

Safety Data Sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Article 31, Annex II, as amended by Commission Regulation (EU) 2020/878

KERADECOR WHITE PLUS

Date of first edition: 12/28/2020

Safety Data Sheet dated 11/22/2022

version 5

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

1.1. Product identifier

Mixture identification:

Trade name: KERADECOR WHITE PLUS

Trade code: FS089 .043X

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

Recommended use: Mineral Paint coatings and Coverings

Uses advised against: N.A.

1.3. Details of the supplier of the safety data sheet

Company: KERAKOLL S.p.A.

Via dell'Artigianato, 9

41049 Sassuolo (MODENA) - ITALY

Tel.+39 0536 816511 Fax. +39 0536816581

safety@kerakoll.com

1.4. Emergency telephone number

European emergency phone number 112

Kerakoll Italy - +39-0536-816511

Ireland

Poison information centre: 01 809 2166 (Daily 8am-10pm)

In case of emergency call 999 or 112

Malta

In case of emergency call: +356 2395 2000 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

Aquatic Chronic 3 Harmful to aquatic life with long lasting effects.

DECL10 This titanium dioxide-containing product is not classified as carcinogen by inhalation because it does not meet the criteria stated in Note 10, Annex VI of Regulation (EC) 1272/2008.

Note 10: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter $\leq 10 \mu\text{m}$.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard statements

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

P501 Dispose of contents/container to ...

Special Provisions:

EUH208 Contains Tetrahydro-1,3,4,6-tetrakis(hydroxymethyl)imidazo[4,5-d]imidazole-2,5(1h,3h)-dione. May produce an allergic reaction.

EUH208 Contains 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one. May produce an allergic reaction.

EUH208 Contains reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.

Dir. 2004/42/EC (VOC directive)

Interior matt walls and ceilings (Gloss < 25@60)
EU limit value for this product (cat. A/a): 30 g/l
This product contains max 16.90 g/l VOC.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%.

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: KERADECOR WHITE PLUS

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number
2,5-4,9 %	titanium dioxide	CAS:13463-67-7 EC:236-675-5 Index:022-006-00-2	Carc. 2, H351	
< 0,3 %	(Z)-9-octadecen-1-ol ethoxylated	CAS:9004-98-2 EC:500-016-2	Skin Irrit. 2, H315; Aquatic Acute 1, H400, M-Acute:1	01-2120139360-66
< 0,2 %	Tetrahydro-1,3,4,6-tetrakis(hydroxymethyl)imidazo [4,5-d]imidazole-2,5(1h,3h)-dione	CAS:5395-50-6 EC:226-408-0	Skin Sens. 1, H317	
< 0,05 %	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	CAS:2634-33-5 EC:220-120-9 Index:613-088-00-6	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 Acute Tox. 4, H302 Skin Sens. 1, H317 Aquatic Chronic 2, H411, M-Acute:1 Specific Concentration Limits: C ≥ 0.05%: Skin Sens. 1 H317	01-2120761540-60
< 0,05 %	Pyrithione zinc	CAS:13463-41-7 EC:236-671-3 Index:613-333-00-7	Acute Tox. 2, H330 Acute Tox. 3, H301 STOT RE 1, H372 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Repr. 1B, H360, M-Chronic:10, M-Acute:1000 Acute Toxicity Estimate: ATE - Oral: 221mg/kg bw	
< 0,05 %	bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	CAS:52-51-7 EC:200-143-0 Index:603-085-00-8	STOT SE 3, H335; Skin Irrit. 2, H315; Eye Dam. 1, H318; Aquatic Acute 1, H400; Acute Tox. 4, H302; Acute Tox. 4, H312; Aquatic Chronic 1, H410, M-Chronic:1, M-Acute:10	
< 0,05 %	2-methoxy-1-methylethyl acetate	CAS:108-65-6 EC:203-603-9	Flam. Liq. 3, H226; STOT SE 3, H336	01-2119475791-29
< 0,0015 %	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	CAS:55965-84-9 Index:613-167-00-5	Acute Tox. 2, H330 Acute Tox. 2, H310 Acute Tox. 3, H301 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410, M-Chronic:100, M-Acute:100, EUH071 Specific Concentration Limits: C ≥ 0.6%: Skin Corr. 1C H314	

0.06% ≤ C < 0.6%: Skin Irrit. 2
H315
C ≥ 0.6%: Eye Dam. 1 H318
0.06% ≤ C < 0.6%: Eye Irrit. 2
H319
C ≥ 0.0015%: Skin Sens. 1A H317

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

Wash immediately with water.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and label hazardous.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

N.A.

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

N.A.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Community Occupational Exposure Limits (OEL)

Component	OEL Type	Country	Ceiling	Long Term mg/m ³	Long Term ppm	Short Term mg/m ³	Short Term ppm	Notes
Limestone	NATIONAL	BELGIUM		10.000				
	NATIONAL	HUNGARY		10.000				Inhalable aerosol
	NATIONAL	CHINA		8.000				Inhalable fraction
	NATIONAL	CHINA		4.000				Inhalable aerosol
	NATIONAL	KOREA, REPUBLIC OF		10.000				
	NATIONAL	JAPAN		2.000				Respirable dust
	NATIONAL	JAPAN		8.000				Total dust: Total dust comprises particles with a flow speed of 50 to 80 cm/sec at the entry of a particle sampler
	NATIONAL	SPAIN		10.000				Inhalable aerosol
	NATIONAL	SWITZERLA ND		3.000				Respirable aerosol
	NATIONAL	UNITED STATES OF AMERICA		15.000				OSHA: Total dust
	NATIONAL	UNITED STATES OF AMERICA		5.000				OSHA: Respirable dust
	NATIONAL	UNITED STATES OF AMERICA		10.000				NIOSH: total dust, calcium carbonate
	NATIONAL	UNITED STATES OF AMERICA		5.000				NIOSH: Respirable aerosol, calcium carbonate
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND		10.000				Inhalable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND		4.000				Respirable aerosol
	NATIONAL	ITALY		10.000				Come particelle non altrimenti specificate PNOC
	NATIONAL	CROATIA		10.000				
	NATIONAL	FRANCE		10.000				
	NATIONAL	NETHERLA		10.000				

