

Safety Data Sheet

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

Bioscud Primer

Date of first edition: 6/10/2021

Safety Data Sheet dated 18/10/2023

version 4

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

1.1. Product identifier

Mixture identification:

Trade name: Bioscud Primer

Trade code: 15062021 -4

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

Recommended use: primer

Uses advised against: All uses other than recommended ones

1.3. Details of the supplier of the safety data sheet

Company: KERAKOLL S.p.A.

Via dell'Artigianato, 9

41049 Sassuolo (MODENA) - ITALY

Tel. +39 0536 816511 Fax. +39 0536816581

safety@kerakoll.com

1.4. Emergency telephone number

European emergency phone number 112

Ireland Poison information centre: 01 809 2166 (Daily 8am-10pm) In case of emergency call 999 or 112

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

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

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

Flam. Liq. 3	Flammable liquid and vapour.
STOT SE 3	May cause respiratory irritation.
STOT SE 3	May cause drowsiness or dizziness.
STOT RE 1	Causes damage to organs through prolonged or repeated exposure.
Asp. Tox. 1	May be fatal if swallowed and enters airways.
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



Danger

Hazard statements

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H372	Causes damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe vapours.
P280 Wear protective gloves and eye protection.
P301+P310 IF SWALLOWED: Immediately call a doctor.
P331 Do NOT induce vomiting.
P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

EUH066 Repeated exposure may cause skin dryness or cracking.

Contains

Hydrocarbons, C9, aromatics

Hydrocarbons, C9-C12, n-alkanes,
isoalkanes, cyclics, aromatics (2-25%)

xylene

Dir. 2004/42/EC (VOC directive)

Binding primers

EU limit value for this product (cat. A/h): 750 g/l

This product contains max 703.88 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: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: Bioscud Primer

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

Qty	Name	Ident. Numb.	Classification	Registration Number
40-50 %	Hydrocarbons, C9, aromatics	CAS:128601-23-0 EC:918-668-5	Flam. Liq. 3, H226; STOT SE 3, H335; STOT SE 3, H336; Asp. Tox. 1, H304; Aquatic Chronic 2, H411, M-Chronic:1, EUH066	01-2119455851-35
12.5-15 %	2-methoxy-1-methylethyl acetate	CAS:108-65-6 EC:203-603-9 Index:607-195-00-7	Flam. Liq. 3, H226	01-2119475791-29
10-12.5 %	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	EC:919-446-0	Flam. Liq. 3, H226; STOT RE 1, H372; Asp. Tox. 1, H304; STOT SE 3, H336; Aquatic Chronic 2, H411, EUH066	01-2119458049-33
5-7 %	xylene	CAS:1330-20-7 EC:215-535-7 Index:601-022-00-9	Flam. Liq. 3, H226; Acute Tox. 4, H332; Acute Tox. 4, H312; Skin Irrit. 2, H315; Asp. Tox. 1, H304; STOT RE 2, H373; Eye Irrit. 2, H319; STOT SE 3, H335	01-2119488216-32
< 0.1%	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

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately 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:

In case of inhalation, consult a doctor immediately and show him packing or label.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

CO2 or Dry chemical fire extinguisher.

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 all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

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.

Use localized ventilation system.

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

Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

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-methoxy-1-methylethyl acetate CAS: 108-65-6	EU		Long Term: 275 mg/m ³ - 50 ppm (8h); Short Term: 550 mg/m ³ - 100 ppm Skin
	NATIONAL	AUSTRALIA	Long Term: 274 mg/m ³ - 50 ppm; Short Term: 548 mg/m ³ - 100 ppm
	NATIONAL	AUSTRIA	Long Term: 275 mg/m ³ - 50 ppm; Short Term: Ceiling - 550 mg/m ³ - 100 ppm 5(Mow), 8x, MAK, H Source: BGBl. II Nr. 156/2021
	NATIONAL	BELGIUM	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm D Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	BULGARIA	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm ???? Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. НАРЕДБА № 10 ОТ 26 СЕПТЕМВРИ 2003
	NATIONAL	CROATIA	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm koža Source: 2000/39/EZ
	NATIONAL	CYPRUS	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm d??µa Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021
	NATIONAL	CZECHIA	Long Term: 270 mg/m ³ ; Short Term: Ceiling - 550 mg/m ³ D, I Source: Nařízení vlády č. 361-2007 Sb
	NATIONAL	DENMARK	Long Term: 275 mg/m ³ - 50 ppm EH Source: BEK nr 2203 af 29/11/2021
	NATIONAL	ESTONIA	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm A, S Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL	FINLAND	Long Term: 270 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm iho Source: HTP-ARVOT 2020
	NATIONAL	FRANCE	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm Risque de pénétration percutanée Source: INRS outil65, article R. 4412-149 du Code du travail
	NATIONAL	GERMANY	Long Term: 270 mg/m ³ - 50 ppm DFG, EU, Y, 1(I) Source: TRGS 900
	NATIONAL	GREECE	Long Term: 275 mg/m ³ - 50 ppm; Short Term: 550 mg/m ³ - 100 ppm

