

## Safety Data Sheet

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

### STRIPE

Date of first edition: 3/8/2021

Safety Data Sheet dated 06/05/2026

version 2

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

### 1.1. Product identifier

Mixture identification:

Trade name: STRIPE

Trade code: 001069002

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

Recommended use: Paints/coatings - Decorative

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 Emergency medical information: (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland.

Members of the public Number (8 am-10 pm): +353 (0)1 809 2166

Healthcare professional telephone Number (24hrs): +353 (0)1 809 2566

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

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## 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.

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

P102 Keep out of reach of children.

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-octyl-2H-isothiazol-3-one. May produce an allergic reaction.

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

#### Dir. 2004/42/EC (VOC directive)

Exterior walls of mineral substrate

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

This product contains max 4.59 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: BIT; C(M)IT/MIT (3:1); OIT; IPBC; 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: STRIPE

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

Qty	Name	Ident. Numb.	Classification	Registration Number
$\geq 0.5$ - $< 1$ %	Alcohols, C16-18 and C18-unsatd., ethoxylated	CAS:68920-66-1 EC:500-236-9	Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 3, H412, M-Acute:1	
$\geq 0.1$ - $< 0.15$ %	zinc oxide	CAS:1314-13-2 EC:215-222-5 Index:030-013-00-7	Aquatic Acute 1, H400; Aquatic Chronic 1, H410, M-Chronic:1, M-Acute:1	01-2119463881-32
$\geq 0.05$ - $< 0.1$ %	3-iodo-2-propynyl butylcarbamate; 3-iodoprop-2-yn-1-yl butylcarbamate	CAS:55406-53-6 EC:259-627-5 Index:616-212-00-7	Acute Tox. 2, H330; Acute Tox. 4, H302; STOT RE 1, H372; Eye Dam. 1, H318; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410, M-Chronic:10, M-Acute:10	
			Acute Toxicity Estimate : ATE - Inhalation (Dust/mist) : 0.17 mg/l	
$< 0.036$ %	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. 2, H330; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Dam. 1, H318; Skin Sens. 1A, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410, M-Chronic:1, M-Acute:1	
			Specific Concentration Limits: C $\geq 0.036\%$ : Skin Sens. 1A H317	
$< 0.036$ %	bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	CAS:52-51-7 EC:200-143-0 Index:603-085-00-8	STOT SE 3, H335; Skin Irrit. 2, H315; Eye Dam. 1, H318; Aquatic Acute 1, H400; Acute Tox. 4, H312; Aquatic Chronic 1, H410; Acute Tox. 3, H301; Acute Tox. 3, H331, M-Chronic:10, M-Acute:100	
$< 0.0015$ %	2-octyl-2H-isothiazol-3-one	CAS:26530-20-1 EC:247-761-7 Index:613-112-00-5	Acute Tox. 2, H330; Acute Tox. 3, H311; Acute Tox. 3, H301; Skin Corr. 1, H314; Eye Dam. 1, H318; Skin Sens. 1A, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Corrosive to the respiratory tract., M-Chronic:100, M-Acute:100	
			Specific Concentration Limits: C $\geq 0.0015\%$ : Skin Sens. 1A H317	
			Acute Toxicity Estimate: ATE - Oral: 125mg/kg bw ATE - Dermal: 311mg/kg bw	
$< 0.0015$ %	ethanediol; ethylene glycol	CAS:107-21-1 EC:203-473-3	Acute Tox. 4, H302; STOT RE 2, H373	01-2119456816-28

<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

<0.0015 % Pyrithione zinc CAS:13463-41-7 EC:236-671-3 Index:613-333-00-7 Acute Tox. 2, H330; Acute Tox. 3, H301; STOT RE 1, H372; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Repr. 1B, H360, M-Chronic:10, M-Acute:1000

Acute Toxicity Estimate :  
ATE - Oral : 221 mg/kg bw

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## 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.

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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO<sub>2</sub>).

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.

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## 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

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

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

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

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)

This product contains microplastics: do not release the product into the environment during use or disposal. Do not clean tools under running water. Do not pour product residues, water, or other washing solutions into household drains or sewers.

None in particular

Industrial sector specific solutions:

None in particular

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## 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	HUNGARY	Long Term: 10 mg/m <sup>3</sup> inhalable aerosol Source: 5/2020. (II. 6.) ITM
	NATIONAL	IRELAND	Long Term: 10 mg/m <sup>3</sup> Inhalable fraction Source: 2021 Code of Practice
	NATIONAL	IRELAND	Long Term: 4 mg/m <sup>3</sup> Respirable fraction Source: 2021 Code of Practice
	NATIONAL	CROATIA	Long Term: 10 mg/m <sup>3</sup> U Source: NN 1/2021
	NATIONAL	CROATIA	Long Term: 4 mg/m <sup>3</sup> R Source: NN 1/2021
	NATIONAL	FRANCE	Long Term: 10 mg/m <sup>3</sup> Source: INRS outil65
	NATIONAL	LATVIA	Long Term: 6 mg/m <sup>3</sup> Source: KN325P1
	NATIONAL	POLAND	Long Term: 10 mg/m <sup>3</sup> 4) Source: Dz.U. 2018 poz. 1286

Limestone CAS: 1317-65-3	SUVA	SWITZERLAN D	Long Term: 3 mg/m <sup>3</sup> TWA mg/m <sup>3</sup> : (a), Formel / Formal, NIOSH Source: suva.ch/valeurs-limites
	NATIONAL	BULGARIA	Long Term: 10 mg/m <sup>3</sup> Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
	NATIONAL	ESTONIA	Long Term: 10 mg/m <sup>3</sup> Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL	ESTONIA	Long Term: 5 mg/m <sup>3</sup> Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL	GREECE	Long Term: 10 mg/m <sup>3</sup> εισπν. Source: ΦΕΚ 94/Α` 13.5.1999
	NATIONAL	GREECE	Long Term: 5 mg/m <sup>3</sup> αvapv. Source: ΦΕΚ 94/Α` 13.5.1999
	NATIONAL	SPAIN	Long Term: 10 mg/m <sup>3</sup> (1) inhalable aerosol Source: LEP 2022
	NATIONAL	HUNGARY	Long Term: 10 mg/m <sup>3</sup> N Source: 5/2020. (II. 6.) ITM rendelet
	NATIONAL	BELGIUM	Long Term: 10 mg/m <sup>3</sup> Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	Titanium dioxide CAS: 13463-67-7	NATIONAL	IRELAND
NATIONAL		IRELAND	Long Term: 4 mg/m <sup>3</sup> Source: 2021 Code of Practice
NATIONAL		SWITZERLAN D	Long Term: 3 mg/m <sup>3</sup> (1) respirable aerosol Source: suva.ch/valeurs-limites
ACGIH			Long Term: 2.5 mg/m <sup>3</sup> (8h) Finescale particles; R ; A3 - LRT irr, pneumoconiosis
NATIONAL		GERMANY	Long Term: 0.3 mg/m <sup>3</sup> ; Short Term: 2.4 mg/m <sup>3</sup> DFG; Long term and short term: excluding ultrafine particles; respirable fraction; multiplied by the material density; Source: TRGS900
NATIONAL		BELGIUM	Long Term: 10 mg/m <sup>3</sup> Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL		CROATIA	Long Term: 10 mg/m <sup>3</sup> U Source: NN 1/2021
NATIONAL		CROATIA	Long Term: 4 mg/m <sup>3</sup> R Source: NN 1/2021
NATIONAL		IRELAND	Long Term: 10 mg/m <sup>3</sup> Source: 2021 Code of Practice
NATIONAL		IRELAND	Long Term: 4 mg/m <sup>3</sup> Source: 2021 Code of Practice
NATIONAL		ROMANIA	Long Term: 10 mg/m <sup>3</sup> ; Short Term: 15 mg/m <sup>3</sup> Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATIONAL		SPAIN	Long Term: 10 mg/m <sup>3</sup> Source: LEP 2022
NATIONAL		AUSTRIA	Long Term: 5 mg/m <sup>3</sup> ; Short Term: 10 mg/m <sup>3</sup> 60(Miw), 2x, MAK, A Source: BGBl. II Nr. 156/2021
NATIONAL		BULGARIA	Long Term: 10 mg/m <sup>3</sup> Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.

	NATIONAL	DENMARK	Long Term: 6 mg/m <sup>3</sup> K Source: BEK nr 2203 af 29/11/2021
	NATIONAL	ESTONIA	Long Term: 5 mg/m <sup>3</sup> Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL	FRANCE	Long Term: 10 mg/m <sup>3</sup> Cancérogène de catégorie 2 Source: INRS outil65
	NATIONAL	GREECE	Long Term: 10 mg/m <sup>3</sup> εισπν. Source: ΦΕΚ 94/Α` 13.5.1999
	NATIONAL	GREECE	Long Term: 5 mg/m <sup>3</sup> αvapν. Source: ΦΕΚ 94/Α` 13.5.1999
	NATIONAL	LATVIA	Long Term: 10 mg/m <sup>3</sup> Source: KN325P1
	NATIONAL	LITHUANIA	Long Term: 5 mg/m <sup>3</sup> Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
	NATIONAL	NORWAY	Long Term: 5 mg/m <sup>3</sup> Source: FOR-2021-06-28-2248
	NATIONAL	POLAND	Long Term: 10 mg/m <sup>3</sup> 4), 7) Source: Dz.U. 2018 poz. 1286
	SUVA	SWITZERLAND	Long Term: 3 mg/m <sup>3</sup> TWA mg/m <sup>3</sup> : (a), SSC, Formel / Formal, NIOSH Source: suva.ch/valeurs-limites
	NATIONAL	SLOVAKIA	Long Term: 5 mg/m <sup>3</sup> Source: 355 NARIADENIE VLÁDY z 10. mája 2006
	NATIONAL	SWEDEN	Long Term: 5 mg/m <sup>3</sup> 3 Source: AFS 2021:3
sodium carbonate CAS: 497-19-8	ITA	CZECHIA	Long Term: 5 mg/m <sup>3</sup> (8h); Short Term: 10 mg/m <sup>3</sup> (15min)
	NATIONAL	ROMANIA	Long Term: 1 mg/m <sup>3</sup> ; Short Term: 3 mg/m <sup>3</sup> Source: Republicarea 1 - nr. 743 din 29 iulie 2021
Barium sulfate CAS: 7727-43-7	ACGIH		Long Term: 5 mg/m <sup>3</sup> (8h) I, E - Pneumoconiosis
	NATIONAL	BELGIUM	Long Term: 5 mg/m <sup>3</sup> Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	CROATIA	Long Term: 10 mg/m <sup>3</sup> U Source: NN 1/2021
	NATIONAL	CROATIA	Long Term: 4 mg/m <sup>3</sup> R Source: NN 1/2021
	NATIONAL	IRELAND	Long Term: 5 mg/m <sup>3</sup> Source: 2021 Code of Practice
	NATIONAL	SPAIN	Long Term: 10 mg/m <sup>3</sup> e Source: LEP 2022
	NATIONAL	BULGARIA	Long Term: 10 mg/m <sup>3</sup> Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
	NATIONAL	SLOVAKIA	Long Term: 4 mg/m <sup>3</sup> 10) Source: 355 NARIADENIE VLÁDY z 10. mája 2006
	NATIONAL	SLOVAKIA	Long Term: 1.5 mg/m <sup>3</sup> 11) Source: 355 NARIADENIE VLÁDY z 10. mája 2006