		NDS			
Calcium carbonate	NATIONAL	PORTUGAL	10.000		
	NATIONAL	AUSTRALIA	10.000		This value is for inhalable dust containing no asbestos and <1 % crystalline silica.
	NATIONAL	CANADA	10.000		
	NATIONAL	FRANCE	10.000		inhalable aerosol
	NATIONAL	HUNGARY	10.000		inhalable aerosol
	NATIONAL	IRELAND	10.000		Inhalable fraction
	NATIONAL	IRELAND	4.000		Respirable fraction
	NATIONAL	LATVIA	6.000		
	NATIONAL	NEW ZEALAND	10.000		The value for inhalable dust containing no asbestos and less than 1% free silica.
	NATIONAL	POLAND	10.000		
	NATIONAL	SINGAPORE	10.000		(limestone, marble)
	NATIONAL	SWITZERLAND	3.000		respirable aerosol
	NATIONAL	UNITED STATES OF AMERICA	15.000		total dust
	NATIONAL	UNITED STATES OF AMERICA	5.000		respirable dust
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	10.000		inhalable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	4.000		respirable aerosol
	NATIONAL	ITALY	10.000		
	NATIONAL	BELGIUM	10.000		
	NATIONAL	KOREA, REPUBLIC OF	10.000		
titanium dioxide	NATIONAL	CROATIA	10.000		
	NATIONAL	NETHERLANDS	10.000		
	NATIONAL	PORTUGAL	10.000		
	NATIONAL	SPAIN	10.000		
	NATIONAL	CHILE	5.000		respirable fraction
	NATIONAL	AUSTRALIA	10		
	NATIONAL	BELGIUM	10.000		
	NATIONAL	CANADA	10.000		Ontario
	NATIONAL	CANADA	10.000		Quebec
	NATIONAL	DENMARK	6.000	12.000	Long term and short term: total dust
	NATIONAL	FRANCE	11.000		Inhalable aerosol
	NATIONAL	GERMANY	0.300	2.400	DFG; Long term and short term: excluding ultrafine particles; respirable fraction;

				multiplied by the material density;
NATIONAL	IRELAND	10.000		Inhalable fraction
NATIONAL	IRELAND	8.000		Respirable fraction
NATIONAL	JAPAN	0.300		JSOH; Nanoparticle, as Ti
NATIONAL	LATVIA	10.000		
NATIONAL	NEW ZEALAND	10000.000		The value for inhalable dust containing no asbestos and less than 1% free silica
NATIONAL	CHINA	8.000		Inhalable fraction
NATIONAL	POLAND	10.000	30.000	
NATIONAL	ROMANIA	10.000	15.000	
NATIONAL	SINGAPORE	10.000		
NATIONAL	KOREA, REPUBLIC OF	10.000		
NATIONAL	SPAIN	10.000		Inhalable aerosol
NATIONAL	SWEDEN	5.000		Inhalable aerosol
NATIONAL	SWITZERLAND	3.000		Respirable aerosol
NATIONAL	UNITED STATES OF AMERICA	15.000		OSHA; total dust
NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	10.000		Inhalable aerosol
NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	4.000		Respirable aerosol
NATIONAL	ITALY	10.000		
NATIONAL	ARGENTINA	10.000		
NATIONAL	AUSTRIA	5.000	10.000	
NATIONAL	BULGARIA	10.000		
NATIONAL	CROATIA	10.000		total dust
NATIONAL	CROATIA	4.000		respirable dust
NATIONAL	GREECE	10.000		
NATIONAL	GREECE	50.000		
NATIONAL	GREECE	5.000		
NATIONAL	INDONESIA	10.000		
NATIONAL	LITHUANIA	5.000		
NATIONAL	MALAYSIA	10.000		
NATIONAL	MEXICO	10.000		
NATIONAL	NORWAY	5.000		
NATIONAL	PORTUGAL	10.000		
NATIONAL	RUSSIAN FEDERATION	10.000		
NATIONAL	SLOVAKIA	5.000		
NATIONAL	SLOVENIA	6.000		
NATIONAL	SOUTH SUDAN	10.000		Inhalable fraction

Talc (Mg ₃ H ₂ (SiO ₃) ₄)	NATIONAL	SOUTH SUDAN	5.000			Respirable fraction
	NATIONAL	TAIWAN, PROVINCE OF CHINA	10.000			
	ACGIH	NNN	10.000			A4 - LRT irr
	NATIONAL	AUSTRALIA	2.500			
	NATIONAL	AUSTRIA	2.000			Respirable aerosol
	NATIONAL	BELGIUM	2.000			Asbestos free; respirable fraction
	NATIONAL	CANADA	2.000			Ontario; Respirable aerosol; The value for this particulate matter containing no asbestos and <1 percent crystalline silica
	NATIONAL	CANADA	2.000			Ontario; fibres per cm ³ ; Should not exceed 2 mg/m ³ respirable particulate mass
	NATIONAL	CANADA	3.000			Quebec
	NATIONAL	CHINA	3.000			Inhalable fraction
	NATIONAL	CHINA	1.000			Respirable fraction
	NATIONAL	DENMARK	0.300	0.600		Long term and short term: respirable aerosol
	NATIONAL	FINLAND	0.500		2.000	Long term and short term: inhalable fraction; Particles
	NATIONAL	FINLAND			1.000	Respirable fraction; Particles
	NATIONAL	HUNGARY	2.000			Respirable aerosol
	NATIONAL	IRELAND	10.000			Inhalable fraction
	NATIONAL	IRELAND	0.800			Respirable Fraction
	NATIONAL	ISRAEL	2.000			Respirable fraction
	NATIONAL	ISRAEL	4.000			Inhalable fraction
	NATIONAL	JAPAN	0.500			JSOH; Respirable dust; Particles
	NATIONAL	JAPAN	2.000			JSOH; Total dust: Total dust comprises particles with a flow speed of 50 to 80 cm/sec at the entry of a particle sampler; Particles
	NATIONAL	KOREA, REPUBLIC OF	2.000			
	NATIONAL	LATVIA	4.000			
	NATIONAL	NETHERLANDS	0.250			Respirable aerosol
	NATIONAL	NEW ZEALAND	2.000			Containing no asbestos; asbestos containing talc: use asbestos standards
	NATIONAL	SINGAPORE	2.000			
	NATIONAL	SPAIN	2.000			Respirable aerosol
	NATIONAL	SWEDEN	2.000			Inhalable aerosol
	NATIONAL	SWEDEN	1.000			Respirable aerosol
	NATIONAL	SWITZERLAND	2.000			Respirable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN	1.000			Respirable aerosol

