

Safety Data Sheet

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

AQUALITE WOOD

Date of first edition: 5/13/2026

Safety Data Sheet dated 22/07/2026 version 2

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

1.1. Product identifier

Mixture identification:

Trade name: AQUALITE WOOD

Trade code: FO000766

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

Recommended use: Varnish/impregnating agent

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)

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 3-iodo-2-propynyl butylcarbamate; 3-iodoprop-2-yn-1-yl butylcarbamate. May produce an allergic reaction.

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

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

EUH208 Contains 2-octyl-2H-isothiazol-3-one. May produce an allergic reaction.

Dir. 2004/42/EC (VOC directive)

Interior/exterior trim varnishes and woodstains, including opaque woodstains

EU limit value for this product (cat. A/e): 130 g/l

This product contains max 54.48 g/l VOC.

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

None.

2.3. Other hazardsNo PBT, vPvB or endocrine disruptor substances present in concentration $\geq 0.1\%$

Other Hazards: Contains biocidal product: C(M)IT/MIT (3:1); BIT; 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: AQUALITE WOOD

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

Qty	Name	Ident. Numb.	Classification	Registration Number
$\geq 0.5 - < 1\%$	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	CAS:112-34-5 EC:203-961-6 Index:603-096-00-8	Eye Irrit. 2, H319	01-2119475104-44
$\geq 0.3 - < 0.5\%$	(2-methoxymethylethoxy)propanol	CAS:34590-94-8 EC:252-104-2	Substance with a Union workplace exposure limit.	01-2119450011-60
$\geq 0.15 - < 0.20\%$	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	
$\geq 0.05 - < 0.1\%$	ammonia, anhydrous	CAS:7664-41-7 EC:231-635-3 Index:007-001-00-5	Flam. Gas 2, H221; Press. Gas, H280; Acute Tox. 3, H331; Skin Corr. 1B, H314; Aquatic Acute 1, H400, M-Acute:1	01-2119488876-14
$< 0.01\%$	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	CAS:2634-33-5 EC:220-120-9 Index:613-088-00-6	Acute Tox. 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 Acute Toxicity Estimate: ATE - Oral: 450mg/kg bw ATE - Inhalation (Dust/mist): 0.21mg/l	
$< 0.01\%$	ethanediol; ethylene glycol	CAS:107-21-1 EC:203-473-3	Acute Tox. 4, H302; STOT RE 2, H373	01-2119456816-28
$< 0.0015\%$	Pyrrithione 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	
$< 0.0015\%$	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 % 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 ≥ 0.0015%: Skin Sens. 1A H317

Acute Toxicity Estimate:
ATE - Oral: 125mg/kg bw
ATE - Dermal: 311mg/kg bw

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

Wash immediately with water.

In case of Ingestion:

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

In case of Inhalation:

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

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

N.A.

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

N.A.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

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

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non emergency personnel:

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

6.2. Environmental precautions

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

Retain contaminated washing water and dispose it.

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

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

6.3. Methods and material for containment and cleaning up

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

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

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

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)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Community Occupational Exposure Limits (OEL)**

Propane-1,2-diol

CAS: 57-55-6	NATION CROATIA AL	Long Term: 474 mg/m ³ - 150 ppm Source: NN 1/2021
		Long Term: 10 mg/m ³ Source: NN 1/2021
	NATION IRELAND AL	Long Term: 470 mg/m ³ - 150 ppm Source: 2021 Code of Practice
		Long Term: 10 mg/m ³ Source: 2021 Code of Practice
	NATION LITHUANIA AL	Long Term: 7 mg/m ³ Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
	NATION LATVIA AL	Long Term: 7 mg/m ³ Source: KN325P1
	NATION NORWAY AL	Long Term: 79 mg/m ³ - 25 ppm Source: FOR-2021-06-28-2248
	NATION POLAND AL	Long Term: 100 mg/m ³ Notes: 4) Source: Dz.U. 2018 poz. 1286

Titanium dioxide

CAS: 13463-67-7	ACGIH	Long Term: 2.5 mg/m ³ (8h) Notes: Finescale particles; R ; A3 - LRT irr, pneumoconiosis
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NATION AUSTRIA AL	Long Term: 5 mg/m ³ ; Short Term: 10 mg/m ³ Notes: 60(Miw), 2x, MAK, A Source: BGBl. II Nr. 156/2021
NATION BELGIUM AL	Long Term: 10 mg/m ³ Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATION BULGARIA AL	Long Term: 10 mg/m ³ Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
NATION GERMANY AL	Long Term: 0.3 mg/m ³ ; Short Term: 2.4 mg/m ³ Notes: DFG; Long term and short term: excluding ultrafine particles; respirable fraction; multiplied by the material density; Source: TRGS900
NATION DENMARK AL	Long Term: 6 mg/m ³ Notes: K Source: BEK nr 2203 af 29/11/2021
NATION SPAIN AL	Long Term: 10 mg/m ³ Source: LEP 2022
NATION ESTONIA AL	Long Term: 5 mg/m ³ Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATION FRANCE AL	Long Term: 10 mg/m ³ Notes: Cancérogène de catégorie 2 Source: INRS outil65
NATION GREECE AL	Long Term: 10 mg/m ³ Notes: εισρν. Source: ΦΕΚ 94/Α` 13.5.1999
	Long Term: 5 mg/m ³ Notes: αναρν. Source: ΦΕΚ 94/Α` 13.5.1999
NATION CROATIA AL	Long Term: 10 mg/m ³ Notes: U Source: NN 1/2021
	Long Term: 4 mg/m ³ Notes: R Source: NN 1/2021
NATION IRELAND AL	Long Term: 10 mg/m ³ Source: 2021 Code of Practice
	Long Term: 4 mg/m ³ Source: 2021 Code of Practice
NATION LITHUANIA AL	Long Term: 5 mg/m ³ Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATION LATVIA AL	Long Term: 10 mg/m ³ Source: KN325P1
NATION NORWAY AL	Long Term: 5 mg/m ³ Source: FOR-2021-06-28-2248
NATION POLAND AL	Long Term: 10 mg/m ³ Notes: 4), 7) Source: Dz.U. 2018 poz. 1286
NATION ROMANIA AL	Long Term: 10 mg/m ³ ; Short Term: 15 mg/m ³ Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATION SLOVAKIA AL	Long Term: 5 mg/m ³ Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATION SWEDEN AL	Long Term: 5 mg/m ³ Notes: 3 Source: AFS 2021:3
SUVA SWITZERLAND	Long Term: 3 mg/m ³ Notes: TWA mg/m ³ : (a), SSC, Formel / Formal, NIOSH Source: suva.ch/valeurs-limites

silicon dioxide, chemically prepared

CAS: 7631-86-9	NATION AUSTRIA AL	Notes: MAK Source: BGBl. II Nr. 156/2021
	NATION BELGIUM AL	Long Term: 10 mg/m3 Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATION GERMANY AL	Long Term: 4 mg/m3 Notes: DFG, 2, Y, E Source: TRGS 900
	NATION ESTONIA AL	Long Term: 2 mg/m3 Notes: 1 Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATION UNITED AL	Long Term: 6 mg/m3 Notes: Inhalable aerosol Source: EH40/2005 Workplace exposure limits
	KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 2.4 mg/m3 Notes: Respirable aerosol Source: EH40/2005 Workplace exposure limits
	NATION IRELAND AL	Long Term: 6 mg/m3 Notes: Inhalable fraction Source: 2021 Code of Practice
		Long Term: 2.4 mg/m3 Notes: Respirable fraction Source: 2021 Code of Practice
	NATION LATVIA AL	Long Term: 1 mg/m3 Source: KN325P1
	NATION SLOVENIA AL	Long Term: 4 mg/m3 Notes: Y, (I) Source: UL št. 72, 11. 5. 2021
	SUVA SWITZERLAND	Notes: SSC, Fibpulm / Lungenfibrose, Des VMEs se trouvent sous les substances associées / MAK- Werte finden sich unter den zugeordneten Stoffen Source: suva.ch/valeurs-limites
		Long Term: 4 mg/m3 Notes: TWA mg/m3: (i), SSC, Fibpulm / Lungenfibrose Source: suva.ch/valeurs-limites