zinc oxide  
CAS: 1314-13-2

SUVA	SWITZERLAN D	Long Term: 3 mg/m <sup>3</sup> TWA mg/m <sup>3</sup> : (a), Formel / Formal Source: suva.ch/valeurs-limites
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m <sup>3</sup> Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 4 mg/m <sup>3</sup> Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
ACGIH		Long Term: 2 mg/m <sup>3</sup> (8h); Short Term: 10 mg/m <sup>3</sup> R - Metal fume fever
NATIONAL	AUSTRIA	Long Term: 5 mg/m <sup>3</sup> MAK, A Source: BGBl. II Nr. 156/2021
NATIONAL	BULGARIA	Long Term: 5 mg/m <sup>3</sup> ; Short Term: 10 mg/m <sup>3</sup> Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
NATIONAL	CZECHIA	Long Term: 2 mg/m <sup>3</sup> ; Short Term: Ceiling - 5 mg/m <sup>3</sup> Source: Nařízení vlády č. 361-2007 Sb
NATIONAL	DENMARK	Long Term: 4 mg/m <sup>3</sup> Source: BEK nr 2203 af 29/11/2021
NATIONAL	ESTONIA	Long Term: 5 mg/m <sup>3</sup> Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	FINLAND	Long Term: 2 mg/m <sup>3</sup> ; Short Term: 10 mg/m <sup>3</sup> Source: HTP-ARVOT 2020
NATIONAL	FRANCE	Long Term: 5 mg/m <sup>3</sup> Source: INRS outil65
NATIONAL	FRANCE	Long Term: 10 mg/m <sup>3</sup> Source: INRS outil65
NATIONAL	GREECE	Long Term: 5 mg/m <sup>3</sup> ; Short Term: 10 mg/m <sup>3</sup> Source: ΦΕΚ 94/Α` 13.5.1999
NATIONAL	HUNGARY	Long Term: 5 mg/m <sup>3</sup> i, N Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	HUNGARY	Long Term: 5 mg/m <sup>3</sup> i, R Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	LATVIA	Long Term: 0.5 mg/m <sup>3</sup> Source: KN325P1
NATIONAL	LITHUANIA	Long Term: 5 mg/m <sup>3</sup> Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATIONAL	NORWAY	Long Term: 5 mg/m <sup>3</sup> Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 5 mg/m <sup>3</sup> ; Short Term: 10 mg/m <sup>3</sup> 4) Source: Dz.U. 2018 poz. 1286
NATIONAL	SLOVAKIA	Long Term: 1 mg/m <sup>3</sup> ; Short Term: 1 mg/m <sup>3</sup> 11) Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATIONAL	SWEDEN	Long Term: 5 mg/m <sup>3</sup> 3 Source: AFS 2021:3
SUVA	SWITZERLAN D	Long Term: 3 mg/m <sup>3</sup> ; Short Term: 3 mg/m <sup>3</sup> TWA mg/m <sup>3</sup> : (a), Fimétal / Metallrauch, NIOSH OSHA

		Source: suva.ch/valeurs-limites
	NATIONAL BELGIUM	Long Term: 2 mg/m <sup>3</sup> ; Short Term: 10 mg/m <sup>3</sup> Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL CROATIA	Long Term: 2 mg/m <sup>3</sup> ; Short Term: 10 mg/m <sup>3</sup> GVI: R Source: NN 1/2021
	NATIONAL IRELAND	Long Term: 2 mg/m <sup>3</sup> ; Short Term: 10 mg/m <sup>3</sup> OEL (8-hour reference period) : R Source: 2021 Code of Practice
	NATIONAL ROMANIA	Long Term: 5 mg/m <sup>3</sup> ; Short Term: 10 mg/m <sup>3</sup> (Fumuri) Source: Republicarea 1 - nr. 743 din 29 iulie 2021
	NATIONAL SPAIN	Long Term: 2 mg/m <sup>3</sup> ; Short Term: 10 mg/m <sup>3</sup> d Source: LEP 2022
Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated CAS: 25322-68-3	NATIONAL GERMANY	Long Term: 200 mg/m <sup>3</sup> DFG, Y, E, 2 (II) Source: TRGS 900
	NATIONAL SLOVAKIA	Long Term: 1000 mg/m <sup>3</sup> Source: 355 NARIADENIE VLÁDY z 10. mája 2006
	SUVA SWITZERLAND	Long Term: 500 mg/m <sup>3</sup> SSC, Mcorp / KG Source: suva.ch/valeurs-limites
Quartz CAS: 14808-60-7	ACGIH	Long Term: 0.025 mg/m <sup>3</sup> (8h) R, A2 - Pulm fibrosis, lung cancer
	NATIONAL HUNGARY	Long Term: 0.1 mg/m <sup>3</sup> Source: 5/2020. (II. 6.) ITM rendelet
	NATIONAL IRELAND	Long Term: 0.1 mg/m <sup>3</sup> Respirable fraction Source: 2021 Code of Practice
	NATIONAL ITALY	Long Term: 0.1 mg/m <sup>3</sup> Polvere di silice cristallina respirabile (frazione inalabile). Rif:D.Lgs 81/2008 Source: D.lgs. 81/2008, Allegato XLIII
	NATIONAL SPAIN	Long Term: 0.3 mg/m <sup>3</sup> Respirable fraction Source: LEP 2022
	NATIONAL BELGIUM	Long Term: 0.1 mg/m <sup>3</sup> C Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL DENMARK	Long Term: 0.3 mg/m <sup>3</sup> alveolijae, liite 3 Source: BEK nr 2203 af 29/11/2021
	NATIONAL DENMARK	Long Term: 0.1 mg/m <sup>3</sup> EK Source: BEK nr 2203 af 29/11/2021
	NATIONAL ESTONIA	Long Term: 0.1 mg/m <sup>3</sup> 1, C Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL FINLAND	Long Term: 0.05 mg/m <sup>3</sup> alveolijae, liite 3 Source: HTP-ARVOT 2020
	NATIONAL FRANCE	Long Term: 0.1 mg/m <sup>3</sup> 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 <sup>3</sup> Žiūrėti 1 priedo 3 punktą. Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389

	NATIONAL	NETHERLAND S	Long Term: 0.075 mg/m <sup>3</sup> (2) Source: Arbeidsomstandighedenregeling - Lijst B1
	NATIONAL	NORWAY	Long Term: 0.3 mg/m <sup>3</sup> K 7 Source: FOR-2021-06-28-2248
	NATIONAL	NORWAY	Long Term: 0.05 mg/m <sup>3</sup> K G 7 21 Source: FOR-2021-06-28-2248
	NATIONAL	POLAND	Long Term: 0.1 mg/m <sup>3</sup> 6) Source: Dz.U. 2018 poz. 1286
	NATIONAL	SWEDEN	Long Term: 0.1 mg/m <sup>3</sup> C, M, 3 Source: AFS 2021:3
	SUVA	SWITZERLAN D	Long Term: 0.15 mg/m <sup>3</sup> TWA mg/m <sup>3</sup> : (a), C1A, SSC, P, Cancpulm Silicose / Lugenkrebs Silikose, HSE NIOSH OSHA Source: suva.ch/valeurs-limites
3-iodo-2-propynyl butylcarbamate; 3-iodoprop- 2-yn-1-yl butylcarbamate CAS: 55406-53-6	SUVA	SWITZERLAN D	Long Term: 0.12 mg/m <sup>3</sup> - 0.01 ppm; Short Term: 0.24 mg/m <sup>3</sup> - 0.02 ppm S, SSC, Cholin / Cholin, 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
	NATIONAL	GERMANY	Long Term: 0.058 mg/m <sup>3</sup> - 0.005 ppm DFG, Y, Sh, 11, 2 (I) Source: TRGS 900
	NATIONAL	SLOVENIA	Long Term: 0.058 mg/m <sup>3</sup> - 0.005 ppm; Short Term: 0.116 mg/m <sup>3</sup> - 0.01 ppm Y Source: UL št. 72, 11. 5. 2021
and isobutane CAS: 75-28-5	NATIONAL	IRELAND	Short Term: 1000 ppm (15min)
	WEL-EH40	SWITZERLAN D	Long Term: 1900 mg/m <sup>3</sup> - 800 ppm
	ACGIH		Short Term: 1000 ppm EX - CNS impair
	NATIONAL	AUSTRIA	Long Term: 1900 mg/m <sup>3</sup> - 800 ppm; Short Term: Ceiling - 3800 mg/m <sup>3</sup> - 1600 ppm 60(Mow), 3x, MAK Source: GKV, BGBl. II Nr. 156/2021
	NATIONAL	ESTONIA	Long Term: 1900 mg/m <sup>3</sup> - 800 ppm Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL	FINLAND	Long Term: 1900 mg/m <sup>3</sup> - 800 ppm; Short Term: 2400 mg/m <sup>3</sup> - 1000 ppm liite 4 Source: HTP-ARVOT 2020
	SUVA	SWITZERLAN D	Long Term: 1900 mg/m <sup>3</sup> - 800 ppm; Short Term: 7600 mg/m <sup>3</sup> - 3200 ppm SNC / ZNS Source: suva.ch/valeurs-limites
	NATIONAL	BELGIUM	Short Term: 2370 mg/m <sup>3</sup> - 980 ppm Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	GERMANY	Long Term: 2400 mg/m <sup>3</sup> - 1000 ppm DFG, 4(II) Source: TRGS 900
	NATIONAL	SLOVENIA	Long Term: 2400 mg/m <sup>3</sup> - 1000 ppm; Short Term: 9600 mg/m <sup>3</sup> - 4000 ppm Source: UL št. 72, 11. 5. 2021
Magnesium oxide CAS: 1309-48-4	ACGIH		Long Term: 10 mg/m <sup>3</sup> (8h) I, A4 - URT, metal fume fever
	NATIONAL	IRELAND	Long Term: 10 mg/m <sup>3</sup> (8h) Respirable fraction
	NATIONAL	IRELAND	Long Term: 10 mg/m <sup>3</sup> ; Short Term: 4 mg/m <sup>3</sup> (15min) Inhalable fraction

