Version



Date of last issue: 13.09.2019

## Simvastatin Formulation

Revision Date:

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SECTION	I 1. PRODUCT AND CO	MP/	ANY IDENTIFIC	CATION
Prod	uct name	:	Simvastatin F	ormulation
Man	ufacturer or supplier's	deta	ails	
Com Addr	pany name of supplier ess	:		o. e Septiembre No. 301 chimilco Mexico  16090
Eme	ohone rgency telephone ail address	:	52 55 572844 215-631-6999 EHSSTEWAR	
Reco	ommended use of the c	hen	nical and restr	ictions on use
Reco	ommended use	:	Pharmaceutic	al
SECTION	2. HAZARDS IDENTIF		TION	
GHS	Classification			
	irritation	:	Category 3	
Skin	sensitization	:	Category 1	
Carc	inogenicity (Inhalation)	:	Category 2	
	ific target organ toxicity eated exposure	:	Category 1 (L	iver, muscle, optic nerve, Eye)
	label elements ard pictograms	:		$\wedge$
Signa	al Word	:	Danger	
Haza	ard Statements	:	H317 May cau H351 Suspect H372 Causes	mild skin irritation. use an allergic skin reaction. ted of causing cancer if inhaled. damage to organs (Liver, muscle, optic nerve, prolonged or repeated exposure.
Preca	autionary Statements	:	Prevention:	
			P201 Obtain s	special instructions before use.

SDS Number:

P260 Do not breathe dust.

P264 Wash skin thoroughly after handling.

and understood.

the workplace.

face protection.

P202 Do not handle until all safety precautions have been read

P280 Wear protective gloves/ protective clothing/ eye protection/

P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing should not be allowed out of



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		Response:				
				with plenty of water.		
		P308 + P313 attention	IF exposed or conc	erned: Get medical advice/		
			If skin irritation or ra	ash occurs: Get medical advice		
		attention.				
		P362 + P364 reuse.	Take off contamina	ted clothing and wash it before		
	Storage:					
		P405 Store lo	cked up.			
		Disposal:				
		P501 Dispose of contents/ container to an approved waste disposal plant.				
Othe	r hazards					
		can lead to mechanic				
May	form explosive dust-a	ir mixture during proce	essing, handling or	other means.		
SECTION	3. COMPOSITION/IN	NFORMATION ON IN	GREDIENTS			
Subs	tance / Mixture	: Mixture				
Com	ponents					
Cher	nical name		CAS-No.	Concentration (% w/w)		

Chemical name	CAS-No.	Concentration (% w/w)
Simvastatin	79902-63-9	>= 5 -< 10
Starch	9005-25-8	>= 5 -< 10
Cellulose	9004-34-6	>= 1 -< 5
Citric acid monohydrate	5949-29-1	>= 1 -< 5
Titanium dioxide	13463-67-7	>= 0.1 -< 1

#### SECTION 4. FIRST AID MEASURES

General advice	:	In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	:	If inhaled, remove to fresh air. Get medical attention.
In case of skin contact	:	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
In case of eye contact	:	If in eyes, rinse well with water. Get medical attention if irritation develops and persists.
If swallowed	:	If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and	:	Causes mild skin irritation. May cause an allergic skin reaction.



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delayed Protection of first-aiders Notes to physician			Suspected of causing cancer if inhaled. Causes damage to organs through prolonged or repeated exposure. Dust contact with the eyes can lead to mechanical irritation. First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8). Treat symptomatically and supportively.			
SECTION 5.	FIRE-FIGHTING ME	ASU	IRES			
	extinguishing media	:	Water spray Alcohol-resistant f Carbon dioxide (C Dry chemical None known.			
Specific fighting	hazards during fire	:	concentrations, ar potential dust exp	dust; fine dust dispersed in air in sufficient nd in the presence of an ignition source is a losion hazard. pustion products may be a hazard to health.		
Hazardo ucts	ous combustion prod-	:	Carbon oxides			
Specific ods	extinguishing meth-	:	cumstances and t Use water spray t	measures that are appropriate to local cir- he surrounding environment. o cool unopened containers. ged containers from fire area if it is safe to do		
for fire-fi	protective equipment ghters		Use personal prot	e, wear self-contained breathing apparatus. ective equipment.		

