

Safety Data Sheet

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

SKIL REMOVE

Date of first edition: 6/19/2024

Safety Data Sheet dated 19/06/2024

version 1

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

1.1. Product identifier

Mixture identification:

Trade name: SKIL REMOVE

Trade code: S100FS230 .011X

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

Recommended use: Water-based preservative coat

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 Kerakoll Italy - +39-0536-816511 Ireland Poison information centre: 01 809 2166 (Daily 8am-10pm) In case of emergency call 999 or 112 Malta In case of emergency call: +356 2395 2000 (24h)

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

Skin Sens. 1A May cause an allergic skin reaction.

Aquatic Chronic 2 Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Regulation (EC) No 1272/2008 (CLP):

Hazard pictograms and Signal Word



Warning

Hazard statements

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe vapours.

P280 Wear protective gloves and eye protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P501 Dispose of contents/container in accordance with applicable regulations.

Contains

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

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 >= 0.1%

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: SKIL REMOVE

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

Qty	Name	Ident. Numb.	Classification	Registration Number
≥1-<3 %	2,2' -oxybisethanol; diethylene glycol	CAS:111-46-6 EC:203-872-2 Index:603-140-00-6	Acute Tox. 4, H302	01-2119457857-21
≥0.1-<0.3 %	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	CAS:68424-85-1 EC:270-325-2	Acute Tox. 4, H302; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410, M-Chronic:1, M-Acute:10	
≥0.05-<0.1 %	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	
<0.05 %	Sulphuric acid	CAS:7664-93-9 EC:231-639-5 Index:016-020-00-8	Skin Corr. 1A, H314 Specific Concentration Limits: C ≥ 15%: Skin Corr. 1A H314 5% ≤ C < 15%: Skin Irrit. 2 H315 5% ≤ C < 15%: Eye Irrit. 2 H319	01-2119458838-20
<0.0015 %	2-Aminoethanol; ethanolamine	CAS:141-43-5 EC:205-483-3 Index:603-030-00-8	Skin Corr. 1B, H314 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Specific Concentration Limits: C ≥ 5%: STOT SE 3 H335	

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

- Immediately take off all contaminated clothing.
- Remove contaminated clothing immediatley and dispose off safely.

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

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
2,2' -oxybisethanol; diethylene glycol CAS: 111-46-6	NATIONAL	AUSTRIA	Long Term: 44 mg/m ³ - 10 ppm; Short Term: 176 mg/m ³ - 40 ppm 15(Miw), 4x, MAK Source: GKV, BGBl. II Nr. 156/2021
	NATIONAL	DENMARK	Long Term: 11 mg/m ³ - 2.5 ppm Source: BEK nr 2203 af 29/11/2021
	NATIONAL	ESTONIA	Long Term: 45 mg/m ³ - 10 ppm; Short Term: 90 mg/m ³ - 20 ppm A Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL	LATVIA	Long Term: 10 mg/m ³ Source: KN325P1
	NATIONAL	LITHUANIA	Long Term: 45 mg/m ³ - 10 ppm; Short Term: 90 mg/m ³ - 20 ppm O Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
	NATIONAL	POLAND	Long Term: 10 mg/m ³ 4) Source: Dz.U. 2018 poz. 1286
	NATIONAL	SLOVAKIA	Long Term: 44 mg/m ³ - 10 ppm; Short Term: 90 mg/m ³ - 20 ppm Source: 355 NARIADENIE VLÁDY z 10. mája 2006
	NATIONAL	SWEDEN	Long Term: 45 mg/m ³ - 10 ppm; Short Term: 90 mg/m ³ - 20 ppm H, V Source: AFS 2021:3
	SUVA	SWITZERLAND	Long Term: 44 mg/m ³ - 10 ppm; Short Term: 176 mg/m ³ - 40 ppm SSC, La substance peut être présente sous forme de vapeur et d'aérosol en même temps / Der Stoff kann gleichzeitig als Dampf und Aerosol vorliegen Source: suva.ch/valeurs-limites
	WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 101 mg/m ³ - 23 ppm Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
2-octyl-2H-isothiazol-3-one CAS: 26530-20-1	NATIONAL	CROATIA	Long Term: 101 mg/m ³ - 23 ppm Source: NN 1/2021
	NATIONAL	GERMANY	Long Term: 44 mg/m ³ - 10 ppm DFG, Y, 11, 4(II) Source: TRGS 900
	NATIONAL	IRELAND	Long Term: 100 mg/m ³ - 23 ppm Source: 2021 Code of Practice
	NATIONAL	ROMANIA	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
	NATIONAL	SLOVENIA	Long Term: 44 mg/m ³ - 10 ppm; Short Term: 176 mg/m ³ - 40 ppm Y Source: UL št. 72, 11. 5. 2021
	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	SWITZERLAND	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
	ACGIH		Long Term: 0.2 mg/m ³ (8h) T, A2M - Pulm func
Sulphuric acid CAS: 7664-93-9	EU		Long Term: 0.05 mg/m ³ (8h) thoracic fraction

