

Safety Data Sheet

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

BIOCALCE SILICATO PURO 0,6 - 1,0 - 1,2 - 1,5

Date of first edition: 9/8/2021

Safety Data Sheet dated 4/4/2022

version 8

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

1.1. Product identifier

Mixture identification:

Trade name: BIOCALCE SILICATO PURO 0,6 - 1,0 - 1,2 - 1,5

Trade code: 001042001 08

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

Recommended use: Coating compound

Uses advised against: Data not available.

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 in accordance with applicable regulations.

Special Provisions:

EUH208 Contains 2-methylisothiazol-3(2H)-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)

Exterior walls of mineral substrate

EU limit value for this product (cat. A/c): 40 g/l

This product contains max 12.25 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 $\geq 0.1\%$.

Other Hazards: Contains biocidal product;; C(M)IT/MIT (3:1); The product is identified as an article treated pursuant to art. 58 of Regulation (EU) no. 528/2012 and subsequent amendments. It is recommended to avoid possible exposure to the skin. Protective gloves and work clothes are recommended. Minimize the uncontrolled release of product into the environment. When washing work equipment, water must not be dispersed in the soil or on surface water.

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: BIOCALCE SILICATO PURO 0,6 - 1,0 - 1,2 - 1,5

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	
2,5-4,9 %	Silicic acid, potassium salt - lumps or aqueous solutions of molar ratio MR > 3.2	CAS:1312-76-1 EC:215-199-1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Specific Concentration Limits: C $\geq 40\%$: Eye Irrit. 2 H319 C $\geq 40\%$: Skin Irrit. 2 H315 C $\geq 40\%$: STOT SE 3 H335	01-2119456888-17
< 0,5 %	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	CAS:112-34-5 EC:203-961-6 Index:603-096-00-8	Eye Irrit. 2, H319	01-2119475104-44
< 0,1 %	Quartz	CAS:14808-60-7 EC:238-878-4	STOT RE 1, H372	
< 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
< 0,05 %	Terbutryn	CAS:886-50-0 EC:212-950-5	Acute Tox. 4, H302; Skin Sens. 1B, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410, M-Chronic:100, M-Acute:100	
< 0,0015 %	2-methylisothiazol-3(2H)-one	CAS:2682-20-4 EC:220-239-6 Index:613-326-00-9	Acute Tox. 2, H330 Acute Tox. 3, H301 Acute Tox. 3, H311 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410, M-Chronic:1, M-Acute:10, EUH071 Specific Concentration Limits: C $\geq 0.0015\%$: Skin Sens. 1A H317	01-2120764690-50
< 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 $\geq 0.6\%$: Skin Corr. 1C H314 0.06% $\leq$ C < 0.6%: Skin Irrit. 2 H315 C $\geq 0.6\%$: Eye Dam. 1 H318	

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

< 0,0015 % formaldehyde

CAS:50-00-0
EC:200-001-8
Index:605-001-00-5

Carc. 1B, H350 Muta. 2, H341 01-2119488953-20
Acute Tox. 3, H301 Acute Tox. 3,
H311 Acute Tox. 3, H331 Skin
Corr. 1B, H314 Skin Sens. 1, H317

Specific Concentration Limits:
25% ≤ C < 100%: Skin Corr. 1B
H314
5% ≤ C < 25%: Skin Irrit. 2 H315
5% ≤ C < 25%: Eye Irrit. 2 H319
5% ≤ C < 100%: STOT SE 3 H335
0.2% ≤ C < 100%: Skin Sens. 1
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

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
Calcium carbonate	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				

Limestone	NATIONAL	BELGIUM	10.000	
	NATIONAL	KOREA, REPUBLIC OF	10.000	
	NATIONAL	CROATIA	10.000	
	NATIONAL	NETHERLA NDS	10.000	
	NATIONAL	PORTUGAL	10.000	
	NATIONAL	SPAIN	10.000	
	NATIONAL	CHILE	5.000	respirable fraction
	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 NDS	10.000	
	NATIONAL	PORTUGAL	10.000	
	NATIONAL	AUSTRALIA	10	
titanium dioxide				

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	SWITZERLA ND	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		

