

Safety Data Sheet

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

PATINA

Date of first edition: 3/9/2021

Safety Data Sheet dated 06/08/2025

version 8

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

1.1. Product identifier

Mixture identification:

Trade name: PATINA

Trade code: 001061005

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

Recommended use: Mortar for levelling and finishing layers

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

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 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.

Contains

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

Dir. 2004/42/EC (VOC directive)

Interior matt walls and ceilings (Gloss < 25@60)

EU limit value for this product (cat. A/a): 30 g/l

This product contains max 9.19 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: 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; Contains biocidal product: C(M)IT/MIT (3:1); OIT; IPBC

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: PATINA

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

Qty	Name	Ident. Numb.	Classification	Registration Number
≥ 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 %	Acetone	CAS:67-64-1 EC:200-662-2 Index:606-001-00-8	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	01-2119471330-49
< 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	
< 0.036 %	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	01-2120761540-60
< 0.01 %	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 %	reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2- methyl-2H-isothiazol-3-one (3:1)	CAS:55965-84-9 Index:613-167-00-5	Acute Tox. 2, H330; Acute Tox. 2, H310; Acute Tox. 3, H301; Skin Corr. 1C, H314; Eye Dam. 1, H318; Skin Sens. 1A, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410, M-Chronic:100, M-Acute:100, EUH071 Specific Concentration Limits:	

C ≥ 0.6%: Skin Corr. 1C H314
0.06% ≤ C < 0.6%: Skin Irrit. 2
H315
C ≥ 0.6%: Eye Dam. 1 H318
0.06% ≤ C < 0.6%: Eye Irrit. 2
H319
C ≥ 0.0015%: Skin Sens. 1A H317

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

Wash immediately with water.

In case of Ingestion:

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

In case of Inhalation:

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

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

N.A.

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

N.A.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

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

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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)

	OEL Type	Country	Occupational Exposure Limit
Quartz CAS: 14808-60-7	ACGIH		Long Term: 0.025 mg/m ³ (8h) R, A2 - Pulm fibrosis, lung cancer
	NATIONAL	HUNGARY	Long Term: 0.1 mg/m ³ Source: 5/2020. (II. 6.) ITM rendelet
	NATIONAL	IRELAND	Long Term: 0.1 mg/m ³ Respirable fraction Source: 2021 Code of Practice
	NATIONAL	ITALY	Long Term: 0.1 mg/m ³ Polvere di silice cristallina respirabile (frazione inalabile). Rif:D.Lgs 81/2008 Source: D.lgs. 81/2008, Allegato XLIII
	NATIONAL	SPAIN	Long Term: 0.3 mg/m ³ Respirable fraction Source: LEP 2022
	NATIONAL	BELGIUM	Long Term: 0.1 mg/m ³ C Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	DENMARK	Long Term: 0.3 mg/m ³ alveolijae, liite 3 Source: BEK nr 2203 af 29/11/2021
	NATIONAL	DENMARK	Long Term: 0.1 mg/m ³ EK Source: BEK nr 2203 af 29/11/2021
	NATIONAL	ESTONIA	Long Term: 0.1 mg/m ³ 1, C Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL	FINLAND	Long Term: 0.05 mg/m ³ alveolijae, liite 3 Source: HTP-ARVOT 2020
	NATIONAL	FRANCE	Long Term: 0.1 mg/m ³ La VLEP s'applique à la fraction alvéolaire. Forme de silice cristalline. Source: INRS outil65, article R. 4412-149 du Code du travail
	NATIONAL	LITHUANIA	Long Term: 0.1 mg/m ³ Žiūrėti 1 priedo 3 punktą. Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
	NATIONAL	NETHERLAND S	Long Term: 0.075 mg/m ³ (2) Source: Arbeidsomstandighedenregeling - Lijst B1
	NATIONAL	NORWAY	Long Term: 0.3 mg/m ³