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- tive equipment and emer- gency procedures	:	Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.
Environmental precautions	:	Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	:	Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items



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		determine w Sections 13	the cleanup of releases. You will need to hich regulations are applicable. and 15 of this SDS provide information regarding or national requirements.
SECTION	7. HANDLING AND	STORAGE	
Tech	nical measures	causing an e Provide ade	city may accumulate and ignite suspended dust explosion. quate precautions, such as electrical grounding , or inert atmospheres.
	l/Total ventilation e on safe handling	: Use only wit : Do not get o Do not breat Do not swall Avoid contac Handle in ac practice, bas assessment Minimize du Keep contail Keep away f Take precau	h adequate ventilation. n skin or clothing. the dust. ow. ct with eyes. ccordance with good industrial hygiene and safety sed on the results of the workplace exposure st generation and accumulation. her closed when not in use. from heat and sources of ignition. tionary measures against static discharges. prevent spills, waste and minimize release to the
Hygie	ene measures	: If exposure the flushing system place. When using Wash contained The effective engineering appropriate findustrial hybrid	 to chemical is likely during typical use, provide eye tems and safety showers close to the working do not eat, drink or smoke. minated clothing before re-use. e operation of a facility should include review of controls, proper personal protective equipment, degowning and decontamination procedures, giene monitoring, medical surveillance and the histrative controls.
	litions for safe storage rials to avoid	: Keep in prop Store in acc	perly labeled containers. ordance with the particular national regulations. with the following product types: zing agents

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
Simvastatin	79902-63-9	TWA	25 µg/m3 (OEB 3)	Internal
	Further information: DSEN			
		Wipe limit	250 µg/100 cm <sup>2</sup>	Internal



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3	23.03.2020	24373-00015	24373-00015 Date of first issue. 21.10.2014					
Starcl	h	9005-25-8	VLE-PPT	10 mg/m³	NOM-010- STPS-2014			
			TWA	10 mg/m <sup>3</sup>	ACGIH			
Cellul	ose	9004-34-6	VLE-PPT	10 mg/m <sup>3</sup>	NOM-010- STPS-2014			
			TWA	10 mg/m <sup>3</sup>	ACGIH			
Titani	um dioxide	13463-67-7	VLE-PPT	10 mg/m <sup>3</sup>	NOM-010- STPS-2014			
			TWA	10 mg/m <sup>3</sup> (Titanium dioxide)	ACGIH )			
Engir	neering measures	design and c protect produ Containment are required the compour containment	All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment. Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face containment devices). Minimize open handling.					
Perso	onal protective equip	oment						
Respi	ratory protection	exposure as	<ul> <li>If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.</li> </ul>					
	ter type protection	: Particulates						
Ma	aterial	: Chemical-res	: Chemical-resistant gloves					
	emarks rotection	: Wear safety If the work en mists or aero Wear a faces	Consider double gloving. Wear safety glasses with side shields or goggles. If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles. Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols					
Skin a	and body protection	: Work uniforn Additional bo task being pe disposable s Use appropri	<ul> <li>Work uniform or laboratory coat. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces. Use appropriate degowning techniques to remove potentially contaminated clothing.</li> </ul>					

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	powder
Color	:	No data available
Odor	:	odorless
Odor Threshold	:	No data available
рН	:	No data available



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	Melting point/freezing point Initial boiling point and boiling range		:	No data available	
			:	No data available	
	Flash p	point	:	Not applicable	
	Evapor	ation rate	:	Not applicable	
	Flamm	ability (solid, gas)	:	May form explosi handling or other	ve dust-air mixture during processing, means.
	Flamm	ability (liquids)	:	No data available	
		explosion limit / Upper ability limit	:	No data available	
		explosion limit / Lower ability limit	:	No data available	
	Vapor	oressure	:	Not applicable	
	Relativ	e vapor density	:	Not applicable	
	Relativ	e density	:	No data available	
	Density	/	:	No data available	
	Solubili Wat	ity(ies) er solubility	:	No data available	
	Partitio octano	n coefficient: n-	:	Not applicable	
		nition temperature	:	No data available	
	Decom	position temperature	:	No data available	
	Viscosi Visc	ty cosity, kinematic	:	Not applicable	
	Explosi	ive properties	:	Not explosive	
	Oxidizi	ng properties	:	The substance or	mixture is not classified as oxidizing.
	Particle	e size	:	No data available	

#### SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reac- tions	:	May form explosive dust-air mixture during processing, handling or other means. Can react with strong oxidizing agents.



