

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 1,0 - 1,2 - 1,5

Date of first edition: 9/8/2021

Safety Data Sheet dated 11/02/2025

version 9

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

1.1. Product identifier

Mixture identification:

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

Trade code: 001042001

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

Recommended use: Paints/coatings - Protective and functional

Uses advised against: All uses other than recommended ones

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

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

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 12.26 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); Terbutryn; The product is identified as an article treated pursuant to art. 58 of Regulation (EU) no. 528/2012 and subsequent amendments. Possible skin exposure must be avoided. Protective gloves and work clothes are required. Avoid releasing 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 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
$\geq 1 < 3\%$	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
$\geq 1 < 3\%$	Titanium dioxide	CAS:13463-67-7 EC:236-675-5	Not classified as hazardous	
$\geq 0.3 < 0.5\%$	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
$\geq 0.05 < 0.1\%$	Quartz	CAS:14808-60-7 EC:238-878-4	STOT RE 1, H372	
$< 0.036\%$	2-methoxy-1-methylethyl acetate	CAS:108-65-6 EC:203-603-9	Flam. Liq. 3, H226; STOT SE 3, H336	01-2119475791-29
$< 0.036\%$	Terbutryn	CAS:886-50-0 EC:212-950-5	Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Skin Sens. 1B, H317 Acute Tox. 4, H302, M-Chronic:100, M-Acute:100 Specific Concentration Limits: C $\geq 3\%$: Skin Sens. 1B H317	
$< 0.01\%$	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	CAS:2634-33-5 EC:220-120-9 Index:613-088-00-6	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 Acute Tox. 2, H330 Skin Sens. 1A, H317 Aquatic Chronic 1, H410 Specific Concentration Limits: C $\geq 0.036\%$: Skin Sens. 1A H317 Acute Toxicity Estimate: ATE - Oral: 450mg/kg bw ATE - Inhalation (Dust/mist): 0.21mg/l	01-2120761540-60
$< 0.0015\%$	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 ≥ 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

This mixture contains ≥ 1% titanium dioxide (CAS 13463-67-7). The Annex VI classification of titanium dioxide does not apply to this mixture according to its Note 10.

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

For non emergency personnel:

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

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.

Advice on general occupational hygiene:

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)

	OEL Type	Country	Occupational Exposure Limit
Calcium carbonate CAS: 471-34-1	NATIONAL	AUSTRALIA	Long Term: 10 mg/m ³ This value is for inhalable dust containing no asbestos and <1 % crystalline silica.
	NATIONAL	HUNGARY	Long Term: 10 mg/m ³ inhalable aerosol Source: 5/2020. (II. 6.) ITM
	NATIONAL	IRELAND	Long Term: 10 mg/m ³ Inhalable fraction Source: 2021 Code of Practice
	NATIONAL	IRELAND	Long Term: 4 mg/m ³ Respirable fraction Source: 2021 Code of Practice
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m ³ inhalable aerosol Source: EH40/2005 Workplace exposure limits
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 4 mg/m ³ respirable aerosol Source: EH40/2005 Workplace exposure limits
	NATIONAL	CROATIA	Long Term: 10 mg/m ³ U Source: NN 1/2021
	NATIONAL	CROATIA	Long Term: 4 mg/m ³ R Source: NN 1/2021
	NATIONAL	FRANCE	Long Term: 10 mg/m ³ Source: INRS outil65
	NATIONAL	LATVIA	Long Term: 6 mg/m ³ Source: KN325P1

Limestone
CAS: 1317-65-3

NATIONAL	POLAND	Long Term: 10 mg/m3 4) Source: Dz.U. 2018 poz. 1286
SUVA	SWITZERLAND	Long Term: 3 mg/m3 TWA mg/m3: (a), Formel / Formal, NIOSH Source: suva.ch/valeurs-limites
NATIONAL	BULGARIA	Long Term: 10 mg/m3 Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
NATIONAL	ESTONIA	Long Term: 10 mg/m3 Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	ESTONIA	Long Term: 5 mg/m3 Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	GREECE	Long Term: 10 mg/m3 εισπν Source: ΦΕΚ 94/Α` 13.5.1999
NATIONAL	GREECE	Long Term: 5 mg/m3 αvapn Source: ΦΕΚ 94/Α` 13.5.1999
NATIONAL	GREECE	Long Term: 10 mg/m3 εισπν. Source: ΦΕΚ 94/Α` 13.5.1999
NATIONAL	GREECE	Long Term: 5 mg/m3 αvapn. Source: ΦΕΚ 94/Α` 13.5.1999
NATIONAL	HUNGARY	Long Term: 10 mg/m3 N Source: 5/2020. (II. 6.) ITM rendelet
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m3 Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 4 mg/m3 Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m3 Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 4 mg/m3 Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m3 Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 4 mg/m3 Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)