NATIONAL	IRELAND	Long Term: 5 mg/m <sup>3</sup> (8h) Fume
NATIONAL	BELGIUM	Long Term: 10 mg/m <sup>3</sup> Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	CROATIA	Long Term: 10 mg/m <sup>3</sup> U Source: NN 1/2021
NATIONAL	CROATIA	Long Term: 4 mg/m <sup>3</sup> R Source: NN 1/2021
NATIONAL	ROMANIA	Long Term: 5 mg/m <sup>3</sup> ; Short Term: 15 mg/m <sup>3</sup> (Fumuri) Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATIONAL	SPAIN	Long Term: 10 mg/m <sup>3</sup> Source: LEP 2022
NATIONAL	AUSTRIA	Long Term: 10 mg/m <sup>3</sup> ; Short Term: 20 mg/m <sup>3</sup> 60(Miw), 2x, MAK, E Source: BGBl. II Nr. 156/2021
NATIONAL	AUSTRIA	Long Term: 5 mg/m <sup>3</sup> ; Short Term: 10 mg/m <sup>3</sup> 60(Miw), 2x, MAK, A Source: BGBl. II Nr. 156/2021
NATIONAL	AUSTRIA	Long Term: 5 mg/m <sup>3</sup> ; Short Term: 20 mg/m <sup>3</sup> 15(Miw), 4x, MAK, A Source: BGBl. II Nr. 156/2021
NATIONAL	BULGARIA	Long Term: 10 mg/m <sup>3</sup> Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
NATIONAL	CZECHIA	Long Term: 5 mg/m <sup>3</sup> ; Short Term: Ceiling - 10 mg/m <sup>3</sup> Source: Nařízení vlády č. 361-2007 Sb
NATIONAL	DENMARK	Long Term: 6 mg/m <sup>3</sup> Source: BEK nr 2203 af 29/11/2021
NATIONAL	FRANCE	Long Term: 10 mg/m <sup>3</sup> Source: INRS outil65
NATIONAL	GREECE	Long Term: 10 mg/m <sup>3</sup> εισπν. Source: ΦΕΚ 94/Α` 13.5.1999
NATIONAL	GREECE	Long Term: 5 mg/m <sup>3</sup> αvapn. Source: ΦΕΚ 94/Α` 13.5.1999
NATIONAL	HUNGARY	Long Term: 6 mg/m <sup>3</sup> resp, i, R Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	LITHUANIA	Long Term: 4 mg/m <sup>3</sup> Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATIONAL	NORWAY	Long Term: 10 mg/m <sup>3</sup> 1 Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 10 mg/m <sup>3</sup> 4) Source: Dz.U. 2018 poz. 1286
NATIONAL	SLOVAKIA	Long Term: 4 mg/m <sup>3</sup> 11) Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATIONAL	SLOVAKIA	Long Term: 10 mg/m <sup>3</sup> 10) Source: 355 NARIADENIE VLÁDY z 10. mája 2006
SUVA	SWITZERLAND	Long Term: 3 mg/m <sup>3</sup> TWA mg/m <sup>3</sup> : (a), SSC, NIOSH Source: suva.ch/valeurs-limites

	SUVA	SWITZERLAN D	Long Term: 3 mg/m <sup>3</sup> TWA mg/m <sup>3</sup> : (a), NIOSH Source: suva.ch/valeurs-limites
Propane-1,2-diol CAS: 57-55-6	NATIONAL	CROATIA	Long Term: 474 mg/m <sup>3</sup> - 150 ppm Source: NN 1/2021
	NATIONAL	CROATIA	Long Term: 10 mg/m <sup>3</sup> Source: NN 1/2021
	NATIONAL	IRELAND	Long Term: 470 mg/m <sup>3</sup> - 150 ppm Source: 2021 Code of Practice
	NATIONAL	IRELAND	Long Term: 10 mg/m <sup>3</sup> Source: 2021 Code of Practice
	NATIONAL	LATVIA	Long Term: 7 mg/m <sup>3</sup> Source: KN325P1
	NATIONAL	LITHUANIA	Long Term: 7 mg/m <sup>3</sup> Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
	NATIONAL	NORWAY	Long Term: 79 mg/m <sup>3</sup> - 25 ppm Source: FOR-2021-06-28-2248
	NATIONAL	POLAND	Long Term: 100 mg/m <sup>3</sup> 4) Source: Dz.U. 2018 poz. 1286
Propylidynetrimethanol CAS: 77-99-6	NATIONAL	LITHUANIA	Short Term: Ceiling - 5 ppm Ū Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
	NATIONAL	SWEDEN	Long Term: 5 mg/m <sup>3</sup> Source: AFS 2021:3
2,2' -oxybisethanol; diethylene glycol CAS: 111-46-6	NATIONAL	AUSTRIA	Long Term: 44 mg/m <sup>3</sup> - 10 ppm; Short Term: 176 mg/m <sup>3</sup> - 40 ppm 15(Miw), 4x, MAK Source: GKV, BGBl. II Nr. 156/2021
	NATIONAL	DENMARK	Long Term: 11 mg/m <sup>3</sup> - 2.5 ppm Source: BEK nr 2203 af 29/11/2021
	NATIONAL	ESTONIA	Long Term: 45 mg/m <sup>3</sup> - 10 ppm; Short Term: 90 mg/m <sup>3</sup> - 20 ppm A Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL	LATVIA	Long Term: 10 mg/m <sup>3</sup> Source: KN325P1
	NATIONAL	LITHUANIA	Long Term: 45 mg/m <sup>3</sup> - 10 ppm; Short Term: 90 mg/m <sup>3</sup> - 20 ppm O Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
	NATIONAL	POLAND	Long Term: 10 mg/m <sup>3</sup> 4) Source: Dz.U. 2018 poz. 1286
	NATIONAL	SLOVAKIA	Long Term: 44 mg/m <sup>3</sup> - 10 ppm; Short Term: 90 mg/m <sup>3</sup> - 20 ppm Source: 355 NARIADENIE VLÁDY z 10. mája 2006
	NATIONAL	SWEDEN	Long Term: 45 mg/m <sup>3</sup> - 10 ppm; Short Term: 90 mg/m <sup>3</sup> - 20 ppm H, V Source: AFS 2021:3
	SUVA	SWITZERLAN D	Long Term: 44 mg/m <sup>3</sup> - 10 ppm; Short Term: 176 mg/m <sup>3</sup> - 40 ppm SSC, 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: 101 mg/m <sup>3</sup> - 23 ppm Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	NATIONAL	CROATIA	Long Term: 101 mg/m <sup>3</sup> - 23 ppm Source: NN 1/2021

	NATIONAL	GERMANY	Long Term: 44 mg/m <sup>3</sup> - 10 ppm DFG, Y, 11, 4(II) Source: TRGS 900
	NATIONAL	IRELAND	Long Term: 100 mg/m <sup>3</sup> - 23 ppm Source: 2021 Code of Practice
	NATIONAL	ROMANIA	Long Term: 500 mg/m <sup>3</sup> - 115 ppm; Short Term: 800 mg/m <sup>3</sup> - 184 ppm Source: Republicarea 1 - nr. 743 din 29 iulie 2021
	NATIONAL	SLOVENIA	Long Term: 44 mg/m <sup>3</sup> - 10 ppm; Short Term: 176 mg/m <sup>3</sup> - 40 ppm Y Source: UL št. 72, 11. 5. 2021
Kaolin CAS: 1332-58-7	ACGIH		Long Term: 2 mg/m <sup>3</sup> (8h) E,R, A4 - Pneumoconiosis
	NATIONAL	BELGIUM	Long Term: 2 mg/m <sup>3</sup> Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	DENMARK	Long Term: 2 mg/m <sup>3</sup> Source: BEK nr 2203 af 29/11/2021
	NATIONAL	FINLAND	Long Term: 2 mg/m <sup>3</sup> alveolijae Source: HTP-ARVOT 2020
	NATIONAL	IRELAND	Long Term: 2 mg/m <sup>3</sup> Source: 2021 Code of Practice
	NATIONAL	POLAND	Long Term: 10 mg/m <sup>3</sup> 4), 7) Source: Dz.U. 2018 poz. 1286
	SUVA	SWITZERLAND	Long Term: 3 mg/m <sup>3</sup> TWA mg/m <sup>3</sup> : (a), Fib pulm / Lungenfibrose Source: suva.ch/valeurs-limites
	NATIONAL	CROATIA	Long Term: 2 mg/m <sup>3</sup> R Source: NN 1/2021
sodium hydroxide; caustic soda CAS: 1310-73-2	ACGIH		Short Term: Ceiling - 2 mg/m <sup>3</sup> URT, eye, and skin irr
	NATIONAL	ROMANIA	Long Term: 1 mg/m <sup>3</sup> ; Short Term: 3 mg/m <sup>3</sup>
	NATIONAL	AUSTRIA	Long Term: 2 mg/m <sup>3</sup> ; Short Term: Ceiling - 4 mg/m <sup>3</sup> 5(Mow), 8x, MAK, E Source: BGBl. II Nr. 156/2021
	NATIONAL	BULGARIA	Long Term: 2 mg/m <sup>3</sup> Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
	NATIONAL	CZECHIA	Long Term: 1 mg/m <sup>3</sup> ; Short Term: Ceiling - 2 mg/m <sup>3</sup> I Source: Nařízení vlády č. 361-2007 Sb
	NATIONAL	DENMARK	Short Term: Ceiling - 2 mg/m <sup>3</sup> L Source: BEK nr 2203 af 29/11/2021
	NATIONAL	ESTONIA	Long Term: 1 mg/m <sup>3</sup> ; Short Term: 2 mg/m <sup>3</sup> * Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL	FINLAND	Short Term: Ceiling - 2 mg/m <sup>3</sup> kattoarvo Source: HTP-ARVOT 2020
	NATIONAL	FRANCE	Long Term: 2 mg/m <sup>3</sup> Source: INRS outil65
	NATIONAL	GREECE	Long Term: 2 mg/m <sup>3</sup> ; Short Term: 2 mg/m <sup>3</sup> Source: ΦΕΚ 94/Α` 13.5.1999
	NATIONAL	HUNGARY	Long Term: 1 mg/m <sup>3</sup> ; Short Term: 2 mg/m <sup>3</sup> m, N Source: 5/2020. (II. 6.) ITM rendelet