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

CAS: 112-34-5	ACGIH	Long Term: 10 ppm (8h) Notes: IFV - Hematologic, liver and kidney eff
	EU	Long Term: 67.5 mg/m3 - 10 ppm (8h); Short Term: 101.2 mg/m3 - 15 ppm
	NATION AUSTRIA AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Notes: 15(Miw), 4x, MAK Source: GKV, BGBl. II Nr. 156/2021
	NATION BELGIUM AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATION BULGARIA AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
	NATION CYPRUS AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021
	NATION CZECHIA AL	Long Term: 70 mg/m3; Short Term: Ceiling - 100 mg/m3 Notes: I Source: Nařízení vlády č. 361-2007 Sb
	NATION GERMANY AL	Long Term: 67 mg/m3 - 10 ppm Notes: EU, DFG, Y, 11, 1, 5 (I) Source: TRGS 900
	NATION DENMARK AL	Long Term: 68 mg/m3 - 10 ppm Notes: E Source: BEK nr 2203 af 29/11/2021

NATION SPAIN AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Notes: VLI, r Source: LEP 2022
NATION FINLAND AL	Long Term: 68 mg/m3 - 10 ppm Source: HTP-ARVOT 2020
NATION FRANCE AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Source: INRS outil65, arrêté du 30-06-2004 modifié
NATION GREECE AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Source: ΦΕΚ 202/A` 23.8.2007
NATION CROATIA AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Source: 2006/15/EZ
NATION HUNGARY AL	Long Term: 67.5 mg/m3; Short Term: 101.2 mg/m3 Notes: EU2, T Source: 5/2020. (II. 6.) ITM rendelet
NATION IRELAND AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 12 ppm Notes: IOELV Source: 2021 Code of Practice
NATION ITALY AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Source: D.lgs. 81/2008, Allegato XXXVIII
NATION LITHUANIA AL	Long Term: 100 mg/m3 - 15 ppm; Short Term: 200 mg/m3 - 30 ppm Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATION LUXEMBOUR AL G	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Source: Mémorial A n.226 du 22 mars 2021
NATION LATVIA AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Source: KN325P1
NATION MALTA AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Source: S.L.424.24
NATION NETHERLAND AL S	Long Term: 50 mg/m3; Short Term: 100 mg/m3 Notes: H Source: Arbeidsomstandighedenregeling - Lijst A
NATION NORWAY AL	Long Term: 68 mg/m3 - 10 ppm Notes: E Source: FOR-2021-06-28-2248
NATION POLAND AL	Long Term: 67 mg/m3; Short Term: 100 mg/m3 Source: Dz.U. 2018 poz. 1286
NATION PORTUGAL AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Source: Decreto-Lei n.º 1/2021
NATION ROMANIA AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Notes: Dir. 2006/15 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATION SLOVAKIA AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATION SLOVENIA AL	Long Term: 67.5 mg/m3 - 10 ppm; Short Term: 101.2 mg/m3 - 15 ppm Notes: Y, EU2 Source: UL št. 72, 11. 5. 2021
NATION SWEDEN AL	Long Term: 68 mg/m3 - 10 ppm; Short Term: 101 mg/m3 - 15 ppm Source: AFS 2021:3
SUVA SWITZERLAN D	Long Term: 67 mg/m3 - 10 ppm; Short Term: 101 mg/m3 - 15 ppm Notes: SSC, Rein Sang Foie / Niere Blut Leber, La substance peut être présente sous forme de vapeur et d'aérosol en même temps / Der Stoff kann gleichzeitig als Dampf und Aerosol vorliegen Source: suva.ch/valeurs-limites

(2-methoxymethylethoxy)propanol

CAS: 34590-94-8	ACGIH	Long Term: 50 ppm (8h) Notes: Liver & CNS eff
	EU	Long Term: 308 mg/m3 - 50 ppm (8h) Notes: Skin

NATION AUSTRIA AL	Long Term: 307 mg/m ³ - 50 ppm; Short Term: Ceiling - 614 mg/m ³ - 100 ppm Notes: 5(Mow), 8x, MAK, H Source: GKV, BGBl. II Nr. 156/2021
NATION BELGIUM AL	Long Term: 308 mg/m ³ - 50 ppm Notes: D Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATION BULGARIA AL	Long Term: 308 mg/m ³ - 50 ppm Notes: Кожа Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
NATION CYPRUS AL	Long Term: 308 mg/m ³ - 50 ppm Notes: δέρμα Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021
NATION CZECHIA AL	Long Term: 270 mg/m ³ ; Short Term: Ceiling - 550 mg/m ³ Notes: D Source: Nařízení vlády č. 361-2007 Sb
NATION GERMANY AL	Long Term: 310 mg/m ³ - 50 ppm Notes: DFG, EU, 11, 1(I) Source: TRGS 900
NATION DENMARK AL	Long Term: 309 mg/m ³ - 50 ppm Notes: EH Source: BEK nr 2203 af 29/11/2021
NATION SPAIN AL	Long Term: 308 mg/m ³ - 50 ppm Notes: vía dérmica, VLI Source: LEP 2022
NATION ESTONIA AL	Long Term: 308 mg/m ³ - 50 ppm Notes: A Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATION FINLAND AL	Long Term: 310 mg/m ³ - 50 ppm Notes: iho Source: HTP-ARVOT 2020
NATION FRANCE AL	Long Term: 308 mg/m ³ - 50 ppm Notes: Risque de pénétration percutanée Source: INRS outil65, article R. 4412-149 du Code du travail
NATION GREECE AL	Long Term: 600 mg/m ³ - 100 ppm; Short Term: 900 mg/m ³ - 150 ppm Notes: Δ Source: ΦΕΚ 94/Α` 13.5.1999
NATION CROATIA AL	Long Term: 308 mg/m ³ - 50 ppm Notes: koža Source: 2000/39/EZ
NATION HUNGARY AL	Long Term: 308 mg/m ³ Notes: EU1, R Source: 5/2020. (II. 6.) ITM rendelet
NATION IRELAND AL	Long Term: 308 mg/m ³ - 50 ppm Notes: Sk, IOELV Source: 2021 Code of Practice
NATION ITALY AL	Long Term: 308 mg/m ³ - 50 ppm Notes: Cute Source: D.lgs. 81/2008, Allegato XXXVIII
NATION LITHUANIA AL	Long Term: 300 mg/m ³ - 50 ppm; Short Term: 450 mg/m ³ - 75 ppm Notes: O Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATION LUXEMBOUR AL G	Long Term: 308 mg/m ³ - 50 ppm Notes: Peau Source: Mémorial A n.226 du 22 mars 2021
NATION LATVIA AL	Long Term: 308 mg/m ³ - 50 ppm Notes: Āda Source: KN325P1
NATION MALTA AL	Long Term: 308 mg/m ³ - 50 ppm Notes: skin Source: S.L.424.24

NATION AL	NETHERLAND S	Long Term: 300 mg/m3 Source: Arbeidsomstandighedenregeling - Lijst A
NATION AL	NORWAY	Long Term: 300 mg/m3 - 50 ppm Notes: H E Source: FOR-2021-06-28-2248
NATION AL	POLAND	Long Term: 240 mg/m3; Short Term: 480 mg/m3 Notes: skóra Source: Dz.U. 2018 poz. 1286
NATION AL	PORTUGAL	Long Term: 308 mg/m3 - 50 ppm Notes: Cutânea Source: Decreto-Lei n.º 1/2021
NATION AL	ROMANIA	Long Term: 308 mg/m3 - 50 ppm Notes: P, Dir. 2000/39 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATION AL	SLOVAKIA	Long Term: 308 mg/m3 - 50 ppm Notes: K Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATION AL	SLOVENIA	Long Term: 308 mg/m3 - 50 ppm; Short Term: 308 mg/m3 - 50 ppm Notes: K, EU1 Source: UL št. 72, 11. 5. 2021
NATION AL	SWEDEN	Long Term: 300 mg/m3 - 50 ppm; Short Term: 450 mg/m3 - 75 ppm Notes: H, V Source: AFS 2021:3
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 308 mg/m3 - 50 ppm Notes: Sk Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
SUVA	SWITZERLAND	Long Term: 300 mg/m3 - 50 ppm; Short Term: 300 mg/m3 - 50 ppm Notes: VR Yeux Nez / AW Auge Nase, NIOSH, 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