Quartz

NATIONAL	NORWAY	5.000		
NATIONAL	PORTUGAL	10.000		
NATIONAL	RUSSIAN FEDERATIO N	10.000		
NATIONAL	SLOVAKIA	5.000		
NATIONAL	SLOVENIA	6.000		
NATIONAL	SOUTH SUDAN	10.000		Inhalable fraction
NATIONAL	SOUTH SUDAN	5.000		Respirable fraction
NATIONAL	TAIWAN, PROVINCE OF CHINA	10.000		
ACGIH	NNN	10.000		A4 - LRT 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	SWITZERLA ND	0.150		Respirable aerosol
NATIONAL	NETHERLA NDS	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		

Mica	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	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
	NATIONAL	AUSTRALIA	2.500		
	NATIONAL	AUSTRIA	10.000		Inhalable aerosol
	NATIONAL	BELGIUM	3.000		
	NATIONAL	CANADA	3.000		Ontario: respirable aerosol
	NATIONAL	CANADA	3.000		Quebec
	NATIONAL	DENMARK	0.300	0.300	Long term and short term: fibres per cm ³
	NATIONAL	IRELAND	10.000		Inhalable fraction
	NATIONAL	IRELAND	0.800		respirable fraction
	NATIONAL	LATVIA	4.000		and phlogopite, muscovite
	NATIONAL	NEW ZEALAND	3.000		respirable dust
	NATIONAL	CHINA	2.000		Inhalable fraction
	NATIONAL	CHINA	1.500		Respirable fraction
	NATIONAL	SINGAPORE	3.000		respirable dust
	NATIONAL	KOREA, REPUBLIC OF	3.000		
	NATIONAL	SWITZERLAND	3.000		Respirable aerosol
	NATIONAL	UNITED STATES OF AMERICA	3.000		NIOSH: respirable fraction
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	10.000		Inhalable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	0.800		Respirable aerosol
	NATIONAL	ITALY	3.000		
	NATIONAL	CHILE	2.630		
	NATIONAL	CROATIA	10.000		Total dust
	NATIONAL	CROATIA	0.800		Respirable dust
	NATIONAL	ARGENTINA	3.000		
	NATIONAL	MALAYSIA	3.000		
	NATIONAL	MEXICO	3.000		Respirable fraction
	NATIONAL	SPAIN	3.000		Respirable fraction

Cellulose	NATIONAL	SOUTH AFRICA	10.000		Inhalable particulate
	NATIONAL	SOUTH AFRICA	1.000		Respirable particulate
	NATIONAL	TAIWAN, PROVINCE OF CHINA	3.000		
	ACGIH	NNN	3		(R) - Pneumoconiosis
	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
	NATIONAL	CANADA	10.000		Quebec
	NATIONAL	FRANCE	10.000		Inhalable aerosol
	NATIONAL	IRELAND	10.000	20.000	Long term and short term: inhalable fraction
	NATIONAL	IRELAND	4.000		Respirable fraction
	NATIONAL	LATVIA	2.000		
	NATIONAL	NEW ZEALAND	10.000		The value for inhalable dust containing no asbestos and less than 1% free silica
	NATIONAL	CHINA	10.000		
	NATIONAL	SINGAPORE	10.000		
	NATIONAL	KOREA, REPUBLIC OF	10.000		
	NATIONAL	SPAIN	10.000		Inhalable aerosol
	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 aerosol
	NATIONAL	UNITED STATES OF AMERICA	15.000		OSHA; Total dust
	NATIONAL	UNITED STATES OF AMERICA	5.000		OSHA; Respirable dust
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	10.000	20.000	Long term and short term: inhalable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	5.000		Respirable aerosol
	NATIONAL	ITALY	10.000		
	NATIONAL	ARGENTINA	10.000		
	NATIONAL	ESTONIA	10.000		

