Safety Data Sheet
Conforms to Regulation (EC) No. 1907/2006 (REACH), Article 31, Annex II, as amended by Commission Regulation (EU) 2020/878
DD
Date of first edition: 11/18/2022
Safety Data Sheet dated 18/04/2024
version 3

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

1.1. Product identifier

Mixture identification:
Trade name: DD
Trade code: 16112022 -3

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

Recommended use: Paint removers, thinners and related auxiliaries
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)

Flam. Liq. 2	Highly flammable liquid and vapour.
Skin Irrit. 2	Causes skin irritation.
Eye Irrit. 2	Causes serious eye irritation.
Carc. 2	Suspected of causing cancer.
STOT SE 3	May cause respiratory irritation.
STOT SE 3	May cause drowsiness or dizziness.
STOT RE 2	May cause damage to organs through prolonged or repeated exposure.
Asp. Tox. 1	May be fatal if swallowed and enters airways.
Acute Tox. 4	Harmful if inhaled.

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

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.

H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243	Take action to prevent static discharges.
P260	Do not breathe vapours.
P280	Wear protective gloves and eye protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P370+P378	In case of fire, use a dry powder fire extinguisher to extinguish.

Contains

Reaction mass of ethylbenzene and m-xylene and p-xylene

n-butyl acetate

4-methylpentan-2-one; isobutyl methyl ketone

2-methoxy-1-methylethyl acetate

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: DD

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

Qty	Name	Ident. Numb.	Classification	Registration Number
≥20-<50 %	Reaction mass of ethylbenzene and m-xylene and p-xylene	EC:905-562-9	Flam. Liq. 3, H226; Acute Tox. 4, H332; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; Asp. Tox. 1, H304; STOT RE 2, H373	01-2119555267-33
≥20-<50 %	n-butyl acetate	CAS:123-86-4 EC:204-658-1 Index:607-025-00-1	Flam. Liq. 3, H226; STOT SE 3, H336, EUH066	01-2119485493-29
≥10-<20 %	2-methoxy-1-methylethyl acetate	CAS:108-65-6 EC:203-603-9	Flam. Liq. 3, H226; STOT SE 3, H336	01-2119475791-29
≥10-<20 %	4-methylpentan-2-one; isobutyl methyl ketone	CAS:108-10-1 EC:203-550-1 Index:606-004-00-4	Flam. Liq. 2, H225 Carc. 2, H351 Acute Tox. 4, H332 STOT SE 3, H336 Eye Irrit. 2, H319, EUH066 Acute Toxicity Estimate: ATE - Inhalation (Vapours): 11mg/l	01-2119473980-30
≥5-<10 %	ethyl acetate	CAS:141-78-6 EC:205-500-4 Index:607-022-00-5	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	01-2119475103-46

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 immediatley and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

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

In case of Inhalation:

If breathing is irregular or stopped, administer artificial respiration.

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

Eye irritation

Eye damages

Skin Irritation

Erythema

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:

CO_2 or Dry chemical fire extinguisher.

Extinguishing media which must not be used for safety reasons:

Water.

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.

Contamined 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 in closed containers and in a well-ventilated place.

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

Avoid accumulating electrostatic charge.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

Safety electric system.

