in accordance with loc	al, state, and federa	al regulations.	
	Section 14. Tran	sport Inform	ation	
14.1 LAND	TRANSPORT (US DOT):			
DOT Prop DOT Haza UN/NA Nu				
14.1 LAND	TRANSPORT (European ADR/RID):			
ADR/RID S UN Numb Hazard CI				
	RANSPORT (ICAO/IATA):			
	A Shipping Name: Not dangerous goods.			
Additional Tra	ansport Transport in accordance with lo	ocal, state, and fede	eral regulations.	
	Section 15. Regu	latory Inform	nation	
EPA SARA (S	uperfund Amendments and Reauthorization Act	of 1986) Lists		
CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
7647-14-5	Sodium chloride	No	No	No
77-86-1	Trizma base	No	No	Yes-Cat. N106
9005-64-5	Polyoxyethylenesorbitan Monolaurate (polysorbate 20; Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivatives)	No	No	No
7732-18-5	Water	No	No	No
CAS #	Hazardous Components (Chemical Name)	Other US EPA of	or State Lists	•
7647-14-5	Sodium chloride	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		S: No; TSCA: Yes -
9005-64-5	Polyoxyethylenesorbitan Monolaurate (polysorbate 20; Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivatives)	CAA HAP,ODC Inventory; CA F	: No; CWA NPDES PROP.65: No	: No; TSCA: Yes -
7732-18-5	Water	CAA HAP,ODC Inventory; CA F	: No; CWA NPDES PROP.65: No	: No; TSCA: Yes -
Regulatory Inf Statement:	formation This SDS was prepared in accord No.1272/2008.	bordance with 29 CF	R 1910.1200 and R	egulation (EC)



Page: 6 of 6

Section 16. Other Information					
Revision Date:	07/26/2016				
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.				



Contian 1 la	rding to Regulation (EC) No. 1907/2006 as amended by								
	dentification of the Substance/Mixture and of the	he Company/Undertaking							
ode:	10009899								
ame:	Cell-Based Assay Fixative								
Relevant identified uses of the substance or mixture and uses advised against:									
t identified uses:	For research use only, not for human or veteri	nary use.							
3 Details of the Supplier of the Safety Data Sheet:									
y Name:	Cayman Chemical Company								
	1180 E. Ellsworth Rd.								
	Ann Arbor, MI 48108								
address:	www.caymanchem.com								
ion:	Cayman Chemical Company	+1 (734)971-3335							
y telephone num									
ncy Contact:	CHEMTREC Within USA and Canada:	+1 (800)424-9300							
	CHEMTREC Outside USA and Canada:	+1 (703)527-3887							
	Section 2. Hazards Identific	ation							
tion of the Substa	ance or Mixture:								
Flammable Liquids, Category 2									
Acute Toxicity: Inhalation, Category 3									
Acute Toxicity: Oral, Category 3									
Acute Toxicity: Skin, Category 3									
rrosion/Irritation,									
nsitization, Categ									
genicity, Category	y 2								
	- xicity (single exposure), Category 1								
nents:									
~	^								
\sim	V								
nal Word:	Danger								
GHS Hazard Phrases:									
H225: Highly flammable liquid and vapor.									
H301: Toxic if swallowed.									
win in contract with	H311: Toxic in contact with skin.								
	H315: Causes skin irritation. H317: May cause an allergic skin reaction.								
auses skin irritatior	ic skin reaction	H317. May cause an allergic skin reaction. H331: Toxic if inhaled.							
auses skin irritatior ay cause an allerg	ic skin reaction.								
auses skin irritatior ay cause an allerg oxic if inhaled.									
auses skin irritatior ay cause an allerg oxic if inhaled. uspected of causin	g cancer.								
auses skin irritatior ay cause an allerg oxic if inhaled.	g cancer.								
auses	se an allerg								

GHS Precaution Phrases:

GHS Precaution Phrases:										
P201: Obtain special instructions before use.										
P202: Do not handle until all safety precautions have been read and understood. P210: Keep away from {heat/sparks/open flames/hot surfaces} No smoking.										
P260: Do not breathe {dust/fume/gas/mist/vapors/spray}.										
P260: Do not breathe {dust/fume/gas/mist/vapors/spray}. P264: Wash {hands} thoroughly after handling.										
P272: Contaminated work clothing should not be allowed out of the workplace.										
P280: Wear {protective gloves/protective clothing/eye protection/face protection}.										
GHS F	GHS Response Phrases:									
P301+	310: IF SWALLOW	ED: Immediately call a POISC	ON CENTER or docto	or/physician.						
P302+	352: IF ON SKIN: V	Nash with plenty of soap and v	water.							
P303+	-361+353: IF ON Sł	KIN (or hair): Remove/take off	immediately all conta	aminated clothing	. Rinse skin with					
water/	shower.									
P304+	340: IF INHALED:	Remove victim to fresh air and	I keep at rest in a po	sition comfortable	for breathing.					
P308+	311: If exposed of	concerned: Call a {POISON C	ENTER/Doctor/}.							
P313:	Get medical advice	/attention.								
P311:	Call a POISON CE	NTER or doctor/physician.								
P330:	Rinse mouth.									
P332+	313: If skin irritatior	n occurs, get medical advice/a	ttention.							
P333+	313: If skin irritatior	n or rash occurs, seek medical	advice/attention.							
P361+	364: Take off imme	ediately all contaminated clothi	ng and wash it befor	e reuse.						
P362+	364: Take off conta	aminated clothing and wash it l	before reuse.							
GHS S	Storage and Dispo	sal Phrases:								
Please	e refer to Section 7	for Storage and Section 13 for	Disposal information	۱.						
2.3 Adverse	e Human Health	Causes damage to organs.								
Effects	and Symptoms:	Causes skin irritation.								
		Irritating to the skin, eyes, an	d respiratory tract.							
		Harmful by inhalation, ingesti	ion, or skin absorptio	n.						
		Lachrymator.								
		May cause an allergic skin re	eaction.							
		Suspected of causing cancer	·.							
		Toxic if inhaled, swallowed o	r in contact with skin							
		To the best of our knowledge	e, the toxicological pr	operties have not	been thoroughly investigated.					
	Sect	ion 3. Composition	/Information of	on Ingredie	nts					
CAS#/	Hazardous Comp	oonents (Chemical Name)/	Concentration	EC No./	GHS Classification					
RTECS #	REACH Registrat	. ,		EC Index No.						
77-86-1	Trizma base		< 1.0 %	201-064-4	Skin Corr. 2: H315					
TY2900000				NA	Eye Damage 2: H319					
					STOT (SE) 3: H335					
7647-14-5	Sodium chloride		< 1.0 %	231-598-3	Eye Damage 2A: H319					
VZ4725000				NA						
50-00-0	Formaldehyde		4.0 %	200-001-8	Acute Tox.(O) 3: H301					
LP8925000				605-001-00-5	Acute Tox.(D) 3: H311					
					Skin Corr. 1B: H314					
					Skin Sens. 1: H317					
					Acute Tox.(I) 3: H331					
					Carcinogen 2: H351 Mutagen 2: H341					
67-56-1	Methanol		1.0 %	200-659-6	Flam. Liq. 2: H225					
PC1400000					Multi-region format					