2-(2-butoxyethoxy) ethanol; diethylene glycol monobutyl ether

NATIONAL	INDONESIA	10.000					
NATIONAL	MALAYSIA	10.000					
NATIONAL	MEXICO	10.000					
NATIONAL	PORTUGAL	10.000					
NATIONAL	CHILE	8.800					
NATIONAL	RUSSIAN FEDERATION				10.000		
NATIONAL	CROATIA	10.000		20.000			Long term and short term: total dust
NATIONAL	CROATIA	4.000					Respirable dust
NATIONAL	SOUTH AFRICA	10.000		20.000			Long term and short term: inhalable particulate
NATIONAL	SOUTH AFRICA	5.000					Respirable particulate
ACGIH	NNN	10					URT irr
EU	NNN	67.5	10	101.2	15		Indicative Occupational Exposure Limit Value (IOELV)
NATIONAL	BELGIUM	67.500	10.000	101.200	15.000		
NATIONAL	DENMARK	100.000		200.000			
NATIONAL	FINLAND	68.000	10.000				
NATIONAL	FRANCE	67.500	10.000	101.200	15.000		Italic type: Indicative statutory limit values
NATIONAL	GERMANY	67.000	10.000	100.000	15.000		AGS; Long term and short term: inhalable aerosol and vapour
NATIONAL	GERMANY	67.000	10.000	100.500	15.000		DFG; MAK value applies for the sum of the concentrations of diethylene glycol monobutyl ether and its acetate in the air; Long term and short term: Inhalable fraction and vapour
NATIONAL	HUNGARY	67.500		101.200			
NATIONAL	IRELAND	67.500	10.000	101.200	15.000		
NATIONAL	LATVIA	67.500	10.000	101.200	15.000		
NATIONAL	POLAND	67.000		100.000			
NATIONAL	ROMANIA	67.500	10.000	101.200	15.000		
NATIONAL	SPAIN	67.500	10.000	101.200	15.000		
NATIONAL	SWEDEN	68.000	10.000	101.000	15.000		
NATIONAL	SWITZERLAND	67.000	10.000	101.200	15.000		
NATIONAL	NETHERLANDS	50.000		100.000			
NATIONAL	TURKEY	67.500	10.000	101.200	15.000		
NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	67.500	10.000	101.200	15.000		
NATIONAL	ITALY	67.500	10.000	101.200	15.000		
NATIONAL	BULGARIA	67.500	10.000	101.200	15.000		
NATIONAL	CROATIA	67.500	10.000	101.200	15.000		
NATIONAL	GREECE	67.500	10.000	101.200	15.000		

naphtha (petroleum), hydrodesulphurized heavy. Low boiling point hydrogen treated naphtha	NATIONAL	ICELAND	67.500	10.000	101.200	15.000	
	NATIONAL	SLOVAKIA	67.500	10.000	101.200	15.000	
	NATIONAL	CZECHIA	70.000		100.000		
	NATIONAL	KOREA, REPUBLIC OF		10.000			
	NATIONAL	NORWAY	68.000	10.000			
	NATIONAL	RUSSIAN FEDERATIO N			10.000		
	NATIONAL	UNITED STATES OF AMERICA	67.500	10.000			Inhalable fraction and vapour
	NATIONAL	PORTUGAL		10.000			
	ACGIH	NNN		10			(IFV) - Hematologic, liver and kidney eff
	EU	NNN	67.5	10	101.2	15	
Quartz	NATIONAL	LATVIA	200.000		300.000		
	NATIONAL	POLAND	300.000		900.000		
	NATIONAL	SPAIN	290.000	50.000	580.000	100.000	
	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	SWITZERLA ND	0.150				Respirable aerosol
	NATIONAL	NETHERLA NDS	0.075				Respirable dust
	NATIONAL	ITALY	0.050				Silice cristallina
	NATIONAL	ITALY	0.025				A2
	NATIONAL	UNITED STATES OF AMERICA	0.050				NIOSH

2-methoxy-1-methylethyl acetate	NATIONAL	KOREA, REPUBLIC OF	0.050					
	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	PORTUGAL	0.025					
	NATIONAL	SLOVENIA	0.050	0.400				
	NATIONAL	SOUTH AFRICA	0.100					
	ACGIH	NNN	0.025					(R), A2 - Pulm fibrosis, lung cancer
	EU	NNN	0.100					(R), A2 - Pulm fibrosis, lung cancer
	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		
	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		

sodium hydroxide; caustic soda	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 FEDERATIO N					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			
	EU	NNN		275	50	550	100	Skin
	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
	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	SWITZERLA ND		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		
White mineral oil (petroleum)	ACGIH	NNN	C		2	URT, eye, and skin irr
	NATIONAL	GERMANY		5.000	20.000	AGS; long term and short term: respirable fraction
	NATIONAL	GERMANY		5.000	20.000	DFG; long term and short term: respirable fraction
	NATIONAL	ROMANIA		5.000	10.000	
	NATIONAL	SWITZERLA ND		5.000		Inhalable fraction
potassium hydroxide; caustic potash	NATIONAL	AUSTRALIA	C		2.000	
	NATIONAL	AUSTRIA		2.000		Inhalable fraction
	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
	NATIONAL	NEW ZEALAND	C		2.000	
	NATIONAL	CHINA	C		2.000	
	NATIONAL	POLAND		0.500	1.000	
	NATIONAL	SINGAPORE			2.000	
	NATIONAL	KOREA, REPUBLIC OF	C		2.000	
	NATIONAL	SPAIN		2.000		
	NATIONAL	SWEDEN		1.000	2.000	
	NATIONAL	SWITZERLA ND		2.000		Inhalable aerosol
	NATIONAL	UNITED STATES OF AMERICA	C		2.000	NIOSH
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND			2.000	
	NATIONAL	ITALY	C		2.000	
	NATIONAL	ARGENTINA	C		2.000	
	NATIONAL	BULGARIA		2.000		
	NATIONAL	CZECHIA		1.000	2.000	
	NATIONAL	CHILE	C		2.000	
	NATIONAL	CROATIA			2.000	