	IRELAND				NIOSH; Containing no asbestos Senza fibre; 0.1fibre/cc Respirable fraction Respirable fraction Respirable fraction εισρν αναρν Respirable fraction Respirable dust frakcja wdychalna frakcja respirabilna Inhalable particulate Respirable particulate Containing no asbestos fibers. (E,R), A4 - Pulm fibrosis, pulm func
	NATIONAL	UNITED STATES OF AMERICA	2.000		
	NATIONAL	ITALY	2.000		
	NATIONAL	ITALY	2.000		
	NATIONAL	CHILE	1.750		
	NATIONAL	CROATIA	1.000		
	NATIONAL	GREECE	10.000		
	NATIONAL	GREECE	2.000		
	NATIONAL	INDONESIA	2.000		
	NATIONAL	MALAYSIA	2.000		
	NATIONAL	MEXICO	2.000		
	NATIONAL	POLAND	4.000		
	NATIONAL	POLAND	1.000		
	NATIONAL	PORTUGAL	2.000		
	NATIONAL	SLOVENIA	2.000		
	NATIONAL	SOUTH AFRICA	10.000		
	NATIONAL	SOUTH AFRICA	1.000		
	NATIONAL	TAIWAN, PROVINCE OF CHINA	2.000		
	ACGIH	NNN	2		
Propane-1,2-diol	NATIONAL	AUSTRALIA	474.000	150.000	Ontario Particulates only
	NATIONAL	CANADA	155.000	50.000	
	NATIONAL	IRELAND	470.000	150.000	
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	474.000	150.000	
	NATIONAL	NEW ZEALAND	474.000	150.000	
	NATIONAL	NEW ZEALAND	10.000		
	NATIONAL	LATVIA	7.000		
	NATIONAL	LITHUANIA	7.000		
	NATIONAL	NORWAY	79.000	25.000	
	NATIONAL	POLAND	100.000		
	NATIONAL	RUSSIAN FEDERATION		7.000	
	NATIONAL	SOUTH AFRICA	470.000	150.000	
	NATIONAL	SOUTH AFRICA	10.000		
zinc oxide	NATIONAL	AUSTRALIA	10.000		This value is for inhalable dust containing no asbestos and < 1% crystalline silica Long term and short term: Fume
	NATIONAL	AUSTRALIA	10.000	5.000	

NATIONAL	BELGIUM	10.000			
NATIONAL	CANADA	2.000	10.000		Ontario; Long term and short term: respirable aerosol
NATIONAL	CANADA	10.000			Quebec
NATIONAL	FRANCE	10.000			
NATIONAL	JAPAN	1.000			Respirable dust
NATIONAL	JAPAN	4.000			Total dust: Total dust comprises particles with a flow speed of 50 to 80 cm/sec at the entry of a particle sampler
NATIONAL	LATVIA	0.500			
NATIONAL	NEW ZEALAND	10.000	10.000		
NATIONAL	CHINA	3.000	5.000		
NATIONAL	SINGAPORE	10.000			
NATIONAL	SPAIN	10.000			
NATIONAL	SWEDEN	5.000			
NATIONAL	SWITZERLAND	3.000	3.000		Long term and short term: respirable fraction
NATIONAL	UNITED STATES OF AMERICA	15.000	5.000		Total dust
NATIONAL	ITALY	2.000	10.000		
NATIONAL	ARGENTINA	5.000	10.000		Long term and short term: fume
NATIONAL	ARGENTINA	10.000			Dust
NATIONAL	AUSTRIA	5.000			
NATIONAL	BULGARIA	5.000	10.000		
NATIONAL	CZECHIA	2.000	5.000		
NATIONAL	CHILE	10.000	4.400		
NATIONAL	KOREA, REPUBLIC OF	5.000	10.000		
NATIONAL	CROATIA	2.000	10.000		Long term: respirable dust
NATIONAL	DENMARK	4.000			
NATIONAL	ESTONIA	5.000			
NATIONAL	FINLAND	2.000	10.000		
NATIONAL	GREECE	5.000	10.000		
NATIONAL	INDONESIA	2.000	10.000		
NATIONAL	IRELAND	2.000	10.000		Long term: respirable fraction
NATIONAL	LITHUANIA	5.000			
NATIONAL	MALAYSIA	5.000	10.000		
NATIONAL	NORWAY	5.000			
NATIONAL	POLAND	5.000	10.000		
NATIONAL	PORTUGAL	2.000	10.000		
NATIONAL	ROMANIA	5.000	10.000		
NATIONAL	RUSSIAN FEDERATION	0.500	1.500		
NATIONAL	SOUTH AFRICA	5.000	10.000		
NATIONAL	TAIWAN, PROVINCE OF CHINA	5.000			
NATIONAL	HUNGARY	5.000	20.000		
ACGIH	NNN	2	10		(R) - Metal fume fever

Magnesium carbonate	NATIONAL	AUSTRALIA	10.000			This value is for inhalable dust containing no asbestos and < 1% crystalline silica
	NATIONAL	BELGIUM	10.000			
	NATIONAL	CANADA	10.000			Ontario: The value is for particulate matter containing no asbestos and < 1 % crystalline silica.
	NATIONAL	CANADA	10.000			Quebec
	NATIONAL	FRANCE	10.000			Respirable aerosol
	NATIONAL	NEW ZEALAND	10.000			
	NATIONAL	SINGAPORE	10.000			
	NATIONAL	KOREA, REPUBLIC OF	10.000			
	NATIONAL	SWITZERLAND	3.000			Respirable aerosol
	NATIONAL	UNITED STATES OF AMERICA	10.000			NIOSH: total dust
	NATIONAL	UNITED STATES OF AMERICA	5.000			NIOSH: respirable fraction
	NATIONAL	UNITED STATES OF AMERICA	15.000			OSHA: total dust
	NATIONAL	UNITED STATES OF AMERICA	5.000			OSHA: respirable fraction
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	10.000			Inhalable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	4.000			Respirable aerosol
sodium hydroxide; caustic soda	NATIONAL	AUSTRALIA	C	2		
	NATIONAL	AUSTRIA	2.000	4.000		Long term and short term: inhalable aerosol
	NATIONAL	BELGIUM	2.000			
	NATIONAL	CANADA	C	2.000		Ontario
	NATIONAL	CANADA	C	2.000		Quebec
	NATIONAL	DENMARK	2.000	2.000		
	NATIONAL	FINLAND	C	2.000		
	NATIONAL	FRANCE	2.000			
	NATIONAL	HUNGARY	2.000	2.000		
	NATIONAL	IRELAND		2.000		
	NATIONAL	JAPAN	C	2.000		JSOH; Reference value to the maximal exposure concentration of the substance during a working day