	NATIONAL	LATVIA	Long Term: 0.5 mg/m <sup>3</sup> Source: KN325P1
	NATIONAL	LITHUANIA	Short Term: Ceiling - 2 mg/m <sup>3</sup> Ū Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
	NATIONAL	NORWAY	Short Term: Ceiling - 2 mg/m <sup>3</sup> T Source: FOR-2021-06-28-2248
	NATIONAL	POLAND	Long Term: 0.5 mg/m <sup>3</sup> ; Short Term: 1 mg/m <sup>3</sup> Source: Dz.U. 2018 poz. 1286
	NATIONAL	SLOVAKIA	Long Term: 2 mg/m <sup>3</sup> Source: 355 NARIADENIE VLÁDY z 10. mája 2006
	NATIONAL	SWEDEN	Long Term: 1 mg/m <sup>3</sup> ; Short Term: 2 mg/m <sup>3</sup> 3 Source: AFS 2021:3
	SUVA	SWITZERLAND	Long Term: 2 mg/m <sup>3</sup> ; Short Term: 2 mg/m <sup>3</sup> TWA mg/m <sup>3</sup> : (i), SSC, VRS Peau Yeux / OAW Haut Auge, NIOSH OSHA Source: suva.ch/valeurs-limites
	NATIONAL	BELGIUM	Long Term: 2 mg/m <sup>3</sup> M Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	CROATIA	Short Term: 2 mg/m <sup>3</sup> Source: NN 1/2021
	NATIONAL	IRELAND	Short Term: 2 mg/m <sup>3</sup> Source: 2021 Code of Practice
	NATIONAL	SPAIN	Short Term: 2 mg/m <sup>3</sup> Source: LEP 2022
2-octyl-2H-isothiazol-3-one CAS: 26530-20-1	NATIONAL	AUSTRIA	Long Term: 0.05 mg/m <sup>3</sup> ; Short Term: Ceiling - 0.05 mg/m <sup>3</sup> Mow, MAK, H, S, E Source: BGBl. II Nr. 156/2021
	SUVA	SWITZERLAND	Long Term: 0.05 mg/m <sup>3</sup> ; Short Term: 0.1 mg/m <sup>3</sup> TWA mg/m <sup>3</sup> : (i), R/H, S, VRS / OAW Source: suva.ch/valeurs-limites
	NATIONAL	GERMANY	Long Term: 0.05 mg/m <sup>3</sup> DFG, H, Y, E, 2(I) Source: TRGS 900
	NATIONAL	SLOVENIA	Long Term: 0.05 mg/m <sup>3</sup> ; Short Term: 0.1 mg/m <sup>3</sup> K, Y, (I) Source: UL št. 72, 11. 5. 2021
ethanediol; ethylene glycol CAS: 107-21-1	ACGIH		Short Term: 10 mg/m <sup>3</sup> I, H, A4 - URT irr
	NATIONAL	AUSTRIA	Long Term: 26 mg/m <sup>3</sup> - 10 ppm; Short Term: Ceiling - 52 mg/m <sup>3</sup> - 20 ppm 5(Mow), 8x, MAK, H Source: BGBl. II Nr. 156/2021
	NATIONAL	BULGARIA	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm Кожа Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
	NATIONAL	CZECHIA	Long Term: 50 mg/m <sup>3</sup> ; Short Term: Ceiling - 100 mg/m <sup>3</sup> D Source: Nařízení vlády č. 361-2007 Sb
	NATIONAL	DENMARK	Long Term: 26 mg/m <sup>3</sup> - 10 ppm EH Source: BEK nr 2203 af 29/11/2021
	NATIONAL	DENMARK	Long Term: 10 mg/m <sup>3</sup> Source: BEK nr 2203 af 29/11/2021
	NATIONAL	ESTONIA	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm A, 18 Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105

NATIONAL	FINLAND	Long Term: 50 mg/m <sup>3</sup> - 20 ppm; Short Term: 100 mg/m <sup>3</sup> - 40 ppm iho Source: HTP-ARVOT 2020
NATIONAL	FRANCE	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm Risque de pénétration percutanée Source: INRS outil65, arrêté du 30-06-2004 modifié
NATIONAL	GREECE	Long Term: 125 mg/m <sup>3</sup> - 50 ppm; Short Term: 125 mg/m <sup>3</sup> - 50 ppm Source: ΦΕΚ 94/Α` 13.5.1999
NATIONAL	HUNGARY	Long Term: 52 mg/m <sup>3</sup> ; Short Term: 104 mg/m <sup>3</sup> b, i, EU1, N Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	LITHUANIA	Long Term: 25 mg/m <sup>3</sup> - 10 ppm; Short Term: 50 mg/m <sup>3</sup> - 20 ppm O, Sis RD taikomas bendrai garų ir aerolio koncentracijai. Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATIONAL	NETHERLAND S	Long Term: 52 mg/m <sup>3</sup> ; Short Term: 104 mg/m <sup>3</sup> H Source: Arbeidsomstandighedenregeling - Lijst A
NATIONAL	NETHERLAND S	Long Term: 10 mg/m <sup>3</sup> ; Short Term: 104 mg/m <sup>3</sup> H Source: Arbeidsomstandighedenregeling - Lijst A
NATIONAL	NORWAY	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm H E 5 S Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 15 mg/m <sup>3</sup> ; Short Term: 50 mg/m <sup>3</sup> skóra Source: Dz.U. 2018 poz. 1286
NATIONAL	SLOVAKIA	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm K Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATIONAL	SWEDEN	Long Term: 25 mg/m <sup>3</sup> - 10 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm H, 26 Source: AFS 2021:3
SUVA	SWITZERLAND D	Long Term: 26 mg/m <sup>3</sup> - 10 ppm; Short Term: 52 mg/m <sup>3</sup> - 20 ppm R/H, SSC, VRS Yeux / OAW Auge, 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: 10 mg/m <sup>3</sup> Sk Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm Sk Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
NATIONAL	BELGIUM	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm D, M Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	CYPRUS	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm δέρμα Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021
NATIONAL	GERMANY	Long Term: 26 mg/m <sup>3</sup> - 10 ppm DFG, EU, H, Y, 11, 2(I) Source: TRGS 900
NATIONAL	IRELAND	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm Sk, IOELV Source: 2021 Code of Practice

	NATIONAL	ITALY	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm Cute Source: D.lgs. 81/2008, Allegato XXXVIII
	NATIONAL	LATVIA	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm Āda Source: KN325P1
	NATIONAL	LUXEMBOUR G	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm Peau Source: Mémorial A n.226 du 22 mars 2021
	NATIONAL	MALTA	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm skin Source: S.L.424.24
	NATIONAL	PORTUGAL	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm Cutânea Source: Decreto-Lei n.º 1/2021
	NATIONAL	ROMANIA	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm P, Dir. 2000/39 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
	NATIONAL	SLOVENIA	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm K, Y, EU1 Source: UL št. 72, 11. 5. 2021
	NATIONAL	SPAIN	Long Term: 52 mg/m <sup>3</sup> - 20 ppm; Short Term: 104 mg/m <sup>3</sup> - 40 ppm vía dérmica, VLI Source: LEP 2022
	EU		Long Term: 52 mg/m <sup>3</sup> - 20 ppm (8h); Short Term: 104 mg/m <sup>3</sup> - 40 ppm Skin
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 <sup>3</sup> ; Short Term: 0.4 mg/m <sup>3</sup> DFG; Long term and short term: inhalable fraction Source: TRGS900
	NATIONAL	AUSTRIA	Long Term: 0.05 mg/m <sup>3</sup> MAK, Sh Source: GKV, BGBl. II Nr. 156/2021
	SUVA	SWITZERLAN D	Long Term: 0.2 mg/m <sup>3</sup> ; Short Term: 0.4 mg/m <sup>3</sup> TWA mg/m <sup>3</sup> : (i), S, SSC, VRS Peau Yeux / OAW Haut Auge Source: suva.ch/valeurs-limites
Benzyl acetate CAS: 140-11-4	ACGIH		Long Term: 10 ppm (8h) A4 - URT irr
	NATIONAL	BELGIUM	Long Term: 62 mg/m <sup>3</sup> - 10 ppm Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	IRELAND	Long Term: 10 ppm Source: 2021 Code of Practice
	NATIONAL	ROMANIA	Long Term: 50 mg/m <sup>3</sup> - 8 ppm; Short Term: 80 mg/m <sup>3</sup> - 13 ppm Source: Republicarea 1 - nr. 743 din 29 iulie 2021
	NATIONAL	SPAIN	Long Term: 62 mg/m <sup>3</sup> - 10 ppm Source: LEP 2022
	NATIONAL	DENMARK	Long Term: 61 mg/m <sup>3</sup> - 10 ppm Source: BEK nr 2203 af 29/11/2021
	NATIONAL	LATVIA	Long Term: 5 mg/m <sup>3</sup> Source: KN325P1
	NATIONAL	LITHUANIA	Long Term: 5 mg/m <sup>3</sup> Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
glyoxal...%; ethandial...% CAS: 107-22-2	ACGIH		Long Term: 0.1 mg/m <sup>3</sup> (8h) IFV, DSEN, A4 - URT irr, larynx metaplasia
	NATIONAL	DENMARK	Short Term: Ceiling - 0.5 mg/m <sup>3</sup> - 0.2 ppm L Source: BEK nr 2203 af 29/11/2021