NATIONAL	AUSTRIA	Long Term: 0.1 mg/m ³ ; Short Term: Ceiling - 0.2 mg/m ³ Mow, 8x, MAK, E, TMW entspricht 0, 05 mg/m ³ thorakal Bei der Auswahl einer geeigneten Messmethode sind allfällige Störungen durch andere Schwefelverbindungen zu vermeiden. Source: BGBl. II Nr. 156/2021
NATIONAL	BULGARIA	Long Term: 0.05 mg/m ³ 2, 3 Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
NATIONAL	CYPRUS	Long Term: 0.05 mg/m ³ 8, 9 (2012) Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021
NATIONAL	CZECHIA	Long Term: 0.05 mg/m ³ (1), (2) Source: Nařízení vlády č. 361-2007 Sb
NATIONAL	CZECHIA	Long Term: 1 mg/m ³ ; Short Term: Ceiling - 2 mg/m ³ (1), (2) Source: Nařízení vlády č. 361-2007 Sb
NATIONAL	DENMARK	Long Term: 0.05 mg/m ³ E Source: BEK nr 2203 af 29/11/2021
NATIONAL	ESTONIA	Long Term: 0.05 mg/m ³ 28, 29 Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	FINLAND	Long Term: 0.05 mg/m ³ ; Short Term: 0.1 mg/m ³ torakaalijae Source: HTP-ARVOT 2020
NATIONAL	FRANCE	Long Term: 0.05 mg/m ³ ; Short Term: 3 mg/m ³ La VLEP 8h s'applique à la fraction thoracique de l'aérosol. Source: INRS outil65, arrêté du 30-06-2004 modifié
NATIONAL	GREECE	Long Term: 0.05 mg/m ³ (7) (8) Source: ΦΕΚ 19/Α` 9.2.2012
NATIONAL	HUNGARY	Long Term: 0.05 mg/m ³ m, EU3, N Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	LATVIA	Long Term: 0.05 mg/m ³ 3 Source: KN325P1
NATIONAL	LITHUANIA	Long Term: 0.05 mg/m ³ ; Short Term: 3 mg/m ³ Renkantis tinkamą poveikio stebėsenos modelį turi būti atsižvelgiama į galimus apribojimus ir trukdžius, galinčius kilti, kai esama kitų sieros junginių. Rūkas (migla) apibrėžiamas kaip įkvepiama dalis. Source: 2011 m. rugšėjo 1 d. Nr. V-824/A1-389
NATIONAL	NETHERLAND S	Long Term: 0.05 mg/m ³ Source: Arbeidsomstandighedenregeling - Lijst B1
NATIONAL	NORWAY	Long Term: 0.1 mg/m ³ K E Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 0.05 mg/m ³ 13) Source: Dz.U. 2018 poz. 1286
NATIONAL	PORTUGAL	Long Term: 0.05 mg/m ³ (8) (9) Source: Decreto-Lei n.º 1/2021
NATIONAL	SLOVAKIA	Long Term: 0.05 mg/m ³ Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATIONAL	SWEDEN	Long Term: 0.1 mg/m ³ ; Short Term: 0.2 mg/m ³ C, V, 3, 46 Source: AFS 2021:3