		K 7 Source: FOR-2021-06-28-2248
	NATIONAL NORWAY	Long Term: 0.05 mg/m3 K G 7 21 Source: FOR-2021-06-28-2248
	NATIONAL POLAND	Long Term: 0.1 mg/m3 6) Source: Dz.U. 2018 poz. 1286
	NATIONAL SWEDEN	Long Term: 0.1 mg/m3 C, M, 3 Source: AFS 2021:3
	SUVA SWITZERLAND	Long Term: 0.15 mg/m3 TWA mg/m3: (a), C1A, SSC, P, Cancpulm Silicose / Lugenkrebs Silikose, HSE NIOSH OSHA Source: suva.ch/valeurs-limites
Limestone CAS: 1317-65-3	NATIONAL BULGARIA	Long Term: 10 mg/m3 Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
	NATIONAL ESTONIA	Long Term: 10 mg/m3 Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL ESTONIA	Long Term: 5 mg/m3 Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL GREECE	Long Term: 10 mg/m3 εισπν. Source: ΦΕΚ 94/Α` 13.5.1999
	NATIONAL GREECE	Long Term: 5 mg/m3 αvapv. Source: ΦΕΚ 94/Α` 13.5.1999
	NATIONAL SPAIN	Long Term: 10 mg/m3 (1) inhalable aerosol Source: LEP 2022
	NATIONAL HUNGARY	Long Term: 10 mg/m3 N Source: 5/2020. (II. 6.) ITM rendelet
	WEL-EH40 UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m3 Inhalable fraction Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	WEL-EH40 UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 4 mg/m3 Respirable fraction Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	NATIONAL BELGIUM	Long Term: 10 mg/m3 Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL IRELAND	Long Term: 10 mg/m3 Source: 2021 Code of Practice
	NATIONAL IRELAND	Long Term: 4 mg/m3 Source: 2021 Code of Practice
	NATIONAL SWITZERLAND	Long Term: 3 mg/m3 (1) respirable aerosol Source: suva.ch/valeurs-limites
Propane-1,2-diol CAS: 57-55-6	NATIONAL CROATIA	Long Term: 474 mg/m3 - 150 ppm Source: NN 1/2021
	NATIONAL CROATIA	Long Term: 10 mg/m3 Source: NN 1/2021
	NATIONAL IRELAND	Long Term: 470 mg/m3 - 150 ppm Source: 2021 Code of Practice

NATIONAL	IRELAND	Long Term: 10 mg/m ³ Source: 2021 Code of Practice
NATIONAL	LATVIA	Long Term: 7 mg/m ³ Source: KN325P1
NATIONAL	LITHUANIA	Long Term: 7 mg/m ³ Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATIONAL	NORWAY	Long Term: 79 mg/m ³ - 25 ppm Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 100 mg/m ³ 4) Source: Dz.U. 2018 poz. 1286
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 474 mg/m ³ - 150 ppm Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m ³ Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
Cellulose CAS: 9004-34-6	ACGIH	Long Term: 10 mg/m ³ (8h) URT irr
	NATIONAL BELGIUM	Long Term: 10 mg/m ³ Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL CROATIA	Long Term: 10 mg/m ³ ; Short Term: 20 mg/m ³ U Source: NN 1/2021
	NATIONAL CROATIA	Long Term: 4 mg/m ³ R Source: NN 1/2021
	NATIONAL IRELAND	Long Term: 10 mg/m ³ Source: 2021 Code of Practice
	NATIONAL ROMANIA	Long Term: 10 mg/m ³ fracțiune inhalabilă Source: Republicarea 1 - nr. 743 din 29 iulie 2021
	NATIONAL SPAIN	Long Term: 10 mg/m ³ Source: LEP 2022
	NATIONAL ESTONIA	Long Term: 10 mg/m ³ Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL FRANCE	Long Term: 10 mg/m ³ Source: INRS outil65
	NATIONAL LATVIA	Long Term: 2 mg/m ³ Source: KN325P1
	SUVA SWITZERLAND	Long Term: 3 mg/m ³ TWA mg/m ³ : (a), VRS / OAW, NIOSH Source: suva.ch/valeurs-limites
	WEL-EH40 UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m ³ ; Short Term: 20 mg/m ³ Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	WEL-EH40 UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 4 mg/m ³ Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)