		?
		Source: ФЕК 94/A` 13.5.1999
NATIONAL	HUNGARY	Long Term: 275 mg/m3; Short Term: 550 mg/m3 EU1, N Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	IRELAND	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Sk, IOELV Source: 2021 Code of Practice
NATIONAL	ITALY	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Cute Source: D.lgs. 81/2008, Allegato XXXVIII
NATIONAL	LATVIA	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Ada Source: KN325P1
NATIONAL	LITHUANIA	Long Term: 250 mg/m3 - 50 ppm; Short Term: 400 mg/m3 - 75 ppm O Source: 2011 m. rugsejo 1 d. Nr. V-824/A1-389
NATIONAL	LUXEMBOUR G	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Peau Source: Mémorial A n.226 du 22 mars 2021
NATIONAL	MALTA	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm skin Source: S.L.424.24
NATIONAL	NETHERLAND S	Long Term: 550 mg/m3 Source: Arbeidsomstandighedenregeling - Lijst A
NATIONAL	NORWAY	Long Term: 270 mg/m3 - 50 ppm H E Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 260 mg/m3; Short Term: 520 mg/m3 skóra Source: Dz.U. 2018 poz. 1286
NATIONAL	PORTUGAL	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Cutânea Source: Decreto-Lei n.º 1/2021
NATIONAL	ROMANIA	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm P, Dir. 2000/39 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATIONAL	SLOVAKIA	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm K Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATIONAL	SLOVENIA	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm K, Y, EU1 Source: UL št. 72, 11. 5. 2021
NATIONAL	SPAIN	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm vía dérmica, VLI Source: LEP 2022
NATIONAL	SWEDEN	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm H Source: AFS 2021:3
ACGIH		Long Term: 20 ppm (8h) A4, BEI - URT and eye irr; hematologic eff; CNS impair
EU		Long Term: 221 mg/m3 - 50 ppm (8h); Short Term: 442 mg/m3 - 100 ppm Skin
NATIONAL	AUSTRIA	Long Term: 221 mg/m3 - 50 ppm; Short Term: 442 mg/m3 - 100 ppm 15(Miw), 4x, MAK Source: BGBl. II Nr. 156/2021
NATIONAL	BULGARIA	Long Term: 221 mg/m3 - 50 ppm; Short Term: 442 mg/m3 - 100 ppm ???? Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. НАРЕДБА № 10 ОТ 26 СЕПТЕМВРИ 2003

xylene
CAS: 1330-20-7

NATIONAL	CZECHIA	Long Term: 200 mg/m ³ ; Short Term: Ceiling - 400 mg/m ³ B, D, I Source: Nařízení vlády č. 361-2007 Sb
NATIONAL	DENMARK	Long Term: 109 mg/m ³ - 25 ppm EH Source: BEK nr 2203 af 29/11/2021
NATIONAL	ESTONIA	Long Term: 200 mg/m ³ - 50 ppm; Short Term: 450 mg/m ³ - 100 ppm A Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	FINLAND	Long Term: 220 mg/m ³ - 50 ppm; Short Term: 440 mg/m ³ - 100 ppm iho Source: HTP-ARVOT 2020
NATIONAL	FRANCE	Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm Risque de pénétration percutanée Source: INRS outil65, article R. 4412-149 du Code du travail
NATIONAL	GREECE	Long Term: 435 mg/m ³ - 100 ppm; Short Term: 650 mg/m ³ - 150 ppm ? Source: ΦΕΚ 94/Α` 13.5.1999
NATIONAL	HUNGARY	Long Term: 221 mg/m ³ ; Short Term: 442 mg/m ³ b, BEM, EU1, R Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	LITHUANIA	Long Term: 200 mg/m ³ - 50 ppm; Short Term: 450 mg/m ³ - 100 ppm O Source: 2011 m. rugsejo 1 d. Nr. V-824/A1-389
NATIONAL	NETHERLANDS	Long Term: 210 mg/m ³ ; Short Term: 442 mg/m ³ H Source: Arbeidsomstandighedenregeling - Lijst A
NATIONAL	NORWAY	Long Term: 108 mg/m ³ - 25 ppm H E Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 100 mg/m ³ ; Short Term: 200 mg/m ³ skóra Source: Dz.U. 2018 poz. 1286
NATIONAL	SLOVAKIA	Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm K, 7) Source: 355 NARIADENIE VLÁDY z 10. mája 2006
NATIONAL	SWEDEN	Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm H Source: AFS 2021:3
NATIONAL	BELGIUM	Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm D Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	CROATIA	Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm koža Source: 2000/39/EZ
NATIONAL	CYPRUS	Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm d??µα Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021
NATIONAL	GERMANY	Long Term: 220 mg/m ³ - 50 ppm DFG, EU, H, 2(II) Source: TRGS 900
NATIONAL	IRELAND	Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm Sk, IOELV Source: 2021 Code of Practice
NATIONAL	ITALY	Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm Cute Source: D.lgs. 81/2008, Allegato XXXVIII
NATIONAL	LATVIA	Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm Ada Source: KN325P1

