

Revision: 03/29/2015 Supersedes Revision: 10/20/2007

			07/2006 an amanded '	by (EC) No. 1070/000	10			
	0 1'	according to Regulation (EC) No. 19		,				
	Section	on 1. Identification of the Substa	ince/iviixture and o	r the Company/U	ndertaking			
1.1	Product Code:	10007682						
	Product Name:	Serum Retinol Binding	-	-				
	Synonyms:	sRBP4 Blocking Peptid Peptide;	e; pRBP Blocking Pe	eptide; Plasma Ret	inol Binding Protein 4 Blocking			
1.2	Relevant identified uses of the substance or mixture and uses advised against:							
	Relevant identified	d uses: For research use only,	not for human or vet	erinary use.				
1.3	Details of the Suppl	ier of the Safety Data Sheet:						
	Company Name:	Cayman Chemical Com 1180 E. Ellsworth Rd. Ann Arbor, MI 48108	ipany					
	Web site address:	www.caymanchem.com	1					
	Information:	Cayman Chemical Com	ipany	+1 (73	4)971-3335			
1.4	Emergency telephore	ne number:						
	Emergency Contact				0)424-9300			
		CHEMTREC Outside U	SA and Canada:	+1 (70	3)527-3887			
		Section 2. Ha	azards Identif	ication				
2.2 2.2.1	Label Elements:							
	GHS Signal Word: GHS Hazard Phras Based on evaluatio GHS Precaution P No phrases apply. GHS Response Ph No phrases apply. GHS Storage and	ses: on of currently available data this su Phrases: Disposal Phrases: etion 7 for Storage and Section 13 for ealth Material may be irritating to pms: May be harmful by inhalation May cause eye, skin, or res	bstance or mixture is or Disposal information the mucous membra n, ingestion, or skin piratory system irrita	on. anes and upper res absorption. ition.	spiratory tract.			
2.3	GHS Signal Word: GHS Hazard Phras Based on evaluation GHS Precaution P No phrases apply. GHS Response Ph No phrases apply. GHS Storage and Please refer to Sec Adverse Human He Effects and Sympto	None ses: on of currently available data this su Phrases: Disposal Phrases: tion 7 for Storage and Section 13 for salth Material may be irritating to oms: May be harmful by inhalation May cause eye, skin, or ress To the best of our knowledge	bstance or mixture is or Disposal information the mucous membra n, ingestion, or skin piratory system irrita ge, the toxicological p	on. anes and upper res absorption. ition. properties have not	spiratory tract. t been thoroughly investigated.			
2.3	GHS Signal Word: GHS Hazard Phras Based on evaluatio GHS Precaution P No phrases apply. GHS Response PH No phrases apply. GHS Storage and Please refer to Sec Adverse Human He Effects and Sympto	None ses: on of currently available data this su phrases: Disposal Phrases: tion 7 for Storage and Section 13 for bath Material may be irritating to oms: May be harmful by inhalation May cause eye, skin, or res To the best of our knowledge Section 3. Composition	bstance or mixture is or Disposal information the mucous membra n, ingestion, or skin piratory system irrita ge, the toxicological p n/Information	on. anes and upper res absorption. tion. properties have not on Ingredie	spiratory tract. t been thoroughly investigated nts			
2.3	GHS Signal Word: GHS Hazard Phras Based on evaluatio GHS Precaution P No phrases apply. GHS Response PH No phrases apply. GHS Storage and Please refer to Sec Adverse Human He Effects and Sympto	None ses: on of currently available data this su Phrases: Disposal Phrases: tion 7 for Storage and Section 13 for salth Material may be irritating to oms: May be harmful by inhalation May cause eye, skin, or ress To the best of our knowledge	bstance or mixture is or Disposal information the mucous membra n, ingestion, or skin piratory system irrita ge, the toxicological p	on. anes and upper res absorption. ition. properties have not	spiratory tract. t been thoroughly investigated.			
	GHS Signal Word: GHS Hazard Phras Based on evaluatio GHS Precaution P No phrases apply. GHS Response PH No phrases apply. GHS Storage and Please refer to Sec Adverse Human He Effects and Sympto # / Hazardous REACH Res	None ses: on of currently available data this such rases: Disposal Phrases: tion 7 for Storage and Section 13 for salth Material may be irritating to oms: May be harmful by inhalation May cause eye, skin, or res To the best of our knowledge Section 3. Composition Components (Chemical Name)/	bstance or mixture is or Disposal information the mucous membra n, ingestion, or skin piratory system irrita ge, the toxicological p n/Information	on. anes and upper res absorption. ttion. properties have not ON INGREDIE	spiratory tract. t been thoroughly investigated nts			
2.3 CAS RTEC NA NA	GHS Signal Word: GHS Hazard Phras Based on evaluatio GHS Precaution P No phrases apply. GHS Response Ph No phrases apply. GHS Storage and Please refer to Sec Adverse Human He Effects and Sympto # / Hazardous S# REACH Re Serum Retino	None ses: on of currently available data this su phrases: Disposal Phrases: tion 7 for Storage and Section 13 for ealth Material may be irritating to oms: May be harmful by inhalation May cause eye, skin, or res To the best of our knowledg Section 3. Composition Components (Chemical Name)/ gistration No.	bstance or mixture is or Disposal information the mucous membra n, ingestion, or skin piratory system irrita ge, the toxicological p n/Information Concentration	on. anes and upper res absorption. ttion. oroperties have not ON INGREDIE EC No./ EC Index No. NA	spiratory tract. t been thoroughly investigated nts GHS Classification			
2.3 CAS : RTEC NA NA 9048 MT644	GHS Signal Word: GHS Hazard Phras Based on evaluation GHS Precaution P No phrases apply. GHS Response PH No phrases apply. GHS Storage and Please refer to Sec Adverse Human He Effects and Sympto # / S# REACH Re 8-46-8 46000 18-22-8	None ses: on of currently available data this su Phrases: Disposal Phrases: tion 7 for Storage and Section 13 for salth Material may be irritating to pms: May be harmful by inhalation May cause eye, skin, or ress To the best of our knowledge Section 3. Composition Components (Chemical Name)/ gistration No. DI Binding Protein 4 Blocking Peptide n Albumin (BSA)	bstance or mixture is or Disposal information the mucous membra n, ingestion, or skin piratory system irrita ge, the toxicological p n/Information Concentration 0.0 -0.1 %	on. anes and upper res absorption. ttion. or Ingredie EC No./ EC Index No. NA NA NA 232-936-2	spiratory tract. t been thoroughly investigated. nts GHS Classification No data available.			