3-iodo-2-propynyl butylcarbamate; 3-iodoprop-2-yn-1-yl butylcarbamate CAS: 55406-53-6	SUVA	SWITZERLAND	Long Term: 0.12 mg/m ³ - 0.01 ppm; Short Term: 0.24 mg/m ³ - 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 ³ - 0.005 ppm DFG, Y, Sh, 11, 2 (I) Source: TRGS 900	
	NATIONAL	SLOVENIA	Long Term: 0.058 mg/m ³ - 0.005 ppm; Short Term: 0.116 mg/m ³ - 0.01 ppm Y Source: UL št. 72, 11. 5. 2021	
zinc oxide CAS: 1314-13-2	ACGIH		Long Term: 2 mg/m ³ (8h); Short Term: 10 mg/m ³ R - Metal fume fever	
	NATIONAL	AUSTRIA	Long Term: 5 mg/m ³ MAK, A Source: BGBl. II Nr. 156/2021	
	NATIONAL	BULGARIA	Long Term: 5 mg/m ³ ; Short Term: 10 mg/m ³ Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.	
	NATIONAL	CZECHIA	Long Term: 2 mg/m ³ ; Short Term: Ceiling - 5 mg/m ³ Source: Nařízení vlády č. 361-2007 Sb	
	NATIONAL	DENMARK	Long Term: 4 mg/m ³ Source: BEK nr 2203 af 29/11/2021	
	NATIONAL	ESTONIA	Long Term: 5 mg/m ³ Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105	
	NATIONAL	FINLAND	Long Term: 2 mg/m ³ ; Short Term: 10 mg/m ³ Source: HTP-ARVOT 2020	
	NATIONAL	FRANCE	Long Term: 5 mg/m ³ Source: INRS outil65	
	NATIONAL	FRANCE	Long Term: 10 mg/m ³ Source: INRS outil65	
	NATIONAL	GREECE	Long Term: 5 mg/m ³ ; Short Term: 10 mg/m ³ Source: ΦΕΚ 94/Α` 13.5.1999	
	NATIONAL	HUNGARY	Long Term: 5 mg/m ³ i, N Source: 5/2020. (II. 6.) ITM rendelet	
	NATIONAL	HUNGARY	Long Term: 5 mg/m ³ i, R Source: 5/2020. (II. 6.) ITM rendelet	
	NATIONAL	LATVIA	Long Term: 0.5 mg/m ³ Source: KN325P1	
	NATIONAL	LITHUANIA	Long Term: 5 mg/m ³ Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389	
	NATIONAL	NORWAY	Long Term: 5 mg/m ³ Source: FOR-2021-06-28-2248	
	NATIONAL	POLAND	Long Term: 5 mg/m ³ ; Short Term: 10 mg/m ³ 4) Source: Dz.U. 2018 poz. 1286	
	NATIONAL	SLOVAKIA	Long Term: 1 mg/m ³ ; Short Term: 1 mg/m ³ 11) Source: 355 NARIADENIE VLÁDY z 10. mája 2006	
	NATIONAL	SWEDEN	Long Term: 5 mg/m ³ 3 Source: AFS 2021:3	
		SUVA	SWITZERLAND	Long Term: 3 mg/m ³ ; Short Term: 3 mg/m ³ TWA mg/m ³ : (a), Fimétal / Metallrauch, NIOSH OSHA Source: suva.ch/valeurs-limites
		NATIONAL	BELGIUM	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