	NATIONAL	ESTONIA	2.000				
	NATIONAL	GREECE	2.000		2.000		
	NATIONAL	INDONESIA			2.000		
	NATIONAL	ICELAND			2.000		
	NATIONAL	MALAYSIA	C		2.000		
	NATIONAL	MEXICO	C		2.000		
	NATIONAL	NORWAY	C		2.000		
	NATIONAL	PORTUGAL	C		2.000		
	NATIONAL	SOUTH AFRICA			2.000		
2-methylisothiazol-3(2H)-one	ACGIH	NNN	C		2		URT, eye, and skin irr
	NATIONAL	AUSTRIA	0.050				
	NATIONAL	GERMANY	0.200		0.400		DFG; long term: inhalable fraction
glyoxal...%; ethandial...%	NATIONAL	SWITZERLAND	0.100		0.400		Long term and short term: inhalable fraction
	NATIONAL	SLOVENIA	0.050				
	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				
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	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
	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				
formaldehyde	NATIONAL	AUSTRALIA	1.200	1.000	2.500	2.000	
	NATIONAL	AUSTRIA	0.370	0.300			
	NATIONAL	AUSTRIA	C		0.600	0.740	
	NATIONAL	BELGIUM			0.380	0.300	
	NATIONAL	CANADA				1.000	
	NATIONAL	CANADA	C			1.500	
	NATIONAL	CANADA	C		3.000	2.000	

NATIONAL	DENMARK		0.400	0.300	0.400	0.300	
NATIONAL	FINLAND		0.370	0.300			
NATIONAL	FINLAND	C			1.200	1.000	
NATIONAL	FRANCE			0.500		1.000	
NATIONAL	GERMANY		0.370	0.300	0.740	0.600	ASG
NATIONAL	GERMANY		0.370	0.300	0.740	0.600	DFG; Short term: a momentary value of 1 ml/m ³ (1,2 mg/m ³) should not be exceeded.
NATIONAL	HUNGARY		0.600		0.600		
NATIONAL	IRELAND		2.500	2.000	2.500	2.000	
NATIONAL	ISRAEL		0.240	0.200	0.370	0.300	
NATIONAL	JAPAN			0.100			MHLW
NATIONAL	JAPAN		0.120	0.100			JSOH
NATIONAL	JAPAN	C	0.240	0.200			JSOH
NATIONAL	LATVIA		0.500				
NATIONAL	NEW ZEALAND			0.330			Short term: 12 hour shift
NATIONAL	NEW ZEALAND	C				1.000	
NATIONAL	NEW ZEALAND	C		0.500			12 hour shift
NATIONAL	CHINA	C			0.500		
NATIONAL	POLAND		0.500		1.000		
NATIONAL	ROMANIA		1.200	1.000	3.000	2.000	
NATIONAL	SINGAPORE				0.370	0.300	
NATIONAL	KOREA, REPUBLIC OF		0.750	0.500	1.500	1.000	
NATIONAL	SPAIN		0.370	0.300	0.740	0.600	
NATIONAL	SWEDEN		0.370	0.300	0.740	0.600	
NATIONAL	SWITZERLAND		0.370	0.300	0.740	0.600	
NATIONAL	NETHERLANDS		0.150			0.500	
NATIONAL	UNITED STATES OF AMERICA			0.016			NIOSH
NATIONAL	UNITED STATES OF AMERICA	C				0.100	NIOSH
NATIONAL	UNITED STATES OF AMERICA			0.750		2.000	OSHA
NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND		2.500	2.000	2.500	2.000	
NATIONAL	ITALY		0.600	0.500	0.600	0.500	
NATIONAL	BULGARIA		1.000		2.000		
NATIONAL	CZECHIA		0.500		1.000		
NATIONAL	CROATIA		2.500	2.000	2.500	2.000	
NATIONAL	ESTONIA		0.600	0.500	1.200	1.000	
NATIONAL	GREECE		2.500	2.000	2.500	2.000	