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Hazardous products	to avoid e materials decomposition <b>OXICOLOGICAL</b>	:		
Inhalation Skin contac Ingestion Eye contac	t	s of e	exposure	
Acute toxic Not classifie	ed based on availa	able	information.	
Componer	<u>its:</u>			
<b>Simvastati</b> Acute oral t		:	LD50 (Rat): 5,000 LD50 (Mouse): 3,	
<b>Starch:</b> Acute oral t Acute derm	-	:	LD50 (Rat): > 5,00 LD50 (Rabbit): > 2	
Cellulose:				
Acute oral t	oxicity	:	LD50 (Rat): > 5,00	00 mg/kg
Acute inhal	ation toxicity	:	LC50 (Rat): > 5.8 Exposure time: 4 Test atmosphere:	h
Acute derm	al toxicity	:	LD50 (Rabbit): > 2	2,000 mg/kg
<b>Citric acid</b> Acute oral t Acute derm	-	:	LD50 (Mouse): 5, LD50 (Rat): > 2,00 Method: OECD Te	00 mg/kg est Guideline 402
<b>Titanium d</b> Acute oral t Acute inhal		:	Assessment: The toxicity LD50 (Rat): > 5,00 LC50 (Rat): > 6.82 Exposure time: 4	2 mg/l



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			Test atmosphere Assessment: The tion toxicity	e: dust/mist le substance or mixture has no acute inhala
	corrosion/irritation es mild skin irritation.			
Comp	oonents:			
Simva	astatin:			
Speci Rema		:	Rabbit Moderate skin ir	ritation
Citric	acid monohydrate:			
Speci Resul		:	Rabbit No skin irritation	
Titani	ium dioxide:			
Speci Resul		:	Rabbit No skin irritation	
	<b>us eye damage/eye i</b> assified based on ava			
<u>Comp</u>	oonents:			
Simva	astatin:			
Speci Rema		:	Rabbit slight irritation	
Starc	h:			
Speci Resul		:	Rabbit No eye irritation	
Citric	acid monohydrate:			
Speci Resul		:	Rabbit Irritation to eyes	, reversing within 21 days
Titani	ium dioxide:			
Speci Resul		:	Rabbit No eye irritation	
Boon	iratory or skin sensit	izatio	n	
Resp				
Skin	<b>sensitization</b> ause an allergic skin r	aadir	n	

Not classified based on available information.