triisobutyl phosphate CAS: 126-71-6	SUVA	SWITZERLAND	Long Term: 0.1 mg/m ³ ; Short Term: 0.2 mg/m ³ TWA mg/m ³ : (I), C1#A, SSC, Poumons / Lunge, IFA NIOSH OSHA, Pas de risque accru de cancer si la VME est respectée / Kein erhöhtes Krebsrisiko bei Einhalten des MAK-Werts Source: suva.ch/valeurs-limites
	WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 0.05 mg/m ³ The mist is defined as the thoracic fraction Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	NATIONAL	BELGIUM	Long Term: 0.2 mg/m ³ C, 9 Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	CROATIA	Long Term: 0.05 mg/m ³ (12) (13) Source: 2009/161/EU
	NATIONAL	GERMANY	Long Term: 0.1 mg/m ³ DFG, EU, Y, E, 1(I) Source: TRGS 900
	NATIONAL	IRELAND	Long Term: 0.05 mg/m ³ IOELV Source: 2021 Code of Practice
	NATIONAL	ITALY	Long Term: 0.05 mg/m ³ Frazione toracica Source: D.lgs. 81/2008, Allegato XXXVIII
	NATIONAL	LUXEMBOURG	Long Term: 0.05 mg/m ³ 15 16 Source: Mémorial A n.226 du 22 mars 2021
	NATIONAL	MALTA	Long Term: 0.05 mg/m ³ 11, 12 Source: S.L.424.24
	NATIONAL	ROMANIA	Long Term: 0.05 mg/m ³ Particule lichide pulverizate, (10)(11), Dir. 2009/161 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
	NATIONAL	SLOVENIA	Long Term: 0.05 mg/m ³ ; Short Term: 0.05 mg/m ³ Y, EU3, (I) Source: UL št. 72, 11. 5. 2021
	NATIONAL	SPAIN	Long Term: 0.05 mg/m ³ VLI, s, d, az Source: LEP 2022
	NATIONAL	GERMANY	Long Term: 50 mg/m ³ AGS, Sh, 11, 2 (II) Source: TRGS 900
	NATIONAL	SLOVENIA	Long Term: 50 mg/m ³ ; Short Term: 100 mg/m ³ Source: UL št. 72, 11. 5. 2021
	NATIONAL	AUSTRIA	Long Term: 50 mg/m ³ ; Short Term: Ceiling - 100 mg/m ³ 60(Mow), 3x, MAK Source: BGBl. II Nr. 156/2021
2-Aminoethanol; ethanolamine CAS: 141-43-5	ACGIH		Long Term: 3 ppm (8h); Short Term: 6 ppm Eye and skin irr
	EU		Long Term: 2.5 mg/m ³ - 1 ppm (8h); Short Term: 7.6 mg/m ³ - 3 ppm Skin
	NATIONAL	AUSTRIA	Long Term: 2.5 mg/m ³ - 1 ppm; Short Term: 7.6 mg/m ³ - 3 ppm 15(Miw), 4x, MAK, Sh Source: GKV, BGBl. II Nr. 156/2021
	NATIONAL	BULGARIA	Long Term: 2.5 mg/m ³ - 1 ppm; Short Term: 7.6 mg/m ³ - 3 ppm Кожа Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
	NATIONAL	CZECHIA	Long Term: 2.5 mg/m ³ ; Short Term: Ceiling - 7.5 mg/m ³

