

Safety Data Sheet according to Regulation (EC) No 1907/2006

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SDS No.: 527093

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Unibond NMN Original

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Unibond NMN Original

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

Intended use:

Water based adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Ltd Adhesives Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000 Fax-no.: +44 (1442) 278071

ua-productsafety.uk@henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 0 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY- Email: technical.services@henkel.co.uk

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

2.2. Label elements

Label elements (CLP):

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

Supplemental information	Contains: 1,2-Benzisothiazol-3(2H)-one May produce an allergic reaction.
	Contains preservative(s): Isothiazolinone mixture 3:1 (CIT/MIT). May produce an allergic
	reaction.

Precautionary statement:	P101 If medical advice is needed, have product container or label at hand.
	P102 Keep out of reach of children.
	P262 Do not get in eyes, on skin, or on clothing

2.3. Other hazards

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description:

1-Component assembly adhesive

Base substances of preparation:

Styrene-acrylate copolymer dispersion

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
1,2-Benzisothiazol-3(2H)-one 2634-33-5	220-120-9 01-2120761540-60	0,005-< 0,05 % (50 ppm-< 500 ppm)	Aquatic Acute 1 H400 Aquatic Chronic 1 H410
			Acute Tox. 4 H302 Skin Irrit. 2 H315
			Skin Sens. 1 H317 Eye Dam. 1
			H318 Acute Tox. 2 H330
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	01-2120764691-48	0,0001-< 0,0015 % (1 ppm- < 15 ppm)	Acute Tox. 2; Inhalation H330 Aquatic Chronic 1 H410 Acute Tox. 3; Oral H301 Acute Tox. 2; Dermal H310 Eye Dam. 1 H318 Skin Sens. 1A H317 Aquatic Acute 1 H400 Skin Corr. 1C H314 M factor (Acute Aquat Tox): 100 M factor (Chron Aquat Tox): 100

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of adverse health effects seek medical advice.

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing.

Eye contact:

Rinse immediately with plenty of running water, seek medical advice if necessary.

Ingestion:

Rinse mouth and throat. Drink 1-2 glasses of water. Seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

carbon dioxide, foam, powder, water spray jet, fine water spray

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO2) can be released.

5.3. Advice for firefighters

Wear self-contained breathing apparatus.

Wear protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

Danger of slipping on spilled product.

Avoid contact with skin and eyes.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Remove mechanically.

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.

Hygiene measures:

Do not eat, drink or smoke while working.

Wash hands before work breaks and after finishing work.

7.2. Conditions for safe storage, including any incompatibilities

Store in sealed original container.

Store in a cool, dry place.

Temperatures between + 5 °C and + 30 °C

Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

7.3. Specific end use(s)

Water based adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Limestone 1317-65-3 [CALCIUM CARBONATE, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [CALCIUM CARBONATE, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [LIMESTONE, RESPIRABLE MARBLE, RESPIRABLE]		4	Time Weighted Average (TWA):		EH40 WEL
Limestone 1317-65-3 [LIMESTONE, TOTAL INHALABLE MARBLE, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL

Occupational Exposure Limits

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m³	• •	Short term exposure limit	Regulatory list
				category / Remarks	
Limestone		4	Time Weighted Average		IR_OEL
1317-65-3			(TWA):		
[CALCIUM CARBONATE, RESPIRABLE					
DUST]					
Limestone		10	Time Weighted Average		IR_OEL
1317-65-3			(TWA):		
[CALCIUM CARBONATE, TOTAL			, , ,		
INHALABLE DUST]					