Acetone
CAS: 67-64-1

NATIONAL	CROATIA	Long Term: 2 mg/m ³ ; Short Term: 10 mg/m ³ GVI: R Source: NN 1/2021
NATIONAL	IRELAND	Long Term: 2 mg/m ³ ; Short Term: 10 mg/m ³ OEL (8-hour reference period) : R Source: 2021 Code of Practice
NATIONAL	ROMANIA	Long Term: 5 mg/m ³ ; Short Term: 10 mg/m ³ (Fumuri) Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATIONAL	SPAIN	Long Term: 2 mg/m ³ ; Short Term: 10 mg/m ³ d Source: LEP 2022
ACGIH		Long Term: 250 ppm (8h); Short Term: 500 ppm A4, BEI - URT and eye irr, CNS impair
NATIONAL	AUSTRIA	Long Term: 1200 mg/m ³ - 500 ppm; Short Term: 4800 mg/m ³ - 2000 ppm 15(Miw), 4x, MAK Source: GKV, BGBl. II Nr. 156/2021
NATIONAL	BULGARIA	Long Term: 600 mg/m ³ ; Short Term: 1400 mg/m ³ Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
NATIONAL	CZECHIA	Long Term: 800 mg/m ³ ; Short Term: Ceiling - 1500 mg/m ³ Source: Nařízení vlády č. 361-2007 Sb
NATIONAL	DENMARK	Long Term: 600 mg/m ³ - 250 ppm E Source: BEK nr 2203 af 29/11/2021
NATIONAL	ESTONIA	Long Term: 1210 mg/m ³ - 500 ppm Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	FINLAND	Long Term: 1200 mg/m ³ - 500 ppm; Short Term: 1500 mg/m ³ - 630 ppm Source: HTP-ARVOT 2020
NATIONAL	FRANCE	Long Term: 1210 mg/m ³ - 500 ppm; Short Term: 2420 mg/m ³ - 1000 ppm Source: INRS outil65, article R. 4412-149 du Code du travail
NATIONAL	GREECE	Long Term: 1780 mg/m ³ ; Short Term: 3560 mg/m ³ Source: ΦΕΚ 94/Α` 13.5.1999
NATIONAL	HUNGARY	Long Term: 1210 mg/m ³ i, EU[1], N Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	LITHUANIA	Long Term: 1210 mg/m ³ - 500 ppm; Short Term: 2420 mg/m ³ - 1000 ppm Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATIONAL	NETHERLAND S	Long Term: 1210 mg/m ³ ; Short Term: 2420 mg/m ³ Source: Arbeidsomstandighedenregeling - Lijst A
NATIONAL	NORWAY	Long Term: 295 mg/m ³ - 125 ppm E Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 600 mg/m ³ ; Short Term: 1800 mg/m ³ Source: Dz.U. 2018 poz. 1286
NATIONAL	SLOVAKIA	Long Term: 1210 mg/m ³ - 500 ppm 7) Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATIONAL	SWEDEN	Long Term: 600 mg/m ³ - 250 ppm; Short Term: 1200 mg/m ³ - 500 ppm V Source: AFS 2021:3
SUVA	SWITZERLAND	Long Term: 1200 mg/m ³ - 500 ppm; Short Term: 2400 mg/m ³ - 1000 ppm B, VR SNC Yeux / AW ZNS Auge, NIOSH Source: suva.ch/valeurs-limites
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 1210 mg/m ³ - 500 ppm; Short Term: 3620 mg/m ³ - 1500 ppm Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)

	NATIONAL	BELGIUM	Long Term: 594 mg/m ³ - 246 ppm; Short Term: 1187 mg/m ³ - 492 ppm Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	CROATIA	Long Term: 1210 mg/m ³ - 500 ppm Source: 2000/39/EZ
	NATIONAL	CYPRUS	Long Term: 1210 mg/m ³ - 500 ppm δέρμα Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021
	NATIONAL	GERMANY	Long Term: 1200 mg/m ³ - 500 ppm AGS, DFG, EU, Y, 2(I) Source: TRGS 900
	NATIONAL	IRELAND	Long Term: 1210 mg/m ³ - 500 ppm IOELV Source: 2021 Code of Practice
	NATIONAL	ITALY	Long Term: 1210 mg/m ³ - 500 ppm Source: D.lgs. 81/2008, Allegato XXXVIII
	NATIONAL	LATVIA	Long Term: 1210 mg/m ³ - 500 ppm Source: KN325P1
	NATIONAL	LUXEMBOUR G	Long Term: 1210 mg/m ³ - 500 ppm Source: Mémorial A n.226 du 22 mars 2021
	NATIONAL	MALTA	Long Term: 1210 mg/m ³ - 500 ppm Source: S.L.424.24
	NATIONAL	PORTUGAL	Long Term: 1210 mg/m ³ - 500 ppm Source: Decreto-Lei n.º 1/2021
	NATIONAL	ROMANIA	Long Term: 1210 mg/m ³ - 500 ppm Dir. 2000/39 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
	NATIONAL	SLOVENIA	Long Term: 1210 mg/m ³ - 500 ppm; Short Term: 2420 mg/m ³ - 1000 ppm Y, BAT, EU1 Source: UL št. 72, 11. 5. 2021
	NATIONAL	SPAIN	Long Term: 1210 mg/m ³ - 500 ppm VLB®, VLI Source: LEP 2022
	EU		Long Term: 1210 mg/m ³ - 500 ppm (8h)
2-octyl-2H-isothiazol-3-one CAS: 26530-20-1	NATIONAL	AUSTRIA	Long Term: 0.05 mg/m ³ ; Short Term: Ceiling - 0.05 mg/m ³ Mow, MAK, H, S, E Source: BGBl. II Nr. 156/2021
	SUVA	SWITZERLAN D	Long Term: 0.05 mg/m ³ ; Short Term: 0.1 mg/m ³ TWA mg/m ³ : (i), R/H, S, VRS / OAW Source: suva.ch/valeurs-limites
	NATIONAL	GERMANY	Long Term: 0.05 mg/m ³ DFG, H, Y, E, 2(I) Source: TRGS 900
	NATIONAL	SLOVENIA	Long Term: 0.05 mg/m ³ ; Short Term: 0.1 mg/m ³ K, Y, (I) Source: UL št. 72, 11. 5. 2021
reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol- 3-one (3:1) CAS: 55965-84-9	NATIONAL	GERMANY	Long Term: 0.2 mg/m ³ ; Short Term: 0.4 mg/m ³ DFG; Long term and short term: inhalable fraction Source: TRGS900
	NATIONAL	AUSTRIA	Long Term: 0.05 mg/m ³ MAK, Sh Source: GKV, BGBl. II Nr. 156/2021
	SUVA	SWITZERLAN D	Long Term: 0.2 mg/m ³ ; Short Term: 0.4 mg/m ³ TWA mg/m ³ : (i), S, SSC, VRS Peau Yeux / OAW Haut Auge Source: suva.ch/valeurs-limites
Pyridine-2-thiol 1-oxide, sodium salt CAS: 3811-73-2	NATIONAL	GERMANY	Long Term: 0.2 mg/m ³ DFG, H, Y, E, 2(II) Source: TRGS 900