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<u>Com</u>	oonents:		
Simva	astatin:		
Asses Resul	ssment t	: Probability of : positive	or evidence of skin sensitization in humans
Starc	h:		
Test 7		: Maximizatio	
Speci	es of exposure es	: Skin contac : Guinea pig	L
Resul		: negative	
Titani	ium dioxide:		
Test 7			node assay (LLNA)
Speci	es of exposure es	: Skin contac : Mouse	L
Resul		: negative	
	assified based on available	ailable information.	
<u>Comp</u>	oonents:		
Simva	astatin:		
Geno	toxicity in vitro	: Test Type: I Result: nega	Bacterial reverse mutation assay (AMES) ative
		Test Type: / Result: nega	Alkaline elution assay ative
			Chromosomal aberration
		Result: nega	ative
		-	n vitro mammalian cell gene mutation test
Geno	toxicity in vivo	Test Type: I Result: nega : Test Type: I	n vitro mammalian cell gene mutation test ative Micronucleus test
Geno	toxicity in vivo	Test Type: I Result: nega : Test Type: I Species: Mo	n vitro mammalian cell gene mutation test ative Micronucleus test ouse
Geno	toxicity in vivo	Test Type: I Result: nega : Test Type: I	n vitro mammalian cell gene mutation test ative Micronucleus test puse Route: Oral
Germ	toxicity in vivo cell mutagenicity - ssment	Test Type: I Result: nega : Test Type: I Species: Mo Application Result: nega	n vitro mammalian cell gene mutation test ative Micronucleus test buse Route: Oral ative vidence does not support classification as a germ
Germ	cell mutagenicity -	Test Type: I Result: nega : Test Type: I Species: Mo Application Result: nega : Weight of ev	n vitro mammalian cell gene mutation test ative Micronucleus test buse Route: Oral ative vidence does not support classification as a germ
Germ Asses Starc	cell mutagenicity -	<ul> <li>Test Type: I Result: negative</li> <li>Test Type: I Species: Mot Application Result: negative</li> <li>Weight of evicell mutaged</li> </ul>	n vitro mammalian cell gene mutation test ative Micronucleus test buse Route: Oral ative vidence does not support classification as a germ n. Bacterial reverse mutation assay (AMES)
Germ Asses Starc	cell mutagenicity - ssment <b>h:</b> toxicity in vitro	<ul> <li>Test Type: I Result: negative</li> <li>Test Type: I Species: Mot Application Result: negative</li> <li>Weight of eviceIl mutage</li> <li>Test Type: I</li> </ul>	n vitro mammalian cell gene mutation test ative Micronucleus test buse Route: Oral ative vidence does not support classification as a germ n. Bacterial reverse mutation assay (AMES)
Germ Asses Starc Geno Cellu	cell mutagenicity - ssment <b>h:</b> toxicity in vitro	<ul> <li>Test Type: I Result: nega</li> <li>Test Type: I Species: Mo Application Result: nega</li> <li>Weight of ev cell mutages</li> <li>Test Type: I Result: nega</li> </ul>	n vitro mammalian cell gene mutation test ative Micronucleus test buse Route: Oral ative vidence does not support classification as a germ n. Bacterial reverse mutation assay (AMES) ative



sion	Revision Date: 23.03.2020	SDS Number: 24373-00015	Date of last issue: 13.09.2019 Date of first issue: 21.10.2014
		Test Type: In Result: negativ	vitro mammalian cell gene mutation test ve
Geno	toxicity in vivo	: Test Type: Ma cytogenetic as Species: Mous Application Ro Result: negativ	se Dute: Ingestion
Citric	acid monohydrate:		
Geno	toxicity in vitro	: Test Type: Ba Result: negativ	cterial reverse mutation assay (AMES) ve
		Test Type: in v Result: positiv	vitro micronucleus test e
		Test Type: Ba Result: negativ	cterial reverse mutation assay (AMES) ve
Geno	toxicity in vivo		
Titani	ium dioxide:		
Geno	toxicity in vitro	: Test Type: Ba Result: negativ	cterial reverse mutation assay (AMES) ve
Geno	toxicity in vivo	: Test Type: In Species: Mous Result: negativ	
Suspe	nogenicity ected of causing canc conents:	er if inhaled.	
•••••	astatin:		
Speci Applic	es cation Route	: Mouse : Oral	
Expos	sure time	: < 92 weeks	
	et Organs er Type	: Harderian glar : Liver, Lungs	10
Rema			ce of these findings for humans is not certain.
Speci		: Rat	
	cation Route	: Oral : 2 Years	
Applic	and the a		
Applic Expos	sure time r Type	: Liver, Thyroid	



/ers .3	ion	Revision Date: 23.03.2020		0S Number: 373-00015	Date of last issue: 13.09.2019 Date of first issue: 21.10.2014
	Cellulo	se:			
	Species Applica Exposu Result	tion Route	::	Rat Ingestion 72 weeks negative	
	Titaniu	m dioxide:			
	Species	s tion Route ire time	:	Rat inhalation (dust/m 2 Years OECD Test Guide positive The mechanism c mans.	
	Carcino ment	ogenicity - Assess-	:	Limited evidence animals.	of carcinogenicity in inhalation studies with
	•	<b>Juctive toxicity</b> ssified based on availa onents:	able	information.	
	Simvas	statin:			
	Effects	on fertility	:	Test Type: Fertilit Species: Rat, mal Application Route Fertility: LOAEL: 2	e
	Effects	on fetal development	:	Species: Rat Application Route Embryo-fetal toxic Result: No teratog Test Type: Embry Species: Rabbit Application Route Embryo-fetal toxic	city.: NOAEL: 25 mg/kg body weight genic effects., No adverse effects. ro-fetal development :: Oral city.: NOAEL: 10 mg/kg body weight
				Test Type: Embry Species: Rat Application Route Embryo-fetal toxic Result: Teratogen	city.: LOAEL: 60 mg/kg body weight
	Cellulo Effects	<b>se:</b> on fertility	:	Test Type: One-g Species: Rat Application Route Result: negative	eneration reproduction toxicity study : Ingestion