$\label{eq:predicted} \textbf{Predicted No-Effect Concentration (PNEC):}$

Name on list	Environmental Compartment	Exposure period	Value				Remarks
		F	mg/l	ppm	mg/kg	others	
1,2-Benzisothiazol-3(2H)-one	aqua		0.00403	11			
2634-33-5	(freshwater)		mg/l				
1,2-Benzisothiazol-3(2H)-one	aqua (marine		0,000403				
2634-33-5	water)		mg/l				
1,2-Benzisothiazol-3(2H)-one	aqua		0,0011				
2634-33-5	(intermittent		mg/l				
	releases)						
1,2-Benzisothiazol-3(2H)-one	sewage		1,03 mg/l				
2634-33-5	treatment plant						
	(STP)						
1,2-Benzisothiazol-3(2H)-one	sediment				0,0499		
2634-33-5	(freshwater)				mg/kg		
1,2-Benzisothiazol-3(2H)-one	sediment				0,00499		
2634-33-5	(marine water)				mg/kg		
1,2-Benzisothiazol-3(2H)-one	Soil				3 mg/kg		
2634-33-5							
Mixture, 3(2H)-Isothiazolone, 5-chloro-2-	aqua		0,00339				
methyl-, mixt. with 2-methyl-3(2H)-	(freshwater)		mg/l				
isothiazolone							
55965-84-9							
Mixture, 3(2H)-Isothiazolone, 5-chloro-2-	aqua (marine		0,00339				
methyl-, mixt. with 2-methyl-3(2H)-	water)		mg/l				
isothiazolone							
55965-84-9							
Mixture, 3(2H)-Isothiazolone, 5-chloro-2-	sewage		0,23 mg/l				
methyl-, mixt. with 2-methyl-3(2H)-	treatment plant						
isothiazolone	(STP)						
55965-84-9							
Mixture, 3(2H)-Isothiazolone, 5-chloro-2-	sediment				0,027		
methyl-, mixt. with 2-methyl-3(2H)-	(freshwater)				mg/kg		
isothiazolone							
55965-84-9	<u>.</u>						
Mixture, 3(2H)-Isothiazolone, 5-chloro-2-	sediment				0,027		
methyl-, mixt. with 2-methyl-3(2H)-	(marine water)				mg/kg		
isothiazolone							
55965-84-9 Mixture, 3(2H)-Isothiazolone, 5-chloro-2-	Soil	1	1	+	0.01 4	1	
	2011				0,01 mg/kg		
methyl-, mixt. with 2-methyl-3(2H)-isothiazolone							
55965-84-9							
Mixture, 3(2H)-Isothiazolone, 5-chloro-2-	0.000		0.00339	+	-	+	
methyl-, mixt. with 2-methyl-3(2H)-	aqua (intermittent		- ,				
isothiazolone	releases)		mg/l				
55965-84-9	rereases)						
JJ7UJ-04-7							

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
1,2-Benzisothiazol-3(2H)-one 2634-33-5	Workers	inhalation	Long term exposure - systemic effects		6,81 mg/m3	
1,2-Benzisothiazol-3(2H)-one 2634-33-5	Workers	dermal	Long term exposure - systemic effects		0,966 mg/kg	
1,2-Benzisothiazol-3(2H)-one 2634-33-5	General population	inhalation	Long term exposure - systemic effects		1,2 mg/m3	
1,2-Benzisothiazol-3(2H)-one 2634-33-5	General population	dermal	Long term exposure - systemic effects		0,345 mg/kg	
Mixture, 3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone 55965-84-9	Workers	inhalation	Long term exposure - local effects		0,02 mg/m3	
Mixture, 3(2H)-Isothiazolone, 5-chloro-2- methyl-, mixt. with 2-methyl-3(2H)- isothiazolone 55965-84-9	Workers	inhalation	Acute/short term exposure - local effects		0,04 mg/m3	
Mixture, 3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone 55965-84-9	General population	inhalation	Long term exposure - local effects		0,02 mg/m3	
Mixture, 3(2H)-Isothiazolone, 5-chloro-2- methyl-, mixt. with 2-methyl-3(2H)- isothiazolone 55965-84-9	General population	inhalation	Acute/short term exposure - local effects		0,04 mg/m3	
Mixture, 3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone 55965-84-9	General population	oral	Long term exposure - systemic effects		0,09 mg/kg	
Mixture, 3(2H)-Isothiazolone, 5-chloro-2- methyl-, mixt. with 2-methyl-3(2H)- isothiazolone 55965-84-9	General population	oral	Acute/short term exposure - systemic effects		0,11 mg/kg	

Biological Exposure Indices:

None

8.2. Exposure controls:

Respiratory protection:

Ensure adequate ventilation.

Hand protection:

Recommended are gloves made from Nitril rubber (Material thickness >0,1 mm, Perforation time < 30s). Gloves should be replaced after each short time contact or contamination. Available at laboratory specialized trade or at pharmacies / chemist's shops.

Eye protection:

Goggles which can be tightly sealed.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance paste

high viscosity white

Odor slightly

Odour threshold No data available / Not applicable

pH 8,0 - 10,0

(23 °C (73 °F))

Melting point No data available / Not applicable Solidification temperature No data available / Not applicable Initial boiling point No data available / Not applicable Flash point No data available / Not applicable Evaporation rate No data available / Not applicable No data available / Not applicable Flammability No data available / Not applicable Explosive limits Vapour pressure No data available / Not applicable No data available / Not applicable Relative vapour density: 1,25 - 1,35 g/cm3

Density

(20 °C (68 °F)) Bulk density Solubility

Solubility (qualitative)

(23 °C (73.4 °F); Solvent: Water)

Partition coefficient: n-octanol/water Auto-ignition temperature Decomposition temperature Viscosity

(Brookfield; Instrument: RVT; 20 °C (68 °F))

Viscosity (kinematic) No data available / Not applicable No data available / Not applicable Explosive properties No data available / Not applicable Oxidising properties

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

Miscible

No data available / Not applicable No data available / Not applicable

No data available / Not applicable

No data available / Not applicable

No data available / Not applicable

3.200.000 - 3.700.000 mPa.s

10.1. Reactivity

Reaction with acids: production of heat and carbon dioxide.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

None if used for intended purpose.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

General toxicological information:

An allergic reaction cannot be excluded after repeated skin contact.