		I Source: Nařízení vlády č. 361-2007 Sb
NATIONAL	DENMARK	Long Term: 2.5 mg/m3 - 1 ppm EH Source: BEK nr 2203 af 29/11/2021
NATIONAL	ESTONIA	Long Term: 2.5 mg/m3 - 1 ppm; Short Term: 7.6 mg/m3 - 3 ppm A Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	FINLAND	Long Term: 2.5 mg/m3 - 1 ppm; Short Term: 7.6 mg/m3 - 3 ppm iho Source: HTP-ARVOT 2020
NATIONAL	FRANCE	Long Term: 2.5 mg/m3 - 1 ppm; Short Term: 7.6 mg/m3 - 3 ppm Risque de pénétration percutanée Source: INRS outil65, article R. 4412-149 du Code du travail
NATIONAL	HUNGARY	Long Term: 2.5 mg/m3; Short Term: 7.6 mg/m3 b, EU2, T Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	LITHUANIA	Long Term: 8 mg/m3 - 3 ppm; Short Term: 15 mg/m3 - 6 ppm O Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATIONAL	NETHERLAND S	Long Term: 2.5 mg/m3; Short Term: 7.6 mg/m3 H Source: Arbeidsomstandighedenregeling - Lijst A
NATIONAL	NORWAY	Long Term: 2.5 mg/m3 - 1 ppm H E Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 2.5 mg/m3; Short Term: 7.5 mg/m3 skóra Source: Dz.U. 2018 poz. 1286
NATIONAL	SLOVAKIA	Long Term: 2.5 mg/m3 - 1 ppm; Short Term: 7.6 mg/m3 - 3 ppm K Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATIONAL	SWEDEN	Long Term: 2.5 mg/m3 - 1 ppm; Short Term: 7.5 mg/m3 - 3 ppm H Source: AFS 2021:3
SUVA	SWITZERLAND D	Long Term: 5 mg/m3 - 2 ppm; Short Term: 10 mg/m3 - 4 ppm S, Peau Fatigue Yeux / Haut Fatigue Auge, 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
WEL-EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 2.5 mg/m3 - 1 ppm; Short Term: 7.6 mg/m3 - 3 ppm Sk Source: EH40/2005 Workplace exposure limits (Fourth Edition 2020)
NATIONAL	BELGIUM	Long Term: 2.5 mg/m3 - 1 ppm; Short Term: 7.6 mg/m3 - 3 ppm D Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	CROATIA	Long Term: 2.5 mg/m3 - 1 ppm; Short Term: 7.6 mg/m3 - 3 ppm koža Source: 2006/15/EZ
NATIONAL	CYPRUS	Long Term: 2.5 mg/m3 - 1 ppm; Short Term: 7.6 mg/m3 - 3 ppm δέρμα Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021
NATIONAL	GERMANY	Long Term: 0.5 mg/m3 - 0.2 ppm DFG, EU, Y, Sh, H, 11, 1(I) Source: TRGS 900
NATIONAL	GREECE	Long Term: 2.5 mg/m3 - 1 ppm; Short Term: 7.6 mg/m3 - 3 ppm Δ Source: ΦΕΚ 202/Α` 23.8.2007

NATIONAL	IRELAND	Long Term: 2.5 mg/m ³ - 1 ppm; Short Term: 7.6 mg/m ³ - 3 ppm Sk, IOELV Source: 2021 Code of Practice
NATIONAL	ITALY	Long Term: 2.5 mg/m ³ - 1 ppm; Short Term: 7.6 mg/m ³ - 3 ppm Cute Source: D.lgs. 81/2008, Allegato XXXVIII
NATIONAL	LATVIA	Long Term: 0.5 mg/m ³ - 0.2 ppm; Short Term: 7.6 mg/m ³ - 3 ppm Āda Source: KN325P1
NATIONAL	LUXEMBOURG	Long Term: 2.5 mg/m ³ - 1 ppm; Short Term: 7.6 mg/m ³ - 3 ppm Peau Source: Mémorial A n.226 du 22 mars 2021
NATIONAL	MALTA	Long Term: 2.5 mg/m ³ - 1 ppm; Short Term: 7.6 mg/m ³ - 3 ppm skin Source: S.L.424.24
NATIONAL	PORTUGAL	Long Term: 2.5 mg/m ³ - 1 ppm; Short Term: 7.6 mg/m ³ - 3 ppm Cutânea Source: Decreto-Lei n.º 1/2021
NATIONAL	ROMANIA	Long Term: 2.5 mg/m ³ - 1 ppm; Short Term: 7.6 mg/m ³ - 3 ppm P, Dir. 2006/15 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATIONAL	SLOVENIA	Long Term: 2.5 mg/m ³ - 1 ppm; Short Term: 7.6 mg/m ³ - 3 ppm K, Y, EU2 Source: UL št. 72, 11. 5. 2021
NATIONAL	SPAIN	Long Term: 2.5 mg/m ³ - 1 ppm; Short Term: 7.5 mg/m ³ - 3 ppm vía dérmica, VLI Source: LEP 2022