	NATIONAL SLOVENIA	Long Term: 1 mg/m ³ ; Short Term: 2 mg/m ³ K, (I) Source: UL št. 72, 11. 5. 2021
	NATIONAL AUSTRIA	Long Term: 1 mg/m ³ ; Short Term: 4 mg/m ³ 15(Miw), 4x, MAK, H Source: BGBl. II Nr. 156/2021
	NATIONAL DENMARK	Long Term: 1 mg/m ³ H Source: BEK nr 2203 af 29/11/2021
	SUVA SWITZERLAND	Long Term: 0.2 mg/m ³ ; Short Term: 0.4 mg/m ³ TWA mg/m ³ : (i), R/H, SSC, SNP / PNS Source: suva.ch/valeurs-limites
glyoxal...%; ethandial...% CAS: 107-22-2	ACGIH	Long Term: 0.1 mg/m ³ (8h) IFV, DSEN, A4 - URT irr, larynx metaplasia
	NATIONAL DENMARK	Short Term: Ceiling - 0.5 mg/m ³ - 0.2 ppm L Source: BEK nr 2203 af 29/11/2021
	NATIONAL FINLAND	Long Term: 0.02 mg/m ³ Source: HTP-ARVOT 2020
	NATIONAL IRELAND	Long Term: 0.1 mg/m ³ IFV Source: 2021 Code of Practice
	NATIONAL BELGIUM	Long Term: 0.1 mg/m ³ Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL SPAIN	Long Term: 0.1 mg/m ³ Sen, FIV, s Source: LEP 2022

Biological limit values

Acetone
CAS: 67-64-1
Biological Indicator: Acetone; Sampling Period: End of turn
Value: 80 mg/L; Medium: Urine
Remark: Not Specific

Predicted No Effect Concentration (PNEC) values

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

Exposure Route: Fresh Water; PNEC Limit: 10.6 mg/l

Acetone
CAS: 67-64-1

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 21 mg/l

Exposure Route: Marine water; PNEC Limit: 1.06 mg/l

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

Exposure Route: Freshwater sediments; PNEC Limit: 30.4 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 3.04 mg/kg

Exposure Route: Soil; PNEC Limit: 29.5 mg/kg

bronopol (INN); 2-bromo-2-nitropropane-1,3-diol
CAS: 52-51-7
Exposure Route: Fresh Water; PNEC Limit: 10 µg/l

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

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

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 1.1 µg/l

Exposure Route: Marine water; PNEC Limit: 403 ng/L

Exposure Route: Intermittent releases (marine water); PNEC Limit: 110 ng/L

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 1.03 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 49.9 µg/kg

