according to GB/T 16483 and GB/T 17519



Nobilis Salenvac Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2024/04/06
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Nobilis Salenvac Formulation					
Manufacturer or supplier's details Company : MSD							
Address		No. 485 Jing Tai Road					
Address	•	Pu Tuo District - Shanghai - China 200331					
Telephone	:	+1-908-740-4000					
Emergency telephone number	:	86-571-87268110					
E-mail address	:	EHSDATASTEWARD@msd.com					
Recommended use of the chemical and restrictions on use							
Recommended use Restrictions on use	:	Veterinary medicine Not applicable					

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance Colour Odour	:	suspension cream No data available
May cause an allergic skin read	ctio	n.
GHS Classification		
Skin sensitisation	:	Category 1
GHS label elements Hazard pictograms	:	
Signal word	:	Warning
Hazard statements	:	H317 May cause an allergic skin reaction.
Precautionary statements	:	Prevention: P261 Avoid breathing mist or vapours. P272 Contaminated work clothing should not be allowed out of

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the workplace. P280 Wear protective gloves.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P362 + P364 Take off contaminated clothing and wash it before reuse.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Physical and chemical hazards

Not classified based on available information.

Health hazards

May cause an allergic skin reaction.

Environmental hazards

Not classified based on available information.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Antigen	Not Assigned	4 -<= 12
Maleic acid	110-16-7	0.23
Thiomersal	54-64-8	<= 0.013

4. FIRST AID MEASURES

General advice	In the case of accident or if you vice immediately. When symptoms persist or in all advice.	
If inhaled	lf inhaled, remove to fresh air. Get medical attention if sympton	ns occur
In case of skin contact	In case of contact, immediately for water. Remove contaminated clothing a Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before re	ilush skin with soap and plenty and shoes.
In case of eye contact	Flush eyes with water as a preca	aution.

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M ar	If swallowed Most important symptoms and effects, both acute and		:	Get medical attention if irritation develops and persists. If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water. May cause an allergic skin reaction.	
Pı		n of first-aiders physician	:	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.	
			-		
Si	uitable	extinguishing media	:	Water spray Alcohol-resistant f Carbon dioxide (C Dry chemical	
	nsuitab Iedia	le extinguishing	:	None known.	
	pecific I ghting	nazards during fire-	:	Exposure to comb	pustion products may be a hazard to health.
	azardou cts	us combustion prod-	:	Carbon oxides	
	pecific 6 ds	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
	pecial p or firefig	protective equipment hters	:		e, wear self-contained breathing apparatus. ective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- tive equipment and emer- gency procedures	:	Use personal protective equipment. Follow safe handling advice (see section 7) and personal pro- tective equipment recommendations (see section 8).
Environmental precautions	:	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

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Mothor	de and materials for	· Sock up with inc	t abcorbont matorial
Methods and materials for containment and cleaning up		For large spills, p ment to keep ma be pumped, store Clean up remain bent. Local or national posal of this mate employed in the mine which regul Sections 13 and	rt absorbent material. provide dyking or other appropriate contain- terial from spreading. If dyked material can e recovered material in appropriate container. ng materials from spill with suitable absor- regulations may apply to releases and dis- erial, as well as those materials and items cleanup of releases. You will need to deter- ations are applicable. 15 of this SDS provide information regarding ational requirements.

7. HANDLING AND STORAGE

Technical measures	:	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	:	Use only with adequate ventilation.
Advice on safe handling	:	Do not get on skin or clothing. Avoid breathing mist or vapours.
		Do not swallow.
		Avoid contact with eyes.
		Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure as- sessment
		Take care to prevent spills, waste and minimize release to the environment.
Avoidance of contact	:	Oxidizing agents
Storage		
Conditions for safe storage	:	Keep in properly labelled containers. Store in accordance with the particular national regulations.
Materials to avoid	:	Do not store with the following product types: Strong oxidizing agents
Packaging material	:	Unsuitable material: None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis	
Thiomersal	54-64-8	PC-TWA	0.01 mg/m3 (Mercury)	CN OEL	
	Further information: Skin				



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PC-STEL	0.03 mg/m3 (Mercury)	CN OEL
Further information: Skin		
TWA	0.01 mg/m3 (Mercury)	ACGIH
 STEL	0.03 mg/m3	ACGIH
	(Mercury)	

Engineering measures :	Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., drip- less quick connections). All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment. Laboratory operations do not require special containment.
Personal protective equipment	t
Respiratory protection : Filter type :	If adequate local exhaust ventilation is not available or expo- sure assessment demonstrates exposures outside the rec- ommended guidelines, use respiratory protection. Particulates type
Eye/face protection :	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 and body protection : Hand protection	Work uniform or laboratory coat.
Material :	Chemical-resistant gloves
Hygiene measures :	If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the work- ing place. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before re-use. The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	suspension
Colour	:	cream
Odour	:	No data available