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Effect	s on fetal development	:	Species: Rat	ertility/early embryonic development oute: Ingestion ive
	acid monohydrate: s on fetal development	:	Species: Rat	nbryo-fetal development oute: Ingestion ive
	-single exposure assified based on availa	ble	information.	
STOT	-repeated exposure			
		ver,	muscle, optic	nerve, Eye) through prolonged or repeated exp
<u>Com</u>	oonents:			
Simv	astatin:			
	et Organs ssment	:		, optic nerve, Eye age to organs through prolonged or repeated
-	ated dose toxicity ponents:			
<u>Com</u> Simv	oonents: astatin:			
<u>Com</u> Simv Speci	oonents: astatin: es	:	Rat	
<u>Com</u> Simv Speci NOAE	oonents: astatin: es EL	:	5 mg/kg	
Com Simv Speci NOAE LOAE	oonents: astatin: es EL	:		
Com Simv Speci NOAE LOAE Applic Expos	oonents: astatin: es EL EL cation Route sure time	:	5 mg/kg 30 mg/kg Oral 14 - 104 Wee	
Com Simv Speci NOAE LOAE Applic Expos	oonents: astatin: es EL EL cation Route	:	5 mg/kg 30 mg/kg Oral 14 - 104 Wee	ks Musculo-skeletal system, Eye
Com Simv Speci NOAE LOAE Applic Expos	oonents: astatin: es EL EL cation Route sure time et Organs		5 mg/kg 30 mg/kg Oral 14 - 104 Wee	
Com Simv Speci NOAE LOAE Applic Expos Targe Speci LOAE	oonents: astatin: es EL EL cation Route sure time of Organs es EL	: : : : : : : : : : : : : : : : : : : :	5 mg/kg 30 mg/kg Oral 14 - 104 Wee Liver, Testis, Dog 10 mg/kg	
Com Simv Speci NOAE LOAE Applic Expos Targe Speci LOAE Applic	ponents: astatin: es EL EL cation Route sure time et Organs es EL cation Route		5 mg/kg 30 mg/kg Oral 14 - 104 Wee Liver, Testis, Dog 10 mg/kg Oral	Musculo-skeletal system, Eye
Com Simv Speci NOAE LOAE Applic Expos Targe Speci LOAE Applic Expos	oonents: astatin: es EL EL cation Route sure time of Organs es EL		5 mg/kg 30 mg/kg Oral 14 - 104 Wee Liver, Testis, Dog 10 mg/kg	Musculo-skeletal system, Eye ks
Com Sinv Speci NOAE LOAE Applic Expos Targe Speci LOAE Applic Expos Targe	ponents: astatin: es EL EL cation Route sure time et Organs es EL cation Route sure time sure time to Organs		5 mg/kg 30 mg/kg Oral 14 - 104 Wee Liver, Testis, Dog 10 mg/kg Oral 14 - 104 Wee Liver, Testis,	Musculo-skeletal system, Eye ks