11.1. Information on toxicological effects

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
1,2-Benzisothiazol-3(2H)- one 2634-33-5	LD50	490 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	LD50	66 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
		. 2.000 //		OEGD G :11: 402 (A + D 1 T : :/-)
1,2-Benzisothiazol-3(2H)-	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
one				
2634-33-5				
Isothiazolinone mixture	LD50	87,12 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
3:1 (CIT/MIT)				• • • • • • • • • • • • • • • • • • • •
55965-84-9				

Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Test atmosphere	Exposure	Species	Method
CAS-No.	type			time		
1,2-Benzisothiazol-3(2H)-	LC50	0,4 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute
one						Inhalation Toxicity)
2634-33-5						
Isothiazolinone mixture	LC50	0,171 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute
3:1 (CIT/MIT)						Inhalation Toxicity)
55965-84-9						

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
1,2-Benzisothiazol-3(2H)-	moderately	4 h	rabbit	EPA OPP 81-5 (Acute Dermal Irritation)
one	irritating			
2634-33-5	_			
Isothiazolinone mixture	corrosive	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
3:1 (CIT/MIT)				
55965-84-9				

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
1,2-Benzisothiazol-3(2H)-	corrosive	3 h	rabbit	EPA OPP 81-4 (Acute Eye Irritation)
one				
2634-33-5				
Isothiazolinone mixture	Category 1		rabbit	not specified
3:1 (CIT/MIT)	(irreversible			
55965-84-9	effects on the			
	eye)			

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
1,2-Benzisothiazol-3(2H)- one 2634-33-5	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
1,2-Benzisothiazol-3(2H)- one 2634-33-5	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	sensitising	Mouse local lymphnode assay (LLNA)	mouse	not specified

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of	Metabolic activation /	Species	Method
CAS-No.		administration	Exposure time		
1,2-Benzisothiazol-3(2H)- one 2634-33-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
1,2-Benzisothiazol-3(2H)- one 2634-33-5	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
1,2-Benzisothiazol-3(2H)- one 2634-33-5	positive without metabolic activation	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	ambiguous	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	positive	in vitro mammalian chromosome aberration test	with and without		EPA OPP 84-2 (Mutagenicity Testing)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	positive	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	negative	DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro	not applicable		OECD Guideline 482 (Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells In Vitro)
1,2-Benzisothiazol-3(2H)- one 2634-33-5	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
1,2-Benzisothiazol-3(2H)- one 2634-33-5	negative	oral: unspecified		rat	OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	negative	oral: gavage		mouse	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	negative	oral: feed		Drosophila melanogaster	OECD Guideline 477 (Genetic Toxicology: Sex-linked Recessive Lethal Test in Drosophila melanogaster)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	negative	oral: gavage		rat	OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	negative	oral: gavage		rat	EPA OPP 84-2 (Mutagenicity Testing)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	not carcinogenic	oral: drinking water	2 y daily	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances	Result / Value	Test type	Route of	Species	Method
CAS-No.			application		
1,2-Benzisothiazol-3(2H)- one 2634-33-5	NOAEL P 112 mg/kg NOAEL F1 56,6 mg/kg NOAEL F2 56,6 mg/kg	Two generation study	oral: feed	rat	EPA OPPTS 870.3800 (Reproduction and Fertility Effects)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	NOAEL P 30 ppm NOAEL F1 300 ppm NOAEL F2 300 ppm	Two generation study	oral: drinking water	rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of	Species	Method
			treatment		
1,2-Benzisothiazol-3(2H)-	NOAEL 150 mg/kg	oral: gavage	28 days	rat	OECD Guideline 407
one			daily		(Repeated Dose 28-Day
2634-33-5					Oral Toxicity in Rodents)
1,2-Benzisothiazol-3(2H)-	NOAEL 69 mg/kg	oral: feed	90 days	rat	EPA OPP 82-1 (90-Day
one			daily		Oral Toxicity)
2634-33-5					
Isothiazolinone mixture	NOAEL 16,3 mg/kg	oral:	90 d	rat	OECD Guideline 408
3:1 (CIT/MIT)		drinking	daily		(Repeated Dose 90-Day
55965-84-9		water			Oral Toxicity in Rodents)
Isothiazolinone mixture	NOAEL 0.34 mg/m3	inhalation:	90 d	rat	OECD Guideline 413
3:1 (CIT/MIT)		aerosol	6 h/d, 5 d/w		(Subchronic Inhalation
55965-84-9					Toxicity: 90-Day)
Isothiazolinone mixture	NOAEL 2,625 mg/kg	dermal	90 d	rat	EPA OPP 82-3
3:1 (CIT/MIT)			6 h/d		(Subchronic Dermal
55965-84-9					Toxicity 90 Days)