Barium sulfate

CAS: 7727-43-7

ACGIH		Long Term: 5 mg/m3 (8h) Notes: I, E - Pneumoconiosis
NATION AL	BELGIUM	Long Term: 5 mg/m3 Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATION AL	BULGARIA	Long Term: 10 mg/m3 Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
NATION AL	SPAIN	Long Term: 10 mg/m3 Notes: e Source: LEP 2022
NATION AL	CROATIA	Long Term: 10 mg/m3 Notes: U Source: NN 1/2021
		Long Term: 4 mg/m3 Notes: R Source: NN 1/2021
NATION AL	IRELAND	Long Term: 5 mg/m3 Source: 2021 Code of Practice
NATION AL	SLOVAKIA	Long Term: 4 mg/m3 Notes: 10) Source: 355 NARIADENIE VLÁDY z 10. mája 2006
		Long Term: 1.5 mg/m3 Notes: 11) Source: 355 NARIADENIE VLÁDY z 10. mája 2006
WEL-EH40	UNITED KINGDOM OF GREAT	Long Term: 10 mg/m3 Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)

Long Term: 4 mg/m³
Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)

SUVA SWITZERLAND
D Long Term: 3 mg/m³
Notes: TWA mg/m³: (a), Formel / Formal
Source: suva.ch/valeurs-limites

3-iodo-2-propynyl butylcarbamate; 3-iodoprop-2-yn-1-yl butylcarbamate

CAS: 55406-53-6

NATION GERMANY
AL

Long Term: 0.058 mg/m³ - 0.005 ppm
Notes: DFG, Y, Sh, 11, 2 (I)
Source: TRGS 900

NATION SLOVENIA
AL

Long Term: 0.058 mg/m³ - 0.005 ppm; Short Term: 0.116 mg/m³ - 0.01 ppm
Notes: Y
Source: UL št. 72, 11. 5. 2021

SUVA SWITZERLAND
D

Long Term: 0.12 mg/m³ - 0.01 ppm; Short Term: 0.24 mg/m³ - 0.02 ppm
Notes: 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

Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated

CAS: 25322-68-3

NATION GERMANY
AL

Long Term: 200 mg/m³
Notes: DFG, Y, E, 2 (II)
Source: TRGS 900

NATION SLOVAKIA
AL

Long Term: 1000 mg/m³
Source: 355 NARIADENIE VLÁDY z 10. mája 2006

SUVA SWITZERLAND
D

Long Term: 500 mg/m³
Notes: SSC, Mcorp / KG
Source: suva.ch/valeurs-limites

ammonia, anhydrous

CAS: 7664-41-7

ACGIH

Long Term: 25 ppm (8h); Short Term: 35 ppm
Notes: Eye dam, URT irr

EU

Long Term: 14 mg/m³ - 20 ppm (8h); Short Term: 36 mg/m³ - 50 ppm

NATION AUSTRIA
AL

Long Term: 14 mg/m³ - 20 ppm; Short Term: 36 mg/m³ - 50 ppm
Notes: 15(Miw), 4x, MAK
Source: GKV, BGBl. II Nr. 156/2021

NATION BELGIUM
AL

Long Term: 14 mg/m³ - 20 ppm; Short Term: 36 mg/m³ - 50 ppm
Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1

NATION BULGARIA
AL

Long Term: 14 mg/m³ - 20 ppm; Short Term: 36 mg/m³ - 50 ppm
Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.

NATION CYPRUS
AL

Long Term: 14 mg/m³ - 20 ppm; Short Term: 36 mg/m³ - 50 ppm
Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021

NATION CZECHIA
AL

Long Term: 14 mg/m³; Short Term: Ceiling - 36 mg/m³
Notes: I
Source: Nařízení vlády č. 361-2007 Sb

NATION GERMANY
AL

Long Term: 14 mg/m³ - 20 ppm
Notes: DFG, EU, Y, 2(I)
Source: TRGS 900

NATION DENMARK
AL

Long Term: 14 mg/m³ - 20 ppm
Notes: E
Source: BEK nr 2203 af 29/11/2021

NATION SPAIN
AL

Long Term: 14 mg/m³ - 20 ppm; Short Term: 36 mg/m³ - 50 ppm
Notes: VLI
Source: LEP 2022

NATION ESTONIA
AL

Long Term: 14 mg/m³ - 20 ppm; Short Term: 36 mg/m³ - 50 ppm
Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105

NATION FINLAND
AL

Long Term: 14 mg/m³ - 20 ppm; Short Term: 36 mg/m³ - 50 ppm
Source: HTP-ARVOT 2020

NATION FRANCE AL		Long Term: 7 mg/m ³ - 10 ppm; Short Term: 14 mg/m ³ - 20 ppm Source: INRS outil65, article R. 4412-149 du Code du travail
NATION GREECE AL		Long Term: 35 mg/m ³ - 50 ppm Source: ΦΕΚ 94/Α` 13.5.1999
NATION CROATIA AL		Long Term: 14 mg/m ³ - 20 ppm; Short Term: 36 mg/m ³ - 50 ppm Source: 2000/39/EZ
NATION HUNGARY AL		Long Term: 14 mg/m ³ ; Short Term: 36 mg/m ³ Notes: m, EU1, N Source: 5/2020. (II. 6.) ITM rendelet
NATION IRELAND AL		Long Term: 14 mg/m ³ - 20 ppm; Short Term: 36 mg/m ³ - 50 ppm Notes: IOELV Source: 2021 Code of Practice
NATION ITALY AL		Long Term: 14 mg/m ³ - 20 ppm; Short Term: 36 mg/m ³ - 50 ppm Source: D.lgs. 81/2008, Allegato XXXVIII
NATION LITHUANIA AL		Long Term: 14 mg/m ³ - 20 ppm; Short Term: 36 mg/m ³ - 50 ppm Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATION LUXEMBOUR AL	G	Long Term: 14 mg/m ³ - 20 ppm; Short Term: 36 mg/m ³ - 50 ppm Source: Mémorial A n.226 du 22 mars 2021
NATION LATVIA AL		Long Term: 14 mg/m ³ - 20 ppm; Short Term: 36 mg/m ³ - 50 ppm Source: KN325P1
NATION MALTA AL		Long Term: 14 mg/m ³ - 20 ppm; Short Term: 36 mg/m ³ - 50 ppm Source: S.L.424.24
NATION NETHERLAND AL	S	Long Term: 14 mg/m ³ ; Short Term: 36 mg/m ³ Source: Arbeidsomstandighedenregeling - Lijst A
NATION NORWAY AL		Long Term: 11 mg/m ³ - 15 ppm; Short Term: 36 mg/m ³ - 50 ppm Notes: E 2 S Source: FOR-2021-06-28-2248
NATION POLAND AL		Long Term: 14 mg/m ³ ; Short Term: 28 mg/m ³ Source: Dz.U. 2018 poz. 1286
NATION PORTUGAL AL		Long Term: 14 mg/m ³ - 20 ppm; Short Term: 36 mg/m ³ - 50 ppm Source: Decreto-Lei n.º 1/2021
NATION ROMANIA AL		Long Term: 14 mg/m ³ - 20 ppm; Short Term: 36 mg/m ³ - 50 ppm Notes: Dir. 2000/39 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATION SLOVAKIA AL		Long Term: 14 mg/m ³ - 20 ppm; Short Term: 36 mg/m ³ - 50 ppm Source: 355 NARIADENIE VLADY z 10. mája 2006
NATION SLOVENIA AL		Long Term: 14 mg/m ³ - 20 ppm; Short Term: 36 mg/m ³ - 50 ppm Notes: Y, EU1 Source: UL št. 72, 11. 5. 2021
NATION SWEDEN AL		Long Term: 14 mg/m ³ - 20 ppm; Short Term: 36 mg/m ³ - 50 ppm Notes: 2 Source: AFS 2021:3
WEL- EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 18 mg/m ³ - 25 ppm; Short Term: 25 mg/m ³ - 35 ppm Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
SUVA	SWITZERLAN D	Long Term: 14 mg/m ³ - 20 ppm; Short Term: 28 mg/m ³ - 40 ppm Notes: SSC, VRS Yeux / OAW Auge, NIOSH OSHA Source: suva.ch/valeurs-limites