	NATIONAL	FINLAND	Long Term: 0.02 mg/m <sup>3</sup> Source: HTP-ARVOT 2020
	NATIONAL	IRELAND	Long Term: 0.1 mg/m <sup>3</sup> IFV Source: 2021 Code of Practice
	NATIONAL	BELGIUM	Long Term: 0.1 mg/m <sup>3</sup> Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	SPAIN	Long Term: 0.1 mg/m <sup>3</sup> Sen, FIV, s Source: LEP 2022
Pyridine-2-thiol 1-oxide, sodium salt CAS: 3811-73-2	NATIONAL	GERMANY	Long Term: 0.2 mg/m <sup>3</sup> DFG, H, Y, E, 2(II) Source: TRGS 900
	NATIONAL	SLOVENIA	Long Term: 1 mg/m <sup>3</sup> ; Short Term: 2 mg/m <sup>3</sup> K, (I) Source: UL št. 72, 11. 5. 2021
	NATIONAL	AUSTRIA	Long Term: 1 mg/m <sup>3</sup> ; Short Term: 4 mg/m <sup>3</sup> 15(Miw), 4x, MAK, H Source: BGBl. II Nr. 156/2021
	NATIONAL	DENMARK	Long Term: 1 mg/m <sup>3</sup> H Source: BEK nr 2203 af 29/11/2021
	SUVA	SWITZERLAND	Long Term: 0.2 mg/m <sup>3</sup> ; Short Term: 0.4 mg/m <sup>3</sup> TWA mg/m <sup>3</sup> : (i), R/H, SSC, SNP / PNS Source: suva.ch/valeurs-limites

#### Predicted No Effect Concentration (PNEC) values

Alcohols, C16-18 and  
C18-unsatd., ethoxylated  
CAS: 68920-66-1

Exposure Route: Fresh Water; PNEC Limit: 7.2 µg/l

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 100 µg/l

Exposure Route: Marine water; PNEC Limit: 700 ng/L

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 10000 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 22.79 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 2.28 mg/kg

Exposure Route: Soil; PNEC Limit: 1 mg/kg

3-iodo-2-propynyl  
butylcarbamate; 3-  
iodoprop-2-yn-1-yl  
butylcarbamate  
CAS: 55406-53-6

Exposure Route: Fresh Water; PNEC Limit: 500 ng/L

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 530 ng/L

Exposure Route: Marine water; PNEC Limit: 46 ng/L

Exposure Route: Intermittent releases (marine water); PNEC Limit: 530 ng/L

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 440 ng/L

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 440 ng/L

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

bronopol (INN); 2-bromo-  
2-nitropropane-1,3-diol

Exposure Route: Fresh Water; PNEC Limit: 10 µg/l

CAS: 52-51-7

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 2.5 µg/l  
Exposure Route: Marine water; PNEC Limit: 800 ng/L  
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 430 µg/l  
Exposure Route: Freshwater sediments; PNEC Limit: 41 µg/l  
Exposure Route: Marine water sediments; PNEC Limit: 3.28 µg/kg  
Exposure Route: Soil; PNEC Limit: 500 µg/kg

2-octyl-2H-isothiazol-3-one  
CAS: 26530-20-1

Exposure Route: Fresh Water; PNEC Limit: 2.2 µg/l  
Exposure Route: Intermittent releases (fresh water); PNEC Limit: 1.22 µg/l  
Exposure Route: Marine water; PNEC Limit: 220 ng/L  
Exposure Route: Intermittent releases (marine water); PNEC Limit: 122 ng/L  
Exposure Route: Freshwater sediments; PNEC Limit: 47.5 µg/kg  
Exposure Route: Marine water sediments; PNEC Limit: 47.5 µg/kg  
Exposure Route: Soil; PNEC Limit: 8.2 µg/kg

ethanediol; ethylene glycol  
CAS: 107-21-1

Exposure Route: Fresh Water; PNEC Limit: 10 mg/l  
Exposure Route: Intermittent releases (fresh water); PNEC Limit: 10 mg/l  
Exposure Route: Marine water; PNEC Limit: 1 mg/l  
Exposure Route: Intermittent releases (marine water); PNEC Limit: 10 mg/l  
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 199.5 mg/l  
Exposure Route: Freshwater sediments; PNEC Limit: 37 mg/kg  
Exposure Route: Marine water sediments; PNEC Limit: 3.7 mg/kg  
Exposure Route: Soil; PNEC Limit: 1.53 mg/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: 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: 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

Pyrrithione zinc  
CAS: 13463-41-7

Exposure Route: Fresh Water; PNEC Limit: 90 ng/L  
Exposure Route: Marine water; PNEC Limit: 90 ng/L  
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 10 µg/l  
Exposure Route: Freshwater sediments; PNEC Limit: 9.5 µg/kg  
Exposure Route: Marine water sediments; PNEC Limit: 9.5 µg/kg  
Exposure Route: Soil; PNEC Limit: 1.02 mg/kg

### Derived No Effect Level (DNEL) values

Alcohols, C16-18 and C18-unsatd., ethoxylated  
CAS: 68920-66-1

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 294 mg/m<sup>3</sup>; Consumer: 87 mg/m<sup>3</sup>

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 2080 mg/kg; Consumer: 1250 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects  
Consumer: 25 mg/kg

3-iodo-2-propynyl butylcarbamate; 3-

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 23 µg/m<sup>3</sup>

iodoprop-2-yn-1-yl  
butylcarbamate  
CAS: 55406-53-6

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects  
Worker Professional: 70 µg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects  
Worker Professional: 1.16 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects  
Worker Professional: 1.16 mg/m<sup>3</sup>

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 2 mg/kg

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

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

bronopol (INN); 2-bromo-2-nitropropane-1,3-diol  
CAS: 52-51-7

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects  
Worker Professional: 12.3 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects  
Worker Professional: 4.2 mg/m<sup>3</sup>; Consumer: 1.3 mg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects  
Worker Professional: 4.2 mg/m<sup>3</sup>; Consumer: 1.3 mg/m<sup>3</sup>

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 2.3 mg/kg; Consumer: 1.4 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects  
Worker Professional: 7 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects  
Consumer: 350 µg/kg

Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects  
Consumer: 1.1 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Long Term, local effects  
Worker Professional: 0.013 mg/cm<sup>2</sup>; Consumer: 0.008 mg/cm<sup>2</sup>

Exposure Route: Human Dermal; Exposure Frequency: Short Term, local effects  
Worker Professional: 0.013 mg/cm<sup>2</sup>; Consumer: 0.008 mg/cm<sup>2</sup>

ethanediol; ethylene glycol  
CAS: 107-21-1

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects  
Worker Professional: 35 mg/m<sup>3</sup>; Consumer: 7 mg/m<sup>3</sup>

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 106 mg/kg; Consumer: 53 mg/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/m<sup>3</sup>; Consumer: 20 µg/m<sup>3</sup>

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects  
Worker Professional: 40 µg/m<sup>3</sup>; Consumer: 20 µg/m<sup>3</sup>

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

Pyrrithione zinc  
CAS: 13463-41-7

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects  
Worker Professional: 10 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:

Suitable materials for safety gloves (EN 374, EN 16523-1:2015+A1:2018: Level 6):

Nitrile rubber - NBR: thickness  $\geq 0,4\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Butyl rubber - IIR: thickness  $\geq 0,4\text{mm}$ ; breakthrough time  $\geq 480\text{min}$ .

Respiratory protection:

N.A.

Thermal Hazards:

N.A.

Environmental exposure controls:

This product contains microplastics: do not release the product into the environment during use or disposal. Do not clean tools under running water. Do not pour product residues, water, or other washing solutions into household drains or sewers.

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## 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: Characteristic

Odour threshold: N.A.

pH:  $\geq 10.00 \leq 10.50$  ( OECD 122 - Not applicable, non-aqueous mixture )

Kinematic viscosity: N.A. ( Not determined, as it is not required for CLP classification )

Melting point/freezing point: N.A.

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

Flash point:  $> 93^{\circ}\text{C}$

Lower and upper explosion limit: N.A.

Relative vapour density: N.A.

Vapour pressure: 23.00 hPa

Density and/or relative density: 1.49 g/cm<sup>3</sup> ( ISO 2811 )

Solubility in water: Miscible

Solubility in oil: N.A. ( Not determined, as it is not required for CLP classification )

Partition coefficient n-octanol/water (log value): N.A. ( Not applicable to mixtures )

Auto-ignition temperature: N.A. ( Not applicable as the mixture is not flammable )

Decomposition temperature: N.A. ( Not applicable, as the mixture is not self-reactive )

Flammability: ; Not applicable as the mixture is not flammable

Volatile Organic compounds - VOCs = 0.31 % ; 4.59 g/l

#### Particle characteristics:

Particle size: N.A.

### 9.2. Other information

No other relevant information

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## 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.