Titanium dioxide
CAS: 13463-67-7

NATIONAL	BELGIUM	Long Term: 10 mg/m3 Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	IRELAND	Long Term: 10 mg/m3 Source: 2021 Code of Practice
NATIONAL	IRELAND	Long Term: 4 mg/m3 Source: 2021 Code of Practice
ACGIH		Long Term: 2.5 mg/m3 (8h) Finescale particles; R ; A3 - LRT irr, pneumoconiosis
NATIONAL	AUSTRALIA	Long Term: 10 mg/m3 (8h)
NATIONAL	GERMANY	Long Term: 0.3 mg/m3; Short Term: 2.4 mg/m3 DFG; Long term and short term: excluding ultrafine particles; respirable fraction; multiplied by the material density; Source: TRGS900
NATIONAL	BELGIUM	Long Term: 10 mg/m3 Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	CROATIA	Long Term: 10 mg/m3 U Source: NN 1/2021
NATIONAL	CROATIA	Long Term: 4 mg/m3 R Source: NN 1/2021
NATIONAL	IRELAND	Long Term: 10 mg/m3 Source: 2021 Code of Practice
NATIONAL	IRELAND	Long Term: 4 mg/m3 Source: 2021 Code of Practice
NATIONAL	ROMANIA	Long Term: 10 mg/m3; Short Term: 15 mg/m3 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATIONAL	SPAIN	Long Term: 10 mg/m3 Source: LEP 2022
NATIONAL	AUSTRIA	Long Term: 5 mg/m3; Short Term: 10 mg/m3 60(Miw), 2x, MAK, A Source: BGBl. II Nr. 156/2021
NATIONAL	BULGARIA	Long Term: 10 mg/m3 Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
NATIONAL	DENMARK	Long Term: 6 mg/m3 K Source: BEK nr 2203 af 29/11/2021
NATIONAL	ESTONIA	Long Term: 5 mg/m3 Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	FRANCE	Long Term: 10 mg/m3 Cancérogène de catégorie 2 Source: INRS outil65
NATIONAL	GREECE	Long Term: 10 mg/m3 εισπν. Source: ΦΕΚ 94/Α` 13.5.1999
NATIONAL	GREECE	Long Term: 5 mg/m3 αvapv. Source: ΦΕΚ 94/Α` 13.5.1999
NATIONAL	LATVIA	Long Term: 10 mg/m3 Source: KN325P1
NATIONAL	LITHUANIA	Long Term: 5 mg/m3 Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATIONAL	NORWAY	Long Term: 5 mg/m3 Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 10 mg/m3 4), 7) Source: Dz.U. 2018 poz. 1286

Quartz
CAS: 14808-60-7

NATIONAL	SLOVAKIA	Long Term: 5 mg/m ³ Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATIONAL	SWEDEN	Long Term: 5 mg/m ³ 3 Source: AFS 2021:3
SUVA	SWITZERLAND	Long Term: 3 mg/m ³ TWA mg/m ³ : (a), SSC, Formel / Formal, NIOSH Source: suva.ch/valeurs-limites
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m ³ Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
ACGIH		Long Term: 0.025 mg/m ³ (8h) R, A2 - Pulm fibrosis, lung cancer
NATIONAL	AUSTRALIA	Long Term: 0.05 mg/m ³ Respirable fraction
NATIONAL	HUNGARY	Long Term: 0.1 mg/m ³ Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	INDIA	Long Term: 10 mg/m ³ (8h)
NATIONAL	IRELAND	Long Term: 0.1 mg/m ³ Respirable fraction Source: 2021 Code of Practice
NATIONAL	ITALY	Long Term: 0.1 mg/m ³ Polvere di silice cristallina respirabile (frazione inalabile). Rif:D.Lgs 81/2008 Source: D.lgs. 81/2008, Allegato XXXVIII
NATIONAL	SPAIN	Long Term: 0.05 mg/m ³ Respirable fraction Source: LEP 2022
NATIONAL	CROATIA	Long Term: 0.1 mg/m ³ Source: NN 1/2021
NATIONAL	AUSTRIA	Long Term: 0.05 mg/m ³ MAK, III C, A Source: BGBl. II Nr. 156/2021
NATIONAL	BELGIUM	Long Term: 0.1 mg/m ³ C Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	DENMARK	Long Term: 0.3 mg/m ³ Source: BEK nr 2203 af 29/11/2021
NATIONAL	DENMARK	Long Term: 0.1 mg/m ³ EK Source: BEK nr 2203 af 29/11/2021
NATIONAL	ESTONIA	Long Term: 0.1 mg/m ³ 1, C Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	FINLAND	Long Term: 0.05 mg/m ³ alveolijae, liite 3 Source: HTP-ARVOT 2020
NATIONAL	FRANCE	Long Term: 0.1 mg/m ³ La VLEP s'applique à la fraction alvéolaire. Forme de silice cristalline. Source: INRS outil65, article R. 4412-149 du Code du travail
NATIONAL	LITHUANIA	Long Term: 0.1 mg/m ³ Žiūrėti 1 priedo 3 punktą. Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATIONAL	NETHERLANDS	Long Term: 0.075 mg/m ³ (2) Source: Arbeidsomstandighedenregeling - Lijst B1
NATIONAL	NORWAY	Long Term: 0.3 mg/m ³ K 7

Mica
CAS: 12001-26-2

		Source: FOR-2021-06-28-2248
NATIONAL	NORWAY	Long Term: 0.05 mg/m3 K G 7 21 Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 0.1 mg/m3 6) Source: Dz.U. 2018 poz. 1286
NATIONAL	SWEDEN	Long Term: 0.1 mg/m3 C, M, 3 Source: AFS 2021:3
SUVA	SWITZERLAN D	Long Term: 0.15 mg/m3 TWA mg/m3: (a), C1A, SSC, P, Cancpulm Silicose / Lugenkrebs Silikose, HSE NIOSH OSHA Source: suva.ch/valeurs-limites
ACGIH		Long Term: 0.1 mg/m3 (8h) R - Pneumoconiosis
NATIONAL	BELGIUM	Long Term: 3 mg/m3 Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	IRELAND	Long Term: 3 mg/m3 R Source: 2021 Code of Practice
SUVA	SWITZERLAN D	Long Term: 3 mg/m3 TWA mg/m3: (a), Fibpulm / Lungenfibrose Source: suva.ch/valeurs-limites
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m3 Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 0.8 mg/m3 Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
NATIONAL	CROATIA	Long Term: 10 mg/m3 U Source: NN 1/2021
NATIONAL	CROATIA	Long Term: 0.8 mg/m3 R Source: NN 1/2021
NATIONAL	ROMANIA	Long Term: 3 mg/m3 fracțiune respirabilă Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATIONAL	AUSTRALIA	Long Term: 10 mg/m3 (8h) This value is for inhalable dust containing no asbestos an <1 % crystalline silica
ACGIH		Long Term: 10 mg/m3 (8h) URT irr
NATIONAL	BELGIUM	Long Term: 10 mg/m3 Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	CROATIA	Long Term: 10 mg/m3; Short Term: 20 mg/m3 U Source: NN 1/2021
NATIONAL	CROATIA	Long Term: 4 mg/m3 R Source: NN 1/2021
NATIONAL	IRELAND	Long Term: 10 mg/m3 Source: 2021 Code of Practice
NATIONAL	ROMANIA	Long Term: 10 mg/m3