NATIONAL	INDONESIA				0.300	
NATIONAL	LITHUANIA			0.600	0.500	
NATIONAL	SLOVAKIA	0.370	0.300	0.740	0.600	
NATIONAL	SLOVENIA	0.620	0.500			
NATIONAL	RUSSIAN FEDERATIO N	0.500				
NATIONAL	SOUTH AFRICA	2.500	2.000	1.200	1.000	
NATIONAL	TAIWAN, PROVINCE OF CHINA	1.200	1.000			
ACGIH	NNN		0.1		0.3	DSEN, RSEN, A1 - URT and eye irr, URT cancer
EU	NNN	0.37	0.3	0.74	0.6	Dermal sensitisation

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	
Silicic acid, potassium salt - lumps or aqueous solutions of molar ratio MR > 3.2	1312-76-1	7.500 mg/l	Freshwater	
		7.500 mg/l	Intermittent releases (freshwater)	
		1.000 mg/l	Marine water	
		348.000 mg/l	Secondary poisoning	
2-(2- butoxyethoxy)ethanol; diethylene glycol monobutyl ether	112-34-5	1.100 mg/l	Freshwater	
		11.000 mg/l	Intermittent releases (freshwater)	
		110.000 µg/l	Marine water	
		200.000 mg/l	Microorganisms in sewage treatments	
		4.400 mg/kg	Freshwater sediments	
		440.000 µg/kg	Marine water sediments	
		320.000 µg/kg	Soil	
		56.000 mg/kg	Secondary poisoning	
2-methoxy-1-methylethyl acetate	108-65-6	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	

		290.000 µg/kg	Soil
2-methylisothiazol-3(2H)-one	2682-20-4	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
		47.100 µg/kg	Soil
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	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
formaldehyde	50-00-0	440.000 µg/l	Freshwater
		4.440 mg/l	Intermittent releases (freshwater)
		440.000 µg/l	Marine water
		190.000 µg/l	Microorganisms in sewage treatments
		2.300 mg/kg	Freshwater sediments
		2.300 mg/kg	Marine water sediments
		200.000 µg/kg	Marine water sediments

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
Silicic acid, potassium salt - lumps or aqueous solutions of molar ratio MR > 3.2	1312-76-1		5.610 mg/m ³	1.380 mg/m ³	Human Inhalation	Long Term, systemic effects
			1.490 mg/kg	740.000 µg/kg	Human Dermal	Long Term, systemic effects
				740.000 µg/kg	Human Oral	Long Term, systemic effects
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	112-34-5		67.500 mg/m ³	40.500 mg/m ³	Human Inhalation	Long Term, systemic effects
			67.500 mg/m ³	40.500 mg/m ³	Human Inhalation	Long Term, local effects
			101.200 mg/m ³	60.700 mg/m ³	Human Inhalation	Long Term, systemic effects