Com Simv Speci NOAE LOAE Applic Expos Targe Speci LOAE Applic Expos	ponents: astatin: es EL EL cation Route sure time et Organs es EL cation Route sure time et Organs es sure time et Organs		5 mg/kg 30 mg/kg Oral 14 - 104 Wee Liver, Testis, Dog 10 mg/kg Oral 14 - 104 Wee	Musculo-skeletal system, Eye ks
Com Simv Speci NOAE LOAE Applic Expos Targe Speci LOAE Applic Expos Targe Speci NOAE LOAE	ponents: astatin: es EL EL cation Route sure time of Organs es EL cation Route sure time of Organs es EL cation Route sure time es EL cation Route		5 mg/kg 30 mg/kg Oral 14 - 104 Wee Liver, Testis, Dog 10 mg/kg Oral 14 - 104 Wee Liver, Testis, Rabbit 30 mg/kg 50 mg/kg	Musculo-skeletal system, Eye ks
Com Simv Speci NOAE LOAE Applic Expos Targe Speci LOAE Applic Expos Targe Speci NOAE LOAE	ponents: astatin: es EL EL cation Route sure time of Organs es EL cation Route sure time of Organs es EL cation Route sure time es		5 mg/kg 30 mg/kg Oral 14 - 104 Wee Liver, Testis, Dog 10 mg/kg Oral 14 - 104 Wee Liver, Testis, Rabbit 30 mg/kg	Musculo-skeletal system, Eye ks
Com Simv Speci NOAE LOAE Applic Expos Targe Speci LOAE Applic Expos Targe Speci NOAE LOAE Applic Targe	es EL Exation Route Sure time of Organs es EL Exation Route Sure time of Organs es EL Exation Route Sure time of Organs es EL EL Exation Route Sure time of Organs		5 mg/kg 30 mg/kg Oral 14 - 104 Wee Liver, Testis, Dog 10 mg/kg Oral 14 - 104 Wee Liver, Testis, Rabbit 30 mg/kg 50 mg/kg Oral	Musculo-skeletal system, Eye ks
Com Sinv Speci NOAE LOAE Applic Expos Targe Speci LOAE Applic Expos Targe Speci NOAE LOAE Applic Expos Targe	ponents: astatin: es EL EL cation Route sure time et Organs es EL cation Route sure time et Organs es EL cation Route sure time et Organs es EL cation Route sure time et Organs es EL cation Route		5 mg/kg 30 mg/kg Oral 14 - 104 Wee Liver, Testis, Dog 10 mg/kg Oral 14 - 104 Wee Liver, Testis, Rabbit 30 mg/kg 50 mg/kg Oral Liver, Kidney	Musculo-skeletal system, Eye ks
Com Simv Speci NOAE LOAE Applic Expos Targe Speci LOAE Applic Expos Targe Speci NOAE LOAE Applic Targe	ponents: astatin: es EL EL cation Route sure time et Organs es EL cation Route sure time et Organs es EL cation Route st Organs es EL cation Route et Organs es EL cation Route es EL cation Route et Organs		5 mg/kg 30 mg/kg Oral 14 - 104 Wee Liver, Testis, Dog 10 mg/kg Oral 14 - 104 Wee Liver, Testis, Rabbit 30 mg/kg 50 mg/kg Oral	Musculo-skeletal system, Eye ks Eye