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						Aquatic (C) 1: H410			
7647 VZ472	7-14-5 25000	Sodium chloride		0.8 %	231-598-3 NA	No data available.			
	77-86-1 Trizma base TY2900000			0.3 %	201-064-4 NA	Skin Corr. 2: H315 Eye Damage 2: H319 STOT (SE) 3: H335 H336			
7732 ZC011	2-18-5 10000	Water		98.68 -98.78 %	231-791-2 NA	No data available.			
		•		-+		-+			
			Section 4. F	irst Aid Meas	sures				
4.1	Descrip	tion of First Aid	No data available.						
	Measur	es:							
	In Case	of Inhalation:	Remove to fresh air. If not b	reathing, give artific	ial respiration or	give oxygen by trained personnel.			
			Get immediate medical atte	ntion.					
	In Case	of Skin Contact:	Immediately wash skin with	soap and plenty of v	water for at least	15 minutes. Remove contaminated			
			clothing. Get medical attenti		-				
	In Case	of Eye Contact:			water for at least	15 minutes. Have eyes examined			
	I. 0	- f la an a f la an	and tested by medical perso			where we are the second second second			
	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	e Fiahtina Me	easures				
ـــــــــــــــــــــــــــــــــــــ	Suitable	e Extinguishing	Use alcohol-resistant foam,	<u> </u>		al soray			
5.1	Media:	e Extinguisting			-	ai spiay.			
	Media: Use water spray to cool fire-exposed containers. Unsuitable Extinguishing A solid water stream may be inefficient.								
	Media:		,						
5.2	Flamma	able Properties an	d No data available.						
	Hazard	-							
	Flash P	rt:	No data.						
	Explosive Limits:		LEL: No data.	UEL: No o	data.				
	Autoigr	nition Pt:	No data.						
5.3	Fire Fig	hting Instructions	:As in any fire, wear self-cor	tained breathing ap	paratus pressure	-demand (NIOSH approved or			
			equivalent), and full protect	ive gear to prevent o	contact with skin a	and eyes.			
			Section 6. Accide	ntal Release	Measures				
6.1	Protect	ive Precautions,	Avoid breathing vapors and	d provide adequate v	ventilation.				
	Protect	ive Equipment an	d As conditions warrant, wea	conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,					
	Emerge	ency Procedures:	and appropriate personal p	rotection (rubber bo	ots, safety goggle	es, and heavy rubber gloves).			
6.2	Enviror	nmental	Take steps to avoid release	e into the environme	ent, if safe to do se	0.			
	Precautions:								
6.3	Methods and Material For Contain spill and collect, as appropriate.								
	Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations.								
	Up:								