2-methoxy-1-methylethyl acetate	108-65-6	83.000 mg/kg	50.000 mg/kg	Human Dermal	Long Term, systemic effects
			5.000 mg/kg	Human Oral	Long Term, systemic 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
2-methylisothiazol-3(2H)-one	2682-20-4		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
			36.000 mg/kg	Human Oral	Long Term, systemic effects
		21.000 µg/m ³	21.000 µg/m ³	Human Inhalation	Long Term, local effects
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	43.000 µg/m ³	43.000 µg/m ³	Human Inhalation	Short Term, local effects
			27.000 µg/kg	Human Oral	Long Term, systemic effects
			53.000 µg/kg	Human Oral	Short Term, systemic effects
		20.000 µg/m ³	20.000 µg/m ³	Human Inhalation	Long Term, local effects
formaldehyde	50-00-0	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
		9.000 mg/m ³	3.200 mg/m ³	Human Inhalation	Long Term, systemic effects
		375.000 µg/m ³	100.000 µg/m ³	Human Inhalation	Long Term, local effects
		750.000 µg/m ³			Short Term, local effects
		240.000 mg/kg	102.000 mg/kg	Human Dermal	Long Term, systemic effects
			4.100 mg/kg	Human Oral	Long 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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State Liquid
 Color: In compliance with the product description
 Odour: Light
 Odour threshold: N.A.
 pH: =11.50 (OECD 122)
 Kinematic viscosity: N.A.
 Melting point / freezing point: N.A.
 Initial boiling point and boiling range: N.A. > N.A.
 Flash point: > 60°C / 93°C
 Upper/lower flammability or explosive limits: N.A.
 Vapour density: N.A.
 Vapour pressure: hPa
 Relative density: 1.75 g/cm³ (ISO 2811)
 Solubility in water: Miscible
 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 = 0.70 % ; 12.25 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 Skin Corrosive - Product has been tested with Corrositex - OECD 435 - In Vitro Membrane Barrier Test Method for Skin Corrosion. Results: >60 min.
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	
Silicic acid, potassium salt - lumps or aqueous solutions of molar ratio MR > 3.2	a) acute toxicity	LD50 Oral Rat > 5000.00 mg/kg LC50 Inhalation Vapour Rat > 2.06 mg/l 4h LD50 Skin Rat > 5000.00 mg/kg	
	b) skin corrosion/irritation	Skin Irritant Rabbit Positive 4h	
	c) serious eye damage/irritation	Eye Irritant Rabbit No	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Negative	
	f) carcinogenicity	Genotoxicity Negative 24h	Mouse oral route
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat > 159.00 mg/kg	
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	a) acute toxicity	LD50 Oral Mouse = 2410.00000 mg/kg LD50 Skin Rabbit = 2764.00000 mg/kg	LD50 2 410 - 5 530 mg/kg
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative 1h	LD50 2 410 - 5 530 mg/kg
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Negative	
	f) carcinogenicity	Genotoxicity Negative	Mouse oral route
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rodent = 720.00000 mg/kg	
Quartz	a) acute toxicity	LD50 Oral > 2000.00000 mg/kg	
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	Eye Irritant Rabbit No	

	damage/irritation		
	d) respiratory or skin sensitisation	Skin Sensitization Guinea pig Negative	
	g) reproductive toxicity	No Observed Effect Level Rat = 3.69000 mg/l	Inhalation route
2-methylisothiazol-3(2H)-one	a) acute toxicity	LC50 Inhalation of aerosol Rat = 0.10000 mg/l 4h	
		LD50 Oral Rat = 120.00000 mg/kg	
		LD50 Skin Rat = 242.00000 mg/kg 24h	
	b) skin corrosion/irritation	Skin Corrosive Rabbit Positive 4h	
	c) serious eye damage/irritation	Eye Corrosive Rabbit Positive	
	d) respiratory or skin sensitisation	Skin Sensitization Guinea pig Positive	
	f) carcinogenicity	Genotoxicity Rat Negative	Oral route
		Carcinogenicity Oral Rat Negative	
	g) reproductive toxicity	Reproductive Toxicity Oral Rat = 200.00000 Ppm	NOAEL
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	
formaldehyde	a) acute toxicity	LD50 Oral Rat = 640.00000 mg/kg	
		LC50 Inhalation Vapour Rat < 463.00000 Ppm 4h	
	b) skin corrosion/irritation	Skin Corrosive Rabbit Positive	
	c) serious eye damage/irritation	Eye Corrosive Rabbit Positive	
	d) respiratory or skin sensitisation	Skin Sensitization Positive	mouse
	f) carcinogenicity	Genotoxicity Rat Positive	
		Carcinogenicity Rat Positive	
	i) STOT-repeated exposure	No Observed Adverse Effect Level Oral Rat = 15.00000 mg/kg	effects in the stomach

11.2 Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration $\geq 0.1\%$

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
Silicic acid, potassium salt - lumps or aqueous solutions of molar ratio MR > 3.2	CAS: 1312-76-1 - EINECS: 215-199-1	a) Aquatic acute toxicity : LC50 Fish Leuciscus idus > 146.00 mg/L 96h DIN 38412 a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna > 146.00 mg/L 24h OECD 202 a) Aquatic acute toxicity : EC50 Algae Scenedesmus subspicatus = 207.00 mg/L 72h OECD guideline 201 c) Bacteria toxicity : EC0 Sludge Pseudomonas putida > 1000.00 mg/L OECD 209 - 18hr
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	CAS: 112-34-5 - EINECS: 203-961-6 - INDEX: 603-096-00-8	a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 1.30000 mg/L 96h b) Aquatic chronic toxicity : LC10 Fish freshwater fish = 396.00000 mg/L QSAR model a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 1101.00000 mg/L 48h OECD 202 b) Aquatic chronic toxicity : LC10 Daphnia freshwater invertebrates = 112.00000 mg/L protocol: QSAR - 14days a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 100.00000 mg/L 96h OECD201 c) Bacteria toxicity : EC10 Sludge Activated sludge = 1995.00000 mg/L
2-methoxy-1-methylethyl acetate	CAS: 108-65-6 - EINECS: 203-603-9	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
2-methylisothiazol-3(2H)-one	CAS: 2682-20-4 - EINECS: 220-239-6 - INDEX: 613-326-00-9	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 4.77000 mg/L 96h „OECD Guideline 203 (Fish, Acute Toxicity Test) b) Aquatic chronic toxicity : NOEC Fish Oncorhynchus mykiss = 4.93000 mg/L Dossier ECHA a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 0.93400 mg/L 48h OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) b) Aquatic chronic toxicity : EC10 Daphnia Daphnia magna = 0.04400 mg/L