Propylidynetrimethanol

CAS: 77-99-6

NATION LITHUANIA AL		Short Term: Ceiling - 5 ppm Notes: Ū Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATION SWEDEN AL		Long Term: 5 mg/m ³ Source: AFS 2021:3

2,2' -oxybisethanol; diethylene glycol

CAS: 111-46-6	NATION AUSTRIA AL	Long Term: 44 mg/m ³ - 10 ppm; Short Term: 176 mg/m ³ - 40 ppm Notes: 15(Miw), 4x, MAK Source: GKV, BGBl. II Nr. 156/2021
	NATION GERMANY AL	Long Term: 44 mg/m ³ - 10 ppm Notes: DFG, Y, 11, 4(II) Source: TRGS 900
	NATION DENMARK AL	Long Term: 11 mg/m ³ - 2.5 ppm Source: BEK nr 2203 af 29/11/2021
	NATION ESTONIA AL	Long Term: 45 mg/m ³ - 10 ppm; Short Term: 90 mg/m ³ - 20 ppm Notes: A Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATION CROATIA AL	Long Term: 101 mg/m ³ - 23 ppm Source: NN 1/2021
	NATION IRELAND AL	Long Term: 100 mg/m ³ - 23 ppm Source: 2021 Code of Practice
	NATION LITHUANIA AL	Long Term: 45 mg/m ³ - 10 ppm; Short Term: 90 mg/m ³ - 20 ppm Notes: O Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
	NATION LATVIA AL	Long Term: 10 mg/m ³ Source: KN325P1
	NATION POLAND AL	Long Term: 10 mg/m ³ Notes: 4) Source: Dz.U. 2018 poz. 1286
	NATION ROMANIA AL	Long Term: 500 mg/m ³ - 115 ppm; Short Term: 800 mg/m ³ - 184 ppm Source: Republicarea 1 - nr. 743 din 29 iulie 2021
	NATION SLOVAKIA AL	Long Term: 44 mg/m ³ - 10 ppm; Short Term: 90 mg/m ³ - 20 ppm Source: 355 NARIADENIE VLADY z 10. mája 2006
	NATION SLOVENIA AL	Long Term: 44 mg/m ³ - 10 ppm; Short Term: 176 mg/m ³ - 40 ppm Notes: Y Source: UL št. 72, 11. 5. 2021
	NATION SWEDEN AL	Long Term: 45 mg/m ³ - 10 ppm; Short Term: 90 mg/m ³ - 20 ppm Notes: H, V Source: AFS 2021:3
	WEL- EH40 UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 101 mg/m ³ - 23 ppm Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	SUVA SWITZERLAN D	Long Term: 44 mg/m ³ - 10 ppm; Short Term: 176 mg/m ³ - 40 ppm Notes: 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

zinc oxide

CAS: 1314-13-2	ACGIH	Long Term: 2 mg/m ³ (8h); Short Term: 10 mg/m ³ Notes: R - Metal fume fever
	NATION AUSTRIA AL	Long Term: 5 mg/m ³ Notes: MAK, A Source: BGBl. II Nr. 156/2021
	NATION BELGIUM AL	Long Term: 2 mg/m ³ ; Short Term: 10 mg/m ³ Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATION BULGARIA AL	Long Term: 5 mg/m ³ ; Short Term: 10 mg/m ³ Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
	NATION CZECHIA AL	Long Term: 2 mg/m ³ ; Short Term: Ceiling - 5 mg/m ³ Source: Nařízení vlády č. 361-2007 Sb
	NATION DENMARK AL	Long Term: 4 mg/m ³ Source: BEK nr 2203 af 29/11/2021

NATION SPAIN AL	Long Term: 2 mg/m ³ ; Short Term: 10 mg/m ³ Notes: d Source: LEP 2022
NATION ESTONIA AL	Long Term: 5 mg/m ³ Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATION FINLAND AL	Long Term: 2 mg/m ³ ; Short Term: 10 mg/m ³ Source: HTP-ARVOT 2020
NATION FRANCE AL	Long Term: 5 mg/m ³ Source: INRS outil65 Long Term: 10 mg/m ³ Source: INRS outil65
NATION GREECE AL	Long Term: 5 mg/m ³ ; Short Term: 10 mg/m ³ Source: ΦΕΚ 94/Α` 13.5.1999
NATION CROATIA AL	Long Term: 2 mg/m ³ ; Short Term: 10 mg/m ³ Notes: GVI: R Source: NN 1/2021
NATION HUNGARY AL	Long Term: 5 mg/m ³ Notes: i, N Source: 5/2020. (II. 6.) ITM rendelet Long Term: 5 mg/m ³ Notes: i, R Source: 5/2020. (II. 6.) ITM rendelet
NATION IRELAND AL	Long Term: 2 mg/m ³ ; Short Term: 10 mg/m ³ Notes: OEL (8-hour reference period) : R Source: 2021 Code of Practice
NATION LITHUANIA AL	Long Term: 5 mg/m ³ Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATION LATVIA AL	Long Term: 0.5 mg/m ³ Source: KN325P1
NATION NORWAY AL	Long Term: 5 mg/m ³ Source: FOR-2021-06-28-2248
NATION POLAND AL	Long Term: 5 mg/m ³ ; Short Term: 10 mg/m ³ Notes: 4) Source: Dz.U. 2018 poz. 1286
NATION ROMANIA AL	Long Term: 5 mg/m ³ ; Short Term: 10 mg/m ³ Notes: (Fumuri) Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATION SLOVAKIA AL	Long Term: 1 mg/m ³ ; Short Term: 1 mg/m ³ Notes: 11) Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATION SWEDEN AL	Long Term: 5 mg/m ³ Notes: 3 Source: AFS 2021:3
SUVA SWITZERLAND D	Long Term: 3 mg/m ³ ; Short Term: 3 mg/m ³ Notes: TWA mg/m ³ : (a), Fimétal / Metallrauch, NIOSH OSHA Source: suva.ch/valeurs-limites
sodium hydroxide; caustic soda	
CAS: 1310-73-2	ACGIH
	Short Term: Ceiling - 2 mg/m ³ Notes: URT, eye, and skin irr
NATION AUSTRIA AL	Long Term: 2 mg/m ³ ; Short Term: Ceiling - 4 mg/m ³ Notes: 5(Mow), 8x, MAK, E Source: BGBl. II Nr. 156/2021
NATION BELGIUM AL	Long Term: 2 mg/m ³ Notes: M Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATION BULGARIA AL	Long Term: 2 mg/m ³ Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.