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## SECTION 11: Toxicological information

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

#### Toxicological Information of the Preparation

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

**Toxicological information on main components of the mixture:**

Alcohols, C16-18 and C18-unsatd., ethoxylated	a) acute toxicity	LD50 Oral Rat > 2000 mg/kg LC50 Inhalation Vapour Rat > 100 mg/m3 6h LD50 Skin Rabbit > 2000 mg/kg 24h	
	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 Rat Negative	Oral route
	g) reproductive toxicity	No Observed Adverse Effect Level Skin Rat >= 250 mg/kg	
	zinc oxide	a) acute toxicity	LD50 Oral Rat > 5000 mg/kg LC50 Inhalation Rat > 5.7 mg/l 4h LD50 Skin Rat > 2000 mg/kg 24h
b) skin corrosion/irritation		Skin Irritant Rabbit Negative	
c) serious eye damage/irritation		Eye Irritant Rabbit No	
d) respiratory or skin sensitisation		Skin Sensitization Guineapig Negative	
f) carcinogenicity		Genotoxicity Negative	
g) reproductive toxicity		No Observed Adverse Effect Level Oral Rat = 7.2 mg/kg	
3-iodo-2-propynyl butylcarbamate; 3-iodoprop-2-yn-1-yl butylcarbamate		a) acute toxicity	ATE - Inhalation (Dust/mist) : 0.17 mg/l LD50 Oral Rat = 1056 mg/kg LC50 Inhalation Dust Rat > 6.89 mg/l 4h LD50 Skin Rabbit > 2000 mg/kg 24h
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative 4h	

	c) serious eye damage/irritation	Eye Irritant Rabbit Yes	
	f) carcinogenicity	Genotoxicity Negative Carcinogenicity Oral Negative	Mouse oral route Mouse
	g) reproductive toxicity	Reproductive Toxicity Oral Rat Negative	
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	a) acute toxicity	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	
	bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	a) acute toxicity	LD50 Oral Rat = 305 mg/kg  LC50 Inhalation of aerosol Rat >= 0.59 mg/l 4h LD50 Skin Rat > 2000 mg/kg 24h
b) skin corrosion/irritation		Skin Irritant Rabbit Positive 4h	
c) serious eye damage/irritation		Eye Irritant Rabbit Yes	
d) respiratory or skin sensitisation		Skin Sensitization Guinea-pig Negative	
f) carcinogenicity		Genotoxicity Negative Carcinogenicity Oral Rat Negative	Mouse oral route
g) reproductive toxicity		No Observed Adverse Effect Level Oral Rat 200	
2-octyl-2H-isothiazol-3-one		a) acute toxicity	ATE - Oral : 125 mg/kg bw  ATE - Dermal : 311 mg/kg bw LD50 Oral Rat = 125 mg/kg LC50 Inhalation Mist Rat = 0.27 mg/l 4h LD50 Skin Rabbit = 311 mg/kg
	b) skin corrosion/irritation	Skin Irritant Rabbit Positive	
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes	
	d) respiratory or skin sensitisation	Skin Sensitization Guinea-pig Positive	
ethanediol; ethylene glycol	a) acute toxicity	LD50 Oral Rat = 7712 mg/kg  LC50 Inhalation of aerosol Rat > 2.5 mg/l 6h LD50 Skin Mouse > 3500 mg/kg	
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative	
	c) serious eye damage/irritation	Eye Irritant Rabbit No 24h	
	d) respiratory or skin sensitisation	Skin Sensitization Guinea-pig Negative	
	f) carcinogenicity	Genotoxicity Rat Negative	Oral route

		Carcinogenicity Negative		
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat > 1000 mg/kg		
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		
	Pyrithione zinc	a) acute toxicity	ATE - Oral : 221 mg/kg bw LD50 Oral Rat = 269 mg/kg LC50 Inhalation Dust Rat = 0.14 mg/l 4h LD50 Skin Rat > 2000 mg/kg 24h	14 days
		b) skin corrosion/irritation	Skin Irritant Rabbit Negative 4h	
c) serious eye damage/irritation		Eye Irritant Rabbit Yes		
d) respiratory or skin sensitisation		Skin Sensitization Guineapig Negative		
f) carcinogenicity		Genotoxicity Negative Carcinogenicity Oral Rat = 0.5 mg/kg Carcinogenicity Skin = 5 mg/kg	NOAEL NOAEL; mouse	
g) reproductive toxicity		No Observed Adverse Effect Level Oral Rat = 1.4 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
Alcohols, C16-18 and C18-unsatd., ethoxylated	CAS: 68920-66-1 - EINECS: 500-236-9	a) Aquatic acute toxicity : LC50 Fish Danio rerio = 108 mg/L 96h OECD-guideline 203  b) Aquatic chronic toxicity : EC20 Fish Pimephales promelas = 0.31 mg/L - 30days  a) Aquatic acute toxicity : EL50 Daphnia magna = 51 mg/L 48h OECD 202

		<p>b) Aquatic chronic toxicity : EC20 Daphnia Daphnia magna = 0.07 mg/L - 21days</p> <p>a) Aquatic acute toxicity : EL50 Algae Pseudokirchneriella subcapitata &gt; 10 mg/L 72h OECD 201</p> <p>c) Bacteria toxicity : EC10 Pseudomonas putida &gt; 10 g/L ,,DIN 38412, part 8 - 17h</p> <p>d) Terrestrial toxicity : LC50 Worm Eisenia fetida &gt; 1000 mg/kg OECD guideline 207 - 14days</p>
zinc oxide	CAS: 1314-13-2 - EINECS: 215-222-5 - INDEX: 030-013-00-7	<p>a) Aquatic acute toxicity : LC50 Fish Oncorhynchus Mykiss = 0.169 mg/L 96h dossier ECHA</p> <p>b) Aquatic chronic toxicity : NOEC Fish Cyprinodontidae , Cyprinidae, Salmonidae and Cottidae = 0.044 mg/L dossier ECHA</p> <p>a) Aquatic acute toxicity : EC50 Ceriodaphnia dubia = 0.147 mg/L dossier ECHA - neutral/high pH and low hardness</p> <p>b) Aquatic chronic toxicity : NOEC aquatic invertebrates = 0.014 mg/L dossier ECHA - 0.014 and 0.400 mg Zn/l</p> <p>a) Aquatic acute toxicity : IC50 Algae Selenastrum capricornutum = 0.136 mg/L dossier ECHA - neutral/high pH</p> <p>b) Aquatic chronic toxicity : NOEC Algae = 0.06 mg/L dossier ECHA</p> <p>c) Bacteria toxicity : NOEC Sludge activated sludge = 100 µg/L dossier ECHA</p> <p>d) Terrestrial toxicity : EC10 Worm Lumbricus terrestris = 1634 mg/kg dossier ECHA</p> <p>d) Terrestrial toxicity : EC10 Folsomia candida = 14.6 mg/kg dossier ECHA</p>
3-iodo-2-propynyl butylcarbamate; 3-iodoprop-2-yn-1-yl butylcarbamate	CAS: 55406-53-6 - EINECS: 259-627-5 - INDEX: 616-212-00-7	<p>a) Aquatic acute toxicity : LC50 Fish Sheepshead minnow = 0.067 mg/L 96h</p> <p>b) Aquatic chronic toxicity : NOEC Fish Pimephales promelas = 8.4 µg/L EPA OPP 72-4 (Fish Early Life-Stage and Aquatic Invertebrate Life-Cycle Studies) - 35days</p> <p>a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 0.645 mg/L 48h EPA OPP 72-2 (Aquatic Invertebrate Acute Toxicity Test)</p> <p>b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna = 49.9 µg/L OECD 202 - 21days</p> <p>a) Aquatic acute toxicity : LC50 Algae Desmodesmus subspicatus = 53 µg/L 72h ,,OECD Guideline 201 (Alga, Growth Inhibition Test)</p> <p>a) Aquatic acute toxicity : LC50 Sludge activated sludge = 44 mg/L 3h OECD Guideline 209</p> <p>e) Plant toxicity : LC50 Avena sativa = 4.92 mg/kg OECD Guideline 208 (Terrestrial Plants Test: Seedling Emergence and Seedling Growth Test)</p>
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	CAS: 2634-33-5 - EINECS: 220-120-9 - INDEX: 613-088-00-6	<p>a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 2.15 mg/L 96h OECD Guideline 203</p> <p>a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 2.9 mg/L 48h OECD Guideline 202</p> <p>a) Aquatic acute toxicity : EC50 Algae green alga Selenastrum capricornutum freshwater algae = 110 µg/L OECD Guideline 201</p> <p>d) Terrestrial toxicity : EC50 Worm Eisenia fetida &gt; 410.6 mg/kg OECD Guideline 207 - Duration 14d</p> <p>d) Terrestrial toxicity : EC10 soil microorganisms = 263.7 mg/kg - long term</p> <p>a) Aquatic acute toxicity : NOEC Sludge activated sludge 10.3 mg/L 3h OECD Guideline 209</p>

bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	CAS: 52-51-7 - EINECS: 200-143-0 - INDEX: 603-085-00-8	<p>e) Plant toxicity : LC50 Triticum aestivum = 200 mg/kg OECD Guideline 208</p> <p>a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 37.5 mg/L 96h US EPA Guideline OPP 72 -1</p> <p>b) Aquatic chronic toxicity : NOEC Fish Oncorhynchus mykiss = 21.5 mg/L OECD guideline 210 - 49days</p> <p>a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 1.4 mg/L 48h OECD guideline 202</p> <p>b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna = 0.27 mg/L OECD guideline 202 - 21days</p> <p>a) Aquatic acute toxicity : NOEC Algae Skeletonema costatum = 0.08 mg/L 72h ISO 10253</p> <p>a) Aquatic acute toxicity : EC20 Sludge activated sludge = 2 mg/L OECD 209</p> <p>d) Terrestrial toxicity : LC50 Worm Eisenia foetida &gt; 500 mg/kg OECD 207</p> <p>d) Terrestrial toxicity : EC50 soil microorganisms = 679 mg/kg OECD guideline 216 - 28days</p>
2-octyl-2H-isothiazol-3-one	CAS: 26530-20-1 - EINECS: 247-761-7 - INDEX: 613-112-00-5	<p>a) Aquatic acute toxicity : LC50 Fish freshwater fish = 0.122 mg/L dossier ECHA</p> <p>b) Aquatic chronic toxicity : EC10 Fish = 0.022 mg/L dossier ECHA</p> <p>a) Aquatic acute toxicity : EC50 freshwater invertebrates = 0.181 mg/L dossier ECHA</p> <p>b) Aquatic chronic toxicity : EC10 freshwater invertebrates = 0.035 mg/L dossier ECHA</p> <p>LC50 Algae freshwater algae = 0.15 mg/L</p>
ethanediol; ethylene glycol	CAS: 107-21-1 - EINECS: 203-473-3	<p>a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 72860 mg/L 96h</p> <p>b) Aquatic chronic toxicity : NOEC Fish = 15380 mg/L - 7 days</p> <p>b) Aquatic chronic toxicity : NOEC Ceriodaphnia dubia = 8590 mg/L - 7days</p> <p>a) Aquatic acute toxicity : NOEC Algae Pseudokirchnerella subcapitata = 100 mg/L 72h OECD guideline 201</p>
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	<p>a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 0.19 mg/L 96h EPA OPP 72-1 (Fish Acute Toxicity Test)</p> <p>b) Aquatic chronic toxicity : NOEC Fish Danio rerio = 0.02 mg/L ,,OECD Guideline 210 (Fish, Early-Life Stage Toxicity Test) - 35days</p> <p>a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 0.16 mg/L 48h EPA OPP 72-2 (Aquatic Invertebrate Acute Toxicity Test)</p> <p>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</p> <p>a) Aquatic acute toxicity : EC50 Algae Skeletonema costatum = 0 mg/L 96h ,,OECD Guideline 201 (Alga, Growth Inhibition Test)</p> <p>a) Aquatic acute toxicity : EC50 Sludge activated sludge = 4.5 mg/L 3h ,,OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)</p> <p>d) Terrestrial toxicity : LC50 Worm Eisenia fetida = 613 mg/kg ,,OECD Guideline 207 (Earthworm, Acute Toxicity Tests) - 14days</p> <p>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</p>
Pyrrithione zinc	CAS: 13463-41-7 - EINECS: 236-671-3 - INDEX: 613-	<p>a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 2.6 µg/L 96h US EPA-72-1</p>