Predicted No Effect Concentration (PNEC) values

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

Exposure Route: Fresh Water; PNEC Limit: 2.2 µg/l

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 1.22 µg/l
Exposure Route: Marine water; PNEC Limit: 220 ng/L
Exposure Route: Intermittent releases (marine water); PNEC Limit: 122 ng/L
Exposure Route: Freshwater sediments; PNEC Limit: 47.5 µg/kg
Exposure Route: Marine water sediments; PNEC Limit: 47.5 µg/kg
Exposure Route: Soil; PNEC Limit: 8.2 µg/kg
Exposure Route: Fresh Water; PNEC Limit: 2.5 µg/l

Sulphuric acid
CAS: 7664-93-9

Exposure Route: Marine water; PNEC Limit: 250 ng/L
Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 8.8 mg/l
Exposure Route: Freshwater sediments; PNEC Limit: 2 µg/kg
Exposure Route: Marine water sediments; PNEC Limit: 2 µg/kg

Derived No Effect Level (DNEL) values

Sulphuric acid
CAS: 7664-93-9

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Worker Professional: 50 µg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects
Worker Professional: 100 µg/m³

8.2. Exposure controls

Eye protection:

Eye glasses.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Nitrile rubber .

Respiratory protection:

Use adequate protective respiratory equipment.

Thermal Hazards:

N.A.

Environmental exposure controls:

N.A.

Hygienic and Technical measures

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Colour: Light red

Odour: Light

Odour threshold: N.A.

pH: Not Relevant (OECD 122)

Kinematic viscosity: N.A.

Melting point/freezing point: N.A.

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

Flash point: > 100°C / 212°F

Lower and upper explosion limit: N.A.

Relative vapour density: N.A.

Vapour pressure: 23.00 hPa @ 20°C

Density and/or relative density: 1.10 g/cm³ (ISO 2811)

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 = 1.10 % ; 12.10 g/l

Particle characteristics:

Particle size: N.A.

9.2. Other information

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Data not available.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

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

Toxicological Information of the Preparation

a) acute toxicity	Not classified Based on available data, the classification criteria are not met
b) skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met
c) serious eye damage/irritation	Not classified Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation	The product is classified: Skin Sens. 1A(H317)
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' -oxybisethanol; diethylene glycol	a) acute toxicity	LD50 Oral Rat = 16500 mg/kg	
		LC50 Inhalation of aerosol Rat > 4.6 mg/l 4h	
		LD50 Skin Rabbit = 13300 mg/kg	
	b) skin corrosion/irritation	Skin Irritant Human Negative 24h	
	c) serious eye damage/irritation	Eye Irritant Rabbit No 24h	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Negative	
	f) carcinogenicity	Genotoxicity Negative	Mouse intraperitoneal route
	g) reproductive toxicity	No Observed Adverse Effect Level Oral = 3060 mg/kg	Mouse
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 Guineapig Positive	
Sulphuric acid	a) acute toxicity	LD50 Oral Rat = 2140 mg/kg	
		LC50 Inhalation of aerosol Rat = 375 mg/m3	

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:

Toxic to aquatic life with long lasting effects.

List of Eco-Toxicological properties of the product

The product is classified: Aquatic Chronic 2(H411)

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
2,2' -oxybisethanol; diethylene glycol	CAS: 111-46-6 - EINECS: 203-872-2 - INDEX:	a) Aquatic acute toxicity : LC50 Fish = 75200 mg/L 96h

2-octyl-2H-isothiazol-3-one	CAS: 26530-20-1 - EINECS: 247-761-7 - INDEX: 613-112-00-5	b) Aquatic chronic toxicity : NOEC Fish Pimephales promelas = 15380 mg/L EPA guideline 600/4-89/001 - 7days
		a) Aquatic acute toxicity : EC50 invertebrates > 10000 mg/L 48h
		a) Aquatic acute toxicity : NOEC Algae Scenedesmus quadricauda = 100 mg/L
		d) Terrestrial toxicity : LC50 Worm Eisenia andrei = 10974 mg/kg - 63days
Sulphuric acid	CAS: 7664-93-9 - EINECS: 231-639-5 - INDEX: 016-020-00-8	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
		a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 16 mg/L 96h
		b) Aquatic chronic toxicity : NOEC Fish Jordanella floridae = 0.02 mg/L
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna > 100 mg/L 48h
		b) Aquatic chronic toxicity : NOEC Tanytarsus dissimilis = 0.15 mg/L
		a) Aquatic acute toxicity : NOEC Algae Desmodesmus subspicatus = 100 mg/L 72h
		c) Bacteria toxicity : NOEC Sludge = 26000 mg/L