NATIONAL	LUXEMBOURG	Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm Peau Source: Mémorial A n.226 du 22 mars 2021
NATIONAL	MALTA	Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm skin Source: S.L.424.24
NATIONAL	PORTUGAL	Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm Cutânea Source: Decreto-Lei n.º 1/2021
NATIONAL	ROMANIA	Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm P, Dir. 2000/39 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATIONAL	SLOVENIA	Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm K, BAT, EU1 Source: UL št. 72, 11. 5. 2021
NATIONAL	SPAIN	Long Term: 221 mg/m ³ - 50 ppm; Short Term: 442 mg/m ³ - 100 ppm vía dérmica, VLB®, VLI Source: LEP 2022
NATIONAL	AUSTRALIA	Long Term: 1185 mg/m ³ - 500 ppm (8h); Short Term: 2375 mg/m ³ - 1000 ppm
ACGIH		Long Term: 250 ppm (8h); Short Term: 500 ppm A4, BEI - URT and eye irr, CNS impair
EU		Long Term: 1210 mg/m ³ - 500 ppm (8h)
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. НАРЕДБА № 10 ОТ 26 СЕПТЕМВРИ 2003
NATIONAL	CZECHIA	Long Term: 800 mg/m ³ ; Short Term: Ceiling - 1500 mg/m ³ Source: Nařízení vlády c. 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. rugsejo 1 d. Nr. V-824/A1-389
NATIONAL	NETHERLANDS	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

Acetone
CAS: 67-64-1

		V Source: AFS 2021:3
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 d??µα 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

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

2-methoxy-1-methylethyl acetate
CAS: 108-65-6
Exposure Route: Fresh Water; PNEC Limit: 635 µg/l

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

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

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

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

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

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

Exposure Route: Fresh Water; PNEC Limit: 327 µg/l

xylene
CAS: 1330-20-7

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 327 µg/l

Exposure Route: Marine water; PNEC Limit: 327 µg/l

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 6.58 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 12.46 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 12.46 mg/kg

Acetone
CAS: 67-64-1

Exposure Route: Soil; PNEC Limit: 2.31 mg/kg
Exposure Route: Fresh Water; PNEC Limit: 10.6 mg/l

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

Derived No Effect Level (DNEL) values

Hydrocarbons, C9,
aromatics
CAS: 128601-23-0

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Professional: 150 mg/m³; Consumer: 32 mg/m³

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Professional: 25 mg/kg; Consumer: 11 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 11 mg/kg

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

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Professional: 275 mg/m³; Consumer: 33 mg/m³

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

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

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

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

Hydrocarbons, C9-C12, n-
alkanes, isoalkanes,
cyclics, aromatics (2-
25%)

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 26 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Professional: 330 mg/m³; Consumer: 71 mg/m³

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Professional: 44 mg/kg; Consumer: 26 mg/kg

xylene
CAS: 1330-20-7

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects
Worker Professional: 289 mg/m³; Consumer: 174 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects
Worker Professional: 289 mg/m³; Consumer: 174 mg/m³

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Professional: 180 mg/kg; Consumer: 108 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 1.6 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Professional: 77 mg/kg; Consumer: 14.8 mg/kg

8.2. Exposure controls

Eye protection:

Eye glasses with side protection.

Protection for skin:

Chemical protection clothing.

Protection for hands:

Nitrile rubber, Viton, 4H .

Respiratory protection:

Gas filter type A .

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: Orange

Odour: Pungent

Odour threshold: N.A.

pH: N.A.

Kinematic viscosity: $\leq 20,5 \text{ mm}^2/\text{sec}$ (40 °C)

Melting point / freezing point: N.A.

Initial boiling point and boiling range: 130 °C (266 °F)

Flash point: 30 °C (86 °F)

Upper/lower flammability or explosive limits: 7.00 % (UEL). 0.60 % (LEL).