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Odour Threshold	:	No data available
рН	:	6.6 - 7.0
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Relative density	:	ca. 1
Density	:	ca. 1 g/cm³ similar to water
Solubility(ies) Water solubility	:	soluble
Partition coefficient: n- octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity Viscosity, kinematic	:	Not applicable
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Particle characteristics		



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Partic	le size	:	No data available	9	
). STABI	LITY AND REACTIVITY	,			
Possi tions Condi Incom	nical stability bility of hazardous reac- itions to avoid npatible materials rdous decomposition	None known.Oxidizing agents		mal conditions. rong oxidizing agents.	
I. TOXIC	OLOGICAL INFORMAT	101	N		
Expos	Exposure routes		Inhalation Skin contact Ingestion Eye contact		
	e toxicity				
	lassified based on availa ponents:	ble	information.		
	c acid:				
	oral toxicity	:	LD50 (Rat): > 300 Method: OECD T Remarks: Based		
	e dermal toxicity	:	: LD50 (Rabbit): 1,560 mg/kg		
II Thior	nersal:				
	oral toxicity	:	LD50 (Rat): 75 m	g/kg	
			Acute toxicity esti Method: Expert ju Remarks: Based		
Acute	inhalation toxicity	:	Acute toxicity esti Exposure time: 4 Test atmosphere: Method: Expert ju Remarks: Based	h dust/mist	
Acute	e dermal toxicity	:	Acute toxicity esti Method: Expert ju Remarks: Based		

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Skin corrosion/irritation

Not classified based on available information.

Components:

Maleic acid:

Species Method		in vitro membrane barrier OECD Test Guideline 435
Result	:	Corrosive after 3 minutes to 1 hour of exposure

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Ma		a a i d i
Ivia	eic	acid:

Result Remarks	:	Irreversible effects on the eye
Remarks	:	Based on skin corrosivity.

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

Components:

Maleic acid:

Test Type Exposure routes Species Method Result	 Maximisation Test Skin contact Guinea pig OECD Test Guideline 406
Result	: positive
Assessment	: Probability or evidence of skin sensitisation in humans

Germ cell mutagenicity

Not classified based on available information.

Components:

Maleic acid:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Result: negative
		Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 476 Result: negative



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II

Thiomersal:

Thiomersal.	
Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Result: negative
Genotoxicity in vivo	: Test Type: Mammalian spermatogonial chromosome aberra- tion test (in vivo) Species: Mouse Application Route: Ingestion Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Maleic acid:

:	Rat
:	Ingestion
:	2 Years
:	negative
:	Based on data from similar materials
	:

Thiomersal:

Species	:	Rat
Exposure time	:	1 Years
Result	:	negative

Reproductive toxicity

Not classified based on available information.

Components:

Maleic acid:

Effects on fertility	: Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: Ingestion Result: negative Remarks: Based on data from similar materials
Effects on foetal develop- ment	: Test Type: Embryo-foetal development Species: Rat Application Route: Ingestion Result: negative Remarks: Based on data from similar materials

Thiomersal:

Effects on foetal develop-	:	Species: Rat
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ment		Re		on data from similar materials
sessn	oductive toxicity - As- nent			adverse effects on sexual function and fertil- elopment, based on animal experiments
	- single exposure assified based on avai	able info	ormation.	
	oonents:			
	c acid: ssment ırks		ay cause respira ased on nationa	atory irritation. I or regional regulation.
Not cl	 repeated exposure assified based on avail ponents: 	able info	ormation.	
	nersal: t Organs	: Ce	entral nervous s	ystem, Cardio-vascular system, Gastrointes-
Asses	ssment	tir : Ca	al tract, Kidney	o organs through prolonged or repeated
Repe	ated dose toxicity			
<u>Comp</u>	oonents:			
	nersal:	-		
Speci LOAE	es L	: Ra : >=	at = 0.5 mg/kg	
Applic Rema	cation Route Irks	: In	gestion	m similar materials
•	ation toxicity assified based on avai	able info	ormation.	
12. ECOLO	OGICAL INFORMATIC	N		
Ecoto	oxicity			
Comp	oonents:			
	c acid:			
	ty to fish	: LC m	• •	acrochirus (Bluegill sunfish)): > 10 - 100
			10 / 15	