Exposure Route: Marine water sediments; PNEC Limit: 4.99 µg/kg

Exposure Route: Soil; PNEC Limit: 3 mg/kg

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

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

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

Derived No Effect Level (DNEL) values

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/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects
Worker Professional: 1.16 mg/m³

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

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

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Professional: 4.1 mg/m³; Consumer: 1.2 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects
Worker Professional: 12.3 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Worker Professional: 4.2 mg/m³; Consumer: 1.3 mg/m³

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

Worker Professional: 4.2 mg/m³; Consumer: 1.3 mg/m³

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/cm²; Consumer: 0.008 mg/cm²

Exposure Route: Human Dermal; Exposure Frequency: Short Term, local effects
Worker Professional: 0.013 mg/cm²; Consumer: 0.008 mg/cm²

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

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.

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Nitrile rubber .

Respiratory protection:

N.A.

Thermal Hazards:

N.A.

Environmental exposure controls:

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Colour: In compliance with the product description

Odour: Characteristic

Odour threshold: N.A.

pH: >11.00<=11.40

Kinematic viscosity: N.A.

Melting point/freezing point: N.A.

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

Flash point: > 60°C / 93°C

Lower and upper explosion limit: N.A.

Relative vapour density: N.A.

Vapour pressure: N.A.

Density and/or relative density: 1.72 g/cm³
Solubility in water: Soluble
Solubility in oil: N.A.
Partition coefficient n-octanol/water (log value): N.A.
Auto-ignition temperature: N.A.
Decomposition temperature: N.A.
Flammability: N.A.
Volatile Organic compounds - VOCs = 0.53 % ; 9.19 g/l

Particle characteristics:

Particle size: N.A.

9.2. Other information

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Data not available.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

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

Non-sensitizing on the basis of the results of similar tested mixtures, applying bridging principles in accordance with CLP Regulation Article 9(4). Result of studies: Sensitization OECD 429 (LLNA) (mouse) not sensitizing (Study numbers according to the information in LoA: S4565; S4568; S5147; S5146)

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:

3-iodo-2-propynyl butylcarbamate; 3-iodoprop-2-yn-1-yl butylcarbamate	a) acute toxicity	ATE - Inhalation (Dust/mist) : 0.17 mg/l
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		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	Mouse oral route
		Carcinogenicity Oral Negative	Mouse
	g) reproductive toxicity	Reproductive Toxicity Oral Rat Negative	
Acetone	a) acute toxicity	LD50 Oral Rat = 5800 mg/kg	
		LC50 Inhalation Vapour Rat = 76 mg/l 4h	
		LD50 Skin Rabbit > 7400 mg/kg 24h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative	
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Negative	
	f) carcinogenicity	Genotoxicity Negative	Mouse oral route
	g) reproductive toxicity	No Observed Effect Level Oral Rat = 10000 mg/l	
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 Guineapig Negative	
	f) carcinogenicity	Genotoxicity Negative	Mouse oral route
		Carcinogenicity Oral Rat Negative	
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat 200	
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 Guineapig Positive	
	f) carcinogenicity	Genotoxicity Rat Negative	Oral route
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat = 112 mg/kg	
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
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	a) acute toxicity	LD50 Oral Rat = 69 mg/kg
		LD50 Skin Rabbit = 141 mg/kg
		LC50 Inhalation Rat = 0.33 mg/l 4h
	b) skin corrosion/irritation	Skin Irritant Rabbit Positive
	c) serious eye damage/irritation	Eye Corrosive Rabbit Positive
	d) respiratory or skin sensitisation	Skin Sensitization Positive
	f) carcinogenicity	Genotoxicity Negative Carcinogenicity Skin Negative
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat = 22.7 mg/kg

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration \geq 0.1%

SECTION 12: Ecological information

12.1. Toxicity

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

Eco-Toxicological Information:

Harmful to aquatic life with long lasting effects.