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
n-butyl acetate CAS: 123-86-4	NATIONAL	AUSTRIA	Long Term: 241 mg/m3 - 50 ppm; Short Term: Ceiling - 480 mg/m3 - 100 ppm Mow, MAK Source: GKV, BGBl. II Nr. 156/2021
	NATIONAL	BULGARIA	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
	NATIONAL	CZECHIA	Long Term: 241 mg/m3; Short Term: Ceiling - 723 mg/m3 Source: Nařízení vlády č. 361-2007 Sb
	NATIONAL	DENMARK	Long Term: 241 mg/m3 - 50 ppm E Source: BEK nr 2203 af 29/11/2021
	NATIONAL	ESTONIA	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm
	NATIONAL	FINLAND	Long Term: 240 mg/m3 - 50 ppm; Short Term: 725 mg/m3 - 150 ppm Source: HTP-ARVOT 2020
	NATIONAL	FRANCE	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Source: INRS outil65, article R. 4412-149 du Code du travail
	NATIONAL	HUNGARY	Long Term: 241 mg/m3; Short Term: 723 mg/m3 i, sz, EU7, N Source: 5/2020. (II. 6.) ITM rendelet
	NATIONAL	NETHERLANDS	Long Term: 241 mg/m3; Short Term: 723 mg/m3 Source: Arbeidsomstandighedenregeling - Lijst A
	NATIONAL	POLAND	Long Term: 240 mg/m3; Short Term: 720 mg/m3 Source: Dz.U. 2018 poz. 1286
	NATIONAL	SLOVAKIA	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Source: 355 NARIADENIE VLÁDY z 10. mája 2006
	NATIONAL	SWEDEN	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Source: AFS 2021:3
	NATIONAL	BELGIUM	Long Term: 238 mg/m3 - 50 ppm; Short Term: 712 mg/m3 - 150 ppm Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1

	NATIONAL	CROATIA	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Source: 2019/1831
	NATIONAL	CYPRUS	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021
	NATIONAL	GERMANY	Long Term: 300 mg/m3 - 62 ppm AGS, Y, 2 (I) Source: TRGS 900
	NATIONAL	GREECE	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Source: Y.A. 72/2021 (ΦΕΚ 163/A` 9.9.2021)
	NATIONAL	IRELAND	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm IOELV Source: 2021 Code of Practice
	NATIONAL	ITALY	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Source: D.lgs. 81/2008, Allegato XXXVIII
	NATIONAL	LATVIA	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Source: KN325P1
	NATIONAL	LUXEMBOURG	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Source: Mémorial A n.226 du 22 mars 2021
	NATIONAL	MALTA	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Source: S.L.424.24
	NATIONAL	PORTUGAL	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Source: Decreto-Lei n.º 1/2021
	NATIONAL	ROMANIA	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Dir. 2019/1.831 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
	NATIONAL	SLOVENIA	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Y, EU5 Source: UL št. 72, 11. 5. 2021
	NATIONAL	SPAIN	Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm VLI Source: LEP 2022
2-methoxy-1-methylethyl acetate CAS: 108-65-6	NATIONAL	AUSTRALIA	Long Term: 274 mg/m3 - 50 ppm; Short Term: 548 mg/m3 - 100 ppm
	EU		Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Skin
	NATIONAL	AUSTRIA	Long Term: 275 mg/m3 - 50 ppm; Short Term: Ceiling - 550 mg/m3 - 100 ppm 5(Mow), 8x, MAK, H Source: BGBl. II Nr. 156/2021
	NATIONAL	BULGARIA	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Кожа Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
	NATIONAL	CZECHIA	Long Term: 270 mg/m3; Short Term: Ceiling - 550 mg/m3 D, I Source: Nařízení vlády č. 361-2007 Sb
	NATIONAL	DENMARK	Long Term: 275 mg/m3 - 50 ppm EH Source: BEK nr 2203 af 29/11/2021
	NATIONAL	ESTONIA	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm A, S Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL	FINLAND	Long Term: 270 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm iho Source: HTP-ARVOT 2020
	NATIONAL	FRANCE	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Risque de pénétration percutanée Source: INRS outil65, article R. 4412-149 du Code du travail