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: 0.89 g/cm³

Solubility in water: Immiscible

Solubility in oil: N.A.

Partition coefficient (n-octanol/water): N.A.

Auto-ignition temperature: 200.00 °C

Decomposition temperature: N.A.

<

Flammability: The product is classified Flam. Liq. 3 H226

Volatile Organic compounds - VOCs = 79.09 % ; 703.88 g/l

Particle characteristics:

Particle size: N.A.

9.2. Other information

Viscosity: 50.00 cPo

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

Vapors may form explosive mixture with air

10.4. Conditions to avoid

Heat and open flames.

10.5. Incompatible materials

Acids; Oxidizers; Alkali

10.6. Hazardous decomposition products

Develop toxic gases when heated to decomposition.

SECTION 11: Toxicological information

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

Toxicological Information of the Preparation

a) acute toxicity	Not classified Based on available data, the classification criteria are not met
b) skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met
c) serious eye damage/irritation	Not classified Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation	Not classified

e) germ cell mutagenicity	Based on available data, the classification criteria are not met Not classified
f) carcinogenicity	Based on available data, the classification criteria are not met Not classified
g) reproductive toxicity	Based on available data, the classification criteria are not met Not classified
h) STOT-single exposure	Based on available data, the classification criteria are not met The product is classified: STOT SE 3(H335), STOT SE 3(H336)
i) STOT-repeated exposure	The product is classified: STOT RE 1(H372)
j) aspiration hazard	The product is classified: Asp. Tox. 1(H304)

Toxicological information on main components of the mixture:

Hydrocarbons, C9, aromatics	a) acute toxicity	LD50 Oral Rat = 4 ml/Kg	
		LC50 Inhalation Vapour Rat > 6193 mg/m3 4h	
		LD50 Skin Rabbit > 3160 mg/kg 24h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative 4h	
	c) serious eye damage/irritation	Eye Irritant Rabbit No	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Negative	
	f) carcinogenicity	Genotoxicity Rat Negative	Inhalation route
	g) reproductive toxicity	No Observed Adverse Effect Level Inhalation Rat = 7500 mg/m3	
2-methoxy-1-methylethyl acetate	a) acute toxicity	LD50 Oral Rat = 6190 mg/kg	
		LD50 Skin Rabbit > 5000 mg/kg 24h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative 4h	
	c) serious eye damage/irritation	Eye Irritant Rabbit No	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Negative	
	g) reproductive toxicity	No Observed Effect Level Rat = 3.69 mg/l	Inhalation route
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	a) acute toxicity	LD50 Oral > 3592 mg/kg	
		LD50 Skin > 3160 mg/kg	
		LC50 Inhalation > 6193 mg/m3	
xylene	a) acute toxicity	LD50 Oral Rat = 3523 ml/Kg LC50 Inhalation Vapour Rabbit = 26 mg/l 4h LD50 Skin Rat = 4350 mg/kg	
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

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
Hydrocarbons, C9, aromatics	CAS: 128601-23-0 - EINECS: 918-668-5	a) Aquatic acute toxicity : LL50 Fish <i>Oncorhynchus mykiss</i> = 9.2 mg/L 96h b) Aquatic chronic toxicity : NOELR Fish = 1.23 mg/L - 28days a) Aquatic acute toxicity : EL50 <i>Daphnia magna</i> = 21.3 mg/L 48h b) Aquatic chronic toxicity : NOELR freshwater invertebrate = 2.14 mg/L - 21days a) Aquatic acute toxicity : EC50 Algae <i>Pseudokirchneriella subcapitata</i> = 2.9 mg/L a) Aquatic acute toxicity : EL50 <i>Tetrahymena pyriformis</i> = 4.73 mg/L 48h
2-methoxy-1-methylethyl acetate	CAS: 108-65-6 - EINECS: 203-603-9 - INDEX: 607-195-00-7	a) Aquatic acute toxicity : LC50 Fish <i>Oncorhynchus mykiss</i> = 130 mg/L 96h OECD guideline 203 b) Aquatic chronic toxicity : NOEC Fish <i>Oryzias latipes</i> = 47.5 mg/L OECD guideline 204 - 14days a) Aquatic acute toxicity : LC50 <i>Daphnia magna</i> = 408 mg/L 48h OECD guideline 202 b) Aquatic chronic toxicity : NOEC <i>Daphnia magna</i> > 100 mg/L OECD guideline 211 - 24days a) Aquatic acute toxicity : NOEC Algae <i>Selenastrum capricornutum</i> ≥ 1000 mg/L OECD guideline 201
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	EINECS: 919-446-0	a) Aquatic acute toxicity : LC50 Fish = 10 mg/L a) Aquatic acute toxicity : EC50 Algae = 4.1 mg/L
Acetone	CAS: 67-64-1 - EINECS: 200-662-2 - INDEX: 606-001-00-8	a) Aquatic acute toxicity : LC50 Fish <i>Oncorhynchus mykiss</i> = 5540 mg/L 96h OECD 203 a) Aquatic acute toxicity : LC50 <i>Daphnia pulex</i> = 8800 mg/L 48h OECD 202 b) Aquatic chronic toxicity : NOEC <i>Daphnia magna</i> = 2212 mg/L OECD 211 - 28days a) Aquatic acute toxicity : NOEC Algae <i>Microcystis aeruginosa</i> = 530 mg/L a) Aquatic acute toxicity : NOEC Sludge Activated sludge = 1000 mg/L OECD Guideline 209 - 30min d) Terrestrial toxicity : LC50 Worm <i>Eisenia fetida</i> = 0.55 mg/cm ² 48h OECD Guideline 207