In Cas In Cas In Cas In Cas In Cas 4.2 Impor Effect Delay 5.1 Suital Media Unsui Media 5.2 Flam Hazar Flash Explo Autoig 5.3 Fire F 6.1 Protec Emerg 6.2 Enviro Preca 6.3 Metho	ts, Both Acute and ved: ble Extinguishing a: itable Extinguishing a: mable Properties an rds: Pt: osive Limits: ignition Pt: Fighting Instructions ective Precautions, active Equipment and gency Procedures: onmental autions: ods and Material For	unconscious person. Get me medical personnel. Exposure may cause: burnin gastrointestinal disturbance, Skin and respiratory sensitize Section 5. Fire Use alcohol-resistant foam, o Use water spray to cool fire- A solid water stream may be dEmits toxic fumes under fire No data available. No data. LEL: No data. No data. Section 6. Accider Avoid breathing vapors and	dical attention. De g sensation, conv and wheezing. er. Fighting M carbon dioxide, w exposed contained inefficient. conditions. UEL: Not alined breathing a re gear to prevent ntal Release provide adequate a NIOSH approv- otection (rubber k into the environm appropriate.	o NOT induce vomitie vulsions, coughing, cl leasures rater, or dry chemical ers. o data. apparatus pressure-d t contact with skin an e Measures e ventilation. ed self-contained bre poots, safety goggles nent, if safe to do so.	eathing apparatus, or respirator, s, and heavy rubber gloves).			
In Cas In Cas In Cas In Cas In Cas 4.2 Impor Effect Delay 5.1 Suitat Media Unsui Media 5.2 Flam Hazar Flash Explo Autoig 5.3 Fire F 6.1 Protect Emerg 6.2 Enviro Protect Emerg 6.2 Enviro	rtant Symptoms and ts, Both Acute and yed: ble Extinguishing a: itable Extinguishing a: mable Properties an rds: o Pt: osive Limits: ignition Pt: Fighting Instructions ective Precautions, active Equipment and gency Procedures: onmental autions: ods and Material For	unconscious person. Get me medical personnel. Exposure may cause: burnin gastrointestinal disturbance, Skin and respiratory sensitize Section 5. Fire Use alcohol-resistant foam, o Use water spray to cool fire- A solid water stream may be dEmits toxic fumes under fire No data available. No data available. No data. LEL: No data. LEL: No data. No data. Section 6. Accider Avoid breathing vapors and As conditions warrant, wear and appropriate personal pr Take steps to avoid release	dical attention. De g sensation, conv and wheezing. er. Fighting M carbon dioxide, w exposed contained inefficient. conditions. UEL: Not alined breathing a re gear to prevent ntal Release provide adequate a NIOSH approv- otection (rubber k into the environm appropriate.	o NOT induce vomitie vulsions, coughing, cl leasures rater, or dry chemical ers. o data. apparatus pressure-d t contact with skin an e Measures e ventilation. ed self-contained bre poots, safety goggles nent, if safe to do so.	eathing apparatus, or respirator, s, and heavy rubber gloves).			
In Cas In Cas In Cas In Cas In Cas 4.2 Impor Effect Delay 5.1 Suitat Media Unsui Media 5.2 Flam Hazar Flash Explo Autoig 5.3 Fire F	rtant Symptoms and ts, Both Acute and yed: ble Extinguishing a: itable Extinguishing a: mable Properties an rds: Pt: osive Limits: gnition Pt: Fighting Instructions ective Precautions, ective Equipment and gency Procedures: onmental	unconscious person. Get me medical personnel. Exposure may cause: burnin gastrointestinal disturbance, Skin and respiratory sensitize Section 5. Fire Use alcohol-resistant foam, o Use water spray to cool fire- A solid water stream may be dEmits toxic fumes under fire No data available. No data. LEL: No data. LEL: No data. s: As in any fire, wear self-cont equivalent), and full protective Section 6. Accider Avoid breathing vapors and a As conditions warrant, wear and appropriate personal pr	dical attention. De g sensation, conv and wheezing. er. Fighting M carbon dioxide, w exposed contained inefficient. conditions. UEL: Not ained breathing a re gear to prevent intal Release provide adequate a NIOSH approv otection (rubber to	o NOT induce vomitii vulsions, coughing, cl leasures rater, or dry chemical ers. o data. apparatus pressure-d t contact with skin an <u>e Measures</u> e ventilation. red self-contained bre poots, safety goggles	eathing apparatus, or respirator, s, and heavy rubber gloves).			
In Cas In Cas In Cas In Cas In Cas 4.2 Impor Effect Delay 5.1 Suital Media Unsui 5.2 Flam Hazar Flash Explo Autoig 5.3 Fire F	rtant Symptoms and ts, Both Acute and yed: ble Extinguishing a: itable Extinguishing a: mable Properties an rds: Pt: osive Limits: ignition Pt: Fighting Instructions ective Precautions, active Equipment and gency Procedures:	unconscious person. Get me medical personnel. Exposure may cause: burnin gastrointestinal disturbance, Skin and respiratory sensitize Section 5. Fire Use alcohol-resistant foam, o Use water spray to cool fire- A solid water stream may be dEmits toxic fumes under fire No data available. No data. LEL: No data. LEL: No data. s: As in any fire, wear self-cont equivalent), and full protective Section 6. Accider Avoid breathing vapors and a As conditions warrant, wear and appropriate personal pr	dical attention. De g sensation, conv and wheezing. er. Fighting M carbon dioxide, w exposed contained inefficient. conditions. UEL: Not ained breathing a re gear to prevent intal Release provide adequate a NIOSH approv otection (rubber to	o NOT induce vomitii vulsions, coughing, cl leasures rater, or dry chemical ers. o data. apparatus pressure-d t contact with skin an <u>e Measures</u> e ventilation. red self-contained bre poots, safety goggles	eathing apparatus, or respirator, s, and heavy rubber gloves).			