NATIONAL	GREECE	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm Δ Source: ΦΕΚ 94/Α` 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	LITHUANIA	Long Term: 250 mg/m3 - 50 ppm; Short Term: 400 mg/m3 - 75 ppm O Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
NATIONAL	NETHERLANDS	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	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	SWEDEN	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm H Source: AFS 2021:3
NATIONAL	BELGIUM	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm D Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	CROATIA	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm koža Source: 2000/39/EZ
NATIONAL	CYPRUS	Long Term: 275 mg/m3 - 50 ppm; Short Term: 550 mg/m3 - 100 ppm δέρμα Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021
NATIONAL	GERMANY	Long Term: 270 mg/m3 - 50 ppm DFG, EU, Y, 1(I) Source: TRGS 900
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 Āda Source: KN325P1
NATIONAL	LUXEMBOURG	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	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	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
4-methylpentan-2-one; isobutyl methyl ketone CAS: 108-10-1	NATIONAL	AUSTRIA	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm 15(Miw), 4x, MAK, H Source: BGBl. II Nr. 156/2021
	NATIONAL	BULGARIA	Long Term: 50 mg/m3; Short Term: 200 mg/m3 Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
	NATIONAL	CZECHIA	Long Term: 80 mg/m3; Short Term: Ceiling - 200 mg/m3 D, I Source: Nařízení vlády č. 361-2007 Sb
	NATIONAL	DENMARK	Long Term: 83 mg/m3 - 20 ppm EH Source: BEK nr 2203 af 29/11/2021
	NATIONAL	ESTONIA	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL	FINLAND	Long Term: 80 mg/m3 - 20 ppm; Short Term: 210 mg/m3 - 50 ppm Source: HTP-ARVOT 2020
	NATIONAL	FRANCE	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm Cancérogène de catégorie 2 Source: INRS outil65, article R. 4412-149 du Code du travail
	NATIONAL	GREECE	Long Term: 410 mg/m3 - 100 ppm; Short Term: 410 mg/m3 - 100 ppm Δ Source: ΦΕΚ 94/Α` 13.5.1999
	NATIONAL	HUNGARY	Long Term: 83 mg/m3; Short Term: 208 mg/m3 EU1, N Source: 5/2020. (II. 6.) ITM rendelet
	NATIONAL	LITHUANIA	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
	NATIONAL	NETHERLANDS	Long Term: 104 mg/m3; Short Term: 208 mg/m3 Source: Arbeidsomstandighedenregeling - Lijst A
	NATIONAL	NORWAY	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm H E S Source: FOR-2021-06-28-2248
	NATIONAL	POLAND	Long Term: 83 mg/m3; Short Term: 200 mg/m3 Source: Dz.U. 2018 poz. 1286
	NATIONAL	SLOVAKIA	Long Term: 83 mg/m3 - 20 ppm; Short Term: 166 mg/m3 - 40 ppm K, 7) Source: 355 NARIADENIE VLÁDY z 10. mája 2006
	NATIONAL	SLOVAKIA	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm Source: 355 NARIADENIE VLÁDY z 10. mája 2006
	NATIONAL	SWEDEN	Long Term: 83 mg/m3 - 20 ppm; Short Term: 200 mg/m3 - 50 ppm Source: AFS 2021:3
	NATIONAL	BELGIUM	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	CROATIA	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm Source: 2000/39/EZ
	NATIONAL	CYPRUS	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021
	NATIONAL	GERMANY	Long Term: 83 mg/m3 - 20 ppm DFG, EU, H, Y, 2(I) Source: TRGS 900
	NATIONAL	IRELAND	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm Sk, IOELV Source: 2021 Code of Practice
	NATIONAL	ITALY	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm Source: D.lgs. 81/2008, Allegato XXXVIII