12.2. Persistence and degradability

Component	Persistence/Degradability:	Test	Value	Notes:
Date	03/03/2025	Production Name	Bioscud Primer	Page n. 12 of 17

Hydrocarbons, C9, aromatics	Non-readily biodegradable		78.000
2-methoxy-1-methylethyl acetate	Readily biodegradable	Dissolved organic carbon	OECD GL 301E
Acetone	Readily biodegradable	Biochemical oxygen demand	90.000

12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value
xylene	Bioaccumulative	BCF - Bioconcentration factor	25.900
Acetone	Bioaccumulative	BCF - Bioconcentration factor	3.000

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. Send to authorised disposal plants or for incineration under controlled conditions. 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.

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

N.A.

SECTION 14: Transport information

14.1. UN number or ID number

1866

14.2. UN proper shipping name

ADR-Shipping Name: RESIN SOLUTION, flammable

IATA-Technical name: RESIN SOLUTION flammable

IMDG-Technical name: RESIN SOLUTION flammable

14.3. Transport hazard class(es)

ADR-Class: 3

IATA-Class: 3

IMDG-Class: 3

14.4. Packing group

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

14.5. Environmental hazards

Most important toxic component: Hydrocarbons, C9, aromatics

Marine pollutant: Yes

Environmental Pollutant: Yes

IMDG-EMS: F-E, S-E

14.6. Special precautions for user

Road and Rail (ADR-RID):

ADR-Label: 3

ADR - Hazard identification number: 30

ADR-Special Provisions: -

ADR-Transport category (Tunnel restriction code): 3 (D/E)

ADR Limited Quantities: 5 L

ADR Excepted Quantities: E1

Air (IATA):

IATA-Passenger Aircraft: 355

IATA-Cargo Aircraft: 366

IATA-Label: 3

IATA-Subsidiary hazards: -

IATA-Erg: 3L

IATA-Special Provisions: A3

Sea (IMDG):

IMDG-Stowage Code: Category A

IMDG-Stowage Note: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisions: 223 955

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, 40

Restrictions related to the substances contained: 75

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

Seveso III category according to Annex 1, part 1	Lower-tier threshold (tonnes)	Upper-tier threshold (tonnes)
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Product belongs to category: P5c	5000	50000
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Product belongs to category: E2	200	500
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Regulation (EU) No 649/2012 (PIC regulation)

No substances listed

German Water Hazard Class.

3: Severe hazard to waters

SVHC Substances:

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

Dir. 2004/42/EC (VOC directive)

(ready to use)

Volatile Organic compounds - VOCs = 79.09 %

Volatile Organic compounds - VOCs = 703.88 g/L

15.2. Chemical safety assessment

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

SECTION 16: Other information

Code	Description
EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
2.6/2	Flam. Liq. 2	Flammable liquid, Category 2
2.6/3	Flam. Liq. 3	Flammable liquid, 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
3.10/1	Asp. Tox. 1	Aspiration hazard, Category 1
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/1	STOT RE 1	Specific target organ toxicity — repeated exposure, Category 1
3.9/2	STOT RE 2	Specific target organ toxicity — repeated exposure, Category 2
4.1/C2	Aquatic Chronic 2	Chronic (long term) aquatic hazard, category 2