Multi-region format



SAFETY DATA SHEET

Serum Retinol Binding Protein 4 Blocking Peptide

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Section 7. Handling and Storage

- 7.1
 Precautions To Be Taken
 Avoid breathing dust/fume/gas/mist/vapours/spray.

 in Handling:
 Avoid prolonged or repeated exposure.
- **7.2 Precautions To Be Taken** Keep container tightly closed.
 - in Storing: Store in accordance with information listed on the product insert.

Section 8. Exposure Controls/Personal Protection

8.1 Exposure Parameters:

CAS #	Partial Chemical Name	Britain EH40	France VL	Europe
NA	Serum Retinol Binding Protein 4 Blocking Peptide	No data.	No data.	No data.
9048-46-8	Bovine Serum Albumin (BSA)	No data.	No data.	No data.
26628-22-8	Sodium azide	TWA: 0.1 mg/m3 () STEL: 0.3 mg/m3 ()	TWA: 0.1 mg/m3 STEL: 0.3 mg/m3	TWA: 0.1 mg/m3 STEL: 0.3 mg/m3
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.
CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
NA	Serum Retinol Binding Protein 4 Blocking Peptide	No data.	No data.	No data.
9048-46-8	Bovine Serum Albumin (BSA)	No data.	No data.	No data.
26628-22-8	Sodium azide	No data.	CEIL: 0.29 mg/m3	No data.
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.

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:

Eye Protection:Safety glassesProtective Gloves:Compatible chemical-resistant glovesOther Protective Clothing:
Lab coatNIOSH approved respirator, as conditions warrant.Respiratory EquipmentNIOSH approved respirator, as conditions warrant.(Specify Type):Do not take internally.Work/Hygienic/MaintenanDo not take internally.ce Practices:Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.
Wash thoroughly after handling.
No data available.

Multi-region format



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).1	Informat			,	Chemical P	•		
	Information on Basic Physical and Chemical Properties Physical States: [] Gas [X] Liquid [] Solid							
	-	ance and Odor:	Solution					
	Melting		No data.					
	Boiling		No data.					
	Flash Pt		No data.					
	Evapora	tion Rate:	No data.					
	Explosiv	ve Limits:	LEL: No da	ata.	UEL: No data.			
	Vapor P	ressure (vs. Air or mm	No data.					
	Hg):							
	Vapor D	ensity (vs. Air = 1):	No data.					
	Specific	Gravity (Water = 1):	No data.					
	Solubili	ty in Water:	No data.					
	Autoign	ition Pt:	No data.					
9.2	Other Inf	formation						
	Percent	Volatile:	No data.					
			Section 1	0. Stabilitv	y and Reacti	vity		
10.1	Reactivi		ata available.		,	<u> </u>		
10.2	Stability	-	able[] S	Stable [X]				
10.3	-				information listed	on the product	insert.	
	Polyme			Will not occur [·		
10.4	•		ata available.		-			
10.5		atibility - Materials No da	ata available.					
	To Avoi	-						
10.6	Hazardo	No da	ata available.					
	Decomp	osition Or						
	Byprodu	ucts:						
		S	ection 11	. Toxicolo	gical Inform	ation		
11.1	Informa				oduct have not bee		udied.	
	Toxicol	ogical Effects:						
Carci	nogenicit	y: NTP?	No IAR	C Monographs?	? No OSHA R	egulated? No		
CAS	#	Hazardous Componer	nts (Chemica	i Name)	NTP	IARC	ACGIH	OSHA
	NA	Serum Retinol Binding	Protein 4 Bloc	king Peptide	n.a.	n.a.	n.a.	n.a.
904	8-46-8	Bovine Serum Albumin	(BSA)		n.a.	n.a.	n.a.	n.a.
266	28-22-8	Sodium azide			n.a.	n.a.	A4	n.a.
7647-14-5 Sodium chloride		Sodium chloride			n.a.	n.a.	n.a.	n.a.
704	-86-1	Trizma base			n.a.	n.a.	n.a.	n.a.
	-00-1	Water						