	NATIONAL	LATVIA	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm Source: KN325P1
	NATIONAL	LUXEMBOURG	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm Source: Mémorial A n.226 du 22 mars 2021
	NATIONAL	MALTA	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm Source: S.L.424.24
	NATIONAL	PORTUGAL	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm Source: Decreto-Lei n.º 1/2021
	NATIONAL	ROMANIA	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm Dir. 2000/39 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
	NATIONAL	SLOVENIA	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm K, Y, BAT, EU1 Source: UL št. 72, 11. 5. 2021
	NATIONAL	SPAIN	Long Term: 83 mg/m3 - 20 ppm; Short Term: 208 mg/m3 - 50 ppm VLB®, VLI Source: LEP 2022
ethyl acetate CAS: 141-78-6	NATIONAL	AUSTRIA	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm 15(Miw), 4x, MAK Source: BGBl. II Nr. 156/2021
	NATIONAL	BULGARIA	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm Source: НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г.
	NATIONAL	CZECHIA	Long Term: 700 mg/m3; Short Term: Ceiling - 900 mg/m3 I Source: Nařízení vlády č. 361-2007 Sb
	NATIONAL	DENMARK	Long Term: 540 mg/m3 - 150 ppm E Source: BEK nr 2203 af 29/11/2021
	NATIONAL	ESTONIA	Long Term: 500 mg/m3 - 150 ppm; Short Term: 1100 mg/m3 - 300 ppm Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
	NATIONAL	FINLAND	Long Term: 730 mg/m3 - 200 ppm; Short Term: 1470 mg/m3 - 400 ppm Source: HTP-ARVOT 2020
	NATIONAL	FRANCE	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm Source: INRS outil65, article R. 4412-149 du Code du travail
	NATIONAL	HUNGARY	Long Term: 734 mg/m3; Short Term: 1468 mg/m3 i, sz, EU4, N Source: 5/2020. (II. 6.) ITM rendelet
	NATIONAL	LITHUANIA	Long Term: 500 mg/m3 - 150 ppm; Short Term: Ceiling - 1100 mg/m3 - 300 ppm Source: 2011 m. rugsėjo 1 d. Nr. V-824/A1-389
	NATIONAL	NETHERLANDS	Long Term: 734 mg/m3; Short Term: 1468 mg/m3 Source: Arbeidsomstandighedenregeling - Lijst A
	NATIONAL	NORWAY	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm E S Source: FOR-2021-06-28-2248
	NATIONAL	POLAND	Long Term: 734 mg/m3; Short Term: 1468 mg/m3 Source: Dz.U. 2018 poz. 1286
	NATIONAL	SLOVAKIA	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm Source: 355 NARIADENIE VLÁDY z 10. mája 2006
	NATIONAL	SWEDEN	Long Term: 550 mg/m3 - 150 ppm; Short Term: 1100 mg/m3 - 300 ppm Source: AFS 2021:3
	NATIONAL	BELGIUM	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
	NATIONAL	CROATIA	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm Source: 2017/164/EU
	NATIONAL	CYPRUS	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm Source: Οι περί Ασφάλειας και Υγείας στην Εργασία (Χημικοί Παράγοντες) Κανονισμοί του 2001 έως 2021

NATIONAL	GERMANY	Long Term: 730 mg/m3 - 200 ppm DFG, EU, Y, 2(I) Source: TRGS 900
NATIONAL	GREECE	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm Source: Π.Δ. 82/2018 (ΦΕΚ 152/Α` 21.8.2018)
NATIONAL	IRELAND	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm IOELV Source: 2021 Code of Practice
NATIONAL	ITALY	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm Source: D.lgs. 81/2008, Allegato XXXVIII
NATIONAL	LATVIA	Long Term: 200 mg/m3 - 54 ppm; Short Term: 1468 mg/m3 - 400 ppm Source: KN325P1
NATIONAL	LUXEMBOURG	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm Source: Mémorial A n.226 du 22 mars 2021
NATIONAL	MALTA	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm Source: S.L.424.24
NATIONAL	PORTUGAL	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm Source: Decreto-Lei n.º 1/2021
NATIONAL	ROMANIA	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm Dir. 2017/164 Source: Republicarea 1 - nr. 743 din 29 iulie 2021
NATIONAL	SLOVENIA	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm Y, EU4 Source: UL št. 72, 11. 5. 2021
NATIONAL	SPAIN	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm VLI Source: LEP 2022