Quartz	NATIONAL	LATVIA		0.500		
	NATIONAL	NEW ZEALAND	C		2.000	
	NATIONAL	CHINA	C		2.000	
	NATIONAL	POLAND		0.500	1.000	
	NATIONAL	ROMANIA		1.000	3.000	
	NATIONAL	SINGAPORE			2.000	
	NATIONAL	KOREA, REPUBLIC OF	C		2.000	
	NATIONAL	SPAIN		2.000		
	NATIONAL	SWEDEN		1.000	1.000	Long term and short term: inhalable fraction
	NATIONAL	SWITZERLAND		2.000	2.000	long term and short term: inhalable fraction
	NATIONAL	UNITED STATES OF AMERICA	C		2.000	NIOSH
	NATIONAL	UNITED STATES OF AMERICA	C	2.000		OSHA
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND			2.000	
	NATIONAL	BULGARIA		2.000		
	NATIONAL	CZECHIA		1.000	2.000	
	NATIONAL	ESTONIA		1.000	2.000	
	NATIONAL	GREECE		2.000	2.000	
	NATIONAL	SLOVAKIA		2.000		
	NATIONAL	SLOVENIA		2.000		
	NATIONAL	TAIWAN, PROVINCE OF CHINA		2.000		
	ACGIH	NNN	C		2	URT, eye, and skin irr
	NATIONAL	AUSTRALIA		0.100		Respirable fraction
	NATIONAL	AUSTRIA		0.150		Respirable aerosol
	NATIONAL	BELGIUM		0.100		
	NATIONAL	CANADA		0.100		Canada Ontario; Respirable aerosol
	NATIONAL	CANADA		0.100		Canada Quebec
	NATIONAL	DENMARK		0.300	0.600	Inhalable aerosol
	NATIONAL	DENMARK		0.100	0.200	Respirable aerosol
	NATIONAL	FINLAND		0.050		Respirable fraction
	NATIONAL	FRANCE		0.100		Respirable aerosol
	NATIONAL	HUNGARY		0.150		Respirable aerosol
	NATIONAL	IRELAND		0.100		Respirable fraction
	NATIONAL	NEW ZEALAND		0.200		Respirable aerosol
	NATIONAL	CHINA		1.000		Inhalable fraction. 10% <= free SiO2 <= 50%.
	NATIONAL	CHINA		0.700		Inhalable fraction. 50% < free SiO2 <= 80%.
	NATIONAL	CHINA		0.500		Inhalable fraction. Free SiO2 <

							80%.
	NATIONAL	SINGAPORE	0.100				Respirable aerosol.
	NATIONAL	SPAIN	0.100				Respirable fraction
	NATIONAL	SWEDEN	0.100				Respirable aerosol
	NATIONAL	SWITZERLAND	0.150				Respirable aerosol
	NATIONAL	NETHERLANDS	0.075				Respirable dust
	NATIONAL	ITALY	0.050				Silice cristallina
	NATIONAL	ITALY	0.025				A2
	NATIONAL	ITALY	10.000				Come particelle non altrimenti specificate PNOC
	NATIONAL	KOREA, REPUBLIC OF	0.050				
	NATIONAL	UNITED STATES OF AMERICA	0.050				NIOSH
	NATIONAL	ARGENTINA	0.050				
	NATIONAL	CHILE	0.080				
	NATIONAL	CROATIA	0.100				
	NATIONAL	ESTONIA	0.100				
	NATIONAL	INDIA	10.000				
	NATIONAL	LITHUANIA	0.100				
	NATIONAL	MALAYSIA	0.100				
	NATIONAL	MEXICO	0.025				Respirable fraction
	NATIONAL	NORWAY	0.300				Total dust
	NATIONAL	NORWAY	0.100				Respirable dust
	NATIONAL	POLAND	0.100				Respirable fraction
	NATIONAL	PORTUGAL	0.025				Respirable fraction
	NATIONAL	SLOVENIA	0.050	0.400			
	NATIONAL	SOUTH AFRICA	0.100				
	ACGIH	NNN	0.025				(R), A2 - Pulm fibrosis, lung cancer
Dolomite	NATIONAL	LATVIA	6.000				
	NATIONAL	CHINA	8.000				Inhalable fraction
	NATIONAL	CHINA	4.000				Respirable fraction
	NATIONAL	POLAND	10.000				
2-methoxy-1-methylethyl acetate	NATIONAL	AUSTRALIA	274.000	50.000	548.000	100.000	
	NATIONAL	AUSTRIA	275.000	50.000	550.000	100.000	
	NATIONAL	BELGIUM	275.000	50.000	550.000	100.000	
	NATIONAL	CANADA	270.000	50.000			Ontario
	NATIONAL	DENMARK	275.000	50.000	550.000	100.000	
	NATIONAL	FINLAND	270.000	50.000	550.000	100.000	
	NATIONAL	FRANCE	275.000	50.000	550.000	100.000	
	NATIONAL	GERMANY	270.000	50.000	270.000	100.000	AGS
	NATIONAL	GERMANY	270.000	50.000	270.000	100.000	DFG
	NATIONAL	HUNGARY	270.000		550.000		
	NATIONAL	IRELAND	275.000	50.000	550.000	100.000	
	NATIONAL	ISRAEL	270.000	50.000			
	NATIONAL	ITALY	275.000	50.000	550.000	100.000	
	NATIONAL	LATVIA	275.000	50.000	550.000	100.000	

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	NATIONAL	ROMANIA	275.000	50.000	550.000	100.000	
	NATIONAL	SPAIN	275.000	50.000	550.000	100.000	
	NATIONAL	SWEDEN	275.000	50.000	550.000	100.000	
	NATIONAL	SWITZERLAND	275.000	50.000	275.000	50.000	
	NATIONAL	NETHERLANDS	275.000				
	NATIONAL	TURKEY	275.000	50.000	550.000	100.000	
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	274.000	50.000	548.000	100.000	
	NATIONAL	BULGARIA	275.000	50.000	550.000	100.000	
	NATIONAL	CZECHIA	270.000		550.000		
	NATIONAL	CROATIA	275.000	50.000	550.000	100.000	
	NATIONAL	ESTONIA	275.000	50.000	550.000	100.000	
	NATIONAL	ICELAND	275.000	50.000	550.000	100.000	
	NATIONAL	LITHUANIA	250.000	50.000	400.000	75.000	
	NATIONAL	NORWAY	270.000	5.000			
	NATIONAL	POLAND	260.000		520.000		
	NATIONAL	PORTUGAL	275.000	50.000	550.000	100.000	
	NATIONAL	RUSSIAN FEDERATION				10.000	
	NATIONAL	SLOVAKIA	275.000	50.000	550.000	100.000	
	NATIONAL	SLOVENIA	275.000	50.000	550.000	100.000	
	NATIONAL	UNITED STATES OF AMERICA		50.000			
glyoxal...%; ethandial...%	EU	NNN	275	50	550	100	Skin
	NATIONAL	AUSTRIA	0.050				
	NATIONAL	GERMANY	0.200		0.400		DFG; Long term and short term: inhalable fraction
	NATIONAL	SWITZERLAND	0.200		0.400		Inhalable fraction
	NATIONAL	KOREA, REPUBLIC OF	0.100				
	NATIONAL	NETHERLANDS	0.200				
	NATIONAL	BELGIUM	0.1				Inhalable fraction and vapour
	NATIONAL	CANADA	0.100				Ontario: inhalable aerosol and vapour
	NATIONAL	DENMARK	0.500	0.200	0.500	0.200	
	NATIONAL	FINLAND	0.020				
	NATIONAL	SPAIN	0.100				
	NATIONAL	ITALY	0.100				
	NATIONAL	ARGENTINA	0.100				
	NATIONAL	MEXICO	0.100				