Cellulose
CAS: 9004-34-6

fracțiune inhalabilă
Source: Republicarea 1 - nr. 743 din 29 iulie 2021

NATIONAL	SPAIN	Long Term: 10 mg/m3 Source: LEP 2022
NATIONAL	ESTONIA	Long Term: 10 mg/m3 Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	FRANCE	Long Term: 10 mg/m3 Source: INRS outil65
NATIONAL	LATVIA	Long Term: 2 mg/m3 Source: KN325P1
SUVA	SWITZERLAND	Long Term: 3 mg/m3 TWA mg/m3: (a), VRS / OAW, NIOSH Source: suva.ch/valeurs-limites
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m3; Short Term: 20 mg/m3 Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 4 mg/m3 Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)

2-(2-butoxyethoxy)ethanol;
diethylene glycol monobutyl
ether
CAS: 112-34-5

ACGIH		Long Term: 10 ppm (8h) IFV - Hematologic, liver and kidney eff
EU		Long Term: 67.5 mg/m3 - 10 ppm (8h); Short Term: 101.2 mg/m3 - 15 ppm
NATIONAL	AUSTRIA	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm 15(Miw), 4x, MAK Source: GKV, BGBl. II Nr. 156/2021
NATIONAL	BULGARIA	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
NATIONAL	CZECHIA	Long Term: 70 mg/m3; Short Term: Ceiling - 100 mg/m3 I Source: Nařízení vlády č. 361-2007 Sb
NATIONAL	DENMARK	Long Term: 68 mg/m3 - 10 ppm E Source: BEK nr 2203 af 29/11/2021
NATIONAL	FINLAND	Long Term: 68 mg/m3 - 10 ppm Source: HTP-ARVOT 2020
NATIONAL	FRANCE	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Source: INRS outil65, arrêté du 30-06-2004 modifié
NATIONAL	HUNGARY	Long Term: 67.5 mg/m3; Short Term: 101.2 mg/m3 EU2, T Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	LITHUANIA	Long Term: 100 mg/m3 - 15 ppm; Short Term: 200 mg/m3 - 30 ppm Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATIONAL	NETHERLANDS	Long Term: 50 mg/m3; Short Term: 100 mg/m3 H Source: Arbeidsomstandighedenregeling - Lijst A
NATIONAL	NORWAY	Long Term: 68 mg/m3 - 10 ppm E Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 67 mg/m3; Short Term: 100 mg/m3 Source: Dz.U. 2018 poz. 1286
NATIONAL	SLOVAKIA	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Source: 355 NARIADENIE VLÁDY z 10. mája 2006

NATIONAL	SWEDEN	Long Term: 68 mg/m ³ - 10 ppm; Short Term: 101 mg/m ³ - 15 ppm Source: AFS 2021:3
SUVA	SWITZERLAND	Long Term: 67 mg/m ³ - 10 ppm; Short Term: 101 mg/m ³ - 15 ppm SSC, Rein Sang Foie / Niere Blut Leber, La substance peut être présente sous forme de vapeur et d'aérosol en même temps / Der Stoff kann gleichzeitig als Dampf und Aerosol vorliegen Source: suva.ch/valeurs-limites
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 67.5 mg/m ³ - 10 ppm; Short Term: 101.2 mg/m ³ - 15 ppm Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
NATIONAL	BELGIUM	Long Term: 67.5 mg/m ³ - 10 ppm; Short Term: 101.2 mg/m ³ - 15 ppm Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	CROATIA	Long Term: 67.5 mg/m ³ - 10 ppm; Short Term: 101.2 mg/m ³ - 15 ppm Source: 2006/15/EZ
NATIONAL	CYPRUS	Long Term: 67.5 mg/m ³ - 10 ppm; Short Term: 101.2 mg/m ³ - 15 ppm Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021
NATIONAL	GERMANY	Long Term: 67 mg/m ³ - 10 ppm EU, DFG, Y, 11, 1, 5 (I) Source: TRGS 900
NATIONAL	GREECE	Long Term: 67.5 mg/m ³ - 10 ppm; Short Term: 101.2 mg/m ³ - 15 ppm Source: ΦΕΚ 202/Α` 23.8.2007
NATIONAL	IRELAND	Long Term: 67.5 mg/m ³ - 10 ppm; Short Term: 101.2 mg/m ³ - 12 ppm IOELV Source: 2021 Code of Practice
NATIONAL	ITALY	Long Term: 67.5 mg/m ³ - 10 ppm; Short Term: 101.2 mg/m ³ - 15 ppm Source: D.lgs. 81/2008, Allegato XXXVIII
NATIONAL	LATVIA	Long Term: 67.5 mg/m ³ - 10 ppm; Short Term: 101.2 mg/m ³ - 15 ppm Source: KN325P1
NATIONAL	LUXEMBOURG	Long Term: 67.5 mg/m ³ - 10 ppm; Short Term: 101.2 mg/m ³ - 15 ppm Source: Mémorial A n.226 du 22 mars 2021
NATIONAL	MALTA	Long Term: 67.5 mg/m ³ - 10 ppm; Short Term: 101.2 mg/m ³ - 15 ppm Source: S.L.424.24
NATIONAL	PORTUGAL	Long Term: 67.5 mg/m ³ - 10 ppm; Short Term: 101.2 mg/m ³ - 15 ppm Source: Decreto-Lei n.º 1/2021
NATIONAL	ROMANIA	Long Term: 67.5 mg/m ³ - 10 ppm; Short Term: 101.2 mg/m ³ - 15 ppm Dir. 2006/15 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATIONAL	SLOVENIA	Long Term: 67.5 mg/m ³ - 10 ppm; Short Term: 101.2 mg/m ³ - 15 ppm Y, EU2 Source: UL št. 72, 11. 5. 2021
NATIONAL	SPAIN	Long Term: 67.5 mg/m ³ - 10 ppm; Short Term: 101.2 mg/m ³ - 15 ppm VLI, r Source: LEP 2022
Quartz CAS: 14808-60-7	EU	Long Term: 0.1 mg/m ³ Polvere di silice cristallina respirabile, frazione inalabile. (R), A2 - Pulm fibrosis, lung cancer. Directive 2017/2398
	ACGIH	Long Term: 0.025 mg/m ³ (8h) R, A2 - Pulm fibrosis, lung cancer
	NATIONAL AUSTRALIA	Long Term: 0.05 mg/m ³ (8h) Respirable fraction
	NATIONAL HUNGARY	Long Term: 0.1 mg/m ³ (8h) Respirable aerosol Source: 5/2020. (II. 6.) ITM rendelet
	NATIONAL INDIA	Long Term: 10 mg/m ³