a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 8.2 µg/L US EPA-72-2

a) Aquatic acute toxicity : EC50 Algae Navicula pelliculosa = 3 µg/L dossier ECHA

b) Aquatic chronic toxicity : NOEC Fish Pimephales promelas = 1.22 µg/L „OECD Guideline 210 (Fish, Early-Life Stage Toxicity Test) - 28days

b) Aquatic chronic toxicity : EC50 Lemna gibba = 9.6 µg/L EPA OPPTS 850.4400 (Aquatic Plant Toxicity Test using Lemna spp. Tiers I & II)

d) Terrestrial toxicity : LC50 Folsomia candida = 822 mg/kg ISO 11267 (Inhibition of Reproduction of Collembola by Soil Pollutants)

e) Plant toxicity : NOEC Tomato, Cucumber, Lettuce, Soybean, Cabbage, Carrot, Oat > 0.49 µg/L USEPA OPPTS 850.4100

d) Terrestrial toxicity : LC50 Avian Northern Bobwhite = 60 mg/kg EPA FIFRA Guideline 71-1 - 14days

d) Terrestrial toxicity : NOEC Avian Northern Bobwhite = 31.2 mg/kg EPA FIFRA Guideline 71-1 - 14days

## 12.2. Persistence and degradability

Component	Persitence/Degradability:	Test	Value	Notes:
Alcohols, C16-18 and C18-unsatd., ethoxylated	Readily biodegradable	CO2 production	99.000	28days
3-iodo-2-propynyl butylcarbamate; 3-iodoprop-2-yn-1-yl butylcarbamate	Non-readily biodegradable	Oxygen consumption		EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	Non-readily biodegradable	CO2 production		OECD Guideline 301C
bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	Readily biodegradable			OECD guideline 301B
2-octyl-2H-isothiazol-3-one ethanediol; ethylene glycol	Non-readily biodegradable Readily biodegradable	Dissolved organic carbon	90.000	10days
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	Non-readily biodegradable			
Pyrrithione zinc	Non-readily biodegradable	CO2 production		OECD 301B CO2evolution

## 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	
bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	Bioaccumulative	BCF - Bioconcentration factor		
2-octyl-2H-isothiazol-3-one	Bioaccumulative	BCF - Bioconcentration factor	19.210	L/kg ww
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
Pyrrithione zinc	Bioaccumulative	BCF - Bioconcentration factor	1.400	

## 12.4. Mobility in soil

N.A.

## 12.5. Results of PBT and vPvB assessment

No PBT or vPvB substances present in concentration >= 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

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

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.

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

N.A.

---

## 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-Shipping Name: N/A

IMDG-Shipping 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 and handling: N/A

IMDG-Segregation: 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. 2023/707  
Regulation (EU) n. 2023/1434 (ATP 19 CLP)  
Regulation (EU) n. 2023/1435 (ATP 20 CLP)  
Regulation (EU) n. 2024/197 (ATP 21 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: 30, 40, 70, 75

The supplied synthetic polymer microparticles are subject to the conditions of Annex XVII, entry 78, of Regulation (EC) No 1907/2006 of the European Parliament and of the Council. See section 7,8 for the instructions for use and disposal.

**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.**

2: 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 = 0.31 %

Volatile Organic compounds - VOCs = 4.59 g/L

**REGULATION (EU) No 528/2012**

Nomenclature IUPAC: 1,2-benzisothiazol-3(2H)-one

Nomenclature BPR: BIT

CAS number: 2634-33-5

Product-type 6: Preservatives for products during storage

Assessment status: Approved

Commission Implementing Regulation (EU) 2025/929; 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: octhilinone (ISO); 2-octyl-2H-isothiazol-3-one  
 Nomenclature BPR: OIT  
 CAS number: 26530-20-1  
 Product-type 6: Preservatives for products during storage  
 Assessment status: Initial application for approval in progress.  
 Product-type 7: Film preservatives  
 Assessment status: Initial application for approval in progress.  
 Product-type 8: Film preservatives  
 Assessment status: Approved  
 Commission Implementing Regulation EU 2017/1277  
 Product-type 10: Construction material preservatives  
 Assessment status: Initial application for approval in progress. Nomenclature IUPAC: 3-iodo-2-propynyl butylcarbamate  
 Nomenclature BPR: IPBC  
 CAS number: 55406-53-6  
 Product-type 6: Preservatives for products during storage  
 Assessment status: Approved EU 1037/2013  
 Commission Implementing Regulation  
 Product-type 7: Film preservatives  
 Assessment status: Initial application for approval in progress. Competent authority evaluation  
 Product-type 8: Film preservatives  
 Assessment status: Approved  
 Commission Implementing Regulation EU 2015/1728; 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)

## 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:

zinc oxide  
 ethanediol; ethylene glycol

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## SECTION 16: Other information

Code	Description
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
3.1/2/Inhal	Acute Tox. 2	Acute toxicity (inhalation), Category 2
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.4.2/1A	Skin Sens. 1A	Skin Sensitisation, Category 1A
3.9/2	STOT RE 2	Specific target organ toxicity — repeated exposure, Category 2
4.1/A1	Aquatic Acute 1	Acute aquatic hazard, category 1
4.1/C1	Aquatic Chronic 1	Chronic (long term) aquatic hazard, category 1
4.1/C3	Aquatic Chronic 3	Chronic (long term) aquatic hazard, category 3

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

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Aquatic Chronic 3, H412	Calculation method

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

## Ethane-1,2-diol

### Exposure Scenario, 09/08/2021

Substance identity	
	Ethane-1,2-diol
<b>CAS No.</b>	107-21-1
<b>INDEX No.</b>	603-027-00-1
<b>EINECS No.</b>	203-473-3
<b>Registration number</b>	01-2119456816-28

### Table of contents

1. **ES 1** Widespread use by professional workers; Various products (PC9a, PC9b)

## 1. ES 1

Widespread use by professional workers; Various products (PC9a, PC9b)

**1.1 TITLE SECTION**

<b>Exposure Scenario name</b>	Use in coatings - Use in rigid foams, coatings, adhesives and sealants
<b>Date - Version</b>	09/08/2021 - 1.0
<b>Life Cycle Stage</b>	Widespread use by professional workers
<b>Main user group</b>	Professional uses
<b>Sector(s) of use</b>	Professional uses (SU22)
<b>Product Categories</b>	Coatings and paints, thinners, paint removers (PC9a) - Fillers, putties, plasters, modelling clay (PC9b)

**Environment Contributing Scenario**

CS1 ERC8d

**Worker Contributing Scenario**

<b>CS2 Material transfers</b>	PROC8a
<b>CS3 Rolling, Brushing</b>	PROC10
<b>CS4 Roller, spreader, flow application</b>	PROC11
<b>CS5 Handling and dilution of concentrates</b>	PROC19

**1.2 Conditions of use affecting exposure****1.2. CS1: Environment Contributing Scenario (ERC8d)**

<b>Environmental release categories</b>	Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8d)
---	--

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

Liquid

**Concentration of substance in product:**

Covers percentage substance in the product up to 1 %.

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

Daily amount per site = 5479 kg

**Release type:** Continuous release**Emission days:** 365 days per year***Technical and organisational conditions and measures*****Control measures to prevent releases**

Municipal sewage treatment plant is assumed.

Air - minimum efficiency of: = 95 %  
Water - minimum efficiency of: = 87 %***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

### 1.2. CS2: Worker Contributing Scenario: Material transfers (PROC8a)

#### Process Categories

Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)

#### Product (article) characteristics

#### Physical form of product:

Liquid

#### Concentration of substance in product:

Covers percentage substance in the product up to 1 %.

#### Amount used, frequency and duration of use/exposure

#### Duration:

Exposure duration < 8 h

#### Frequency:

Use frequency < 240 days per year

#### Technical and organisational conditions and measures

#### Technical and organisational measures

Provide extract ventilation to points where emissions occur.

Ensure operatives are trained to minimise exposures.

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

Inhalation - minimum efficiency of: 80 %

#### Conditions and measures related to personal protection, hygiene and health evaluation

#### Personal protection

Wear suitable respiratory protection.

#### Other conditions affecting worker exposure

Indoor use

Professional use

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

#### Body parts exposed:

Assumes that potential dermal contact is limited to hands.

### 1.2. CS3: Worker Contributing Scenario: Rolling, Brushing (PROC10)

#### Process Categories

Roller application or brushing (PROC10)

#### Product (article) characteristics

#### Physical form of product:

Liquid

#### Concentration of substance in product:

Covers percentage substance in the product up to 1 %.

#### Amount used, frequency and duration of use/exposure

#### Duration:

Exposure duration < 8 h

#### Frequency:

Use frequency < 240 days per year

#### Technical and organisational conditions and measures

#### Technical and organisational measures

Provide extract ventilation to points where emissions occur.

Ensure operatives are trained to minimise exposures.

Supervision in place to check that the risk management measures in place are being used correctly and

Inhalation - minimum efficiency of: 80 %

operation conditions followed.	
--------------------------------	--

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

#### **Personal protection**

Wear suitable respiratory protection. Wear chemically resistant gloves (tested to EN374) in combination with "basic" employee training.	Dermal - minimum efficiency of: 90 %
--	--------------------------------------

### *Other conditions affecting worker exposure*

Indoor use  
Professional use  
**Temperature:** Assumes use at not more than 20 °C above ambient temperature.  
**Body parts exposed:**  
Assumes that potential dermal contact is limited to hands.