	NATIONAL	UNITED STATES OF AMERICA	0.100	
	NATIONAL	PORTUGAL	0.100	
	ACGIH	NNN	0.1	(IFV), DSEN, A4 - URT irr, larynx metaplasia
linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool	NATIONAL	RUSSIAN FEDERATION	5.000	

Predicted No Effect Concentration (PNEC) values

Component	CAS-No.	PNEC Limit	Exposure Route	Exposure Frequency
titanium dioxide	13463-67-7	0.184 mg/l	Freshwater	
		0.018 mg/l	Marine water	
		1.000 mg/kg	Intermittent releases (freshwater)	
		100.000 mg/kg	Intermittent releases (marine water)	
		100.000 mg/kg	Microorganisms in sewage treatments	
(Z)-9-octadecen-1-ol ethoxylated	9004-98-2	1.900 µg/l	Freshwater	
		100.000 µg/l	Intermittent releases (freshwater)	
		1.900 µg/l	Marine water	
		10.000 mg/l	Microorganisms in sewage treatments	
		86.900 mg/kg	Freshwater sediments	
		86.900 mg/kg	Marine water sediments	
		1.000 mg/kg	Soil	
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	2634-33-5	4.030 µg/l	Freshwater	
		1.100 µg/l	Intermittent releases (freshwater)	
		403.000 ng/L	Marine water	
		110.000 ng/L	Intermittent releases (marine water)	
		1.030 mg/l	Microorganisms in sewage treatments	
		49.900 µg/kg	Freshwater sediments	
		4.990 µg/kg	Marine water sediments	
		3.000 mg/kg	Soil	
		90.000 ng/L	Freshwater	
		90.000 ng/L	Marine water	
Pyrithione zinc	13463-41-7	10.000 µg/l	Microorganisms in sewage treatments	
		9.500 µg/kg	Freshwater sediments	
		9.500 µg/kg	Marine water sediments	
		1.020 mg/kg	Soil	
		10.000 µg/l	Freshwater	
bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	52-51-7	2.500 µg/l	Intermittent releases (freshwater)	
		800.000 ng/L	Marine water	

2-methoxy-1-methylethyl acetate	108-65-6	430.000 µg/l	Microorganisms in sewage treatments
		41.000 µg/l	Freshwater sediments
		3.280 µg/kg	Marine water sediments
		500.000 µg/kg	Soil
		635.000 µg/l	Freshwater
		6.350 mg/l	Intermittent releases (freshwater)
		63.500 µg/l	Marine water
		100.000 mg/l	Microorganisms in sewage treatments
		3.290 mg/kg	Freshwater sediments
		329.000 µg/kg	Marine water sediments
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	290.000 µg/kg	Soil
		3.390 µg/l	Freshwater
		3.390 µg/l	Intermittent releases (freshwater)
		3.390 µg/l	Marine water
		3.390 µg/l	Intermittent releases (marine water)
		230.000 µg/l	Microorganisms in sewage treatments
		27.000 µg/l	Freshwater sediments
		27.000 µg/l	Marine water sediments
		10.000 µg/l	Soil

Derived No Effect Level (DNEL) values

Component	CAS-No.	Worker Industry	Worker Professional	Consumer	Exposure Route	Exposure Frequency
titanium dioxide	13463-67-7		10.000 mg/m ³		Human Inhalation	Long Term, local effects
(Z)-9-octadecen-1-ol ethoxylated	9004-98-2		294.000 mg/m ³	87.000 mg/m ³	Human Inhalation	Long Term, systemic effects
			2080.000 mg/kg	1250.000 mg/kg	Human Dermal	Long Term, systemic effects
				25.000 mg/kg	Human Oral	Long Term, systemic effects
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	2634-33-5		6.810 mg/m ³	1.200 mg/m ³	Human Inhalation	Long Term, systemic effects
			966.000 µg/kg	345.000 µg/kg	Human Dermal	Long Term, systemic effects
Pyrithione zinc	13463-41-7		10.000 µg/kg		Human Dermal	Long Term, systemic effects
bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	52-51-7		4.100 mg/m ³	1.200 mg/m ³	Human Inhalation	Long Term, systemic effects
			12.300 mg/m ³		Human Inhalation	Short Term, systemic effects
			4.200 mg/m ³	1.300 mg/m ³	Human Inhalation	Long Term, local effects
			4.200 mg/m ³	1.300 mg/m ³	Human Inhalation	Short Term, local effects

2-methoxy-1-methylethyl acetate	108-65-6	2.300 mg/kg	1.400 mg/kg	Human Dermal	Long Term, systemic effects
		7.000 mg/kg		Human Dermal	Short Term, systemic effects
			350.000 µg/kg	Human Oral	Long Term, systemic effects
			1.100 mg/kg	Human Oral	Short Term, systemic effects
		0.013 mg/cm ²	0.008 mg/cm ²	Human Dermal	Long Term, local effects
		0.013 mg/cm ²	0.008 mg/cm ²	Human Dermal	Short Term, local effects
		275.000 mg/m ³	33.000 mg/m ³	Human Inhalation	Long Term, systemic effects
		550.000 mg/m ³		Human Inhalation	Short Term, systemic effects
			33.000 mg/m ³	Human Inhalation	Long Term, local effects
		796.000 mg/kg	320.000 mg/kg	Human Dermal	Long Term, systemic effects
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9		36.000 mg/kg	Human Oral	Long Term, systemic effects
		20.000 µg/m ³	20.000 µg/m ³	Human Inhalation	Long Term, local effects
		40.000 µg/m ³	20.000 µg/m ³	Human Inhalation	Short Term, local effects
			90.000 µg/kg	Human Oral	Long Term, systemic effects
			110.000 µg/kg	Human Oral	Short Term, systemic effects

8.2. Exposure controls

Eye protection:

Not needed for normal use. Anyway, operate according good working practices.

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Not needed for normal use.

Respiratory protection:

N.A.

Thermal Hazards:

N.A.

Environmental exposure controls:

N.A.

Hygienic and Technical measures

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State Liquid

Color: White

Odour: Characteristic

Odour threshold: N.A.

pH: =9.00

Kinematic viscosity: N.A.

Melting point / freezing point: N.A.

Initial boiling point and boiling range: > 100 °C (212 °F) Notes de changements

Flash point: > 93°C

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: 1.65 g/cm³

Solubility in water: N.A.

Solubility in oil: N.A.