Multi-region format



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Section 12 Ecological Information								
Section 12. Ecological Information								
12.1	Toxicity:	Avoid release into the environme		0				
	_	Runoff from fire control or dilution	n water may cause p	poliution.				
	Persistence and Degradability:							
-	Bioaccumulative Potential:	No data available.						
12.4 1	Mobility in Soil:	No data available.						
-	Results of PBT and vPvE assessment:	of PBT and vPvB No data available.						
	Other adverse effects:	No data available.						
		Section 13. Dispos	al Considera [.]	tions				
13.1	Waste Disposal Method:	Dispose in accordance with loca	l, state, and federal	regulations.				
		Section 14. Trans	sport Informa	tion				
14.1	LAND TRANSPORT (US	DOT):						
DO	T Proper Shipping Name	Not dangerous goods.						
_	T Hazard Class:							
	/NA Number:							
	R/RID Shipping Name:	Not dangerous goods.						
_	Number: zard Class:							
	AIR TRANSPORT (ICAO)	////////						
	O/IATA Shipping Name:	-						
	onal Transport	Transport in accordance with loc	cal state and federa	al regulations				
Informa	•							
		Section 15. Regula	atory Informa	ition				
EPA SA	ARA (Superfund Amendr	nents and Reauthorization Act o	of 1986) Lists					
CAS #	Hazardous Con	ponents (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)			
N	IA Serum Retinol B	inding Protein 4 Blocking Peptide	No	No	No			
9048-	46-8 Bovine Serum A	lbumin (BSA)	No	No	No			
26628	-22-8 Sodium azide		Yes 500 LB	Yes 1000 LB	Yes			
7647-	14-5 Sodium chloride		No	No	No			
77-8	6-1 Trizma base		No	No	Yes-Cat. N106			
7732-	18-5 Water		No	No	No			
CAS #	Hazardous Con	ponents (Chemical Name)	Other US EPA or State Lists					
N	IA Serum Retinol B	inding Protein 4 Blocking Peptide	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No					
9048-	-46-8 Bovine Serum A	lbumin (BSA)	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No					
26628	-22-8 Sodium azide		CAA HAP,ODC: N Inventory; CA PR	lo; CWA NPDES: N OP.65: No	lo; TSCA: Yes -			
7647-	·14-5 Sodium chloride		CAA HAP,ODC: N	lo; CWA NPDES: N	lo; TSCA: Yes -			
	' Multi-region format							



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		Inventory; CA PROP.65: No			
77-86-1	Trizma base	CAA HAP,ODC: HAP; CWA NPDES: No;	TSCA: Yes -		
		Inventory; CA PROP.65: No			
7732-18-5	Water	CAA HAP,ODC: No; CWA NPDES: No; T	SCA: Yes -		
		Inventory; CA PROP.65: No			
Regulatory Inf	ormation	This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation	on (EC)		
Statement:		No.1272/2008.			
		Section 16. Other Information			
Revision Date:		03/29/2015			
Additional Info	ormation 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,			
		use. Users should make their own investigations to determine the suitability of	of the information for		
		their particular purposes.			