NATIONAL	IRELAND	Long Term: 0.1 mg/m3 (8h) Respirable fraction Source: 2021 Code of Practice
NATIONAL	ITALY	Long Term: 0.1 mg/m3 (8h) Polvere di silice cristallina respirabile (frazione inalabile). D.Lgs 81/2008 Source: D.lgs. 81/2008, Allegato XXXVIII
NATIONAL	SPAIN	Long Term: 0.05 mg/m3 (8h) Respirable fraction Source: LEP 2022
NATIONAL	CROATIA	Long Term: 0.1 mg/m3 Source: NN 1/2021
NATIONAL	AUSTRIA	Long Term: 0.05 mg/m3 MAK, III C, A Source: BGBl. II Nr. 156/2021
NATIONAL	BELGIUM	Long Term: 0.1 mg/m3 C Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	DENMARK	Long Term: 0.3 mg/m3 Source: BEK nr 2203 af 29/11/2021
NATIONAL	DENMARK	Long Term: 0.1 mg/m3 EK Source: BEK nr 2203 af 29/11/2021
NATIONAL	ESTONIA	Long Term: 0.1 mg/m3 1, C Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	FINLAND	Long Term: 0.05 mg/m3 alveolijae, liite 3 Source: HTP-ARVOT 2020
NATIONAL	FRANCE	Long Term: 0.1 mg/m3 La VLEP s'applique à la fraction alvéolaire. Forme de silice cristalline. Source: INRS outil65, article R. 4412-149 du Code du travail
NATIONAL	LITHUANIA	Long Term: 0.1 mg/m3 Žiūrėti 1 priedo 3 punktą. Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATIONAL	NETHERLANDS	Long Term: 0.075 mg/m3 (2) Source: Arbeidsomstandighedenregeling - Lijst B1
NATIONAL	NORWAY	Long Term: 0.3 mg/m3 K 7 Source: FOR-2021-06-28-2248
NATIONAL	NORWAY	Long Term: 0.05 mg/m3 K G 7 21 Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 0.1 mg/m3 6) Source: Dz.U. 2018 poz. 1286
NATIONAL	SWEDEN	Long Term: 0.1 mg/m3 C, M, 3 Source: AFS 2021:3
SUVA	SWITZERLAND	Long Term: 0.15 mg/m3 TWA mg/m3: (a), C1A, SSC, P, Cancpulm Silicose / Lugenkrebs Silikose, HSE NIOSH OSHA Source: suva.ch/valeurs-limites
NATIONAL	AUSTRALIA	Long Term: 274 mg/m3 - 50 ppm; Short Term: 548 mg/m3 - 100 ppm
EU		Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Skin
NATIONAL	AUSTRIA	Long Term: 275 mg/m3 - 50 ppm; Short Term: Ceiling - 550 mg/m3 - 100 ppm 5(Mow), 8x, MAK, H

NATIONAL	BULGARIA	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm Кожа Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
NATIONAL	CZECHIA	Long Term: 270 mg/m ³ ; Short Term: Ceiling - 550 mg/m ³ D, I Source: Nařízení vlády č. 361-2007 Sb
NATIONAL	DENMARK	Long Term: 275 mg/m ³ - 50 ppm EH Source: BEK nr 2203 af 29/11/2021
NATIONAL	ESTONIA	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm A, S Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	FINLAND	Long Term: 270 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm iho Source: HTP-ARVOT 2020
NATIONAL	FRANCE	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm Risque de pénétration percutanée Source: INRS outil65, article R. 4412-149 du Code du travail
NATIONAL	GREECE	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm Δ Source: ΦΕΚ 94/Α` 13.5.1999
NATIONAL	HUNGARY	Long Term: 275 mg/m ³ ; Short Term: 550 mg/m ³ EU1, N Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	LITHUANIA	Long Term: 250 mg/m ³ - 50 ppm; Short Term: 400 mg/m ³ - 75 ppm O Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATIONAL	NETHERLAND S	Long Term: 550 mg/m ³ Source: Arbeidsomstandighedenregeling - Lijst A
NATIONAL	NORWAY	Long Term: 270 mg/m ³ - 50 ppm H E Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 260 mg/m ³ ; Short Term: 520 mg/m ³ skóra Source: Dz.U. 2018 poz. 1286
NATIONAL	SLOVAKIA	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm K Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATIONAL	SWEDEN	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm H Source: AFS 2021:3
SUVA	SWITZERLAND	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 275 mg/m ³ - 50 ppm D SSC, VRS / OAW Source: suva.ch/valeurs-limites
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 274 mg/m ³ - 50 ppm; Short Term: 548 mg/m ³ - 100 ppm Sk Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
NATIONAL	BELGIUM	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm D Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	CROATIA	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm koža Source: 2000/39/EZ
NATIONAL	CYPRUS	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm δέρμα Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021