Partition coefficient (n-octanol/water): N.A.

Auto-ignition temperature: N.A.

Decomposition temperature: N.A.

Flammability: N.A.

Volatile Organic compounds - VOCs = 1.02 % ; 16.90 g/l

Particle characteristics:

Particle size: N.A.

9.2. Other information

Miscibility: N.A.

Conductivity: N.A.

Evaporation rate: N.A. No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Data not available.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological Information of the Preparation

a) acute toxicity	Not classified Based on available data, the classification criteria are not met
b) skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met
c) serious eye damage/irritation	Not classified Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation	Not classified Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

titanium dioxide	a) acute toxicity	LD50 Oral Rat > 5000.00 mg/kg	
		LC50 Inhalation > 6.82 mg/l	
	d) respiratory or skin sensitisation	Skin Sensitization Negative	
	i) STOT-repeated exposure	No Observed Adverse Effect Level 1000.00	
(Z)-9-octadecen-1-ol ethoxylated	a) acute toxicity	LD50 Oral Rat > 21000.00000 mg/kg	
		LC50 Inhalation Vapour Rat > 100.00000 mg/m3 6h	
		LD50 Skin Rabbit = 2000.00000 mg/kg 24h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Positive 4h	
	c) serious eye damage/irritation	Eye Irritant Rabbit No 72h	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Negative	
	g) reproductive toxicity	No Observed Adverse Effect Level Skin Rat >= 250.00000 mg/kg	
Tetrahydro-1,3,4,6-tetrakis(hydroxymethyl)imidazo[4,5-d]imidazole-2,5(1h,3h)-dione	a) acute toxicity	LD50 Oral Rat > 5000.00000 mg/kg	
		LD50 Skin Rat > 2000.00000 mg/kg	
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative	
	c) serious eye damage/irritation	Eye Irritant Rabbit No	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Positive	
	f) carcinogenicity	Genotoxicity Negative	Mouse intraperitoneal route
	g) reproductive toxicity	No Observed Adverse Effect Level Rat = 100.00000 mg/kg	
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	a) acute toxicity	LD50 Oral Rat = 670.00 mg/kg	
		LD50 Skin Rat > 2000.00000 mg/kg	
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative	
	c) serious eye damage/irritation	Eye Corrosive Positive	irreversible damage
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Positive	
	f) carcinogenicity	Genotoxicity Rat Negative	Oral route
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat = 112.00000 mg/kg	
Pyrrithione zinc	a) acute toxicity	ATE - Oral : 221 mg/kg bw	
		LD50 Oral Rat = 269.00 mg/kg	14 days
		LC50 Inhalation Dust Rat = 0.14 mg/l 4h	
		LD50 Skin Rat > 2000.00000 mg/kg 24h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative 4h	
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes	
	d) respiratory or skin	Skin Sensitization Guineapig Negative	

	sensitisation		
	f) carcinogenicity	Genotoxicity Negative Carcinogenicity Oral Rat = 0.50000 mg/kg Carcinogenicity Skin = 5.00000 mg/kg	NOAEL NOAEL; mouse
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat = 1.40000 mg/kg	
bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	a) acute toxicity	LD50 Oral Rat = 305.00 mg/kg LC50 Inhalation of aerosol Rat >= 0.59 mg/l 4h LD50 Skin Rat > 2000.00000 mg/kg 24h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Positive 4h	
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Negative	
	f) carcinogenicity	Genotoxicity Negative Carcinogenicity Oral Rat Negative	Mouse oral route
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat 200.00000	
2-methoxy-1-methylethyl acetate	a) acute toxicity	LD50 Oral Rat = 6190.00000 mg/kg LD50 Skin Rabbit > 5000.00000 mg/kg 24h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative 4h	
	c) serious eye damage/irritation	Eye Irritant Rabbit No	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Negative	
	g) reproductive toxicity	No Observed Effect Level Rat = 3.69000 mg/l	Inhalation route
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	a) acute toxicity	LD50 Oral Rat = 69.00 mg/kg LD50 Skin Rabbit = 141.00 mg/kg LC50 Inhalation Rat = 0.33 mg/l 4h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Positive	
	c) serious eye damage/irritation	Eye Corrosive Rabbit Positive	
	d) respiratory or skin sensitisation	Skin Sensitization Positive	
	f) carcinogenicity	Genotoxicity Negative Carcinogenicity Skin Negative	
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat = 22.70000 mg/kg	

11.2 Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

Harmful to aquatic life with long lasting effects.

List of Eco-Toxicological properties of the product

The product is classified: Aquatic Chronic 3(H412)

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
titanium dioxide	CAS: 13463-67-7 - EINECS: 236-675-5 - INDEX: 022-006-00-2	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas (Cavedano americano) > 1000.00 mg/L 96h a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata (alghe cloroficee) > 100.00 mg/L 72h a) Aquatic acute toxicity : NOEC Algae = 5600.00 mg/L a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna (Pulce d'acqua grande) > 100.00 mg/L 48h
(Z)-9-octadecen-1-ol ethoxylated	CAS: 9004-98-2 - EINECS: 500-016-2	a) Aquatic acute toxicity : LC50 Fish Danio rerio = 108.00000 mg/L 96h ECHA a) Aquatic acute toxicity : EL50 Daphnia Daphnia magna = 51.00000 mg/L 48h OECD 202 b) Aquatic chronic toxicity : EC20 Daphnia Daphnia magna = 0.04800 mg/L USEPA-TSCA - Duration 21d a) Aquatic acute toxicity : EL50 Algae Pseudokirchneriella subcapitata > 10.00000 mg/L 72h OECD 201 a) Aquatic acute toxicity : EC50 Sludge sewage sludge > 1000.00000 mg/L 3h OECD guideline 209 b) Aquatic chronic toxicity : EC20 Fish Pimephales promelas = 0.24900 mg/L d) Terrestrial toxicity : LC50 Worm Eisenia fetida > 1000.00000 mg/kg OECD 207 e) Plant toxicity : NOEC Lepidum sativum, Brassica alba and Triticum aestivum = 100.00000 mg/kg OECD 208
Tetrahydro-1,3,4,6-tetrakis(hydroxymethyl)imidazo [4,5-d]imidazole-2,5(1h,3h)-dione	CAS: 5395-50-6 - EINECS: 226-408-0	a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna > 38.90000 mg/L 48h OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 3.85000 mg/L 72h „OECD Guideline 201 (Alga, Growth Inhibition Test) a) Aquatic acute toxicity : EC50 Sludge Pseudomonas putida > 1000.00000 mg/L „OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	CAS: 2634-33-5 - EINECS: 220-120-9 - INDEX: 613-088-00-6	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 2.15000 mg/L 96h OECD Guideline 203 a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 2.90000 mg/L 48h OECD Guideline 202 a) Aquatic acute toxicity : EC50 Algae green alga Selenastrum capricornutum freshwater algae = 110.00000 µg/L OECD Guideline 201 d) Terrestrial toxicity : EC50 Worm Eisenia fetida > 410.60000 mg/kg OECD Guideline 207 - Duration 14d d) Terrestrial toxicity : EC10 soil microorganisms = 263.70000 mg/kg - long term a) Aquatic acute toxicity : NOEC Sludge activated sludge 10.30000 mg/L 3h OECD Guideline 209 e) Plant toxicity : LC50 Triticum aestivum = 200.00000 mg/kg OECD Guideline 208