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Exp	plication Route posure time hod	: Skin contact : 28 Days : OECD Test G	uideline 410
Spe NO App	<b>lulose:</b> ecies AEL plication Route posure time	: Rat : >= 9,000 mg/ : Ingestion : 90 Days	kg
Spe NO LO/ App	<b>tic acid monohydrate:</b> ecies AEL AEL blication Route bosure time	: Rat : 4,000 mg/kg : 8,000 mg/kg : Ingestion : 10 Days	
Spe NO App Exp	nium dioxide: ecies AEL blication Route bosure time	: Rat : 24,000 mg/kg : Ingestion : 28 Days	
NO Apr	ecies AEL plication Route posure time	: Rat : 10 mg/m <sup>3</sup> : inhalation (du : 2 y	st/mist/fume)
Not	biration toxicity classified based on ava perience with human ex		
	nponents:	(posure	
	ivastatin:		
Ski	n contact estion	: Target Organ Symptoms: u	y produce an allergic reaction. s: Liver oper respiratory tract infection, Headache, Ab-

#### SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

**Components:** 

#### Simvastatin:

Toxicity to fish

LC50 (Pimephales promelas (fathead minnow)): 2.91 mg/l : Exposure time: 96 h Method: OECD Test Guideline 203

dominal pain, constipation, Nausea Target Organs: Musculo-skeletal system



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	xicity to daphnia and other uatic invertebrates	:	EC50 (Daphnia m Exposure time: 48 Method: OECD Te	
	xicity to algae/aquatic ants	:	EC50 (Pseudokiro mg/l Exposure time: 96	chneriella subcapitata (green algae)): > 25 S h
			NOEC (Pseudokir mg/l Exposure time: 96	rchneriella subcapitata (green algae)): 25 Sh
То	xicity to microorganisms	:	EC50: > 30 mg/l Exposure time: 3 Test Type: Respir Method: OECD Te	ation inhibition
			NOEC: 21 mg/l Exposure time: 3 Test Type: Respir Method: OECD Te	ation inhibition
Ce	ellulose:			
	xicity to fish	:	Exposure time: 48	ipes (Japanese medaka)): > 100 mg/l 3 h on data from similar materials
Ci	tric acid monohydrate:			
	xicity to fish	:	LC50 (Pimephale Exposure time: 96	s promelas (fathead minnow)): > 100 mg/l 3 h
	xicity to daphnia and other uatic invertebrates	:	EC50 (Daphnia m Exposure time: 24	agna (Water flea)): 1,535 mg/l I h
Tif	anium dioxide:			
	xicity to fish	:	LC50 (Oncorhync Exposure time: 96 Method: OECD Te	
	xicity to daphnia and other uatic invertebrates	:	EC50 (Daphnia m Exposure time: 48	agna (Water flea)): > 100 mg/l 3 h
	xicity to algae/aquatic ants	:	EC50 (Skeletoner Exposure time: 72	na costatum (marine diatom)): > 10,000 mg/l 2 h
То	xicity to microorganisms	:	EC50: > 1,000 mg Exposure time: 3 Method: OECD Te	h



## Simvastatin Formulation

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	Persist	tence and degradabil			
	Compo	onents:			
	Simvas Biodeg	<b>statin:</b> radability	:	Result: rapidly de	gradable
	Stability	y in water	:	Hydrolysis: 50 %(	3.2 d)
	Cellulo	ose:			
	Biodeg	radability	:	Result: Readily bi	odegradable.
	Citric a	acid monohydrate:			
	Biodeg	radability	:	Result: Readily bi Biodegradation: 9 Exposure time: 28 Method: OECD Te	97 %
	Bioacc	umulative potential			
	<u>Compo</u>	onents:			
	Simvas Partitio octanol	n coefficient: n-	:	log Pow: > 4.07	
		<b>acid monohydrate:</b> n coefficient: n- /water	:	log Pow: -1.72	
		r <b>y in soil</b> a available			
		adverse effects a available			
SEC	TION 1	3. DISPOSAL CONSI	DER	ATIONS	

# Disposal methods Waste from residues : Dispose of in accordance with local regulations. Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.

#### **SECTION 14. TRANSPORT INFORMATION**

#### International Regulations

#### UNRTDG

Not regulated as a dangerous good

#### IATA-DGR

Not regulated as a dangerous good



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	-Code							
Not re	egulated as a dangero	ous good						
	-	-	RPOL 73/78 and the IBC Code					
Not a	Not applicable for product as supplied.							
Dome	estic regulation							
	-002-SCT egulated as a dangero	ous good						
Spec	ial precautions for u	ser						
NI. ( .	Not applicable							

## Safety, health and environmental regulations/legislation specific for the substance or mixture

Federal Law for the control of chemical precursors, : Not applicable essential chemical products and machinery for producing capsules, tablets and pills.

#### The ingredients of this product are reported in the following inventories:

AICS	: not determined
DSL	: not determined
IECSC	: not determined

#### **SECTION 16. OTHER INFORMATION**

#### Full text of other abbreviations

ACGIH NOM-010-STPS-2014	:	USA. ACGIH Threshold Limit Values (TLV) Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and Con- trol - Appendix 1 Occupational Exposure Limits
ACGIH / TWA NOM-010-STPS-2014 / VLE- PPT		8-hour, time-weighted average Time weighted average limit value

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International



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Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature: SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative: WHMIS - Workplace Hazardous Materials Information System

Sources of key data used to compile the Material Safety Data Sheet	:	Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen- cy, http://echa.europa.eu/
Revision Date	:	23.03.2020

The information is considered as correct, but not exhaustive, and will be used only as a guide, which is based in the current knowledge of the substance or mixture, and is applicable to proper safety precautions for the product.

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