NATION CZECHIA AL	Long Term: 1 mg/m ³ ; Short Term: Ceiling - 2 mg/m ³ Notes: I Source: Nařízení vlády č. 361-2007 Sb
NATION DENMARK AL	Short Term: Ceiling - 2 mg/m ³ Notes: L Source: BEK nr 2203 af 29/11/2021
NATION SPAIN AL	Short Term: 2 mg/m ³ Source: LEP 2022
NATION ESTONIA AL	Long Term: 1 mg/m ³ ; Short Term: 2 mg/m ³ Notes: * Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATION FINLAND AL	Short Term: Ceiling - 2 mg/m ³ Notes: kattoarvo Source: HTP-ARVOT 2020
NATION FRANCE AL	Long Term: 2 mg/m ³ Source: INRS outil65
NATION GREECE AL	Long Term: 2 mg/m ³ ; Short Term: 2 mg/m ³ Source: ΦΕΚ 94/Α` 13.5.1999
NATION CROATIA AL	Short Term: 2 mg/m ³ Source: NN 1/2021
NATION HUNGARY AL	Long Term: 1 mg/m ³ ; Short Term: 2 mg/m ³ Notes: m, N Source: 5/2020. (II. 6.) ITM rendelet
NATION IRELAND AL	Short Term: 2 mg/m ³ Source: 2021 Code of Practice
NATION LITHUANIA AL	Short Term: Ceiling - 2 mg/m ³ Notes: Ū Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATION LATVIA AL	Long Term: 0.5 mg/m ³ Source: KN325P1
NATION NORWAY AL	Short Term: Ceiling - 2 mg/m ³ Notes: T Source: FOR-2021-06-28-2248
NATION POLAND AL	Long Term: 0.5 mg/m ³ ; Short Term: 1 mg/m ³ Source: Dz.U. 2018 poz. 1286
NATION ROMANIA AL	Long Term: 1 mg/m ³ ; Short Term: 3 mg/m ³
NATION SLOVAKIA AL	Long Term: 2 mg/m ³ Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATION SWEDEN AL	Long Term: 1 mg/m ³ ; Short Term: 2 mg/m ³ Notes: 3 Source: AFS 2021:3
SUVA SWITZERLAND D	Long Term: 2 mg/m ³ ; Short Term: 2 mg/m ³ Notes: TWA mg/m ³ : (i), SSC, VRS Peau Yeux / OAW Haut Auge, NIOSH OSHA Source: suva.ch/valeurs-limites

ethanediol; ethylene glycol

CAS: 107-21-1

ACGIH	Short Term: 10 mg/m ³ Notes: I, H, A4 - URT irr
EU	Long Term: 52 mg/m ³ - 20 ppm (8h); Short Term: 104 mg/m ³ - 40 ppm Notes: Skin
NATION AUSTRIA AL	Long Term: 26 mg/m ³ - 10 ppm; Short Term: Ceiling - 52 mg/m ³ - 20 ppm Notes: 5(Mow), 8x, MAK, H Source: BGBl. II Nr. 156/2021
NATION BELGIUM AL	Long Term: 52 mg/m ³ - 20 ppm; Short Term: 104 mg/m ³ - 40 ppm Notes: D, M Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1

NATION BULGARIA AL	Long Term: 52 mg/m ³ - 20 ppm; Short Term: 104 mg/m ³ - 40 ppm Notes: Кожa Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
NATION CYPRUS AL	Long Term: 52 mg/m ³ - 20 ppm; Short Term: 104 mg/m ³ - 40 ppm Notes: δέρμα Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021
NATION CZECHIA AL	Long Term: 50 mg/m ³ ; Short Term: Ceiling - 100 mg/m ³ Notes: D Source: Nařízení vlády č. 361-2007 Sb
NATION GERMANY AL	Long Term: 26 mg/m ³ - 10 ppm Notes: DFG, EU, H, Y, 11, 2(I) Source: TRGS 900
NATION DENMARK AL	Long Term: 26 mg/m ³ - 10 ppm Notes: EH Source: BEK nr 2203 af 29/11/2021 Long Term: 10 mg/m ³ Source: BEK nr 2203 af 29/11/2021
NATION SPAIN AL	Long Term: 52 mg/m ³ - 20 ppm; Short Term: 104 mg/m ³ - 40 ppm Notes: vía dérmica, VLI Source: LEP 2022
NATION ESTONIA AL	Long Term: 52 mg/m ³ - 20 ppm; Short Term: 104 mg/m ³ - 40 ppm Notes: A, 18 Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATION FINLAND AL	Long Term: 50 mg/m ³ - 20 ppm; Short Term: 100 mg/m ³ - 40 ppm Notes: iho Source: HTP-ARVOT 2020
NATION FRANCE AL	Long Term: 52 mg/m ³ - 20 ppm; Short Term: 104 mg/m ³ - 40 ppm Notes: Risque de pénétration percutanée Source: INRS outil65, arrêté du 30-06-2004 modifié
NATION GREECE AL	Long Term: 125 mg/m ³ - 50 ppm; Short Term: 125 mg/m ³ - 50 ppm Source: ΦΕΚ 94/Α` 13.5.1999
NATION HUNGARY AL	Long Term: 52 mg/m ³ ; Short Term: 104 mg/m ³ Notes: b, i, EU1, N Source: 5/2020. (II. 6.) ITM rendelet
NATION IRELAND AL	Long Term: 52 mg/m ³ - 20 ppm; Short Term: 104 mg/m ³ - 40 ppm Notes: Sk, IOELV Source: 2021 Code of Practice
NATION ITALY AL	Long Term: 52 mg/m ³ - 20 ppm; Short Term: 104 mg/m ³ - 40 ppm Notes: Cute Source: D.lgs. 81/2008, Allegato XXXVIII
NATION LITHUANIA AL	Long Term: 25 mg/m ³ - 10 ppm; Short Term: 50 mg/m ³ - 20 ppm Notes: O, Šis RD taikomas bendrai garų ir aerozolio koncentracijai. Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATION LUXEMBOUR AL G	Long Term: 52 mg/m ³ - 20 ppm; Short Term: 104 mg/m ³ - 40 ppm Notes: Peau Source: Mémorial A n.226 du 22 mars 2021
NATION LATVIA AL	Long Term: 52 mg/m ³ - 20 ppm; Short Term: 104 mg/m ³ - 40 ppm Notes: Āda Source: KN325P1
NATION MALTA AL	Long Term: 52 mg/m ³ - 20 ppm; Short Term: 104 mg/m ³ - 40 ppm Notes: skin Source: S.L.424.24
NATION NETHERLAND AL S	Long Term: 52 mg/m ³ ; Short Term: 104 mg/m ³ Notes: H Source: Arbeidsomstandighedenregeling - Lijst A Long Term: 10 mg/m ³ ; Short Term: 104 mg/m ³ Notes: H Source: Arbeidsomstandighedenregeling - Lijst A

NATION NORWAY AL		Long Term: 52 mg/m3 - 20 ppm; Short Term: 104 mg/m3 - 40 ppm Notes: H E 5 S Source: FOR-2021-06-28-2248
NATION POLAND AL		Long Term: 15 mg/m3; Short Term: 50 mg/m3 Notes: skóra Source: Dz.U. 2018 poz. 1286
NATION PORTUGAL AL		Long Term: 52 mg/m3 - 20 ppm; Short Term: 104 mg/m3 - 40 ppm Notes: Cutânea Source: Decreto-Lei n.º 1/2021
NATION ROMANIA AL		Long Term: 52 mg/m3 - 20 ppm; Short Term: 104 mg/m3 - 40 ppm Notes: P, Dir. 2000/39 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATION SLOVAKIA AL		Long Term: 52 mg/m3 - 20 ppm; Short Term: 104 mg/m3 - 40 ppm Notes: K Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATION SLOVENIA AL		Long Term: 52 mg/m3 - 20 ppm; Short Term: 104 mg/m3 - 40 ppm Notes: K, Y, EU1 Source: UL št. 72, 11. 5. 2021
NATION SWEDEN AL		Long Term: 25 mg/m3 - 10 ppm; Short Term: 104 mg/m3 - 40 ppm Notes: H, 26 Source: AFS 2021:3
WEL- EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m3 Notes: Sk Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
		Long Term: 52 mg/m3 - 20 ppm; Short Term: 104 mg/m3 - 40 ppm Notes: Sk Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
SUVA	SWITZERLAN D	Long Term: 26 mg/m3 - 10 ppm; Short Term: 52 mg/m3 - 20 ppm Notes: 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