Pyrithione zinc	CAS: 13463-41-7 - EINECS: 236-671-3 - INDEX: 613-333-00-7	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 2.60000 µg/L 96h US EPA-72-1
		a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 8.20000 µg/L US EPA-72-2
		a) Aquatic acute toxicity : EC50 Algae Navicula pelliculosa = 3.00000 µg/L dossier ECHA
		b) Aquatic chronic toxicity : NOEC Fish Pimephales promelas = 1.22000 µg/L „OECD Guideline 210 (Fish, Early-Life Stage Toxicity Test) - 28days
		b) Aquatic chronic toxicity : EC50 Lemna gibba = 9.60000 µg/L EPA OPPTS 850.4400 (Aquatic Plant Toxicity Test using Lemna spp. Tiers I & II))
		d) Terrestrial toxicity : LC50 Folsomia candida = 822.00000 mg/kg ISO 11267 (Inhibition of Reproduction of Collembola by Soil Pollutants)
		e) Plant toxicity : NOEC Tomato, Cucumber, Lettuce, Soybean, Cabbage, Carrot, Oat > 0.49000 µg/L USEPA OPPTS 850.4100
bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	CAS: 52-51-7 - EINECS: 200-143-0 - INDEX: 603-085-00-8	d) Terrestrial toxicity : LC50 Avian Northern Bobwhite = 60.00000 mg/kg EPA FIFRA Guideline 71-1 - 14days
		d) Terrestrial toxicity : NOEC Avian Northern Bobwhite = 31.20000 mg/kg EPA FIFRA Guideline 71-1 - 14days
		a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 37.50000 mg/L 96h US EPA Guideline OPP 72 -1
		b) Aquatic chronic toxicity : NOEC Fish Oncorhynchus mykiss = 21.50000 mg/L OECD guideline 210 - 49days
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 1.40000 mg/L 48h OECD guideline 202
		b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna = 0.27000 mg/L OECD guideline 202 - 21days
		a) Aquatic acute toxicity : NOEC Algae Skeletonema costatum = 0.08000 mg/L 72h ISO 10253
2-methoxy-1-methylethyl acetate	CAS: 108-65-6 - EINECS: 203-603-9	a) Aquatic acute toxicity : EC20 Sludge activated sludge = 2.00000 mg/L OECD 209
		d) Terrestrial toxicity : LC50 Worm Eisenia foetida > 500.00000 mg/kg OECD 207
		d) Terrestrial toxicity : EC50 soil microorganisms = 679.00000 mg/kg OECD guideline 216 - 28days
		a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 130.00000 mg/L 96h OECD guideline 203
		b) Aquatic chronic toxicity : NOEC Fish Oryzias latipes = 47.50000 mg/L OECD guideline 204 - 14days
		a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 408.00000 mg/L 48h OECD guideline 202
		b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna > 100.00000 mg/L OECD guideline 211 - 24days
		a) Aquatic acute toxicity : NOEC Algae Selenastrum capricornutum >= 1000.00000 mg/L OECD guideline 201
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	CAS: 55965-84-9 - INDEX: 613-167-00-5	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 0.19000 mg/L 96h EPA OPP 72-1 (Fish Acute Toxicity Test)
		b) Aquatic chronic toxicity : NOEC Fish Danio rerio = 0.02000 mg/L „OECD Guideline 210 (Fish, Early-Life Stage Toxicity Test) - 35days

a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 0.16000 mg/L 48h
EPA OPP 72-2 (Aquatic Invertebrate Acute Toxicity Test)

b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna = 0.10000 mg/L
EPA OPP 72-4 (Fish Early Life-Stage and Aquatic Invertebrate Life-Cycle
Studies) - 21days

a) Aquatic acute toxicity : EC50 Algae Skeletonema costatum = 0.00 mg/L
96h „OECD Guideline 201 (Alga, Growth Inhibition Test)

a) Aquatic acute toxicity : EC50 Sludge activated sludge = 4.50000 mg/L
3h „OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

d) Terrestrial toxicity : LC50 Worm Eisenia fetida = 613.00000 mg/kg „OECD
Guideline 207 (Earthworm, Acute Toxicity Tests) - 14days

e) Plant toxicity : NOEC Trifolium pratense, Oryza sativa, Brassica napus =
1000.00000 mg/L OECD Guideline 208 (Terrestrial Plants Test: Seedling
Emergence and Seedling Growth Test) - 21days

12.2. Persistence and degradability

Component	Persistence/Degradability:	Test	Value	Notes
(Z)-9-octadecen-1-ol ethoxylated	Readily biodegradable	CO2 production	83.600	in 28 days (OECD 301B)
Tetrahydro-1,3,4,6-tetrakis(hydroxymethyl)imidazo [4,5-d]imidazole-2,5(1h,3h)-dione	Non-readily biodegradable	Dissolved organic carbon	75.000	OECD Guideline 301 A (Ready Biodegradability: DOC Die Away Test)
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	Non-readily biodegradable	CO2 production		OECD Guideline 301C
Pyrithione zinc	Non-readily biodegradable	CO2 production		OECD 301B CO2evolution
bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	Readily biodegradable			OECD guideline 301B
2-methoxy-1-methylethyl acetate	Readily biodegradable	Dissolved organic carbon		OECD GL 301E
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	Non-readily biodegradable			

12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value	Notes
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	Bioaccumulative	BCF - Bioconcentration factor	6.620	
Pyrithione zinc	Bioaccumulative	BCF - Bioconcentration factor	1.400	
bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	Bioaccumulative	BCF - Bioconcentration factor		
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	Bioaccumulative	BCF - Bioconcentration factor	54.000	≤ 54

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT/vPvB Ingredients are present

12.6 Endocrine disrupting properties

No endocrine disruptor substances present in concentration >= 0.1%

12.7 Other adverse effects

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

A waste code according to European waste catalogue (EWC) cannot be specified, due to dependence on the usage. Contact an authorized waste disposal service.

Properties of waste which render it hazardous (Annex III, Directive 2008/98/EC):

HP 14: Ecotoxic

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number or ID number

N.A.