In Cas In Cas In Cas In Cas 4.2 Impor Effect Delay 5.1 Suitat Media 5.2 Flam Hazar Flash Explo Autoig 5.3 Fire F	rtant Symptoms and ts, Both Acute and yed: ble Extinguishing a: itable Extinguishing a: mable Properties an rds: Pt: osive Limits: ignition Pt: Fighting Instructions ective Precautions, ective Equipment and	unconscious person. Get me medical personnel. Exposure may cause: burnin gastrointestinal disturbance, Skin and respiratory sensitize Section 5. Fire Use alcohol-resistant foam, Use water spray to cool fire- A solid water stream may be dEmits toxic fumes under fire No data available. No data. LEL: No data. No data. Section 6. Accider Avoid breathing vapors and d As conditions warrant, wear	dical attention. De g sensation, conv and wheezing. er. Fighting M carbon dioxide, w exposed contained inefficient. conditions. UEL: Not alined breathing a re gear to prevent intal Release provide adequate a NIOSH approv	o NOT induce vomitii rulsions, coughing, cl leasures rater, or dry chemical ers. o data. apparatus pressure-d t contact with skin an e Measures e ventilation. red self-contained bre	eathing apparatus, or respirator,			
In Cas In Cas In Cas In Cas 4.2 Impor Effect Delay 5.1 Suitat Media Unsui 5.2 Flam Hazar Flash Explo Autoig 5.3 Fire F	rtant Symptoms and ts, Both Acute and yed: ble Extinguishing a: itable Extinguishing a: mable Properties an rds: • Pt: osive Limits: ignition Pt: Fighting Instructions	unconscious person. Get me medical personnel. Exposure may cause: burnin gastrointestinal disturbance, Skin and respiratory sensitize Section 5. Fire Use alcohol-resistant foam, o Use water spray to cool fire- A solid water stream may be dEmits toxic fumes under fire No data available. No data. LEL: No data. No data. Section 6. Accider Avoid breathing vapors and	dical attention. De g sensation, conv and wheezing. er. Fighting M carbon dioxide, w exposed contained inefficient. conditions. UEL: No ained breathing a re gear to prevent intal Release provide adequate	o NOT induce vomitii vulsions, coughing, cl leasures rater, or dry chemical ers. o data. apparatus pressure-d t contact with skin an e Measures e ventilation.	Ing unless directed to do so by hest pain, difficulty breathing, spray.			
In Cas In Cas In Cas In Cas In Cas 4.2 Impor Effect Delay 5.1 Suitat Media Unsui Media 5.2 Flamn Hazar Flash Explo Autois	rtant Symptoms and ts, Both Acute and yed: ble Extinguishing a: itable Extinguishing a: mable Properties an rds: n Pt: osive Limits:	unconscious person. Get me medical personnel. I Exposure may cause: burnin gastrointestinal disturbance, Skin and respiratory sensitize Section 5. Fire Use alcohol-resistant foam, o Use water spray to cool fire- A solid water stream may be dEmits toxic fumes under fire No data available. No data. LEL: No data. No data. s: As in any fire, wear self-cont equivalent), and full protective	dical attention. De g sensation, conv and wheezing. er. Fighting N carbon dioxide, w exposed contained inefficient. conditions. UEL: No ained breathing a re gear to prevent	o NOT induce vomitii vulsions, coughing, cl leasures vater, or dry chemical ers. o data. apparatus pressure-d t contact with skin an	emand (NIOSH approved or			
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In Cas In Cas In Cas 4.2 Impor Effect	rtant Symptoms and ts, Both Acute and	unconscious person. Get me medical personnel. I Exposure may cause: burnin gastrointestinal disturbance,	dical attention. Do g sensation, conv and wheezing.	o NOT induce vomiti	ng unless directed to do so by			
In Cas In Cas In Cas 4.2 Impor	rtant Symptoms and	unconscious person. Get me medical personnel. I Exposure may cause: burnin	dical attention. De	o NOT induce vomiti	ng unless directed to do so by			
In Cas In Cas In Cas	-	unconscious person. Get me medical personnel.	dical attention. D	o NOT induce vomiti	ng unless directed to do so by			
In Cas In Cas	se of Ingestion:	unconscious person. Get me	•	•				
In Cas In Cas	se of Ingestion:	Wash out mouth with water p	rovided person is	s conscious. Never g	ive anything by mouth to an			
In Cas		and tested by medical personnel. Wash out mouth with water provided person is conscious. Never give anything by mouth to an						
In Cas	Se of Lye Contact:	and tested by medical persor		or water for at least 1	o minutes. Have eyes examined			
	se of Eye Contact:	clothing. Get medical attention		•	efore reuse. 5 minutes. Have eyes examined			
	se of Skin Contact:	-			5 minutes. Remove contaminated			
	ures: se of Inhalation:	Remove to fresh air. If not br personnel. Get immediate me		icial respiration or giv	ve oxygen by trained			
4.1 Descr Measu	ription of First Aid							
		Section 4. Fi	rst Aid Mea	asures				
ZC0110000			ļ	NA	<u> </u>			
7732-18-5	Water		>93.0 %	231-791-2	No data available.			
					Acute Tox.(I) 3: H331 STOT (SE) 1: H370			
					Acute Tox.(O) 3: H301 Acute Tox.(D) 3: H311 Acute Tox.(I) 2: H321			