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

CAS: 55965-84-9	NATION AUSTRIA AL	Long Term: 0.05 mg/m3 Notes: MAK, Sh Source: GKV, BGBl. II Nr. 156/2021
	NATION GERMANY AL	Long Term: 0.2 mg/m3; Short Term: 0.4 mg/m3 Notes: DFG; Long term and short term: inhalable fraction Source: TRGS900
	SUVA SWITZERLAN D	Long Term: 0.2 mg/m3; Short Term: 0.4 mg/m3 Notes: TWA mg/m3: (i), S, SSC, VRS Peau Yeux / OAW Haut Auge Source: suva.ch/valeurs-limites

2-octyl-2H-isothiazol-3-one

CAS: 26530-20-1	NATION AUSTRIA AL	Long Term: 0.05 mg/m3; Short Term: Ceiling - 0.05 mg/m3 Notes: Mow, MAK, H, S, E Source: BGBl. II Nr. 156/2021
	NATION GERMANY AL	Long Term: 0.05 mg/m3 Notes: DFG, H, Y, E, 2(I) Source: TRGS 900
	NATION SLOVENIA AL	Long Term: 0.05 mg/m3; Short Term: 0.1 mg/m3 Notes: K, Y, (I) Source: UL št. 72, 11. 5. 2021
	SUVA SWITZERLAN D	Long Term: 0.05 mg/m3; Short Term: 0.1 mg/m3 Notes: TWA mg/m3: (i), R/H, S, VRS / OAW Source: suva.ch/valeurs-limites

octamethylcyclotetrasiloxane

CAS: 556-67-2	NATION AUSTRIA AL	Notes: f Source: BGBl. II Nr. 156/2021
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Pyridine-2-thiol 1-oxide, sodium salt

CAS: 3811-73-2	NATION AUSTRIA AL	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ Notes: 15(Miw), 4x, MAK, H Source: BGBl. II Nr. 156/2021
	NATION GERMANY AL	Long Term: 0.2 mg/m ³ Notes: DFG, H, Y, E, 2(II) Source: TRGS 900
	NATION DENMARK AL	Long Term: 1 mg/m ³ Notes: H Source: BEK nr 2203 af 29/11/2021
	NATION SLOVENIA AL	Long Term: 1 mg/m ³ ; Short Term: 2 mg/m ³ Notes: K, (I) Source: UL št. 72, 11. 5. 2021
	SUVA SWITZERLAND D	Long Term: 0.2 mg/m ³ ; Short Term: 0.4 mg/m ³ Notes: TWA mg/m ³ : (i), R/H, SSC, SNP / PNS Source: suva.ch/valeurs-limites

Predicted No Effect Concentration (PNEC) values

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

CAS: 112-34-5	Exposure Route: Fresh Water; PNEC Limit: 1.1 mg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 11 mg/l
	Exposure Route: Marine water; PNEC Limit: 110 mg/m ³
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 200 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 4.4 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 440 µg/kg
	Exposure Route: Soil; PNEC Limit: 320 µg/kg
	Exposure Route: Secondary poisoning; PNEC Limit: 56 mg/kg

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

ammonia, anhydrous

CAS: 7664-41-7	Exposure Route: Fresh Water; PNEC Limit: 1.1 mg/m ³
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 6.8 mg/m ³
	Exposure Route: Marine water; PNEC Limit: 1.1 mg/m ³

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one

CAS: 2634-33-5	Exposure Route: Fresh Water; PNEC Limit: 4.03 mg/m ³
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 1.1 mg/m ³
	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

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

Pyrithione 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 mg/m³
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

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 mg/m³
Exposure Route: Intermittent releases (fresh water); PNEC Limit: 3.39 mg/m³
Exposure Route: Marine water; PNEC Limit: 3.39 mg/m³
Exposure Route: Intermittent releases (marine water); PNEC Limit: 3.39 mg/m³
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 230 mg/m³
Exposure Route: Freshwater sediments; PNEC Limit: 27 mg/m³
Exposure Route: Marine water sediments; PNEC Limit: 27 mg/m³
Exposure Route: Soil; PNEC Limit: 10 mg/m³

2-octyl-2H-isothiazol-3-one

CAS: 26530-20-1 Exposure Route: Fresh Water; PNEC Limit: 2.2 mg/m³
Exposure Route: Intermittent releases (fresh water); PNEC Limit: 1.22 mg/m³
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

Derived No Effect Level (DNEL) values

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

CAS: 112-34-5 Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Professional: 67.5 mg/kg/day; Consumer: 40.5 mg/kg/day

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

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

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

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

3-iodo-2-propynyl butylcarbamate; 3-iodoprop-2-yn-1-yl butylcarbamate

CAS: 55406-53-6 Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Professional: 23 µg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects
Worker Professional: 70 µg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Worker Professional: 1.16 mg/kg/day

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects
Worker Professional: 1.16 mg/kg/day

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

ammonia, anhydrous

CAS: 7664-41-7 Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Professional: 47.6 mg/kg/day; Consumer: 23.8 mg/kg/day

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects

Worker Professional: 47.6 mg/kg/day; Consumer: 23.8 mg/kg/day

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Worker Professional: 14 mg/kg/day; Consumer: 2.8 mg/kg/day

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects
Worker Professional: 36 mg/kg/day; Consumer: 7.2 mg/kg/day

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Professional: 6.8 mg/kg; Consumer: 68 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects
Worker Professional: 6.8 mg/kg; Consumer: 68 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 6.8 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects
Consumer: 6.8 mg/kg

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one

CAS: 2634-33-5 Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Professional: 6.81 mg/kg/day; Consumer: 1.2 mg/kg/day

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

ethanediol; ethylene glycol

CAS: 107-21-1 Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Worker Professional: 35 mg/kg/day; Consumer: 7 mg/kg/day

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Professional: 106 mg/kg; Consumer: 53 mg/kg

Pyrrithione zinc

CAS: 13463-41-7 Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Professional: 10 µg/kg

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

CAS: 55965-84-9 Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Worker Professional: 20 µg/m³; Consumer: 20 µg/m³

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

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

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

8.2. Exposure controls

Eye protection:

Eye glasses with side protection.(EN166)

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Nitrile rubber .

Respiratory protection:

N.A.

Thermal Hazards:

Not expected if used as intended

Environmental exposure controls:

Prevent the product from entering sewers or surface and underground water.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Colour: In compliance with the product description

Odour: Light

pH:	>7.50<8.00 Method: OECD 122
Kinematic viscosity:	Not Relevant Notes: 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:	100 °C (212 °F)
Flash point:	101 °C (214 °F)
Lower and upper explosion limit:	Not Relevant Notes: Not applicable as the mixture is not flammable
Relative vapour density:	N.A.
Vapour pressure:	N.A.
Density and/or relative density:	1.10 g/cm ³ Method: ISO 2811
Solubility in water:	Soluble
Solubility in oil:	Not Relevant Notes: Not determined, as it is not required for CLP classification
Partition coefficient n-octanol/water (log value):	Not Relevant Notes: Not applicable to mixtures
Auto-ignition temperature:	Not Relevant Notes: Not applicable as the mixture is not solid
Decomposition temperature:	Not Relevant Notes: Not applicable, as the mixture is not self-reactive
Flammability:	Not Relevant Notes: Not applicable as the mixture is not flammable
Volatile Organic compounds - VOCs =	5.45%; 54.49g/L
Particle characteristics:	
Particle size:	N.A.