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
Flam. Liq. 3, H226	On basis of test data
STOT SE 3, H335	Calculation method
STOT SE 3, H336	Calculation method
STOT RE 1, H372	Calculation method
Asp. Tox. 1, H304	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
 KAFH: Keep Away From Heat
 KSt: Explosion coefficient.
 LC50: Lethal concentration, for 50 percent of test population.
 LD50: Lethal dose, for 50 percent of test population.
 LDLo: Leathal Dose Low
 N.A.: Not Applicable
 N/A: Not Applicable
 N/D: Not defined/ Not available
 NA: Not available
 NIOSH: National Institute for Occupational Safety and Health
 NOAEL: No Observed Adverse Effect Level
 OSHA: Occupational Safety and Health Administration
 PBT: Persistent, Bioaccumulative and Toxic
 PGK: Packaging Instruction
 PNEC: Predicted No Effect Concentration.
 PSG: Passengers
 RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
 STEL: Short Term Exposure limit.
 STOT: Specific Target Organ Toxicity.
 TLV: Threshold Limiting Value.
 TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
 vPvB: Very Persistent, Very Bioaccumulative.
 WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- SECTION 1: Identification of the substance/mixture and of the company/undertaking
- SECTION 2: Hazards identification
- SECTION 3: Composition/information on ingredients
- SECTION 7: Handling and storage
- SECTION 8: Exposure controls/personal protection
- SECTION 9: Physical and chemical properties

- SECTION 11: Toxicological information
- SECTION 12: Ecological information
- SECTION 13: Disposal considerations
- SECTION 14: Transport information
- SECTION 15: Regulatory information
- SECTION 16: Other information



Exposure Scenario

2-methoxy-1-methylethyl acetate

Exposure Scenario, 08/06/2021

Substance identity	
	2-methoxy-1-methylethyl acetate
CAS No.	108-65-6
INDEX No.	607-195-00-7
EINECS No.	203-603-9
Registration number	01-2119475791-29

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1. ES 1

1. ES 1

1.1 TITLE SECTION

Exposure Scenario name	Professional application of coatings and inks by brush or roller
Date - Version	29/04/2021 - 1.0
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)
Product Categories	Coatings and paints, thinners, paint removers (PC9a)

Environment Contributing Scenario

CS1	ERC8a - ERC8d
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Worker Contributing Scenario

CS2 Large surfaces - Rolling, Brushing	PROC10
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1.2 Conditions of use affecting exposure

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

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8a, ERC8d)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers concentrations up to 100 %

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

Amounts used:

Daily amount per site = 5000 kg

Release type: Continuous release

Emission days: 365 days per year

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

Water - minimum efficiency of: = 87.3 %

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

Waste treatment

Contain and dispose of waste according to local regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

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

Additional Good Practice Advice:

Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.

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

Process Categories	Roller application or brushing (PROC10)
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Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers concentrations up to 100 %

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

Daily amount per site = 5000 kg

Duration:

Exposure duration = 8 h/day

Frequency:

Use frequency = 365 days per year

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

Ensure control measures are regularly inspected and maintained.

Carry out in a vented booth or extracted enclosure.

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

Wear a respirator conforming to EN140.

Other conditions affecting worker exposure

Covers indoor and outdoor use

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

1.3 Exposure estimation and reference to its source

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

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater	= 0.003 mg/L	ECETOC TRA environment v3	= 0.004
freshwater sediment	= 0.014 mg/kg KW	ECETOC TRA environment v3	= 0.004
marine water	= 0.0004 mg/L	ECETOC TRA environment v3	= 0.007
marine sediment	= 0.002 mg/kg KW	ECETOC TRA environment v3	= 0.007
soil	= 0.001 mg/kg KW	ECETOC TRA environment v3	= 0.004

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 137.71 mg/m ³	ECETOC TRA worker v3	= 0.5
dermal, systemic, long-term	= 13.71 mg/kg bw/day	ECETOC TRA worker v3	0.18

1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

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



Exposure Scenario

Xylene, Mixed Isomers

Exposure Scenario, 14/10/2022

Substance identity	
	Xylene, Mixed Isomers
CAS No.	1330-20-7
INDEX No.	601-022-00-9
EINECS No.	215-535-7
Registration number	01-2119488216-32

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1. **ES 1** Widespread use by professional workers

1. ES 1 Widespread use by professional workers	
1.1 TITLE SECTION	
Exposure Scenario name	Professional application of coatings and inks
Date - Version	14/10/2022 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)
Environment Contributing Scenario	
CS1	ERC8a - ERC8d
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)	
Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8a, ERC8d)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use (or from service life)</i>	
Emission days: 300 days per year	
<i>Conditions and measures related to sewage treatment plant</i>	
STP type: Onsite Sewage Treatment Plant	
STP effluent (m ³ /day): 2000	
<i>Conditions and measures related to treatment of waste (including article waste)</i>	
Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.	
<i>Other conditions affecting environmental exposure</i>	
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)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: = 500 Pa	

Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Use in closed process Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374.	
<i>Other conditions affecting worker exposure</i>	
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)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: = 500 Pa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Provide a good standard of controlled ventilation (10 to 15 air changes per hour).	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Wear a respirator conforming to EN140.	
<i>Other conditions affecting worker exposure</i>	
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)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid	
Vapour pressure: = 500 Pa	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	

Duration:

Covers daily exposures up to 8 hours

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

Carry out in a vented booth provided with laminar airflow.