sodium hydroxide; caustic soda CAS: 1310-73-2	NATIONAL	GERMANY	Long Term: 270 mg/m ³ - 50 ppm DFG, EU, Y, 1(I) Source: TRGS 900
	NATIONAL	IRELAND	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm Sk, IOELV Source: 2021 Code of Practice
	NATIONAL	ITALY	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm Cute Source: D.lgs. 81/2008, Allegato XXXVIII
	NATIONAL	LATVIA	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm Āda Source: KN325P1
	NATIONAL	LUXEMBOURG	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm Peau Source: Mémorial A n.226 du 22 mars 2021
	NATIONAL	MALTA	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm skin Source: S.L.424.24
	NATIONAL	PORTUGAL	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm Cutânea Source: Decreto-Lei n.º 1/2021
	NATIONAL	ROMANIA	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm P, Dir. 2000/39 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
	NATIONAL	SLOVENIA	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm K, Y, EU1 Source: UL št. 72, 11. 5. 2021
	NATIONAL	SPAIN	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm vía dérmica, VLI Source: LEP 2022
	ACGIH		Short Term: Ceiling - 2 mg/m ³ URT, eye, and skin irr
	NATIONAL	AUSTRALIA	Short Term: Ceiling - 2 mg/m ³ (15min)
	NATIONAL	ROMANIA	Long Term: 1 mg/m ³ ; Short Term: 3 mg/m ³
	NATIONAL	AUSTRIA	Long Term: 2 mg/m ³ ; Short Term: Ceiling - 4 mg/m ³ 5(Mow), 8x, MAK, E Source: BGBl. II Nr. 156/2021
	NATIONAL	BULGARIA	Long Term: 2 mg/m ³ Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
	NATIONAL	CZECHIA	Long Term: 1 mg/m ³ ; Short Term: Ceiling - 2 mg/m ³ I Source: Nařízení vlády č. 361-2007 Sb
	NATIONAL	DENMARK	Short Term: Ceiling - 2 mg/m ³ L Source: BEK nr 2203 af 29/11/2021
	NATIONAL	ESTONIA	Long Term: 1 mg/m ³ ; Short Term: 2 mg/m ³ * Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL	FINLAND	Short Term: Ceiling - 2 mg/m ³ kattoarvo Source: HTP-ARVOT 2020
	NATIONAL	FRANCE	Long Term: 2 mg/m ³ Source: INRS outil65
	NATIONAL	GREECE	Long Term: 2 mg/m ³ ; Short Term: 2 mg/m ³ Source: ΦΕΚ 94/Α` 13.5.1999
	NATIONAL	HUNGARY	Long Term: 1 mg/m ³ ; Short Term: 2 mg/m ³ m, N Source: 5/2020. (II. 6.) ITM rendelet

NATIONAL	LATVIA	Long Term: 0.5 mg/m ³ Source: KN325P1
NATIONAL	LITHUANIA	Short Term: Ceiling - 2 mg/m ³ Ū Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATIONAL	NORWAY	Short Term: Ceiling - 2 mg/m ³ T Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 0.5 mg/m ³ ; Short Term: 1 mg/m ³ Source: Dz.U. 2018 poz. 1286
NATIONAL	SLOVAKIA	Long Term: 2 mg/m ³ Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATIONAL	SWEDEN	Long Term: 1 mg/m ³ ; Short Term: 2 mg/m ³ 3 Source: AFS 2021:3
SUVA	SWITZERLAND	Long Term: 2 mg/m ³ ; Short Term: 2 mg/m ³ TWA mg/m ³ : (i), SSC, VRS Peau Yeux / OAW Haut Auge, NIOSH OSHA Source: suva.ch/valeurs-limites
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Short Term: 2 mg/m ³ Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
NATIONAL	BELGIUM	Long Term: 2 mg/m ³ M Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	CROATIA	Short Term: 2 mg/m ³ Source: NN 1/2021
NATIONAL	IRELAND	Short Term: 2 mg/m ³ Source: 2021 Code of Practice
NATIONAL	SPAIN	Short Term: 2 mg/m ³ Source: LEP 2022
potassium hydroxide; caustic potash CAS: 1310-58-3	NATIONAL AUSTRALIA	Short Term: Ceiling - 2 mg/m ³
	ACGIH	Short Term: Ceiling - 2 mg/m ³ URT, eye, and skin irr
	NATIONAL AUSTRIA	Long Term: 2 mg/m ³ MAK, E Source: BGBl. II Nr. 156/2021
	NATIONAL BULGARIA	Long Term: 2 mg/m ³ Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
	NATIONAL CZECHIA	Long Term: 1 mg/m ³ ; Short Term: Ceiling - 2 mg/m ³ I Source: Nařízení vlády č. 361-2007 Sb
	NATIONAL DENMARK	Short Term: Ceiling - 2 mg/m ³ L Source: BEK nr 2203 af 29/11/2021
	NATIONAL ESTONIA	Long Term: 2 mg/m ³ Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL FINLAND	Short Term: Ceiling - 2 mg/m ³ kattoarvo Source: HTP-ARVOT 2020
	NATIONAL FRANCE	Short Term: 2 mg/m ³ Source: INRS outil65
	NATIONAL GREECE	Long Term: 2 mg/m ³ ; Short Term: 2 mg/m ³ Source: ΦΕΚ 94/Α` 13.5.1999