7.1	in Hand			Handling and Stor	5				
7.2	Precaut	-	Avoid prolonged or re						
	.2 Precautions To Be Taken Keep container tightly closed. in Storing: Store in accordance with information listed on the product insert.								
		Sec	tion 8. Exposu	re Controls/Person	al Protection				
8.1	Exposu	e Parameters:							
CAS	#	Partial Chemical	Name	Britain EH40	France VL	Europe			
77	-86-1	Trizma base		No data.	No data.	No data.			
764	7-14-5	Sodium chloride		No data.	No data.	No data.			
50	-00-0	Formaldehyde		TWA: 2.5 mg/m3 (2 ppm) STEL: 2.5 mg/m3 (2 ppm)	TWA: 0.5 ppm STEL: 1 ppm	No data.			
67	-56-1	Methanol		TWA: 266 mg/m3 (200 ppm) STEL: 333 mg/m3 (250 ppm)	TWA: 260 mg/m3 (200 ppm) STEL: 1300 mg/m3 (1000 ppm)	TWA: 260 mg/m3			
773	2-18-5	Water		No data.	No data.	No data.			
CAS	#	Partial Chemical	Name	OSHA TWA	ACGIH TWA	Other Limits			
77	-86-1	Trizma base		No data.	No data.	No data.			
764	7-14-5	Sodium chloride		No data.	No data.	No data.			
50	-00-0	Formaldehyde		PEL: 0.75 ppm STEL: 2 ppm (15 min)	CEIL: 0.3 ppm	No data.			
67	-56-1	Methanol		PEL: 200 ppm	TLV: 200 ppm STEL: 250 ppm	No data.			
773	2-18-5	Water		No data.	No data.	No data.			
8.2	Exposu	re Controls:							
8.2.1	Enginee	ering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne						
	•		levels below recommended exposure limits.						
8.2.2			pment:						
	-		Safety glasses						
			Compatible chemical-resistant gloves						
		_	-						
	-		NIOSH approved respirator, as conditions warrant.						
			-						
	ce Prac	tices:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety						
			shower.						
			Wash thoroughly after handling.						
8.2.1 Engineering Controls (Ventilation etc.):			pment: Safety glasses Compatible chemical g:Lab coat NIOSH approved res Do not take internally Facilities storing or ut shower.	resistant gloves pirator, as conditions warrant. ilizing this material should be	equipped with an eyewash fa	acility and a safety			



