

Version	Revision Date:	SDS Number:	Date of last issue: 30.09.2023
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### **SECTION 1:** Identification of the substance/mixture and of the company/undertaking

#### **1.1 Product identifier**

Trade name : Sodium Selenite / Vitamin E Injection Formulation

Other means of identification : E-SE Injection (A000603)

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub- stance/Mixture	:	Veterinary product
Recommended restrictions on use	:	Not applicable

### **1.3 Details of the supplier of the safety data sheet**

Company	:	MSD Walton Manor, Walton MK7 7AJ Milton Keynes - United Kingdom
Telephone	:	+1-908-740-4000
E-mail address of person responsible for the SDS	:	EHSDATASTEWARD@msd.com

### **1.4 Emergency telephone number**

+1-908-423-6000

### **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

# Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Specific target organ toxicity - repeated	H373: May cause damage to organs through pro-
exposure, Category 2	longed or repeated exposure.
Long-term (chronic) aquatic hazard, Cat-	H412: Harmful to aquatic life with long lasting ef-
egory 3	fects.



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#### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard pictograms	:	
Signal word	:	Warning
Hazard statements	:	<ul> <li>H302 + H332 Harmful if swallowed or if inhaled.</li> <li>H317 May cause an allergic skin reaction.</li> <li>H373 May cause damage to organs through prolonged or repeated exposure.</li> <li>H412 Harmful to aquatic life with long lasting effects.</li> </ul>
Precautionary statements		Prevention:P270Do not eat, drink or smoke when using this product.P273Avoid release to the environment.P280Wear protective gloves.
		<b>Response:</b> P314 Get medical advice/ attention if you feel unwell. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P362 + P364 Take off contaminated clothing and wash it before reuse.

Hazardous components which must be listed on the label: Benzyl alcohol Sodium selenite

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### **SECTION 3: Composition/information on ingredients**

### 3.2 Mixtures

#### Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		
	Registration number		
(dl)-a-Tocopheryl acetate	7695-91-2		5.15
	231-710-0		
Benzyl alcohol	100-51-6	Acute Tox. 4; H302	2.19

## SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



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Sodiu	m selenite	202-859-9 603-057-00 10102-18-8 233-267-9 034-003-00	0-5 Eye Irrit. 2; H319 8 Acute Tox. 1; H300 0.35 - 1.13 Acute Tox. 2; H330

For explanation of abbreviations see section 16.

### **SECTION 4: First aid measures**

### 4.1 Description of first aid measures

General advice	:	In the case of accident or if you feel unwell, seek medical ad- vice immediately. When symptoms persist or in all cases of doubt seek medical advice.
Protection of first-aiders	:	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).
If inhaled	:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.
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	:	Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.
If swallowed	:	If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. Get medical attention. Rinse mouth thoroughly with water.



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			Never give anyt	hing by mouth to an unconscious person.
4.2 Most	important symptoms a	nd ef	fects, both acu	ite and delayed
Risks				owed or if inhaled.
				allergic skin reaction.
			May cause dam exposure.	hage to organs through prolonged or repeated
4.3 Indica	tion of any immediate	medi	ical attention a	nd special treatment needed
Treat	ment	:	Treat symptoma	atically and supportively.
SECTION	N 5: Firefighting mea	sure	S	
5.1 Exting	guishing media			
Suita	ble extinguishing media		Water spray	
			Alcohol-resistar Carbon dioxide	
			Dry chemical	(002)
Uneu	itable extinguishing		None known.	
Unsuitable extinguishing : None kno media			None known.	
5.2 Speci	al hazards arising from	n the	substance or r	nixture
Spec fightii	ific hazards during fire- ng	:	Exposure to cor	mbustion products may be a hazard to health.
Haza ucts	rdous combustion prod-	:	Carbon oxides	
5.3 Advic	e for firefighters			
	ial protective equipment efighters			ire, wear self-contained breathing apparatus. rotective equipment.
	ific extinguishing meth-			ng measures that are appropriate to local cir-
ods				d the surrounding environment. y to cool unopened containers.
				haged containers from fire area if it is safe to d
			so.	

Evacuate area.

### **SECTION 6: Accidental release measures**

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	: Use personal protective equipment.
	Follow safe handling advice (see section 7) and personal pro-
	tective equipment recommendations (see section 8).