9.2. Other information

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Data not available.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

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

Toxicological Information of the Preparation

a) acute toxicity Not classified

Based on available data, the classification criteria are not met

b) skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met
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:

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

CAS: 112-34-5	a) acute toxicity	LD50 Oral Mouse = 2410 mg/kg LD50 Skin Rabbit = 2764 mg/kg
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative 1h
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes
	d) respiratory or skin sensitisation	Skin Sensitization Guinea pig Negative
	f) carcinogenicity	Genotoxicity Negative
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rodent = 720 mg/kg

3-iodo-2-propynyl butylcarbamate; 3-iodoprop-2-yn-1-yl butylcarbamate

CAS: 55406-53-6	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
	g) reproductive toxicity	Reproductive Toxicity Oral Rat Negative

ammonia, anhydrous

CAS: 7664-41-7	a) acute toxicity	LD50 Oral Rat = 350 mg/kg LC50 Inhalation Rat = 9850 mg/m3 60min
	b) skin corrosion/irritation	Skin Corrosive Rabbit Positive
	f) carcinogenicity	Genotoxicity Negative
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat = 1500 mg/kg

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one

CAS: 2634-33-5	a) acute toxicity	ATE - Oral: 450 mg/kg bw ATE - Inhalation (Dust/mist): 0.21 mg/l LD50 Oral Rat = 670 mg/kg LD50 Skin Rat > 2000 mg/kg
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative
	c) serious eye	Eye Corrosive Positive

damage/irritation

d) respiratory or skin sensitisation

Skin Sensitization Guineapig Positive

f) carcinogenicity

Genotoxicity Rat Negative

g) reproductive toxicity

No Observed Adverse Effect Level Oral Rat = 112 mg/kg

ethanediol; ethylene glycol

CAS: 107-21-1

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 Guineapig Negative

f) carcinogenicity

Genotoxicity Rat Negative

Carcinogenicity Negative

g) reproductive toxicity

No Observed Adverse Effect Level Oral Rat > 1000 mg/kg

Pyrithione zinc

CAS: 13463-41-7

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

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

g) reproductive toxicity

No Observed Adverse Effect Level Oral Rat = 1.4 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

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

2-octyl-2H-isothiazol-3-one

CAS: 26530-20-1

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

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

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

- CAS: 112-34-5
- a) Aquatic acute toxicity: LC50 Fish *Leopomis macrochirus* = 1.3 mg/L 96h
 - b) Aquatic chronic toxicity: LC10 Fish freshwater fish = 396 mg/L
 - a) Aquatic acute toxicity: EC50 *Daphnia magna* = 1101 mg/L 48h
 - b) Aquatic chronic toxicity: LC10 *Daphnia* freshwater invertebrates = 112 mg/L
 - a) Aquatic acute toxicity: EC50 Algae *Desmodesmus subspicatus* = 100 mg/L 96h
 - c) Bacteria toxicity: EC10 Sludge Activated sludge = 1995 mg/L

3-iodo-2-propynyl butylcarbamate; 3-iodoprop-2-yn-1-yl butylcarbamate

- CAS: 55406-53-6
- a) Aquatic acute toxicity: LC50 Fish *Sheapshed minnow* = 0.067 mg/L 96h
 - b) Aquatic chronic toxicity: NOEC Fish *Pimephales promelas* = 8.4 µg/L
 - a) Aquatic acute toxicity: LC50 *Daphnia magna* = 0.645 mg/L 48h
 - b) Aquatic chronic toxicity: NOEC *Daphnia magna* = 49.9 µg/L
 - a) Aquatic acute toxicity: LC50 Algae *Desmodesmus subspicatus* = 53 µg/L 72h
 - a) Aquatic acute toxicity: LC50 Sludge activated sludge = 44 mg/L 3h
 - e) Plant toxicity: LC50 *Avena sativa* = 4.92 mg/kg

ammonia, anhydrous

- CAS: 7664-41-7
- a) Aquatic acute toxicity: LC50 Fish *Pimephales promelas* = 0.06 mg/L 96h
 - a) Aquatic acute toxicity: LC50 *Daphnia magna* = 101 mg/L 48h
 - b) Aquatic chronic toxicity: NOEC *Daphnia magna* ≤ 0.79 mg/L
 - a) Aquatic acute toxicity: EC50 Algae *Chlorella vulgaris* = 2700 mg/L

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one

- CAS: 2634-33-5
- a) Aquatic acute toxicity: LC50 Fish *Oncorhynchus mykiss* = 2.15 mg/L 96h
 - a) Aquatic acute toxicity: EC50 *Daphnia magna* = 2.9 mg/L 48h
 - a) Aquatic acute toxicity: EC50 Algae green alga *Selenastrum capricornutum* freshwater algae = 110 µg/L
 - d) Terrestrial toxicity: EC50 Worm *Eisenia fetida* > 410.6 mg/kg
 - d) Terrestrial toxicity: EC10 soil microorganisms = 263.7 mg/kg
 - a) Aquatic acute toxicity: NOEC Sludge activated sludge 10.3 mg/L 3h
 - e) Plant toxicity: LC50 *Triticum aestivum* = 200 mg/kg

ethanediol; ethylene glycol

- CAS: 107-21-1
- a) Aquatic acute toxicity: LC50 Fish *Pimephales promelas* = 72860 mg/L 96h
 - b) Aquatic chronic toxicity: NOEC Fish = 15380 mg/L
 - b) Aquatic chronic toxicity: NOEC *Ceriodaphnia dubia* = 8590 mg/L
 - a) Aquatic acute toxicity: NOEC Algae *Pseudokirchnerella subcapitata* = 100 mg/L 72h

Pyrithione zinc

- CAS: 13463-41-7
- a) Aquatic acute toxicity: LC50 Fish *Pimephales promelas* = 2.6 µg/L 96h
 - a) Aquatic acute toxicity: LC50 *Daphnia magna* = 8.2 µg/L
 - a) Aquatic acute toxicity: EC50 Algae *Navicula pelliculosa* = 3 µg/L
 - b) Aquatic chronic toxicity: NOEC Fish *Pimephales promelas* = 1.22 µg/L

- b) Aquatic chronic toxicity: EC50 Lemna gibba = 9.6 µg/L
- d) Terrestrial toxicity: LC50 Folsomia candida = 822 mg/kg
- e) Plant toxicity: NOEC Tomato, Cucumber, Lettuce, Soybean, Cabbage, Carrot, Oat > 0.49 µg/L
- d) Terrestrial toxicity: LC50 Avian Northern Bobwhite = 60 mg/kg
- d) Terrestrial toxicity: NOEC Avian Northern Bobwhite = 31.2 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
- a) Aquatic acute toxicity: LC50 Fish Oncorhynchus mykiss = 0.19 mg/L 96h
 - b) Aquatic chronic toxicity: NOEC Fish Danio rerio = 0.02 mg/L
 - a) Aquatic acute toxicity: LC50 Daphnia magna = 0.16 mg/L 48h
 - b) Aquatic chronic toxicity: NOEC Daphnia magna = 0.1 mg/L
 - a) Aquatic acute toxicity: EC50 Algae Skeletonema costatum = 0 mg/L 96h
 - a) Aquatic acute toxicity: EC50 Sludge activated sludge = 4.5 mg/L 3h
 - d) Terrestrial toxicity: LC50 Worm Eisenia fetida = 613 mg/kg
 - e) Plant toxicity: NOEC Trifolium pratense, Oryza sativa, Brassica napus = 1000 mg/L

2-octyl-2H-isothiazol-3-one

- CAS: 26530-20-1
- a) Aquatic acute toxicity: LC50 Fish freshwater fish = 0.122 mg/L
 - b) Aquatic chronic toxicity: EC10 Fish = 0.022 mg/L
 - a) Aquatic acute toxicity: EC50 freshwater invertebrates = 0.181 mg/L
 - b) Aquatic chronic toxicity: EC10 freshwater invertebrates = 0.035 mg/L
 - LC50 Algae freshwater algae = 0.15 mg/L

12.2. Persistence and degradability

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

CAS: 112-34-5 Readily biodegradable Test: Biochemical oxygen demand; Value: 91.7
Notes: %

3-iodo-2-propynyl butylcarbamate; 3-iodoprop-2-yn-1-yl butylcarbamate

CAS: 55406-53-6 Non-readily biodegradable Test: Oxygen consumption
Notes: EU Method C.4-D (Determination of the "Ready" Biodegradability - Manometric Respirometry Test)

ammonia, anhydrous

CAS: 7664-41-7 Readily biodegradable

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one

CAS: 2634-33-5 Non-readily biodegradable Test: CO2 production
Notes: OECD Guideline 301C

ethanediol; ethylene glycol

CAS: 107-21-1 Readily biodegradable Test: Dissolved organic carbon; Value: 90
Notes: 10days