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

Wear suitable gloves tested to EN374.

Other conditions affecting worker exposure

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)**

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater	= 0.0015 mg/L	N/A	= 0.005
marine water	= 0.000145 mg/L	N/A	< 0.001
freshwater sediment	= 0.016 mg/kg wet weight	N/A	= 0.006
marine sediment	= 0.0156 mg/kg wet weight	N/A	< 0.001
soil	= 0.0117 mg/kg wet weight	N/A	= 0.006
Sewage treatment plant	= 0.00866 mg/L	N/A	= 0.001

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 14 ppm	N/A	= 0.79
dermal, systemic, long-term	= 13.71 mg/kg bw/day	N/A	= 0.08
combined routes	N/A	N/A	= 0.87

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 3 ppm	N/A	= 0.17
dermal, systemic, long-term	= 27.43 mg/kg bw/day	N/A	= 0.15
combined routes	N/A	N/A	= 0.32

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)
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inhalative, systemic, long-term	= 5 ppm	N/A	= 0.28
dermal, systemic, long-term	= 13.71 mg/kg bw/day	N/A	= 0.08
combined routes	N/A	N/A	= 0.29

1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Guidance to check compliance with the exposure scenario:

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



Exposure Scenario

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		
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)		
<i>Product (article) characteristics</i>			
Physical form of product: Liquid, vapour pressure > 10 kPa at STP			
Concentration of substance in product: Covers concentrations up to 70 %			
<i>Amount used, frequency and duration of use (or from service life)</i>			
Emission days: 365 days per year			
<i>Conditions and measures related to treatment of waste (including article waste)</i>			
Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.			
<i>Other conditions affecting environmental exposure</i>			
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)		
<i>Product (article) characteristics</i>			
Physical form of product: Liquid, vapour pressure > 10 kPa at STP			
Concentration of substance in product: Covers concentrations up to 70 %			
<i>Amount used, frequency and duration of use/exposure</i>			
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.

Exposure Scenario

HYDROCARBONS, C9-C12, N-ALKANES, ISOALKANES, CYCLICS, AROMATICS (2-25%)

Exposure Scenario, 19/10/2022

Substance identity	
	HYDROCARBONS, C9-C12, N-ALKANES, ISOALKANES, CYCLICS, AROMATICS (2-25%)
EINECS No.	919-446-0
Registration number	01-2119458049-33

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	19/10/2022 - 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	
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Worker Contributing Scenario

CS2 Material transfers	PROC8a
CS3 Rolling, Brushing	PROC10
CS4 Roller, spreader, flow application	PROC11
CS5 Roller, spreader, flow application	PROC11
CS6 Hand application - finger paints, pastels, adhesives	PROC19

1.2 Conditions of use affecting exposure

1.2. CS1: Environment Contributing Scenario

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

Liquid, vapour pressure < 0,5 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

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

Annual site tonnage 0.84 t(tonnes)/year

Daily amount per site 2.3 kg/day

Maximum allowable site tonnage (MSafe): 1900 kg/day

Critical compartment for Msafe: soil

Release type: Continuous release

Emission days: 365 days per year

*Technical and organisational conditions and measures***Control measures to prevent releases**

No discharge of substance into waste water	Water - minimum efficiency of: = 93.7 %
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Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant	
STP effluent (m ³ /day): 2000	
1.2. CS2: Worker Contributing Scenario: Material transfers (PROC8a)	
Process Categories	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure < 0,5 kPa at STP	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Annual site tonnage 0.84 t(tonnes)/year Daily amount per site 2.3 kg/day	
Duration: Covers exposure up to <= 1 h/day	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Ensure operatives are trained to minimise exposures.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Wear chemically resistant gloves (tested to EN374) in combination with "basic" employee training. Wear suitable coveralls to prevent exposure to the skin. Wear suitable respiratory protection.	
<i>Other conditions affecting worker exposure</i>	
Covers indoor and outdoor 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)
<i>Product (article) characteristics</i>	
Physical form of product: Liquid, vapour pressure < 0,5 kPa at STP	
Concentration of substance in product: Covers percentage substance in the product up to 100 %.	
<i>Amount used, frequency and duration of use/exposure</i>	
Amounts used: Annual site tonnage 0.84 t(tonnes)/year Daily amount per site 2.3 kg/day	
Duration: Covers daily exposures up to 8 hours	
<i>Technical and organisational conditions and measures</i>	
Technical and organisational measures Ensure operatives are trained to minimise exposures.	
<i>Conditions and measures related to personal protection, hygiene and health evaluation</i>	
Personal protection Wear suitable gloves tested to EN374. Wear chemically resistant gloves (tested to EN374) in combination with "basic" employee training. Wear suitable coveralls to prevent exposure to the skin.	