14.2. UN proper shipping name

ADR-Shipping Name: N/A

IATA-Technical name: N/A

IMDG-Technical name: N/A

N.A.

14.3. Transport hazard class(es)

N.A.

IATA-Class: N/A

IMDG-Class: N/A

14.4. Packing group

N.A.

IATA-Packing group: N/A

IMDG-Packing group: N/A

14.5. Environmental hazards

N.A.

IMDG-EMS: N/A

14.6. Special precautions for user

N.A.

Road and Rail (ADR-RID) :

ADR-Label: N.A. N/A

ADR - Hazard identification number: N/A

ADR-Special Provisions: N/A

ADR-Transport category (Tunnel restriction code): N/A

ADR Limited Quantities: N/A

ADR Excepted Quantities: N/A

Air (IATA) :

IATA-Passenger Aircraft: N/A

IATA-Cargo Aircraft: N/A

IATA-Label: N/A

IATA-Subsidiary hazards: N/A

IATA-Erg: N/A

IATA-Special Provisioning: N/A

N.A.

Sea (IMDG) :

IMDG-Stowage Code: N/A

IMDG-Stowage Note: N/A

IMDG-Subsidiary hazards: N/A

IMDG-Special Provisioning: N/A

N.A.

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regulation (EU) n. 2020/878

Regulation (EC) nr 648/2004 (Detergents).

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3

Restrictions related to the substances contained: 40, 75

Provisions related to directive EU 2012/18 (Seveso III):

N.A.

Regulation (EU) 649/2012 (PIC regulation):

No Substance Listed

German Water Hazard Class.

Class 1: slightly hazardous for water.

SVHC Substances:

No data available

Dir. 2004/42/EC (VOC directive)

(ready to use)

Volatile Organic compounds - VOCs = 1.02 %

Volatile Organic compounds - VOCs = 16.90 g/L

15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Code	Description
H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer if inhaled.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
2.6/3	Flam. Liq. 3	Flammable liquid, Category 3
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.6/2	Carc. 2	Carcinogenicity, Category 2
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
4.1/A1	Aquatic Acute 1	Acute aquatic hazard, category 1
4.1/C3	Aquatic Chronic 3	Chronic (long term) aquatic hazard, category 3

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
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4.1/C3	Calculation method
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This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ATE: Acute Toxicity Estimate
ATEmix: Acute toxicity Estimate (Mixtures)
BCF: Biological Concentration Factor
BEI: Biological Exposure Index
BOD: Biochemical Oxygen Demand
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CAV: Poison Center
CE: European Community
CLP: Classification, Labeling, Packaging.
CMR: Carcinogenic, Mutagenic and Reprotoxic
COD: Chemical Oxygen Demand
COV: Volatile Organic Compound
CSA: Chemical Safety Assessment
CSR: Chemical Safety Report
DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level.
DPD: Dangerous Preparations Directive
DSD: Dangerous Substances Directive
EC50: Half Maximal Effective Concentration
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances.
ES: Exposure Scenario
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
IC50: half maximal inhibitory concentration
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KAFH: Keep Away From Heat
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LDLo: Leathal Dose Low
N.A.: Not Applicable
N/A: Not Applicable
N/D: Not defined/ Not available
NA: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration.
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.

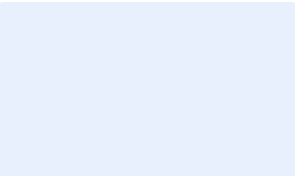
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).

vPvB: Very Persistent, Very Bioaccumulative.

WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 4. FIRST AID MEASURES
- 5. FIRE-FIGHTING MEASURES
- 6. ACCIDENTAL RELEASE MEASURES
- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 10. STABILITY AND REACTIVITY
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 13. DISPOSAL CONSIDERATIONS
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION
- 16. OTHER INFORMATION



Exposure Scenario

2-methoxy-1-methylethyl acetate

Exposure Scenario, 08/06/2021

Substance identity	
	2-methoxy-1-methylethyl acetate
CAS No.	108-65-6
INDEX No.	607-195-00-7
EINECS No.	203-603-9
Registration number	01-2119475791-29

Table of contents

1. ES 1

1. ES 1

1.1 TITLE SECTION

Exposure Scenario name	Professional application of coatings and inks by brush or roller
Date - Version	29/04/2021 - 1.0
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)
Product Categories	Coatings and paints, thinners, paint removers (PC9a)

Environment Contributing Scenario

CS1	ERC8a - ERC8d
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Worker Contributing Scenario

CS2 Large surfaces - Rolling, Brushing	PROC10
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1.2 Conditions of use affecting exposure

1.2. CS1: Environment Contributing Scenario (ERC8a, ERC8d)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8a, ERC8d)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers concentrations up to 100 %

Amount used, frequency and duration of use (or from service life)

Amounts used:

Daily amount per site = 5000 kg

Release type: Continuous release

Emission days: 365 days per year

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

Water - minimum efficiency of: = 87.3 %

Conditions and measures related to treatment of waste (including article waste)

Waste treatment

Contain and dispose of waste according to local regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.

Additional Good Practice Advice:

Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.

1.2. CS2: Worker Contributing Scenario: Large surfaces - Rolling, Brushing (PROC10)

Process Categories	Roller application or brushing (PROC10)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers concentrations up to 100 %

Amount used, frequency and duration of use/exposure**Amounts used:**

Daily amount per site = 5000 kg

Duration:

Exposure duration = 8 h/day

Frequency:

Use frequency = 365 days per year

Technical and organisational conditions and measures**Technical and organisational measures**

Ensure control measures are regularly inspected and maintained.

Carry out in a vented booth or extracted enclosure.

Conditions and measures related to personal protection, hygiene and health evaluation**Personal protection**

Wear a respirator conforming to EN140.

Other conditions affecting worker exposure

Covers indoor and outdoor use

Temperature: Assumes use at not more than 20 °C above ambient temperature.

1.3 Exposure estimation and reference to its source

1.3. CS1: Environment Contributing Scenario (ERC8a, ERC8d)

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater	= 0.003 mg/L	ECETOC TRA environment v3	= 0.004
freshwater sediment	= 0.014 mg/kg KW	ECETOC TRA environment v3	= 0.004
marine water	= 0.0004 mg/L	ECETOC TRA environment v3	= 0.007
marine sediment	= 0.002 mg/kg KW	ECETOC TRA environment v3	= 0.007
soil	= 0.001 mg/kg KW	ECETOC TRA environment v3	= 0.004

1.3. CS2: Worker Contributing Scenario: Large surfaces - Rolling, Brushing (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 137.71 mg/m ³	ECETOC TRA worker v3	= 0.5
dermal, systemic, long-term	= 13.71 mg/kg bw/day	ECETOC TRA worker v3	0.18

1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.