Multi-region format

		Supersedes Revision: 05/04/2015					
	Se	ection 9. Physical and Chemical Properties					
9.1		cal and Chemical Properties					
	Physical States:	[]Gas [X]Liquid []Solid					
	Appearance and Odor:	4% formaldehyde solution in TBS, pH 7.4					
	pH:	7.4					
	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):	mm No data.					
	Vapor Density (vs. Air = 1):	No data.					
	Specific Gravity (Water = 1)						
	Solubility in Water:	No data.					
	Autoignition Pt:	No data.					
	Other Information	NU Uala.					
9.2							
	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:	heat, flames and sparks					
10.5	Incompatibility - Materials acid anhydrides						
	To Avoid:	amines					
	á	aniline					
		isocyanates					
	-	peroxides					
		strong acids strong bases					
		strong oxidizing agents					
10.6		carbon dioxide					
10.0		carbon monoxide					
	Byproducts:						
		Multi ragion fo					



Revision: 07/26/2016 Supersedes Revision: 05/04/2015

			Sectio	n 11. Tox	icological	Informa		aperseues Revis		
11.1	Information on		The toxicological effects of this product have not been thoroughly studied.							
Toxicological Effects:			Formaldehyde - Toxicity Data: Oral LDLo (human): 70 mg/kg; Oral LDLo (wmn): 108 mg/kg; Oral TDLo (wmn): 3.6 ml/kg; Oral LD50 (mouse): 42 mg/kg; Oral LD50 (rat): 100 mg/kg; Inhalation TCLo (man): 300 ig/m3; Inhalation LC50 (rat): 250 ppm (2h); Skin LD50 (rabbit): 270 mg/kg; Formaldehyde - Irritation Data: Eyes (rabbit): 750 ig (24h) severe; Skin (rabbit): 2 mg (24h) severe;							
			Inhalation Lo (rabbit): 15,8	C50 (rat): 64,00 300 mg/kg; Ora	Dral LD50 (rat): 5 00 ppm (4h); Inh I LDLO (human Skin (rabbit): 20	alation LC5): 143 mg/kg	0 (mouse): 6 [°] ;;	I,100 ppm (134	4 m); Skin LD50	
			Eyes (rabbit): 100 mg (24h)) moderate;		-		-	
	Chronic Toxicol	logical		-	a: OralLD50 (mo ed as a mutagen				00 mg/kg	
	Effects:	logical	•	•	a mutagen and	•		na tamongen.		
	Lifette.			0	as a drug and r	•				
				•	ic Effects of Che	•		CS) data is pre	sented here.	
			-		for complete in		,	, .		
			Formaldehy	de RTECS Nur	mber: LP892500	0				
			Methanol R	ECS Number:	PC1400000					
			Trizma Base RTECS Number: TY2900000							
	Carcinogenicity	/Other	Formaldehyde - California Prop. 65 carcinogen.							
	Information:		Formaldehyde - IARC: 1 - Group 1: Carcinogenic to humans;							
			Formaldehyde - NTP: Reasonably anticipated to be a human carcinogen;							
Carci	nogenicity:		NTP? No IARC Monographs? Yes OSHA Regulated? No							
CAS	# Hazaro	dous Com	nponents (Chemical Name)		NTP	IARC	ACGIH	OSHA		
77	-86-1 Trizma	base				n.a.	n.a.	n.a.	n.a.	
764	7-14-5 Sodium	n chloride			n.a.	n.a.	n.a.	n.a.		
50	-00-0 Formal	ldehyde			Known	1	A2	Yes		
67	-56-1 Methar	nol				n.a.	n.a.	n.a.	n.a.	
773	2-18-5 Water					n.a.	n.a.	n.a.	n.a.	
			Sect	on 12. Ec	ological Ir	formatio	on			
12.1	Toxicity:		Avoid releas	e into the envir	ronment.					
			Runoff from	fire control or c	dilution water ma	ay cause pol	llution.			
12.2	Persistence and Degradability:	1	No data ava	ilable.						
12.3	Bioaccumulative Potential:	e	No data available.							
12.4	Mobility in Soil:		No data available.							
12.5	Results of PBT assessment:	and vPvB	No data ava	ilable.						
12.6	Other adverse e	effects:	No data ava	ilable.						