Wear suitable respiratory protection.			
Other conditions affecting worker exposure			
Covers indoor and outdoor 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 < 0,5 kPa at STP			
Concentration of substance in product: Covers percentage substance in the product up to 100 %.			
Amount used, frequency and duration of use/exposure			
Amounts used: Annual site tonnage 0.84 t(tonnes)/year Daily amount per site 2.3 kg/day			
Duration: Covers exposure up to > 4 h/day			
Technical and organisational conditions and measures			
Technical and organisational measures			
<table border="1"> <tr> <td> Ensure operatives are trained to minimise exposures. Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Local exhaust ventilation </td><td>Inhalation - minimum efficiency of: 70 %</td></tr> </table>		Ensure operatives are trained to minimise exposures. Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Local exhaust ventilation	Inhalation - minimum efficiency of: 70 %
Ensure operatives are trained to minimise exposures. Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Local exhaust ventilation	Inhalation - minimum efficiency of: 70 %		
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. Wear suitable coveralls to prevent exposure to the skin. 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. CS5: Worker Contributing Scenario: Roller, spreader, flow application (PROC11)			
Process Categories	Non industrial spraying (PROC11)		
Product (article) characteristics			
Physical form of product: Liquid, vapour pressure < 0,5 kPa at STP			
Concentration of substance in product: Covers percentage substance in the product up to 100 %.			
Amount used, frequency and duration of use/exposure			
Amounts used: Annual site tonnage 0.84 t(tonnes)/year Daily amount per site 2.3 kg/day			
Duration: Covers exposure up to > 4 h/day			

Technical and organisational conditions and measures

Technical and organisational measures

Ensure operatives are trained to minimise exposures.

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.	
Wear suitable coveralls to prevent exposure to the skin. Wear suitable respiratory protection.	
Wear a respirator conforming to EN140.	Inhalation - 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. CS6: Worker Contributing Scenario: Hand application - finger paints, pastels, adhesives (PROC19)

Process Categories	Manual activities involving hand contact (PROC19)
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Product (article) characteristics

Physical form of product:

Liquid, vapour pressure < 0,5 kPa at STP

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Amounts used:

Annual site tonnage 0.84 t(tonnes)/year

Daily amount per site 2.3 kg/day

Duration:

Covers exposure up to 4 h/day

Technical and organisational conditions and measures

Technical and organisational measures

Ensure operatives are trained to minimise exposures.

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.

Wear suitable coveralls to prevent exposure to the skin.

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.

1.3 Exposure estimation and reference to its source

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	0.1371 mg/kg bw/day	ECETOC TRA worker v3	0.003

inhalative, systemic, long-term	161.55 mg/m ³	ECETOC TRA worker v3	0.49
combined routes, systemic, long-term	N/A	ECETOC TRA worker v3	0.493

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	0.2743 mg/kg bw/day	ECETOC TRA worker v3	0.006
inhalative, systemic, long-term	161.55 mg/kg bw/day	ECETOC TRA worker v3	0.49
combined routes, systemic, long-term	N/A	ECETOC TRA worker v3	0.496

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	1.0714 mg/kg bw/day	ECETOC TRA worker v3	0.023
inhalative, systemic, long-term	193.87 mg/m ³	ECETOC TRA worker v3	0.587
combined routes, systemic, long-term	N/A	ECETOC TRA worker v3	0.61

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

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	1.0714 mg/kg bw/day	ECETOC TRA worker v3	0.023
inhalative, systemic, long-term	64.62 mg/m ³	ECETOC TRA worker v3	0.196
combined routes, systemic, long-term	N/A	ECETOC TRA worker v3	0.219

1.3. CS6: Worker Contributing Scenario: Hand application - finger paints, pastels, adhesives (PROC19)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	1.4143 mg/kg bw/day	ECETOC TRA worker v3	0.03
inhalative, systemic, long-term	161.55 mg/m ³	ECETOC TRA worker v3	0.49
combined routes, systemic, long-term	N/A	ECETOC TRA worker v3	0.52

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.