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### **6.2 Environmental precautions**

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. If spillage enters rivers or watercourses, inform the Environ- ment Agency (emergency telephone number 0800 807060).
		ment Agency (emergency telephone number 0800 807060).

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Soak up with inert absorbent material. For large spills, provide dyking or other appropriate contain- ment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absor- bent. Local or national regulations may apply to releases and dis- posal of this material, as well as those materials and items employed in the cleanup of releases. You will need to deter- mine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

### 6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

### **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

Technical measures	:	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	:	If sufficient ventilation is unavailable, use with local exhaust ventilation.
Advice on safe handling	:	Do not get on skin or clothing. Do not breathe mist or vapours. Do not swallow. Avoid contact with eyes. Wash skin thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure as- sessment Keep container tightly closed.
		Do not eat, drink or smoke when using this product. Take care to prevent spills, waste and minimize release to the environment.
Hygiene measures	:	If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Contaminated



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		Wash contar The effective engineering appropriate o industrial hyg	g should not be allowed out of the workplace. ninated 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 istrative controls.		
7.2 Cond	itions for safe storage,	, including any inc	compatibilities		
Requirements for storage : areas and containers		Keep in a co	Keep in properly labelled containers. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations.		
Advi	ce on common storage	<ul> <li>Do not store with the following product types: Strong oxidizing agents Self-reactive substances and mixtures Organic peroxides Explosives Gases</li> </ul>			
7.3 Speci	ific end use(s)				
Spec	cific use(s)	: No data avai	lable		

### SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
(dl)-a-Tocopheryl acetate	7695-91-2	TWA	5000 ug/m3 (OEB 1)	Internal
Sodium selenite	10102-18-8	TWA	0.1 mg/m3 (selenium)	GB EH40
		TWA	20 µg/m3 (OEB 3)	Internal
		Wipe limit	200 μg/100 cm²	Internal

### Derived No Effect Level (DNEL):

Substance name	End Use	Exposure routes	Potential health ef- fects	Value
Sodium selenite	Workers	Inhalation	Long-term systemic effects	0.11 mg/m3
	Workers	Skin contact	Long-term systemic effects	15.33 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	0.033 mg/m3
	Consumers	Skin contact	Long-term systemic effects	9.42 mg/kg bw/day



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		Consumers	Ingestion	Long-term systemic effects	0.00942 mg/kg bw/day
Polye casto	thylene glycol r oil	Workers	Inhalation	Long-term systemic effects	16.4 mg/m3
		Workers	Skin contact	Long-term systemic effects	4.67 mg/kg bw/day
		Consumers	Inhalation	Long-term systemic effects	2.9 mg/m3
		Consumers	Skin contact	Long-term systemic effects	1.67 mg/kg bw/day
		Consumers	Ingestion	Long-term systemic effects	1.67 mg/kg bw/day
(dl)-a- aceta	-Tocopheryl te	Workers	Inhalation	Long-term systemic effects	73.5 mg/m3
		Workers	Skin contact	Long-term systemic effects	416.6 mg/kg bw/day
		Consumers	Inhalation	Long-term systemic effects	21.7 mg/m3
		Consumers	Skin contact	Long-term systemic effects	250 mg/kg bw/day
		Consumers	Ingestion	Long-term systemic effects	12.5 mg/kg bw/day
Benzy	yl alcohol	Workers	Inhalation	Long-term systemic effects	22 mg/m3
		Workers	Inhalation	Acute systemic ef- fects	110 mg/m3
		Workers	Skin contact	Long-term systemic effects	8 mg/kg bw/day
		Workers	Skin contact	Acute systemic ef- fects	40 mg/kg bw/day
		Consumers	Inhalation	Long-term systemic effects	5.4 mg/m3
		Consumers	Inhalation	Acute systemic ef- fects	27 mg/m3
		Consumers	Skin contact	Long-term systemic effects	4 mg/kg bw/day
		Consumers	Skin contact	Acute systemic ef- fects	20 mg/kg bw/day
		Consumers	Ingestion	Long-term systemic effects	4 mg/kg bw/day
		Consumers	Ingestion	Acute systemic ef- fects	20 mg/kg bw/day

### Predicted No Effect Concentration (PNEC):

Substance name	Environmental Compartment Value	
Sodium selenite	Fresh water	0.00585 mg/l
	Marine water	0.00438 mg/l
	Freshwater - intermittent	0.012 mg/l
	Sewage treatment plant	3.285 mg/l
	Fresh water sediment	18 mg/kg dry
		weight (d.w.)