OECD Guideline 211 (Daphnia magna Reproduction Test) - Duration 21d

a) Aquatic acute toxicity : EC50 Algae Selenastrum capricornutum = 0.10300 mg/L 72h Dossier ECHA

a) Aquatic acute toxicity : EC50 Sludge activated sludge of a predominantly domestic sewage = 41.00000 mg/L 3h „OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test

b) Aquatic chronic toxicity : EC50 freshwater sediment = 50.00000 mg/kg Duration 28d Draft OECD Guideline (now OECD Guideline 225) - 28days

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

formaldehyde CAS: 50-00-0 - EINECS: 200-001-8 - INDEX: 605-001-00-5 a) Aquatic acute toxicity : LC50 Fish Morone saxatilis = 6.18000 mg/L

a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 5.80000 mg/L 48h OECD guideline 202

b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna >= 6.40000 mg/L OECD Test Guideline 211

a) Aquatic acute toxicity : EC50 Algae freshwater algae = 5.67000 mg/L 72h

a) Aquatic acute toxicity : EC50 Sludge activated sludge = 19.00000 mg/L 3h

d) Terrestrial toxicity : LC50 Worm Eisenia fetida = 1.00000 µg/cm2 48h - 1 - 10 µg/cm2

12.2. Persistence and degradability

Component	Persitence/Degradability:	Test	Value	Notes
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	Readily biodegradable	Biochemical oxygen demand	91.700	%
2-methoxy-1-methylethyl acetate	Readily biodegradable	Dissolved organic carbon		OECD GL 301E
2-methylisothiazol-3(2H)-one	Non-readily biodegradable	CO2 production		OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	Non-readily biodegradable			
formaldehyde	Readily biodegradable	Dissolved organic carbon		OECD guidelines 301 A

12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value	Notes
2-methylisothiazol-3(2H)-one	Bioaccumulative	BCF - Bioconcentration factor	5.750	carcass

	Bioaccumulative	BCF - Bioconcentration factor	48.100	viscera
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
formaldehyde	Not bioaccumulative	BCF - Bioconcentration factor		

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 $\geq 0.1\%$

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

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

14.3. Transport hazard class(es)

ADR-Class: N/A

IATA-Class: N/A

IMDG-Class: N/A

14.4. Packing group

ADR-Packing Group: N/A

IATA-Packing group: N/A

IMDG-Packing group: N/A

14.5. Environmental hazards

Marine pollutant: No

Environmental Pollutant: No

IMDG-EMS: N/A

14.6. Special precautions for user

Road and Rail (ADR-RID) :

ADR exempt: No

ADR-Label: 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

Sea (IMDG) :

IMDG-Stowage Code: N/A

IMDG-Stowage Note: N/A

IMDG-Subsidiary hazards: N/A

IMDG-Special Provisioning: 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: 28, 40, 55, 72, 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 = 0.70 %

Volatile Organic compounds - VOCs = 12.25 g/L

REGULATION (EU) No 528/2012

The product is identified as an article treated pursuant to art. 58 of Regulation (EU) no. 528/2012 and subsequent amendments.