Predicted No Effect Concentration (PNEC) values

Reaction mass of ethylbenzene and m-xylene and p-xylene	Exposure Route: Fresh Water; PNEC Limit: 44 µg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 10 µg/l
	Exposure Route: Marine water; PNEC Limit: 4.4 µg/l
	Exposure Route: Intermittent releases (marine water); PNEC Limit: 1 µg/l
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 1.6 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 2.52 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 252 µg/kg
	Exposure Route: Soil; PNEC Limit: 852 µg/kg
n-butyl acetate CAS: 123-86-4	Exposure Route: Fresh Water; PNEC Limit: 180 µg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 360 µg/l
	Exposure Route: Marine water; PNEC Limit: 18 µg/l
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 35.6 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 981 µg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 98.1 µg/kg
	Exposure Route: Soil; PNEC Limit: 90.3 µg/kg
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
4-methylpentan-2-one;	Exposure Route: Fresh Water; PNEC Limit: 600 µg/l

isobutyl methyl ketone CAS: 108-10-1	
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 1.5 mg/l
	Exposure Route: Marine water; PNEC Limit: 60 µg/l
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 27.5 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 8.27 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 830 µg/kg
	Exposure Route: Soil; PNEC Limit: 1.3 mg/kg
ethyl acetate CAS: 141-78-6	Exposure Route: Fresh Water; PNEC Limit: 240 µg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 1.65 mg/l
	Exposure Route: Marine water; PNEC Limit: 24 µg/l
	Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 650 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 1.15 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 115 µg/kg
	Exposure Route: Soil; PNEC Limit: 148 µg/kg
	Exposure Route: Secondary poisoning; PNEC Limit: 200 mg/kg

Derived No Effect Level (DNEL) values

Reaction mass of ethylbenzene and m-xylene and p-xylene	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 221 mg/m³; Consumer: 65.3 mg/m³
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Professional: 442 mg/m³; Consumer: 260 mg/m³
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Professional: 221 mg/m³; Consumer: 65.3 mg/m³
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Worker Professional: 442 mg/m³; Consumer: 260 mg/m³
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Professional: 212 mg/kg; Consumer: 125 mg/kg
	Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects Consumer: 2.5 mg/kg
n-butyl acetate CAS: 123-86-4	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 48 mg/m³; Consumer: 12 mg/m³
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Professional: 600 mg/m³; Consumer: 300 mg/m³
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Professional: 300 mg/m³; Consumer: 35.7 mg/m³
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Worker Professional: 600 mg/m³; Consumer: 300 mg/m³
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Professional: 7 mg/kg; Consumer: 3.4 mg/kg
	Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects Worker Professional: 11 mg/kg; Consumer: 6 mg/kg
	Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects Consumer: 2 mg/kg
	Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects Consumer: 2 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
4-methylpentan-2-one; isobutyl methyl ketone CAS: 108-10-1	Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects Consumer: 4.2 mg/kg
ethyl acetate CAS: 141-78-6	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 734 mg/m³; Consumer: 367 mg/m³
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Professional: 1468 mg/m³; Consumer: 734 mg/m³
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Professional: 734 mg/m³; Consumer: 367 mg/m³
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects Worker Professional: 1468 mg/m³; Consumer: 734 mg/m³
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Professional: 63 mg/kg; Consumer: 37 mg/kg
	Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects Consumer: 4.5 mg/kg

8.2. Exposure controls

Eye protection:

Eye glasses with side protection.(EN166)

Protection for skin:

Chemical protection clothing. Safety shoes.

Protection for hands:

Nitrile rubber, Viton, 4H .

Respiratory protection:

Gas filter type AX .

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: Colourless

Odour: Characteristic

Odour threshold: N.A.

pH: Not Relevant

Kinematic viscosity: <= 20,5 mm2/sec (40 °C)

Melting point/freezing point: < -50 °C (-58 °F)

Boiling point or initial boiling point and boiling range: > 35 °C (95 °F)

Flash point: < 23°C

Lower and upper explosion limit: N.A.

Relative vapour density: N.A.

Vapour pressure: 15.05

Density and/or relative density: 0.88 kg/l

Solubility in water: Insoluble

Solubility in oil: N.A.

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

Auto-ignition temperature: 370.00 °C

Decomposition temperature: N.A.

Flammability: The product is classified Flam. Liq. 2 H225

Volatile Organic compounds - VOCs = 100 % ; 880 g/l

Particle characteristics:

Particle size: N.A.