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		Marine sedime	ent	13.6 mg/kg dry weight (d.w.)
		Soil		0.22 mg/kg dry weight (d.w.)
		Oral (Seconda	ry Poisoning)	2.19 mg/kg food
Polye	ethylene glycol castor oil	Fresh water		0.000 mg/l
		Freshwater - ir	ntermittent	0.0661 mg/l
		Marine water		0.000 mg/l
		Marine water -	intermittent	0.00661 mg/l
		Fresh water se	ediment	0.0129 mg/kg dry weight (d.w.)
		Marine sedime	ent	0.00129 mg/kg dry weight (d.w.)
		Soil		0.00258 mg/kg dry weight (d.w.)
(dl)-a	-Tocopheryl acetate	Fresh water		0.27 mg/l
		Marine water		0.027 mg/l
		Intermittent us	e/release	0.27 mg/l
		Sewage treatn	nent plant	100 mg/l
		Fresh water se		212000 mg/kg
		Marine sedime	ent	21200 mg/kg
		Soil		74800 mg/kg
Benz	yl alcohol	Fresh water		1 mg/l
	-	Marine water		0.1 mg/l
		Intermittent us	e/release	2.3 mg/l
		Sewage treatn	nent plant	39 mg/l
		Fresh water se		5.27 mg/kg
		Marine sedime	ent	0.527 mg/kg
		Soil		0.456 mg/kg

### 8.2 Exposure controls

#### **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.

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.

#### Personal protective equipment

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.

#### Hand protection



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Material		: Chemical-resis	tant gloves		
Remarks Skin and body protection		: Work uniform of Additional body being performe suits) to avoid	<ul> <li>Consider double gloving.</li> <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</li> </ul>		
	ratory protection ter type	<ul> <li>contaminated clothing.</li> <li>If adequate local exhaust ventilation is not available or exsure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.</li> <li>Equipment should conform to BS EN 14387</li> <li>Combined particulates and organic vapour type (A-P)</li> </ul>			

### **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

information on basic physical	an	• •
Appearance Colour Odour	:	Aqueous solution amber No data available
Odour Threshold	:	No data available
рН	:	No data available
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
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	No data available
Solubility(ies) Water solubility	:	No data available



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Partition coefficient: n- octanol/water Auto-ignition temperature Decomposition temperature		<ul> <li>Not applicable</li> <li>No data availa</li> <li>No data availa</li> </ul>	ble
∖ Expl	osity /iscosity, kinematic osive properties lizing properties	<ul> <li>No data available</li> <li>Not explosive</li> <li>The substance or mixture is not classified as oxidizing</li> </ul>	
<b>9.2 Other information</b> Flammability (liquids) Particle size		: No data availa : Not applicable	

### **SECTION 10: Stability and reactivity**

### **10.1 Reactivity** Not classified as a reactivity hazard. **10.2 Chemical stability** Stable under normal conditions. 10.3 Possibility of hazardous reactions Hazardous reactions Can react with strong oxidizing agents. : 10.4 Conditions to avoid Conditions to avoid : None known. **10.5 Incompatible materials** Materials to avoid : Oxidizing agents **10.6 Hazardous decomposition products** No hazardous decomposition products are known. **SECTION 11: Toxicological information** 11.1 Information on toxicological effects

Information on likely routes of	:	Inhalation
exposure		Skin contact
		Ingestion
		Eye contact



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	<b>e toxicity</b> ful if swallowed or if in	haled		
Prod	uct:			
	oral toxicity	:	Acute toxicity e Method: Calcula	stimate: 422.35 mg/kg ation method
Acute	inhalation toxicity	:	Acute toxicity e Exposure time: Test atmospher Method: Calcula	e: dust/mist
Com	ponents:			
(dl)-a	-Tocopheryl acetate:			
Acute	e oral toxicity	:	LD50 (Rat): > 5	,000 mg/kg
Acute	e dermal toxicity	:	LD50 (Rat): > 3 Assessment: TI toxicity	,000 mg/kg ne substance or mixture has no acute derma
Benz	yl alcohol:			
Acute	e oral toxicity	:	LD50 (Rat): 1,6	20 mg/kg
Acute	inhalation toxicity	:	LC50 (Rat): > 4 Exposure time: Test atmosphere Method: OECD	4 h
Sodiu	um selenite:			
Acute	e oral toxicity	:	LD50 (Rat): 4.8	mg/kg
Acute	inhalation toxicity	:	LC50 (Rat): > 0 Exposure time: Test atmosphered Method: OECD	4 h
Skin	corrosion/irritation			
Not c	lassified based on ava	ilable	information.	
<u>Com</u>	ponents:			
(dl)-a	-Tocopheryl acetate:			
Speci Metho		:	Rabbit OECD Test Gu	ideline 404