	NATIONAL	HUNGARY	Long Term: 2 mg/m ³ ; Short Term: 2 mg/m ³ m, N Source: 5/2020. (II. 6.) ITM rendelet
	NATIONAL	NORWAY	Short Term: Ceiling - 2 mg/m ³ T Source: FOR-2021-06-28-2248
	NATIONAL	POLAND	Long Term: 0.5 mg/m ³ ; Short Term: 1 mg/m ³ Source: Dz.U. 2018 poz. 1286
	NATIONAL	SWEDEN	Long Term: 1 mg/m ³ ; Short Term: 2 mg/m ³ 3 Source: AFS 2021:3
	SUVA	SWITZERLAND	Long Term: 2 mg/m ³ TWA mg/m ³ : (i), VRS Peau Yeux, NIOSH Source: suva.ch/valeurs-limites
	WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Short Term: 2 mg/m ³ Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	NATIONAL	BELGIUM	Short Term: 2 mg/m ³ M Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	CROATIA	Short Term: 2 mg/m ³ Source: NN 1/2021
	NATIONAL	IRELAND	Short Term: 2 mg/m ³ Source: 2021 Code of Practice
	NATIONAL	SPAIN	Short Term: 2 mg/m ³ Source: LEP 2022
2-methylisothiazol-3(2H)-one CAS: 2682-20-4	NATIONAL	SLOVENIA	Long Term: 0.05 mg/m ³ (8h)
	NATIONAL	AUSTRIA	Long Term: 0.05 mg/m ³ MAK, Sh Source: GKV, BGBl. II Nr. 156/2021
glyoxal...%; ethandial...% CAS: 107-22-2	NATIONAL	PORTUGAL	Long Term: 0.1 mg/m ³ (8h)
	ACGIH		Long Term: 0.1 mg/m ³ (8h) IFV, DSEN, A4 - URT irr, larynx metaplasia
	NATIONAL	DENMARK	Short Term: Ceiling - 0.5 mg/m ³ - 0.2 ppm L Source: BEK nr 2203 af 29/11/2021
	NATIONAL	FINLAND	Long Term: 0.02 mg/m ³ Source: HTP-ARVOT 2020
	NATIONAL	IRELAND	Long Term: 0.1 mg/m ³ IFV Source: 2021 Code of Practice
	NATIONAL	BELGIUM	Long Term: 0.1 mg/m ³ Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	SPAIN	Long Term: 0.1 mg/m ³ Sen, FIV, s Source: LEP 2022
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9	NATIONAL	GERMANY	Long Term: 0.2 mg/m ³ ; Short Term: 0.4 mg/m ³ DFG; Long term and short term: inhalable fraction Source: TRGS900
	NATIONAL	AUSTRIA	Long Term: 0.05 mg/m ³ MAK, Sh Source: GKV, BGBl. II Nr. 156/2021

glyoxal...%; ethandial...% CAS: 107-22-2	SUVA	SWITZERLAND	Long Term: 0.2 mg/m ³ ; Short Term: 0.4 mg/m ³ TWA mg/m ³ : (I), S, SSC, VRS Peau Yeux / OAW Haut Auge Source: suva.ch/valeurs-limites
	ACGIH		Long Term: 0.1 mg/m ³ (8h) IFV, DSEN, A4 - URT irr, larynx metaplasia
	NATIONAL	DENMARK	Short Term: Ceiling - 0.5 mg/m ³ - 0.2 ppm L Source: BEK nr 2203 af 29/11/2021
	NATIONAL	FINLAND	Long Term: 0.02 mg/m ³ Source: HTP-ARVOT 2020
	NATIONAL	IRELAND	Long Term: 0.1 mg/m ³ IFV Source: 2021 Code of Practice
	NATIONAL	BELGIUM	Long Term: 0.1 mg/m ³ Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	SPAIN	Long Term: 0.1 mg/m ³ Sen, FIV, s Source: LEP 2022

Predicted No Effect Concentration (PNEC) values

Silicic acid, potassium salt Exposure Route: Fresh Water; PNEC Limit: 7.5 mg/l

- lumps or aqueous
solutions of molar ratio

MR > 3.2

CAS: 1312-76-1

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 7.5 mg/l

Exposure Route: Marine water; PNEC Limit: 1 mg/l

Exposure Route: Secondary poisoning; PNEC Limit: 348 mg/l

Titanium dioxide
CAS: 13463-67-7

Exposure Route: Fresh Water; PNEC Limit: 0.184 mg/l

Exposure Route: Marine water; PNEC Limit: 0.018 mg/l

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 1 mg/kg

Exposure Route: Intermittent releases (marine water); PNEC Limit: 100 mg/kg

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 100 mg/kg

2-(2-butoxyethoxy)ethanol;
diethylene glycol
monobutyl ether
CAS: 112-34-5

Exposure Route: Fresh Water; PNEC Limit: 1.1 mg/l

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 11 mg/l

Exposure Route: Marine water; PNEC Limit: 110 µg/l

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 200 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 4.4 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 440 µg/kg

Exposure Route: Soil; PNEC Limit: 320 µg/kg

Exposure Route: Secondary poisoning; PNEC Limit: 56 mg/kg

2-methoxy-1-methylethyl
acetate
CAS: 108-65-6

Exposure Route: Fresh Water; PNEC Limit: 635 µg/l

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 6.35 mg/l

Exposure Route: Marine water; PNEC Limit: 63.5 µg/l

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 100 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 3.29 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 329 µg/kg

Exposure Route: Soil; PNEC Limit: 290 µg/kg

1,2-benzisothiazol-3(2H)-
one; 1,2-benzisothiazolin-
3-one
CAS: 2634-33-5

Exposure Route: Fresh Water; PNEC Limit: 4.03 µg/l

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 1.1 µg/l
 Exposure Route: Marine water; PNEC Limit: 403 ng/L
 Exposure Route: Intermittent releases (marine water); PNEC Limit: 110 ng/L
 Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 1.03 mg/l
 Exposure Route: Freshwater sediments; PNEC Limit: 49.9 µg/kg
 Exposure Route: Marine water sediments; PNEC Limit: 4.99 µg/kg
 Exposure Route: Soil; PNEC Limit: 3 mg/kg

2-methylisothiazol-3(2H)-one
 CAS: 2682-20-4 Exposure Route: Fresh Water; PNEC Limit: 3.39 µg/l

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 3.39 µg/l
 Exposure Route: Marine water; PNEC Limit: 3.39 µg/l
 Exposure Route: Intermittent releases (marine water); PNEC Limit: 3.39 µg/l
 Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 230 µg/l
 Exposure Route: Soil; PNEC Limit: 47.1 µg/kg
 Exposure Route: Fresh Water; PNEC Limit: 3.39 µg/l

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
 CAS: 55965-84-9

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 3.39 µg/l
 Exposure Route: Marine water; PNEC Limit: 3.39 µg/l
 Exposure Route: Intermittent releases (marine water); PNEC Limit: 3.39 µg/l
 Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 230 µg/l
 Exposure Route: Freshwater sediments; PNEC Limit: 27 µg/l
 Exposure Route: Marine water sediments; PNEC Limit: 27 µg/l
 Exposure Route: Soil; PNEC Limit: 10 µg/l