Pyrithione zinc

CAS: 13463-41-7 Non-readily biodegradable Test: CO2 production
Notes: OECD 301B CO2evolution

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

CAS: 55965-84-9 Non-readily biodegradable

2-octyl-2H-isothiazol-3-one

CAS: 26530-20-1 Non-readily biodegradable

12.3. Bioaccumulative potential

ammonia, anhydrous

CAS: 7664-41-7 Not bioaccumulative

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one

CAS: 2634-33-5 Bioaccumulative Test: BCF - Bioconcentration factor; Value: 6.62

Pyrithione zinc

CAS: 13463-41-7 Bioaccumulative Test: BCF - Bioconcentration factor; Value: 1.4

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

CAS: 55965-84-9 Bioaccumulative

Test: BCF - Bioconcentration factor; Value: 54

Notes: ≤ 54

2-octyl-2H-isothiazol-3-one

CAS: 26530-20-1 Bioaccumulative

Test: BCF - Bioconcentration factor; Value: 19.21

Notes: L/kg ww

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

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

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

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 (EU) n. 2020/878

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. 2024/2564 (ATP 22 CLP)

Regulation (EU) n. 2024/2865

Regulation (EU) n. 2025/1222 (ATP 23 CLP)

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, 55, 70, 75

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

None

Explosives precursors – Regulation 2019/1148

No substances listed

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

No substances listed

German Water Hazard Class.

Class 2: hazardous for water.

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 = 5.45 %

Volatile Organic compounds - VOCs = 54.48 g/L

REGULATION (EU) No 528/2012

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

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

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

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

CAS number: 55965-84-9

Product-type 6: Preservatives for products during storage

Assessment status: Approved

Commission Implementing Regulation (EU) 2016/131 ; Nomenclature IUPAC: 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: 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

15.2. Chemical safety assessment

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

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

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

SECTION 16: Other information

Code	Description	
EUH071	Corrosive to the respiratory tract.	
H221	Flammable gas.	
H280	Contains gas under pressure; may explode if heated.	
H301	Toxic if swallowed.	
H302	Harmful if swallowed.	
H310	Fatal in contact with skin.	
H311	Toxic in contact with skin.	
H314	Causes severe skin burns and eye damage.	
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H318	Causes serious eye damage.	
H319	Causes serious eye irritation.	
H330	Fatal if inhaled.	
H331	Toxic if inhaled.	
H372	Causes damage to organs (T) through prolonged or repeated exposure.	
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
2.2/2	Flam. Gas 2	Flammable gas, Category 2
2.5	Press. Gas	Gases under pressure

3.1/2/Dermal	Acute Tox. 2	Acute toxicity (dermal), Category 2
3.1/2/Inhal	Acute Tox. 2	Acute toxicity (inhalation), Category 2
3.1/3/Dermal	Acute Tox. 3	Acute toxicity (dermal), Category 3
3.1/3/Inhal	Acute Tox. 3	Acute toxicity (inhalation), Category 3
3.1/3/Oral	Acute Tox. 3	Acute toxicity (oral), Category 3
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.2/1	Skin Corr. 1	Skin corrosion, Category 1
3.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
3.2/1C	Skin Corr. 1C	Skin corrosion, Category 1C
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1A	Skin Sens. 1A	Skin Sensitisation, Category 1A
3.9/1	STOT RE 1	Specific target organ toxicity — repeated exposure, Category 1
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
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Aquatic Chronic 3, H412	Calculation method
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This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

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

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

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

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

This MSDS cancels and replaces any preceding release.

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

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Half Maximal Effective Concentration

ECHA: European Chemicals Agency

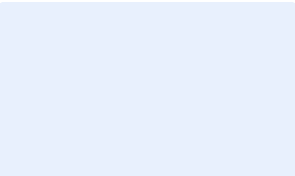
EINECS: European Inventory of Existing Commercial Chemical Substances.

ES: Exposure Scenario

GefStoffVO: Ordinance on Hazardous Substances, Germany.
 GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
 IARC: International Agency for Research on Cancer
 IATA: International Air Transport Association.
 IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
 IC50: half maximal inhibitory concentration
 ICAO: International Civil Aviation Organization.
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
 IMDG: International Maritime Code for Dangerous Goods.
 INCI: International Nomenclature of Cosmetic Ingredients.
 IRCCS: Scientific Institute for Research, Hospitalization and Health Care
 KAFH: Keep Away From Heat
 KSt: Explosion coefficient.
 LC50: Lethal concentration, for 50 percent of test population.
 LD50: Lethal dose, for 50 percent of test population.
 LDLo: Leathal Dose Low
 N.A.: Not Applicable
 N/A: Not Applicable
 N/D: Not defined/ Not available
 NA: Not available
 NIOSH: National Institute for Occupational Safety and Health
 NOAEL: No Observed Adverse Effect Level
 OSHA: Occupational Safety and Health Administration
 PBT: Persistent, Bioaccumulative and Toxic
 PGK: Packaging Instruction
 PNEC: Predicted No Effect Concentration.
 PSG: Passengers
 RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
 STEL: Short Term Exposure limit.
 STOT: Specific Target Organ Toxicity.
 TLV: Threshold Limiting Value.
 TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
 vPvB: Very Persistent, Very Bioaccumulative.
 WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- Safety Data Sheet
- SECTION 1: Identification of the substance/mixture and of the company/undertaking
- SECTION 2: Hazards identification
- SECTION 3: Composition/information on ingredients
- SECTION 8: Exposure controls/personal protection
- SECTION 9: Physical and chemical properties
- SECTION 11: Toxicological information
- SECTION 12: Ecological 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
CAS No.	107-21-1
INDEX No.	603-027-00-1
EINECS No.	203-473-3
Registration number	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

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

Environment Contributing Scenario

CS1	ERC8d
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Worker Contributing Scenario

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

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

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8d)
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*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 %
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*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)
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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 %
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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)
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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 %
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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)		
Process Categories	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 m³ 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)		
Process Categories	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 ³	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 ³	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 ³	ECETOC TRA worker v2.0	= 0.4
dermal, systemic, long-term	= 53.75 mg/kg bw/day	ECETOC TRA worker v2.0	= 0.51

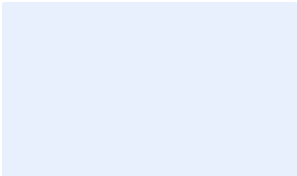
1.3. CS5: Worker Contributing Scenario: Handling and dilution of concentrates (PROC19)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, long-term	= 6.47 mg/m ³	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

2-(2-butoxyethoxy)ethanol

Exposure Scenario, 13/07/2021

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

Table of contents

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

1. ES 1

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

1.1 TITLE SECTION

Exposure Scenario name	Professional application of coatings and inks
Date - Version	23/03/2021 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)
Product Categories	Coatings and paints, thinners, paint removers (PC9a)

Environment Contributing Scenario

CS1 Low environmental release	ERC8c - ERC8f
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Worker Contributing Scenario

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

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

Environmental release categories	Widespread use leading to inclusion into/onto article (indoor) - Widespread use leading to inclusion into/onto article (outdoor) (ERC8c, ERC8f)
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*Product (article) characteristics***Physical form of product:**

Solid, low dustiness

Vapour pressure:

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

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Other conditions affecting environmental exposure

Outdoor use

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

Additional Good Practice Advice:

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

Additional conditions human health

Application of solvent-borne or water-borne products

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

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

Solid, high dustiness
Solid, low dustiness

Vapour pressure:

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

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

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

Covers daily exposures up to 8 hours <= 8 h

Frequency:

Use frequency = 230 days per year

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

Ensure operatives are trained to minimise exposures.

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

Ensure that direct skin contact is avoided.

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

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

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

Use suitable eye protection.

Provide employee with skin care programmes.

Other conditions affecting worker exposure

Covers indoor and outdoor use

Professional use

Temperature: Covers use at ambient temperatures.

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

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

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

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

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

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

1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES**Guidance to check compliance with the exposure scenario:**

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