Method	:	OECD Test Guideli
Result	:	No skin irritation

### Benzyl alcohol:



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Speci Metho Resu	bd	: Rabbit : OECD Tes : No skin irrit	t Guideline 404 ation		
Sodiu	um selenite:				
Speci Metho			ed human epidermis (RhE) t Guideline 431		
Speci Metho			ed human epidermis (RhE) t Guideline 439		
Resu	lt	: Skin irritatio	on		
Serious eye damage/eye irritation Not classified based on available information.					
<u>Com</u>	ponents:				
(dl)-a	-Tocopheryl acetate	:			
Speci		: Rabbit			
Metho Resu			: OECD Test Guideline 405 : No eye irritation		
Benz	yl alcohol:				
Speci		: Rabbit			
Metho Resu			t Guideline 405 eyes, reversing within 21 days		
Sodiu	um selenite:				
Resu	lt	: Irritation to	eyes, reversing within 21 days		
Resp	iratory or skin sensi	tisation			
	<b>sensitisation</b> cause an allergic skin	reaction.			
-	iratory sensitisation lassified based on ava				
<u>Com</u>	oonents:				
(dl)-a	-Tocopheryl acetate	:			
Test <sup>-</sup>	Type sure routes ies	: Draize Tes : Skin contac : Humans			
Resu	It	: negative			

### Benzyl alcohol:



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	Test Ty Exposit Specie Methoo Result	ure routes s	: Maximisation : Skin contact : Guinea pig : OECD Test G : negative	
	Sodiur	n selenite:		
	Assess Remar			evidence of skin sensitisation in humans onal or regional regulation.
		<b>cell mutagenicity</b> ssified based on availa	able information.	
	Compo	onents:		
	(dl)-a-⊺	Focopheryl acetate:		
	Genoto	oxicity in vitro		nromosome aberration test in vitro D Test Guideline 473 ve
				icterial reverse mutation assay (AMES) D Test Guideline 471 ve
	Genoto	oxicity in vivo	cytogenetic as Species: Mou	se Dute: Ingestion
	Benzy	l alcohol:		
	Genoto	exicity in vitro	: Test Type: Ba Result: negat	cterial reverse mutation assay (AMES) ve
	Genoto	oxicity in vivo	cytogenetic as Species: Mou	se pute: Intraperitoneal injection
	Sodiur	n selenite:		
	Genoto	oxicity in vitro		cterial reverse mutation assay (AMES) D Test Guideline 471 ve

### Carcinogenicity

Not classified based on available information.

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<u>Com</u>	oonents:				
Speci Applio	cation Route sure time	: E Rat Ingestion E 104 weeks E negative			
Speci Applio	cation Route sure time od	: Mouse : Ingestion : 103 weeks : OECD Test : negative	Guideline 451		
-	oductive toxicity lassified based on ava	ailable information.			
<u>Com</u>	oonents:				
• •	-Tocopheryl acetate ts on fertility	: Test Type: F test Species: Ra	Route: Ingestion		
Effect ment	ts on foetal develop-	Species: Ra Application F	: Test Type: Embryo-foetal development Species: Rabbit Application Route: Ingestion Result: negative		
Benz	yl alcohol:				
	ts on fertility	Species: Ra Application F Result: nega	Route: Ingestion		
Effect ment	ts on foetal develop-	Species: Mo	Route: Ingestion		
Sodiu	um selenite:				
Effect	ts on fertility	Species: Ra	Route: Ingestion		