Derived No Effect Level (DNEL) values

Silicic acid, potassium salt - lumps or aqueous solutions of molar ratio MR > 3.2
 CAS: 1312-76-1 Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
 Worker Professional: 5.61 mg/m³; Consumer: 1.38 mg/m³

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
 Worker Professional: 1.49 mg/kg; Consumer: 740 µg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
 Consumer: 740 µg/kg

Titanium dioxide
 CAS: 13463-67-7 Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
 Worker Professional: 10 mg/m³

2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether
 CAS: 112-34-5 Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
 Worker Professional: 67.5 mg/m³; Consumer: 40.5 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
 Worker Professional: 67.5 mg/m³; Consumer: 40.5 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
 Worker Professional: 101.2 mg/m³; Consumer: 60.7 mg/m³

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
 Worker Professional: 83 mg/kg; Consumer: 50 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
 Consumer: 5 mg/kg

2-methoxy-1-methylethyl acetate
 CAS: 108-65-6 Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
 Worker Professional: 275 mg/m³; Consumer: 33 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects
 Worker Professional: 550 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Consumer: 33 mg/m³

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Professional: 796 mg/kg; Consumer: 320 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 36 mg/kg

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one
CAS: 2634-33-5
Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Professional: 6.81 mg/m³; Consumer: 1.2 mg/m³

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Professional: 966 µg/kg; Consumer: 345 µg/kg

2-methylisothiazol-3(2H)-one
CAS: 2682-20-4
Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Worker Professional: 21 µg/m³; Consumer: 21 µg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects
Worker Professional: 43 µg/m³; Consumer: 43 µg/m³

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 27 µg/kg

Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects
Consumer: 53 µg/kg

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)
CAS: 55965-84-9
Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Worker Professional: 20 µg/m³; Consumer: 20 µg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects
Worker Professional: 40 µg/m³; Consumer: 20 µg/m³

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 90 µg/kg

Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects
Consumer: 110 µg/kg

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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Colour: 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.

Boiling point or initial boiling point and boiling range: N.A. > N.A.

Flash point: > 60°C / 93°C

Lower and upper explosion limit: N.A.

Relative vapour density: N.A.
Vapour pressure: hPa
Density and/or relative density: 1.75 g/cm³ (ISO 2811)
Solubility in water: Miscible
Solubility in oil: N.A.
Partition coefficient n-octanol/water (log value): N.A.
Auto-ignition temperature: N.A.
Decomposition temperature: N.A.
Flammability: N.A.
Volatile Organic compounds - VOCs = 0.70 % ; 12.26 g/l

Particle characteristics:

Particle size: N.A.

9.2. Other information

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:

Silicic acid, potassium salt a) acute toxicity LD50 Oral Rat > 5000 mg/kg
- lumps or aqueous solutions of molar ratio

		LC50 Inhalation Vapour Rat > 2.06 mg/l 4h	
		LD50 Skin Rat > 5000 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 mg/kg	
Titanium dioxide	a) acute toxicity	LD50 Oral Rat > 5000 mg/kg LC50 Inhalation > 6.82 mg/l LD50 Skin Rat > 2000 mg/kg	
	c) serious eye damage/irritation	Eye Corrosive Negative Eye Irritant No	
	d) respiratory or skin sensitisation	Skin Sensitization Negative	
	i) STOT-repeated exposure	No Observed Adverse Effect Level 1000	
2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	a) acute toxicity	LD50 Oral Mouse = 2410 mg/kg	LD50 2 410 - 5 530 mg/kg
		LD50 Skin Rabbit = 2764 mg/kg	LD50 2 410 - 5 530 mg/kg
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative 1h	
	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 mg/kg	
Quartz	a) acute toxicity	LD50 Oral > 2000 mg/kg	
2-methoxy-1-methylethyl acetate	a) acute toxicity	LD50 Oral Rat = 6190 mg/kg LD50 Skin Rabbit > 5000 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 = 3.69 mg/l	Inhalation route
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	a) acute toxicity	ATE - Oral : 450 mg/kg bw ATE - Inhalation (Dust/mist) : 0.21 mg/l LD50 Oral Rat = 670 mg/kg LD50 Skin Rat > 2000 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 Guinea pig Positive	
	f) carcinogenicity	Genotoxicity Rat Negative	Oral route
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat = 112 mg/kg	
2-methylisothiazol-3(2H)-one	a) acute toxicity	LC50 Inhalation of aerosol Rat = 0.1 mg/l 4h	
		LD50 Oral Rat = 120 mg/kg	
		LD50 Skin Rat = 242 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 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 mg/kg	
		LD50 Skin Rabbit = 141 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 = 22.7 mg/kg	

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
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 <i>Leuciscus idus</i> > 146 mg/L 96h DIN 38412