### **1.2. CS4: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)**

<b>Process Categories</b>	Non industrial spraying (PROC11)
---------------------------	----------------------------------

### *Product (article) characteristics*

#### **Physical form of product:**

Liquid

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 1 %.

### *Amount used, frequency and duration of use/exposure*

#### **Amounts used:**

Application rate 0.05 L/min

#### **Duration:**

Exposure duration < 150 min

#### **Frequency:**

Use frequency < 5 days per week

### *Technical and organisational conditions and measures*

#### **Technical and organisational measures**

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).  
Ensure operatives are trained to minimise exposures.  
Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed.

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

#### **Personal protection**

Wear suitable respiratory protection. Wear chemically resistant gloves (tested to EN374) in combination with "basic" employee training. Wear suitable coveralls to prevent exposure to the skin.	Dermal - minimum efficiency of: 80 % Inhalation - minimum efficiency of: 40 %
--	--

### *Other conditions affecting worker exposure*

Indoor use  
Professional use  
**Room size:** Covers use in room size of < 1000 m<sup>3</sup>  
**Temperature:** Assumes use at not more than 20 °C above ambient temperature.  
**Body parts exposed:**  
Assumes that potential dermal contact is limited to hands and forearms.

### **1.2. CS5: Worker Contributing Scenario: Handling and dilution of concentrates (PROC19)**

<b>Process Categories</b>	Manual activities involving hand contact (PROC19)
---------------------------	---

### *Product (article) characteristics*

**Physical form of product:**

Liquid

**Concentration of substance in product:**

Covers percentage substance in the product up to 1 %.

### *Amount used, frequency and duration of use/exposure*

**Duration:**

Exposure duration < 15 min

**Frequency:**

Use frequency < 240 days per year

### *Technical and organisational conditions and measures*

**Technical and organisational measures**

Provide extract ventilation to points where emissions occur.

Ensure operatives are trained to minimise exposures.

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

Inhalation - minimum efficiency of: 80 %

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

**Personal protection**

Wear suitable respiratory protection.

Wear chemically resistant gloves (tested to EN374) in combination with "basic" employee training.

Dermal - minimum efficiency of: 90 %

### *Other conditions affecting worker exposure*

Indoor use

Professional use

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

**Body parts exposed:**

Assumes that potential dermal contact is limited to hands.

## 1.3 Exposure estimation and reference to its source

### 1.3. CS2: Worker Contributing Scenario: Material transfers (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, long-term	= 12.94 mg/m <sup>3</sup>	ECETOC TRA worker v2.0	= 0.37
dermal, systemic, long-term	= 13.71 mg/kg bw/day	ECETOC TRA worker v2.0	= 0.01

### 1.3. CS3: Worker Contributing Scenario: Rolling, Brushing (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, long-term	= 12.94 mg/m <sup>3</sup>	ECETOC TRA worker v2.0	= 0.37
dermal, systemic, long-term	= 2.74 mg/kg bw/day	ECETOC TRA worker v2.0	= 0.03

### 1.3. CS4: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, long-term	= 14.05 mg/m <sup>3</sup>	ECETOC TRA worker v2.0	= 0.4
dermal, systemic, long-term	= 53.75 mg/kg bw/day	ECETOC TRA worker v2.0	= 0.51

### 1.3. CS5: Worker Contributing Scenario: Handling and dilution of concentrates (PROC19)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, long-term	= 6.47 mg/m <sup>3</sup>	ECETOC TRA worker v2.0	= 0.18
dermal, systemic, long-term	= 14.14 mg/kg bw/day	ECETOC TRA worker v2.0	= 0.13

## 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

## Zinc Oxide

### Exposure Scenario, 04/07/2022

Substance identity	
	Zinc Oxide
<b>CAS No.</b>	1314-13-2
<b>INDEX No.</b>	030-013-00-7
<b>EINECS No.</b>	215-222-5
<b>Registration number</b>	01-2119463881-32

### Table of contents

1. **ES 1** Widespread use by professional workers; Various products (PC9a, PC9b)

# 1. ES 1 Widespread use by professional workers; Various products (PC9a, PC9b)

## 1.1 TITLE SECTION

<b>Exposure Scenario name</b>	Professional application of coatings and inks - Use in rigid foams, coatings, adhesives and sealants
<b>Date - Version</b>	04/07/2022 - 1.0
<b>Life Cycle Stage</b>	Widespread use by professional workers
<b>Main user group</b>	Professional uses
<b>Sector(s) of use</b>	Professional uses (SU22)
<b>Product Categories</b>	Coatings and paints, thinners, paint removers (PC9a) - Fillers, putties, plasters, modelling clay (PC9b)

### Environment Contributing Scenario

<b>CS1</b>	ERC8a - ERC8d
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### Worker Contributing Scenario

<b>CS2 Rolling, Brushing</b>	PROC10
<b>CS3 Rolling, Brushing</b>	PROC10
<b>CS4 Roller, spreader, flow application</b>	PROC11
<b>CS5 Roller, spreader, flow application</b>	PROC11

## 1.2 Conditions of use affecting exposure

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

<b>Environmental release categories</b>	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:**

Solid, medium dustiness

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 25 %.

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

#### **Amounts used:**

Application rate 50 t(tonnes)/year

#### **Release type:** Intermittent release

### *Technical and organisational conditions and measures*

#### **Control measures to prevent releases**

Upgrade of the system in place or additional air treatment measures, such as wet scrubber and/or air filtration and/or thermal oxidation and/or vapour recovery systems, in order to achieve a reduction of the air emissions.

Air - minimum efficiency of: > 50 %

### *Conditions and measures related to sewage treatment plant*

#### **STP type:**

Municipal Sewage Treatment Plant

#### **STP effluent (m<sup>3</sup>/day):** 2000

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

**Waste treatment**

Incineration, disposal or recycling at specific offsite provider

**1.2. CS2: Worker Contributing Scenario: Rolling, Brushing (PROC10)****Process Categories**

Roller application or brushing (PROC10)

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

Solid, medium dustiness

**Concentration of substance in product:**

Covers percentage substance in the product up to 25 %.

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

Application rate 50 t(tonnes)/year

Application rate 0.15 tonnes/day

**Duration:**

Covers daily exposures up to 8 hours

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

Wear suitable gloves tested to EN374.

Wear suitable face shield.

Use suitable eye protection.

Provide employee with skin care programmes.

Wear suitable respiratory protection.

Dermal - minimum efficiency of: &gt;= 90 %

***Other conditions affecting worker exposure***

Indoor use

Professional use

**Temperature:** Assumes process temperature up to .... 25°C**1.2. CS3: Worker Contributing Scenario: Rolling, Brushing (PROC10)****Process Categories**

Roller application or brushing (PROC10)

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

Solid, medium dustiness

**Concentration of substance in product:**

Covers percentage substance in the product up to 25 %.

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

Application rate 50 t(tonnes)/year

Application rate 0.15 tonnes/day

**Duration:**

Covers daily exposures up to 8 hours

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

Wear suitable gloves tested to EN374.

Wear suitable face shield.

Use suitable eye protection.

Provide employee with skin care programmes.

Dermal - minimum efficiency of: &gt;= 90 %

Wear suitable respiratory protection.	
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*Other conditions affecting worker exposure*

Outdoor use  
Professional use  
**Temperature:** Assumes process temperature up to .... 25°C

**1.2. CS4: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)**

<b>Process Categories</b>	Non industrial spraying (PROC11)
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*Product (article) characteristics*

**Physical form of product:**  
Solid, medium dustiness

**Concentration of substance in product:**  
Covers percentage substance in the product up to 25 %.

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

**Amounts used:**  
Application rate 50 t(tonnes)/year  
Application rate 0.15 tonnes/day

**Duration:**  
Covers daily exposures up to 8 hours

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

**Personal protection**

Wear suitable gloves tested to EN374. Wear suitable face shield. Use suitable eye protection. Provide employee with skin care programmes. Wear suitable respiratory protection.	Dermal - minimum efficiency of: >= 90 %
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*Other conditions affecting worker exposure*

Indoor use  
Professional use  
**Temperature:** Assumes process temperature up to .... 25°C

**1.2. CS5: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)**

<b>Process Categories</b>	Non industrial spraying (PROC11)
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*Product (article) characteristics*

**Physical form of product:**  
Solid, medium dustiness

**Concentration of substance in product:**  
Covers percentage substance in the product up to 25 %.

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

**Amounts used:**  
Application rate 50 t(tonnes)/year  
Application rate 0.15 tonnes/day

**Duration:**  
Covers daily exposures up to 8 hours

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

## Personal protection

Wear suitable gloves tested to EN374.  
Wear suitable face shield.  
Use suitable eye protection.  
Provide employee with skin care programmes.  
Wear suitable respiratory protection.

Dermal - minimum efficiency of:  $\geq 90\%$

## Other conditions affecting worker exposure

Outdoor use

Professional use

**Temperature:** Assumes process temperature up to .... 25°C

## 1.3 Exposure estimation and reference to its source

### 1.3. CS2: Worker Contributing Scenario: Rolling, Brushing (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic	$\leq 1.4$ mg/day	MEASE	N/A
dermal, systemic	$\leq 0.12$ mg/day	MEASE	N/A
combined routes, systemic	$\leq 1.5$ mg/day	MEASE	$\leq 0.15$

### 1.3. CS3: Worker Contributing Scenario: Rolling, Brushing (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic	$\leq 6$ mg/day	MEASE	N/A
dermal, systemic	$\leq 0.12$ mg/day	MEASE	N/A
combined routes, systemic	$\leq 6$ mg/day	MEASE	$\leq 0.6$

### 1.3. CS4: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic	$\leq 6$ mg/day	MEASE	N/A
dermal, systemic	$\leq 0.12$ mg/day	MEASE	N/A
combined routes, systemic	$\leq 6$ mg/day	MEASE	$\leq 0.6$

### 1.3. CS5: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic	$\leq 24$ mg/day	MEASE	N/A
dermal, systemic	$\leq 0.12$ mg/day	MEASE	N/A

combined routes, systemic	$\leq 24$ mg/day	MEASE	$\leq 2.4$
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## 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.