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rsion	Revision Date: 2024/09/28		09661-00008	Date of last issue: 2024/04/06 Date of first issue: 2020/11/13
11			Exposure time: 96	
			Remarks: Based	on data from similar materials
	ity to daphnia and other ic invertebrates	:	Exposure time: 48	leutralised product
Toxici plants	ty to algae/aquatic	:	mg/l Exposure time: 72	leutralised product
			mg/l Exposure time: 72	leutralised product
	ty to daphnia and other ic invertebrates (Chron- city)	:	Exposure time: 21	nagna (Water flea)): > 1 mg/l l d on data from similar materials
Toxici	ty to microorganisms	:	Exposure time: 18	leutralised product
Thion	nersal:			
	ity to fish	:	Exposure time: 96	ticulata (guppy)): > 0.01 - 0.1 mg/l 5 h on data from similar materials
	ty to daphnia and other ic invertebrates	:	Exposure time: 48	agna (Water flea)): > 0.01 - 0.1 mg/l 3 h on data from similar materials
Toxici plants	ty to algae/aquatic	:	- 0.1 mg/l Exposure time: 96	chneriella subcapitata (green algae)): > 0.0 5 h on data from similar materials
	ctor (Acute aquatic tox-	:	10	
	ity to daphnia and other ic invertebrates (Chron- city)	:	Exposure time: 21	sp. (water flea)): > 0.001 - 0.01 mg/l l d on data from similar materials
M-Fac toxicit	ctor (Chronic aquatic v)	:	10	

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Persi	stence and degradabi	ity	
Com	oonents:		
Malei	c acid:		
Biode	gradability	: Result: Readily b Biodegradation: Exposure time: 2 Method: OECD	97 %
Bioad	cumulative potential		
Com	oonents:		
Malei	c acid:		
	ion coefficient: n- ol/water	: log Pow: -1.3	
Mobi	lity in soil		
No da	ata available		
	r adverse effects ata available		
13. DISPC	SAL CONSIDERATION	NS	
Dispo	osal methods		
Waste	e from residues		of waste into sewer. cordance with local regulations.
0	and a stand or a standard and	—	a sha bible teles to see anno a bible stable a

Empty containers should be taken to an approved waste han-

If not otherwise specified: Dispose of as unused product.

dling site for recycling or disposal.

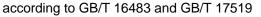
14. TRANSPORT INFORMATION

Contaminated packaging

International Regulations

UNRTDG		
UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable
Environmentally hazardous	:	no
IATA-DGR		
UN/ID No.	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable

:





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Packing group Labels	:	Not applicable Not applicable
Packing instruction (cargo aircraft)	:	Not applicable
Packing instruction (passen- ger aircraft)	:	Not applicable
IMDG-Code		
UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

:

: no

Not applicable for product as supplied.

National Regulations

GB 6944/12268

EmS Code

Marine pollutant

UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable
Marine pollutant	:	no

Special precautions for user

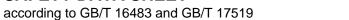
Not applicable

15. REGULATORY INFORMATION

National regulatory information Law on the Prevention and Control of Occupational Diseases

Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals	:	This product is not listed in the cata- logue of hazardous chemicals and it does not meet the definition of haz- ardous chemicals and its principles of determination.
Identification of Major Hazard Installations for Hazardous 18218)	C	hemicals (GB : Not listed
Hazardous Chemicals for Priority Management under SAWS	:	Not listed





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Regu	lations on Labour Prot	tect	ion in Workplaces	where Toxic Substances are Used	
Catal	ogue of Highly Toxic Ch	emi	cals	: Not listed	
	lation of Environmenta Export of Toxic Chemic			e First Import of Chemicals and the Import	
	a Severely Restricted To Export	xic (Chemicals for Impo	ort : Not listed	
Regu	lation on the Administ	rati	on of Precursor C	hemicals	
Catal	ogue and Classification	of P	recursor Chemicals	s : Not listed	
Yang	tze River Protection La	aw			
This _I	product does not contair	n ang	y dangerous chemi	cals prohibited for inland river transport.	
The c AICS	· · ·	oduc	ct are reported in t not determined	the following inventories:	
		•			
DSL		:	not determined		
IECS	С	:	not determined		
16. OTHE	R INFORMATION				
Revis	sion Date	:	2024/09/28		
Furth	ner information				
	ces of key data used to ile the Safety Data t	:		data, data from raw material SDSs, OECD arch results and European Chemicals Agen- ropa.eu/	
	where changes have be ment by two vertical lines		made to the previo	us version are highlighted in the body of this	
Date	format	:	yyyy/mm/dd		
Full text of other abbreviations					
ACGI CN O		:	Occupational exp	eshold Limit Values (TLV) osure limits for hazardous agents in the nical hazardous agents.	
	H / TWA	:	8-hour, time-weig		
	IH / STEL DEL / PC-TWA	:	Short-term expose Permissible conce	ure limit entration - time weighted average	
	DEL / PC-STEL	÷		entration - short term exposure limit	

AIIC - Australian Inventory of Industrial Chemicals; 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

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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 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; TECI - Thailand Existing Chemicals Inventory; 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

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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