		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna > 146 mg/L 24h OECD 202
		a) Aquatic acute toxicity : EC50 Algae Scenedesmus subspicatus = 207 mg/L 72h OECD guideline 201
		c) Bacteria toxicity : EC0 Sludge Pseudomonas putida > 1000 mg/L OECD 209 - 18hr
Titanium dioxide	CAS: 13463-67-7 - EINECS: 236-675-5	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas (Cavedano americano) > 1000 mg/L 96h a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata (alghe cloroficee) > 100 mg/L 72h a) Aquatic acute toxicity : NOEC Algae = 5600 mg/L a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna (Pulce d'acqua grande) > 100 mg/L 48h
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 = 1.3 mg/L 96h b) Aquatic chronic toxicity : LC10 Fish freshwater fish = 396 mg/L QSAR model a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 1101 mg/L 48h OECD 202 b) Aquatic chronic toxicity : LC10 Daphnia freshwater invertebrates = 112 mg/L protocol: QSAR - 14days a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 100 mg/L 96h OECD201 c) Bacteria toxicity : EC10 Sludge Activated sludge = 1995 mg/L
2-methoxy-1-methylethyl acetate	CAS: 108-65-6 - EINECS: 203-603-9	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 130 mg/L 96h OECD guideline 203 b) Aquatic chronic toxicity : NOEC Fish Oryzias latipes = 47.5 mg/L OECD guideline 204 - 14days a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 408 mg/L 48h OECD guideline 202 b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna > 100 mg/L OECD guideline 211 - 24days a) Aquatic acute toxicity : NOEC Algae Selenastrum capricornutum >= 1000 mg/L OECD guideline 201
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 = 2.15 mg/L 96h OECD Guideline 203 a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 2.9 mg/L 48h OECD Guideline 202 a) Aquatic acute toxicity : EC50 Algae green alga Selenastrum capricornutum freshwater algae = 110 µg/L OECD Guideline 201 d) Terrestrial toxicity : EC50 Worm Eisenia fetida > 410.6 mg/kg OECD Guideline 207 - Duration 14d d) Terrestrial toxicity : EC10 soil microorganisms = 263.7 mg/kg - long term a) Aquatic acute toxicity : NOEC Sludge activated sludge 10.3 mg/L 3h OECD Guideline 209 e) Plant toxicity : LC50 Triticum aestivum = 200 mg/kg OECD Guideline 208
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 = 4.77 mg/L 96h „OECD Guideline 203 (Fish, Acute Toxicity Test)

b) Aquatic chronic toxicity : NOEC Fish Oncorhynchus mykiss = 4.93 mg/L Dossier ECHA

a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 0.934 mg/L 48h OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

b) Aquatic chronic toxicity : EC10 Daphnia Daphnia magna = 0.044 mg/L OECD Guideline 211 (Daphnia magna Reproduction Test) - Duration 21d

a) Aquatic acute toxicity : EC50 Algae Selenastrum capricornutum = 0.103 mg/L 72h Dossier ECHA

a) Aquatic acute toxicity : EC50 Sludge activated sludge of a predominantly domestic sewage = 41 mg/L 3h „OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

b) Aquatic chronic toxicity : EC50 freshwater sediment = 50 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 = 0.19 mg/L 96h EPA OPP 72-1 (Fish Acute Toxicity Test)

b) Aquatic chronic toxicity : NOEC Fish Danio rerio = 0.02 mg/L „OECD Guideline 210 (Fish, Early-Life Stage Toxicity Test) - 35days

a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 0.16 mg/L 48h EPA OPP 72-2 (Aquatic Invertebrate Acute Toxicity Test)

b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna = 0.1 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 mg/L 96h „OECD Guideline 201 (Alga, Growth Inhibition Test)

a) Aquatic acute toxicity : EC50 Sludge activated sludge = 4.5 mg/L 3h „OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

d) Terrestrial toxicity : LC50 Worm Eisenia fetida = 613 mg/kg „OECD Guideline 207 (Earthworm, Acute Toxicity Tests) - 14days

e) Plant toxicity : NOEC Trifolium pratense, Oryza sativa, Brassica napus = 1000 mg/L OECD Guideline 208 (Terrestrial Plants Test: Seedling Emergence and Seedling Growth Test) - 21days

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
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	Non-readily biodegradable	CO2 production		OECD Guideline 301C
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			

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	
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

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT or vPvB substances present in concentration $\geq 0.1\%$

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. Disposal through discharge into wastewater is not permitted

A waste code according to the European List of Wastes (LoW) cannot be specified, due to dependence on the usage. Contact an authorized waste disposal service.

The product disposed of as such, pursuant to Regulation (EU) 1357/2014, must be classified as hazardous waste

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

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-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 Provisions: N/A

Sea (IMDG):

IMDG-Stowage Code: N/A

IMDG-Stowage Note: N/A

IMDG-Subsidiary hazards: N/A

IMDG-Special Provisions: 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. 2021/849 (ATP 17 CLP)

Regulation (EU) n. 2022/692 (ATP 18 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, 55, 75

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

None

Explosives precursors – Regulation 2019/1148

No substances listed

Regulation (EU) No 649/2012 (PIC regulation)

No substances listed

German Water Hazard Class.

3: Severe hazard to waters

German Lagerklasse according to TRGS 510:

LGK 10

SVHC Substances:

No SVHC substances present in concentration $\geq 0.1\%$

Dir. 2004/42/EC (VOC directive)

(ready to use)

Volatile Organic compounds - VOCs = 0.70 %

Volatile Organic compounds - VOCs = 12.26 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 ; Nomenclature IUPAC:Terbutryn

Nomenclature BPR: Terbutryn

CAS number: 886-50-0

Product-type 7: Film preservatives

Assessment status: Initial application for approval in progress.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

Substances for which a Chemical Safety Assessment has been carried out:

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

2-methoxy-1-methylethyl acetate

SECTION 16: Other information

Code	Description
H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
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
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2	Eye Irrit. 2	Eye irritation, 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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Aquatic Chronic 3, H412	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

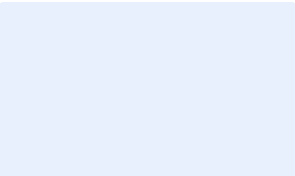
DNEL: Derived No Effect Level.

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:

- SECTION 1: Identification of the substance/mixture and of the company/undertaking
- SECTION 2: Hazards identification
- SECTION 3: Composition/information on ingredients
- SECTION 7: Handling and storage
- SECTION 8: Exposure controls/personal protection
- SECTION 9: Physical and chemical properties
- SECTION 11: Toxicological information
- SECTION 12: Ecological information
- SECTION 13: Disposal considerations
- SECTION 14: Transport information
- SECTION 15: Regulatory information
- SECTION 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
--	--------

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)
----------------------------------	---

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)
--------------------	---

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

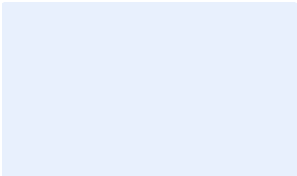
1.3. CS2: Worker Contributing Scenario: Large surfaces - Rolling, Brushing (PROC10)

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
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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)
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*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.