12.2. Persistence and degradability

Component	Persitence/Degradability:	Test	Value	Notes:
2,2' -oxybisethanol; diethylene glycol	Readily biodegradable	CO2 production	92.000	28days
2-octyl-2H-isothiazol-3-one	Non-readily biodegradable			

12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value	Notes:
2,2' -oxybisethanol; diethylene glycol	Bioaccumulative	BCF - Bioconcentration factor	100.000	3day
2-octyl-2H-isothiazol-3-one	Bioaccumulative	BCF - Bioconcentration factor	19.210	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. Disposal through discharge into wastewater is not permitted

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

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

SECTION 14: Transport information

14.1. UN number or ID number

3082

14.2. UN proper shipping name

ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-octyl-2H-isothiazol-3-one - Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides)

IATA-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-octyl-2H-isothiazol-3-one - Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides)

IMDG-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-octyl-2H-isothiazol-3-one - Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides)

14.3. Transport hazard class(es)

ADR-Class: 9

IATA-Class: 9

IMDG-Class: 9

14.4. Packing group

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

14.5. Environmental hazards

Most important toxic component: 2-octyl-2H-isothiazol-3-one

Marine pollutant: Yes

Environmental Pollutant: Yes

IMDG-EMS: F-A, S-F

14.6. Special precautions for user

Road and Rail (ADR-RID):

ADR-Label: 9

ADR - Hazard identification number: 90

ADR-Special Provisions: 274 335 375 601

ADR-Transport category (Tunnel restriction code): 3 (-)

ADR Limited Quantities: 5 L

ADR Excepted Quantities: E1

Air (IATA):

IATA-Passenger Aircraft: 964

IATA-Cargo Aircraft: 964

IATA-Label: 9

IATA-Subsidiary hazards: -

IATA-Erg: 9L

IATA-Special Provisions: A97 A158 A197 A215

Sea (IMDG):

IMDG-Stowage Code: Category A

IMDG-Stowage Note: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisions: 274 335 969

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)
 Regulation (EU) n. 2016/1179 (ATP 9 CLP)
 Regulation (EU) n. 2017/776 (ATP 10 CLP)
 Regulation (EU) n. 2018/669 (ATP 11 CLP)
 Regulation (EU) n. 2018/1480 (ATP 13 CLP)
 Regulation (EU) n. 2019/521 (ATP 12 CLP)
 Regulation (EU) n. 2020/217 (ATP 14 CLP)
 Regulation (EU) n. 2020/1182 (ATP 15 CLP)
 Regulation (EU) n. 2021/643 (ATP 16 CLP)
 Regulation (EU) n. 2021/849 (ATP 17 CLP)
 Regulation (EU) n. 2022/692 (ATP 18 CLP)
 Regulation (EU) n. 2020/878
 Regulation (EC) nr 648/2004 (Detergents).

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3

Restrictions related to the substances contained: 28, 75

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

Seveso III category according to Annex 1, part 1

Product belongs to category: E2 200 500

Explosives precursors – Regulation 2019/1148

No substances listed

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

No substances listed

German Water Hazard Class.

1: Low hazard to waters

German Lagerklasse according to TRGS 510:

LGK 10

SVHC Substances:

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

REGULATION (EU) No 528/2012

Nomenclature IUPAC: N-benzyl-N,N-dimethyltetradecan-1-aminium chloride

Nomenclature BPR: ADBAC/BKC(C12-16)

CAS number: 68424-85-1

Product-type 10: Construction material preservatives

Assessment status: Initial application for approval in progress.

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

15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for the mixture.

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

2,2' -oxybisethanol; diethylene glycol

SECTION 16: Other information

Code	Description
H301	Toxic if swallowed.
H302	Harmful if swallowed.