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			Remarks: Base	d on data from similar materials
Effect ment	s on foetal develop-	:	Test Type: Emb Species: Mouse Application Rou Result: negative	ute: Ingestion
	- single exposure assified based on avai	ilable	information.	
STOT	- repeated exposure	•		
	ause damage to orgar		ough prolonged (	or repeated exposure.
Com	oonents:			
Sodiu	ım selenite:			
Expos	sure routes ssment	:		uce significant health effects in animals at co 0 mg/kg bw or less.
-	ated dose toxicity			
Comp	oonents:			
	-Tocopheryl acetate:		_	
Speci NOAE		:	Rat 500 mg/kg	
	cation Route	÷	Ingestion	
	sure time	:	90 Days	
Benz	yl alcohol:			
Speci		:	Rat	
NOAE		:	1.072 mg/l	
	cation Route sure time	:	inhalation (dust 28 Days	/mist/fume)
Metho		:	OECD Test Gu	ideline 412
Sodiu	ım selenite:			
Speci		:	Rat	
NOAE		:	0.88 mg/kg	
	cation Route sure time		Ingestion 13 Weeks	
-				
-	ation toxicity			
Not cl	assified based on avai	ilable	information.	



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Expe	rience with human ex	posure		
Com	oonents:			
Sodiu	um selenite:			
Inhala		Symptoms: Irrita Target Organs: Symptoms: Low Target Organs: Symptoms: Nau : Target Organs: Symptoms: Neu Target Organs: Symptoms: hair Target Organs: Symptoms: hair Target Organs: Symptoms: Ras	Cardio-vascular system vered blood pressure Digestive organs usea, Vomiting, Irritability Nervous system urological disorders Hair	

### **SECTION 12: Ecological information**

### 12.1 Toxicity

Components:

(dl)-a-Tocopheryl acetate:	
Toxicity to fish	<ul> <li>LC50 (Oncorhynchus mykiss (rainbow trout)): &gt; 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203</li> </ul>
Toxicity to daphnia and other aquatic invertebrates	<ul> <li>EC50 (Daphnia magna (Water flea)): &gt; 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202</li> </ul>
Toxicity to algae/aquatic plants	<ul> <li>ErC50 (Pseudokirchneriella subcapitata (green algae)): &gt; 100 mg/l</li> <li>Exposure time: 72 h</li> <li>Method: OECD Test Guideline 201</li> </ul>
	NOEC (Pseudokirchneriella subcapitata (green algae)): >= 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to microorganisms	: EC50 : > 927 mg/l Exposure time: 30 min Method: ISO 8192
Toxicity to fish (Chronic tox- icity)	: NOEC: 100 mg/l Exposure time: 28 d Species: Oncorhynchus mykiss (rainbow trout)



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	Benzyl	alcohol:			
	Toxicity		:	LC50 (Pimephales Exposure time: 96	s promelas (fathead minnow)): 460 mg/l 5 h
		to daphnia and other invertebrates	:	EC50 (Daphnia magna (Water flea)): 230 mg/l Exposure time: 48 h Method: OECD Test Guideline 202	
	Toxicity plants	to algae/aquatic	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 770 mg/l Exposure time: 72 h Method: OECD Test Guideline 201	
				NOEC (Pseudokir mg/l Exposure time: 72 Method: OECD Te	
		to daphnia and other invertebrates (Chron- ty)	:	NOEC: 51 mg/l Exposure time: 21 Species: Daphnia Method: OECD Te	magna (Water flea)
	Sodium	n selenite:			
	Toxicity	to fish	:	Exposure time: 96	s promelas (fathead minnow)): > 1 - 10 mg/l 5 h on data from similar materials
		to daphnia and other invertebrates	:	EC50 (Daphnia m Exposure time: 48	agna (Water flea)): 1.2 mg/l s h
	Toxicity plants	to algae/aquatic	:	mg/l Exposure time: 96	monas reinhardtii (green algae)): > 0.1 - 1 5 h on data from similar materials
				mg/l Exposure time: 96	omonas reinhardtii (green algae)): > 0.1 - 1 6 h on data from similar materials
	M-Facto icity)	or (Acute aquatic tox-	:	1	
	Toxicity	to microorganisms	:	EC50 (activated s Exposure time: 3 I Method: OECD Te	h
	Toxicity icity)	to fish (Chronic tox-	:	NOEC: 0.022 mg/ Exposure time: 25 Species: Lepomis	