9.2. Other information

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

It may generate dangerous reactions (See subsections below)

10.2. Chemical stability

It may generate dangerous reactions (See subsections below)

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

Avoid contact with combustible materials. The product could catch fire.

10.6. Hazardous decomposition products

In combustion can develop irritant and toxic gases.

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	The product is classified: Acute Tox. 4(H332)
	ATE Inhalation = 18.33 mg/kg 4h
b) skin corrosion/irritation	The product is classified: Skin Irrit. 2(H315)
c) serious eye damage/irritation	The product is classified: Eye Irrit. 2(H319)
d) respiratory or skin sensitisation	Not classified
	Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	The product is classified: Carc. 2(H351)
g) reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
h) STOT-single exposure	The product is classified: STOT SE 3(H335), STOT SE 3(H336)
i) STOT-repeated exposure	The product is classified: STOT RE 2(H373)
j) aspiration hazard	The product is classified: Asp. Tox. 1(H304)

Toxicological information on main components of the mixture:

Reaction mass of ethylbenzene and m-xylene and p-xylene	a) acute toxicity	LD50 Oral Rat = 3523 ml/Kg	
		LC50 Inhalation Vapour Rat = 27.12 mg/l 4h	
		LD50 Skin Rabbit = 12126 mg/kg 24h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Positive 4h	
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes 1h	
	f) carcinogenicity	Genotoxicity Negative	Mouse subcutaneous route
	g) reproductive toxicity	No Observed Adverse Effect Level Inhalation Rat = 500	ppm
n-butyl acetate	a) acute toxicity	LD50 Oral Rat = 10760 mg/kg	
		LC50 Inhalation of aerosol Rat = 0.74 mg/l 4h	
		LD50 Skin Rabbit > 16 ml/Kg 24h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative	
	c) serious eye damage/irritation	Eye Irritant Rabbit No	
	d) respiratory or skin sensitisation	Skin Sensitization Negative	Mouse
	f) carcinogenicity	Genotoxicity Negative	Mouse oral route

	g) reproductive toxicity	No Observed Adverse Effect Level Inhalation Rat = 750	ppm
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
4-methylpentan-2-one; isobutyl methyl ketone	a) acute toxicity	ATE - Inhalation (Vapours) : 11 mg/l	
		LD50 Oral Rat = 2080 mg/kg	
		LC50 Inhalation Vapour Rat = 11.6 mg/l 4h	
		LD50 Skin Rat > 2000 mg/kg 24h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative 4h	
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes 24h	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Negative	
	f) carcinogenicity	Genotoxicity Negative	Mouse intraperitoneal rout
	g) reproductive toxicity	No Observed Adverse Effect Level Inhalation Rat = 1000	ppm
ethyl acetate	a) acute toxicity	LD50 Oral Rat = 5620 mg/kg	
		LC50 Inhalation Vapour Rat > 22.5 mg/l 6h	No mortality occurred
		LD50 Skin Rabbit > 20000 mg/kg 24h	
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative 24h	
	c) serious eye damage/irritation	Eye Irritant Rabbit No	
	d) respiratory or skin sensitisation	Skin Sensitization Guineapig Negative	
	f) carcinogenicity	Genotoxicity Negative	Hamster oral route
	g) reproductive toxicity	No Observed Adverse Effect Level Oral = 13800 mg/kg	Mouse

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 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:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