Substances included in Regulation (EU) n. 528/2012 (concerning the making available on the market and use of biocidal products):;

Nomenclature IUPAC: Mixture of 5-chloro-2-methyl-2H- isothiazol-3-one (EINECS 247-500-7) and 2-methyl-2H-isothiazol-3-one (EINECS 220-239-6) (Mixture of CMIT/MIT)

Nomenclature BPR: C(M)IT/MIT (3:1)

CAS number: 55965-84-9

Product-type 6: Preservatives for products during storage

Assessment status: Approved

Commission Implementing Regulation (EU) 2016/131

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.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
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
3.1/3/Dermal	Acute Tox. 3	Acute toxicity (dermal), Category 3
3.1/3/Inhal	Acute Tox. 3	Acute toxicity (inhalation), Category 3
3.1/3/Oral	Acute Tox. 3	Acute toxicity (oral), Category 3
3.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.5/2	Muta. 2	Germ cell mutagenicity, Category 2
3.6/1B	Carc. 1B	Carcinogenicity, Category 1B
3.6/2	Carc. 2	Carcinogenicity, Category 2
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/1	STOT RE 1	Specific target organ toxicity — repeated exposure, 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

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

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

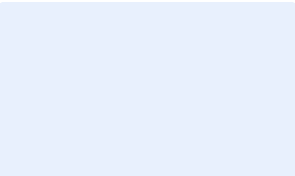
BOD: Biochemical Oxygen Demand

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
- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL 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

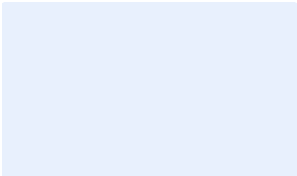
1.3. CS2: Worker Contributing Scenario: Large surfaces - Rolling, Brushing (PROC10)

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.



Exposure Scenario

2-(2-butoxyethoxy)ethanol

Exposure Scenario, 13/07/2021

Substance identity	
	2-(2-butoxyethoxy)ethanol
CAS No.	112-34-5
INDEX No.	603-096-00-8
EINECS No.	203-961-6
Registration number	01-2119475104-44

Table of contents

1. **ES 1** Widespread use by professional workers; Coatings and paints, thinners, paint removers (PC9a)

1. ES 1

Widespread use by professional workers; Coatings and paints, thinners, paint removers (PC9a)

1.1 TITLE SECTION

Exposure Scenario name	Professional application of coatings and inks
Date - Version	23/03/2021 - 1.0
Life Cycle Stage	Widespread use by professional workers
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 Low environmental release	ERC8c - ERC8f
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Worker Contributing Scenario

CS2 Mixing operations - Surfaces - Wiping - Preparation of material for application - General measures (eye irritants)	PROC10 - PROC9 - PROC13
--	-------------------------

1.2 Conditions of use affecting exposure

1.2. CS1: Environment Contributing Scenario: Low environmental release (ERC8c, ERC8f)

Environmental release categories	Widespread use leading to inclusion into/onto article (indoor) - Widespread use leading to inclusion into/onto article (outdoor) (ERC8c, ERC8f)
----------------------------------	---

*Product (article) characteristics***Physical form of product:**

Solid, low dustiness

Vapour pressure:

Vapour pressure < 0.01 Pa at standard temperature and pressure = 0.00022 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Other conditions affecting environmental exposure

Outdoor use

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

Additional Good Practice Advice:

Ensure that direction of application is only horizontal or downward. Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed.

Additional conditions human health

Application of solvent-borne or water-borne products

1.2. CS2: Worker Contributing Scenario: Mixing operations - Surfaces - Wiping - Preparation of material for application - General measures (eye irritants) (PROC10, PROC9, PROC13)

Process Categories	Roller application or brushing - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Treatment of articles by dipping and pouring (PROC10, PROC9, PROC13)
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*Product (article) characteristics***Physical form of product:**

Solid, high dustiness
Solid, low dustiness

Vapour pressure:

Vapour pressure < 0.01 Pa at standard temperature and pressure = 0.00022 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

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

Covers daily exposures up to 8 hours <= 8 h

Frequency:

Use frequency = 230 days per year

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

Ensure operatives are trained to minimise exposures.

Avoid direct eye contact with product, also via contamination on hands.

Ensure that direct skin contact is avoided.

Provide a basic standard of general ventilation (1 to 3 air changes per hour).

For further specification, refer to section 8 of the SDS.

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

Use suitable eye protection.

Provide employee with skin care programmes.

Other conditions affecting worker exposure

Covers indoor and outdoor use

Professional use

Temperature: Covers use at ambient temperatures.

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply.**Additional Good Practice Advice:**

Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed.

1.3 Exposure estimation and reference to its source**1.3. CS1: Environment Contributing Scenario: Low environmental release (ERC8c, ERC8f)****Additional information on exposure estimation:**

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed.

1.3. CS2: Worker Contributing Scenario: Mixing operations - Surfaces - Wiping - Preparation of material for application - General measures (eye irritants) (PROC10, PROC9, PROC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
combined routes, systemic, long-term	N/A	ECETOC TRA worker v3	< 1

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.