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
1,2-Benzisothiazol-3(2H)-one 2634-33-5	LC50	2,15 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	NOEC	0,21 mg/l	30 d	Oncorhynchus mykiss	OECD Guideline 215 (Fish, Juvenile Growth Test)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	LC50	0,22 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	NOEC	0,098 mg/l	28 d	Oncorhynchus mykiss	OECD Guideline 210 (fish early lite stage toxicity test)

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
1,2-Benzisothiazol-3(2H)-one 2634-33-5		2,9 mg/l	48 h	· · · · · · · · · · · · · · · · · · ·	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	EC50	0,12 mg/l	48 h	· · · · · · · · · · · · · · · · · · ·	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
1,2-Benzisothiazol-3(2H)-one	NOEC	1,2 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
2634-33-5					magna, Reproduction Test)
Isothiazolinone mixture 3:1	NOEC	0,0036 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
(CIT/MIT)		_			magna, Reproduction Test)
55965-84-9					

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type		_		
1,2-Benzisothiazol-3(2H)-one 2634-33-5	EC50	0,11 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
1,2-Benzisothiazol-3(2H)-one 2634-33-5	NOEC	0,0403 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	EC50	0,0052 mg/l	48 h	Skeletonema costatum	OECD Guideline 201 (Alga, Growth Inhibition Test)
Isothiazolinone mixture 3:1 (CIT/MIT) 55965-84-9	NOEC	0,00064 mg/l	48 h	Skeletonema costatum	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

	Value	Value	Exposure time	Species	Method
CAS-No.	type				
1,2-Benzisothiazol-3(2H)-one	EC50	23 mg/l	3 h	activated sludge of a	OECD Guideline 209
2634-33-5				predominantly domestic sewage	(Activated Sludge,
					Respiration Inhibition Test)
Isothiazolinone mixture 3:1	EC20	0,97 mg/l	3 h	activated sludge	OECD Guideline 209
(CIT/MIT)					(Activated Sludge,
55965-84-9					Respiration Inhibition Test)

12.2. Persistence and degradability

Hazardous substances	Result	Test type	Degradability	Exposure	Method
CAS-No.				time	
1,2-Benzisothiazol-3(2H)-one	not readily biodegradable.	aerobic	42,1 %	28 d	OECD Guideline 301 B (Ready
2634-33-5					Biodegradability: CO2 Evolution
					Test)
Isothiazolinone mixture 3:1	inherently biodegradable	aerobic	100 %	28 d	OECD Guideline 302 B (Inherent
(CIT/MIT)					biodegradability: Zahn-
55965-84-9					Wellens/EMPA Test)
Isothiazolinone mixture 3:1	readily biodegradable	aerobic	> 60 %	28 d	OECD Guideline 301 D (Ready
(CIT/MIT)					Biodegradability: Closed Bottle
55965-84-9					Test)

12.3. Bioaccumulative potential

Hazardous substances	Bioconcentratio	Exposure time	Temperature	Species	Method
CAS-No.	n factor (BCF)				
1,2-Benzisothiazol-3(2H)-one	6,62	56 day		not specified	other guideline:
2634-33-5					
Isothiazolinone mixture 3:1	3,6			calculation	QSAR (Quantitative Structure
(CIT/MIT)					Activity Relationship)
55965-84-9					

12.4. Mobility in soil

Hazardous substances	LogPow	Temperature	Method
CAS-No.			
1,2-Benzisothiazol-3(2H)-one	0,7	20 °C	EU Method A.8 (Partition Coefficient)
2634-33-5			
Isothiazolinone mixture 3:1	-0,71 - 0,75	20 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC
(CIT/MIT)			Method)
55965-84-9			

12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB	
CAS-No.		
1,2-Benzisothiazol-3(2H)-one	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very	
2634-33-5	Bioaccumulative (vPvB) criteria.	
Isothiazolinone mixture 3:1 (CIT/MIT)	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very	
55965-84-9	Bioaccumulative (vPvB) criteria.	

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Dispose of waste and residues in accordance with local authority requirements.

Disposal of uncleaned packages:

Use packages for recycling only when totally empty.

Waste code 080410

SECTION 14: Transport information

14.1. UN number

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.2. UN proper shipping name

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.3. Transport hazard class(es)

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.4. Packing group

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.5. Environmental hazards

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.6. Special precautions for user

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

VOC content 0,0 % (VOCV 814.018 VOC regulation

CH)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H330 Fatal if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Further information:

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This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

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