H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
3.1/2/Inhal	Acute Tox. 2	Acute toxicity (inhalation), Category 2
3.1/3/Dermal	Acute Tox. 3	Acute toxicity (dermal), Category 3
3.1/3/Oral	Acute Tox. 3	Acute toxicity (oral), Category 3
3.1/4/Dermal	Acute Tox. 4	Acute toxicity (dermal), Category 4
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.2/1	Skin Corr. 1	Skin corrosion, Category 1
3.2/1A	Skin Corr. 1A	Skin corrosion, Category 1A
3.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.4.2/1A	Skin Sens. 1A	Skin Sensitisation, Category 1A
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/C2	Aquatic Chronic 2	Chronic (long term) aquatic hazard, category 2
EUH071		EUH071

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

Skin Sens. 1A, H317	Calculation method
Aquatic Chronic 2, H411	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

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

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

This MSDS cancels and replaces any preceding release.

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

ACGIH: American Conference of Governmental Industrial Hygienists
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ATE: Acute Toxicity Estimate
ATEmix: Acute toxicity Estimate (Mixtures)
BCF: Biological Concentration Factor
BEI: Biological Exposure Index
BOD: Biochemical Oxygen Demand
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CAV: Poison Center
CE: European Community
CLP: Classification, Labeling, Packaging.
CMR: Carcinogenic, Mutagenic and Reprotoxic
COD: Chemical Oxygen Demand
COV: Volatile Organic Compound
CSA: Chemical Safety Assessment

CSR: Chemical Safety Report
DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level.
DPD: Dangerous Preparations Directive
DSD: Dangerous Substances Directive
EC50: Half Maximal Effective Concentration
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances.
ES: Exposure Scenario
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
IC50: half maximal inhibitory concentration
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KAHF: 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.

Exposure Scenario

2,2'-oxydiethanol; diethylene glycol

Exposure Scenario, 07/07/2021

Substance identity	
	2,2'-oxydiethanol; diethylene glycol
CAS No.	111-46-6
INDEX No.	603-140-00-6
EINECS No.	203-872-2
Registration number	01-2119457857-21

Table of contents

1. **ES 1** Widespread use by professional workers; Various products (PC9a, PC1)

1. ES 1

Widespread use by professional workers; Various products (PC9a, PC1)

1.1 TITLE SECTION

Exposure Scenario name	Professional application of coatings and inks - Use in rigid foams, coatings, adhesives and sealants
Date - Version	07/07/2021 - 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) - Adhesives, sealants (PC1)

Environment Contributing Scenario

CS1	ERC8a - ERC8d - ERC8c - ERC8f
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Worker Contributing Scenario

CS2 Material transfers	PROC8a
CS3 Rolling, Brushing	PROC10
CS4 Roller, spreader, flow application	PROC11

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

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

Liquid

Vapour pressure:

= 0.8 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

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:

= 0.8 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 use up to = 480 min

Frequency:

Use frequency = 5 days per week

Technical and organisational conditions and measures

Technical and organisational measures

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

Inhalation - minimum efficiency of: = 80 %

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

Personal protection

Wear suitable respiratory protection.

Other conditions affecting worker exposure

Indoor use

Professional use

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

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:

= 0.8 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 use up to = 480 min

Frequency:

Use frequency = 5 days per week

Technical and organisational conditions and measures

Technical and organisational measures

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

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.

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

Vapour pressure:

= 0.8 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 use up to = 480 min

Frequency:

Use frequency = 5 days per week

Technical and organisational conditions and measures

Technical and organisational measures

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 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.

1.3 Exposure estimation and reference to its source

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	= 13.7143 mg/kg bw/day	ECETOC TRA worker v3	= 0.318937
inhalative, systemic, long-term	= 22.1084 mg/m ³	ECETOC TRA worker v3	= 0.502464

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	= 2.7429 mg/kg bw/day	ECETOC TRA worker v3	= 0.063787
inhalative, systemic, long-term	= 22.1084 mg/m ³	ECETOC TRA worker v3	= 0.502464

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)
dermal, systemic, long-term	= 13 mg/kg bw/day	ECETOC TRA worker v3	= 0.302326
inhalative, systemic, long-term	= 6.3 mg/m ³	ECETOC TRA worker v3	= 0.143182

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.