Page: 7 of 8

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Revision: 07/26/2016 Supersedes Revision: 05/04/2015

		oosal Considera	alions		
3.1 Waste	Disposal Method: Dispose in accordance with	local, state, and federa	I regulations.		
	Section 14. Tr	ansport Informa	ation		
14.1 LAND	TRANSPORT (US DOT):				
DOT Prop DOT Haza UN/NA Nu					
14.1 LAND	TRANSPORT (European ADR/RID):				
ADR/RID UN Numb Hazard C		Not dangerous goods.			
14.3 AIR TH	RANSPORT (ICAO/IATA):				
ICAO/IAT	A Shipping Name: Not dangerous goods.				
Additional Tr Information:	ansport Transport in accordance wi	ith local, state, and fede	ral regulations.		
	Section 15. Re	gulatory Inform	ation		
EPA SARA (S	Superfund Amendments and Reauthorization	Act of 1986) Lists			
CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
77-86-1	Trizma base	No	No	Yes-Cat. N106	
11-00-1				103 041.11100	
7647-14-5	Sodium chloride	No	No	No	
	Sodium chloride Formaldehyde		-		
7647-14-5		No	No	No	
7647-14-5 50-00-0	Formaldehyde	No Yes 500 LB	No Yes 100 LB	No Yes	
7647-14-5 50-00-0 67-56-1	Formaldehyde Methanol	No Yes 500 LB No	No Yes 100 LB Yes 5000 LB No	No Yes Yes	
7647-14-5 50-00-0 67-56-1 7732-18-5	Formaldehyde Methanol Water	No Yes 500 LB No No Other US EPA o	No Yes 100 LB Yes 5000 LB No r State Lists HAP; CWA NPDES	No Yes Yes No	
7647-14-5 50-00-0 67-56-1 7732-18-5 CAS #	Formaldehyde Methanol Water Hazardous Components (Chemical Name)	No Yes 500 LB No No Other US EPA o CAA HAP,ODC: Inventory; CA P	No Yes 100 LB Yes 5000 LB No r State Lists HAP; CWA NPDES ROP.65: No No; CWA NPDES:	No Yes Yes No S: No; TSCA: Yes -	
7647-14-5 50-00-0 67-56-1 7732-18-5 CAS # 77-86-1	Formaldehyde Methanol Water Hazardous Components (Chemical Name) Trizma base	No Yes 500 LB No No Other US EPA o CAA HAP,ODC: Inventory; CA P CAA HAP,ODC: Inventory; CA P	No Yes 100 LB Yes 5000 LB No r State Lists HAP; CWA NPDES ROP.65: No No; CWA NPDES: ROP.65: No HAP; CWA NPDES: ROP.65: No HAP; CWA NPDES:	No Yes Yes No No S: No; TSCA: Yes - No; TSCA: Yes -	
7647-14-5 50-00-0 67-56-1 7732-18-5 CAS # 77-86-1 7647-14-5	Formaldehyde Methanol Water Hazardous Components (Chemical Name) Trizma base Sodium chloride	No Yes 500 LB No No Other US EPA o CAA HAP,ODC: Inventory; CA P CAA HAP,ODC: Inventory; CA P CAA HAP,ODC: Inventory; CA P CAA HAP,ODC: Inventory; CA P	No Yes 100 LB Yes 5000 LB No r State Lists HAP; CWA NPDES ROP.65: No No; CWA NPDES: ROP.65: No HAP; CWA NPDES: ROP.65: No HAP; CWA NPDES: ROP.65: No HAP; CWA NPDES ROP.65: No HAP; CWA NPDES ROP.65: Yes HAP; CWA NPDES	No Yes Yes No No S: No; TSCA: Yes - No; TSCA: Yes - S: Yes; TSCA: Yes -	

Regulatory Information Statement:

This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.



Revision: 07/26/2016

Page: 8 of 8

Supersedes Revision: 05/04/2015

Section 16. Other Information			
Revision Date:	07/26/2016		
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.		