No data available for the product

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
Reaction mass of ethylbenzene and m-xylene and p-xylene	EINECS: 905-562-9	a) Aquatic acute toxicity : LC50 Fish Danio rerio = 0.71 mg/L 96h OECD Guideline 210

		b) Aquatic chronic toxicity : NOEC Fish freshwater fish = 1.3 mg/L - 56days
		a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 1 mg/L 24h OECD 202
		b) Aquatic chronic toxicity : NOEC Daphnia Ceriodaphnia dubia = 1.17 mg/L OECD 211 - 7days
		a) Aquatic acute toxicity : EC50 Algae freshwater algae = 2.2 mg/L 72h OECD 201
		a) Aquatic acute toxicity : EC50 microorganisms = 16 mg/L OECD 301F - 28days
		d) Terrestrial toxicity : LC50 soil macroorganisms = 88.8 mg/kg - 14days
n-butyl acetate	CAS: 123-86-4 - EINECS: 204-658-1 - INDEX: 607-025-00-1	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 18 mg/L 96h similar to OECD 203
		a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 44 mg/L 48h similar to OECD 202
		b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna = 23 mg/L OECD 211 - 21days
		a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 397 mg/L 72h OECD 201
		a) Aquatic acute toxicity : EC50 Tetrahymena pyriformis = 356 mg/L - 40h
2-methoxy-1-methylethyl acetate	CAS: 108-65-6 - EINECS: 203-603-9	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 130 mg/L 96h OECD guideline 203
		b) Aquatic chronic toxicity : NOEC Fish Oryzias latipes = 47.5 mg/L OECD guideline 204 - 14days
		a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 408 mg/L 48h OECD guideline 202
		b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna > 100 mg/L OECD guideline 211 - 24days
		a) Aquatic acute toxicity : NOEC Algae Selenastrum capricornutum >= 1000 mg/L OECD guideline 201
4-methylpentan-2-one; isobutyl methyl ketone	CAS: 108-10-1 - EINECS: 203-550-1 - INDEX: 606-004-00-4	a) Aquatic acute toxicity : LC50 Fish Danio rerio = 179 mg/L 96h OECD guideline 203
		a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna = 200 mg/L 48h OECD 202
		b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna = 30 mg/L - 21days
		a) Aquatic acute toxicity : EC50 Algae = 146 mg/L OECD 221 - 7days
		c) Bacteria toxicity : EC50 = 275 mg/L - 16hr
ethyl acetate	CAS: 141-78-6 - EINECS: 205-500-4 - INDEX: 607-022-00-5	a) Aquatic acute toxicity : LC50 Fish S Gairdneri = 230 mg/L 96h
		b) Aquatic chronic toxicity : NOEC Fish freshwater fish = 6.9 mg/L - 32days
		a) Aquatic acute toxicity : LC50 Daphnia Daphnia Cucullata = 165 mg/L 48h
		b) Aquatic chronic toxicity : NOEC Daphnia daphnia magna = 2.4 mg/L - 21days
		a) Aquatic acute toxicity : EC50 Algae S. subspicatus = 5600 mg/L 48h
		c) Bacteria toxicity : NOEC Pseudomonas putida = 650 mg/L - 16hr

12.2. Persistence and degradability

Component	Persitence/Degradability:	Test	Value	Notes:
Reaction mass of ethylbenzene and m-xylene and p-xylene	Readily biodegradable			

n-butyl acetate	Readily biodegradable		83.000	%; OECD 301 D
2-methoxy-1-methylethyl acetate	Readily biodegradable	Dissolved organic carbon		OECD GL 301E
4-methylpentan-2-one; isobutyl methyl ketone	Readily biodegradable	Biochemical oxigen demand	83.000	
ethyl acetate	Readily biodegradable	CO2 production	94.000	28days

12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value	Notes:
Reaction mass of ethylbenzene and m-xylene and p-xylene	Bioaccumulative	BCF - Bioconcentrantion factor	25.900	
n-butyl acetate	Bioaccumulative	BCF - Bioconcentrantion factor		
ethyl acetate	Bioaccumulative	BCF - Bioconcentrantion factor	30.000	aquatic species

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT or vPvB substances present in concentration >= 0.1%

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration >= 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