List of Eco-Toxicological properties of the product

The product is classified: Aquatic Chronic 3(H412)

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data		
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	a) Aquatic acute toxicity : LC50 Fish Sheepshead minnow = 0.067 mg/L 96h		
		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		
		a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 0.645 mg/L 48h EPA OPP 72-2 (Aquatic Invertebrate Acute Toxicity Test)		
		b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna = 49.9 µg/L OECD 202 - 21days		
		a) Aquatic acute toxicity : LC50 Algae Desmodesmus subspicatus = 53 µg/L 72h „OECD Guideline 201 (Alga, Growth Inhibition Test)		
		a) Aquatic acute toxicity : LC50 Sludge activated sludge = 44 mg/L 3h OECD Guideline 209		
		e) Plant toxicity : LC50 Avena sativa = 4.92 mg/kg OECD Guideline 208 (Terrestrial Plants Test: Seedling Emergence and Seedling Growth Test)		
		a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 5540 mg/L 96h OECD 203		
		Acetone	CAS: 67-64-1 - EINECS: 200-662-2 - INDEX: 606-001-00-8	

		a) Aquatic acute toxicity : LC50 Daphnia Daphnia pulex = 8800 mg/L 48h OECD 202
		b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna = 2212 mg/L OECD 211 - 28days
		a) Aquatic acute toxicity : NOEC Algae Microcystis aeruginosa = 530 mg/L
		a) Aquatic acute toxicity : NOEC Sludge Activated sludge = 1000 mg/L OECD Guideline 209 - 30min
		d) Terrestrial toxicity : LC50 Worm Eisenia fetida = 0.55 mg/cm2 48h OECD Guideline 207
bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	CAS: 52-51-7 - EINECS: 200-143-0 - INDEX: 603-085-00-8	a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 37.5 mg/L 96h US EPA Guideline OPP 72 -1
		b) Aquatic chronic toxicity : NOEC Fish Oncorhynchus mykiss = 21.5 mg/L OECD guideline 210 - 49days
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 1.4 mg/L 48h OECD guideline 202
		b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna = 0.27 mg/L OECD guideline 202 - 21days
		a) Aquatic acute toxicity : NOEC Algae Skeletonema costatum = 0.08 mg/L 72h ISO 10253
		a) Aquatic acute toxicity : EC20 Sludge activated sludge = 2 mg/L OECD 209
		d) Terrestrial toxicity : LC50 Worm Eisenia foetida > 500 mg/kg OECD 207
		d) Terrestrial toxicity : EC50 soil microorganisms = 679 mg/kg OECD guideline 216 - 28days
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	CAS: 2634-33-5 - EINECS: 220-120-9 - INDEX: 613-088-00-6	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 2.15 mg/L 96h OECD Guideline 203
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 2.9 mg/L 48h OECD Guideline 202
		a) Aquatic acute toxicity : EC50 Algae green alga Selenastrum capricornutum freshwater algae = 110 µg/L OECD Guideline 201
		d) Terrestrial toxicity : EC50 Worm Eisenia fetida > 410.6 mg/kg OECD Guideline 207 - Duration 14d
		d) Terrestrial toxicity : EC10 soil microorganisms = 263.7 mg/kg - long term
		a) Aquatic acute toxicity : NOEC Sludge activated sludge 10.3 mg/L 3h OECD Guideline 209
		e) Plant toxicity : LC50 Triticum aestivum = 200 mg/kg OECD Guideline 208
2-octyl-2H-isothiazol-3-one	CAS: 26530-20-1 - EINECS: 247-761-7 - INDEX: 613-112-00-5	a) Aquatic acute toxicity : LC50 Fish freshwater fish = 0.122 mg/L dossier ECHA
		b) Aquatic chronic toxicity : EC10 Fish = 0.022 mg/L dossier ECHA
		a) Aquatic acute toxicity : EC50 freshwater invertebrates = 0.181 mg/L dossier ECHA
		b) Aquatic chronic toxicity : EC10 freshwater invertebrates = 0.035 mg/L dossier ECHA
		LC50 Algae freshwater algae = 0.15 mg/L
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	CAS: 55965-84-9 - INDEX: 613-167-00-5	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 0.19 mg/L 96h EPA OPP 72-1 (Fish Acute Toxicity Test)
		b) Aquatic chronic toxicity : NOEC Fish Danio rerio = 0.02 mg/L „OECD Guideline 210 (Fish, Early-Life Stage Toxicity Test) - 35days
		a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 0.16 mg/L 48h EPA OPP 72-2 (Aquatic Invertebrate Acute Toxicity Test)

b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna = 0.1 mg/L EPA OPP 72-4 (Fish Early Life-Stage and Aquatic Invertebrate Life-Cycle Studies) - 21days

a) Aquatic acute toxicity : EC50 Algae Skeletonema costatum = 0 mg/L 96h ,,OECD Guideline 201 (Alga, Growth Inhibition Test)