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aqua ic tox	Toxicity to daphnia and other aquatic invertebrates (Chron- ic toxicity) M-Factor (Chronic aquatic toxicity)		NOEC: 0.096 mg/l Exposure time: 28 d 1				
12.2 Pers	istence and degradabi	lity					
<u>Com</u>	ponents:						
• •	<b>-Tocopheryl acetate:</b> egradability	:	Result: Not readi Biodegradation: Exposure time: 2 Method: OECD 1	21.7 - 31 %			
	Benzyl alcohol: Biodegradability		Result: Readily biodegradable. Biodegradation: 92 - 96 % Exposure time: 14 d				
12.3 Bioa	ccumulative potential						
Com	ponents:						
Partit	<b>yl alcohol:</b> ion coefficient: n- nol/water	:	: log Pow: 1.05				
	<b>12.4 Mobility in soil</b> No data available						
12.5 Resu	llts of PBT and vPvB a	sse	ssment				
<u>Prod</u> Asse	<u>uct:</u> ssment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.				
12.6 Endo	ocrine disrupting prope	ertie	es				
Prod							
	ssment	:	ered to have end REACH Article 5	nixture does not contain components consid- ocrine disrupting properties according to 7(f) or Commission Delegated regulation or Commission Regulation (EU) 2018/605 at higher.			



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### 12.7 Other adverse effects

No data available

### **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Product	<ul> <li>Dispose of in accordance with local regulations.</li> <li>According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.</li> <li>Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.</li> <li>Do not dispose of waste into sewer.</li> </ul>
Contaminated packaging	<ul> <li>Empty containers should be taken to an approved waste han- dling site for recycling or disposal.</li> <li>If not otherwise specified: Dispose of as unused product.</li> </ul>

### **SECTION 14: Transport information**

14.1	UN	number

ADN	:	Not regulated as a dangerous good
ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good
14.2 UN proper shipping name		
ADN	:	Not regulated as a dangerous good
ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good
14.3 Transport hazard class(es)		
ADN	:	Not regulated as a dangerous good
ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good
14.4 Packing group		
ADN	:	Not regulated as a dangerous good



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ADR		: Not regulated as a dangerous good		
RID IMDG				
	(Cargo) (Passenger)	<ul><li>Not regulated as a dangerous good</li><li>Not regulated as a dangerous good</li></ul>		
<b>14.5 Environmental hazards</b> Not regulated as a dangerous good				
14.6 Special precautions for user Not applicable				
<b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b> Remarks : Not applicable for product as supplied.				
SECTION 15: Regulatory information				

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17)	:	Conditions of restriction for the fol- lowing entries should be considered: Number on list 3
		Substance(s) or mixture(s) are listed here according to their appearance in the regulation, irrespective of their use/purpose or the conditions of the restriction. Please refer to the condi- tions in corresponding Regulation to determine whether an entry is appli- cable to the placing on the market or not.
UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation	:	Not applicable
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain)	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	:	Not applicable
GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation Control of Major Accident Hazards Regulations 2015 (CC	: DMA	
Not applicable		

### Other regulations:



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Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to protection of young people at work contained in Regulation 19) and of Directive 94/33/EC on the protection of young people at work.

The components of this product are reported in the following inventories:				
AICS	: not determined			
DSL	: not determined			
IECSC	: not determined			

#### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

### **SECTION 16: Other information**

Other information	:	Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.
Full text of H-Statements		
H300 H302 H315 H317 H319 H330 H332 H372 H400 H410		Fatal if swallowed. Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Fatal if inhaled. Harmful if inhaled. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life.
Full text of other abbreviatio	ns	
Acute Tox. Aquatic Acute Aquatic Chronic Eye Irrit. Skin Irrit. Skin Sens. STOT RE GB EH40 GB EH40 / TWA	:	Acute toxicity Short-term (acute) aquatic hazard Long-term (chronic) aquatic hazard Eye irritation Skin irritation Skin sensitisation Specific target organ toxicity - repeated exposure UK. EH40 WEL - Workplace Exposure Limits Long-term exposure limit (8-hour TWA reference period)
ADN - European Agreement c	ond	cerning the International Carriage of Dangerous Goods by Inland

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration



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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; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; 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

### Further information

Sources of key data used to compile the Safety Data Sheet		nical data, data from raw material SDSs, OECD I search results and European Chemicals Agen- a.europa.eu/
Classification of the mixt	ture:	Classification procedure:
Acute Tox. 4	H302	Calculation method
Acute Tox. 4	H332	Calculation method
Skin Sens. 1	H317	Calculation method
STOT RE 2	H373	Calculation method
Aquatic Chronic 3	H412	Calculation method

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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