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

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

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

12.2. Persistence and degradability

Component	Persitence/Degradability:	Test	Value	Notes:
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)
Acetone	Readily biodegradable	Biochemical oxigen demand	90.000	
bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	Readily biodegradable			OECD guideline 301B
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	Non-readily biodegradable	CO2 production		OECD Guideline 301C
2-octyl-2H-isothiazol-3-one	Non-readily biodegradable			
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	Non-readily biodegradable			

12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value	Notes:
Acetone	Bioaccumulative	BCF - Bioconcentration factor	3.000	
bronopol (INN); 2-bromo-2-nitropropane-1,3-diol	Bioaccumulative	BCF - Bioconcentration factor		
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	Bioaccumulative	BCF - Bioconcentration factor	6.620	
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

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

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

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force. Disposal through discharge into wastewater is not permitted

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: 40, 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 1: slightly 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 = 0.53 %

Volatile Organic compounds - VOCs = 9.19 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: 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:

Acetone

SECTION 16: Other information

Code	Description
EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
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.
H336	May cause drowsiness or dizziness.
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
2.6/2	Flam. Liq. 2	Flammable liquid, Category 2
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
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1A	Skin Sens. 1A	Skin Sensitisation, Category 1A
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
4.1/A1	Aquatic Acute 1	Acute aquatic hazard, category 1
4.1/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:

- 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 15: Regulatory information
- SECTION 16: Other information



Exposure Scenario

Acetone

Exposure Scenario, 27/08/2021

Substance identity	
	Acetone
CAS No.	67-64-1
INDEX No.	606-001-00-8
EINECS No.	200-662-2
Registration number	01-2119471330-49

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	27/08/2021 - 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)

Environment Contributing Scenario

CS1	ERC8a - ERC8c - ERC8d - ERC8f
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Worker Contributing Scenario

CS2 Material transfers	PROC8a
CS3 Rolling, Brushing	PROC10

1.2 Conditions of use affecting exposure**1.2. CS1: Environment Contributing Scenario (ERC8a, ERC8c, ERC8d, ERC8f)**

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use leading to inclusion into/onto article (indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) - Widespread use leading to inclusion into/onto article (outdoor) (ERC8a, ERC8c, ERC8d, ERC8f)
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*Product (article) characteristics***Physical form of product:**

Liquid, vapour pressure > 10 kPa at STP

Concentration of substance in product:

Covers concentrations up to 70 %

*Amount used, frequency and duration of use (or from service life)***Emission days:** 365 days per year*Conditions and measures related to treatment of waste (including article waste)***Waste treatment**

External treatment and disposal of waste should comply with applicable local and/or national 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, vapour pressure > 10 kPa at STP

Concentration of substance in product:

Covers concentrations up to 70 %

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

Covers exposure up to 4 h

Technical and organisational conditions and measures

Technical and organisational measures

Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.

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

Personal protection

Wear suitable gloves tested to EN374.

Use suitable eye protection.

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

Process Categories

Roller application or brushing (PROC10)

Product (article) characteristics

Physical form of product:

Liquid, vapour pressure > 10 kPa at STP

Concentration of substance in product:

Covers concentrations up to 70 %

Amount used, frequency and duration of use/exposure

Duration:

Covers exposure up to 4 h

Technical and organisational conditions and measures

Technical and organisational measures

Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.

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

Personal protection

Wear suitable gloves tested to EN374.

Use suitable eye protection.

1.3 Exposure estimation and reference to its source

1.3. CS1: Environment Contributing Scenario (ERC8a, ERC8c, ERC8d, 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: Material transfers (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative	N/A	ECETOC TRA worker v2.0	= 0.6
dermal	N/A	ECETOC TRA worker v2.0	= 0.07
combined routes	N/A	ECETOC TRA worker v2.0	= 0.67

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative	N/A	ECETOC TRA worker v2.0	= 0.6
dermal	N/A	ECETOC TRA worker v2.0	= 0.15
combined routes	N/A	ECETOC TRA worker v2.0	= 0.75

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.