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

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

SECTION 14: Transport information

14.1. UN number or ID number

1263

14.2. UN proper shipping name

ADR-Shipping Name: PAINT RELATED MATERIAL

IATA-Technical name: PAINT RELATED MATERIAL

IMDG-Technical name: PAINT RELATED MATERIAL

14.3. Transport hazard class(es)

ADR-Class: 3

IATA-Class: 3

IMDG-Class: 3

14.4. Packing group

ADR-Packing Group: II

IATA-Packing group: II

IMDG-Packing group: II

14.5. Environmental hazards

Marine pollutant: No

Environmental Pollutant: No

IMDG-EMS: F-E, S-E

14.6. Special precautions for user

Road and Rail (ADR-RID):

ADR-Label: 3

ADR - Hazard identification number: 33

ADR-Special Provisions: 163 367 640D 650

ADR-Transport category (Tunnel restriction code): 2 (D/E)

ADR Limited Quantities: 5 L

ADR Excepted Quantities: E2

Air (IATA):

IATA-Passenger Aircraft: 353

IATA-Cargo Aircraft: 364

IATA-Label: 3

IATA-Subsidiary hazards: -

IATA-Erg: 3L

IATA-Special Provisions: A3 A72 A192

Sea (IMDG):

IMDG-Stowage Code: Category B

IMDG-Stowage Note: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisions: 163 367

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)
Product belongs to category: P5c	5000	50000

Explosives precursors – Regulation 2019/1148

No substances listed

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

No substances listed

German Water Hazard Class.

2: Hazard to waters

SVHC Substances:

No SVHC substances present in concentration >= 0.1%

15.2. Chemical safety assessment

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

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

Reaction mass of ethylbenzene and m-xylene and p-xylene

n-butyl acetate

2-methoxy-1-methylethyl acetate

4-methylpentan-2-one; isobutyl methyl ketone

ethyl acetate

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.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

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
3.6/2	Carc. 2	Carcinogenicity, Category 2
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/2	STOT RE 2	Specific target organ toxicity — repeated exposure, 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. 2, H225	On basis of test data
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
Carc. 2, H351	Calculation method
STOT SE 3, H335	Calculation method
STOT SE 3, H336	Calculation method
STOT RE 2, H373	Calculation method
Asp. Tox. 1, H304	Calculation method
Acute Tox. 4, H332	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 10: Stability and reactivity
- 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
4-methylpentan-2-one

Exposure Scenario, 08/06/2021

Substance identity	
	4-methylpentan-2-one
CAS No.	108-10-1
INDEX No.	606-004-00-4
EINECS No.	203-550-1
Registration number	01-2119473980-30

Table of contents

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	07/05/2021 - 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	ERC8c - ERC8f

Worker Contributing Scenario

CS2 Handling and dilution of concentrates - Bulk transfers	PROC8a
CS3 Rolling, Brushing	PROC10
CS4 Rolling, Brushing - Handling and dilution of concentrates	PROC8a - PROC10

1.2 Conditions of use affecting exposure

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

Environmental release categories	Widespread use leading to inclusion into/onto article (indoor) - Widespread use leading to inclusion into/onto article (outdoor) (ERC8c, ERC8f)

Product (article) characteristics

Physical form of product:
Liquid

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:
Daily amount per site = 329 tonnes/day

Release type: Continuous release

Emission days: 365 days per year

Conditions and measures related to sewage treatment plant

STP type:
No specific measures identified.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100
Local freshwater dilution factor: 10
Outdoor use

1.2. CS2: Worker Contributing Scenario: Handling and dilution of concentrates - Bulk transfers (PROC8a)

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

Product (article) characteristics

Physical form of product:
Liquid

Concentration of substance in product:
Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers daily exposures up to 8 hours

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

Personal protection
Wear a respirator conforming to EN140.

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

Process Categories	Roller application or brushing (PROC10)

Product (article) characteristics

Physical form of product:
Liquid

Concentration of substance in product:
Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures
No specific measures identified.

1.2. CS4: Worker Contributing Scenario: Rolling, Brushing - Handling and dilution of concentrates (PROC8a, PROC10)

Process Categories	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Roller application or brushing (PROC8a, PROC10)

Product (article) characteristics

Physical form of product:
Liquid

Concentration of substance in product:
Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures
Ensure that direct skin contact is avoided.
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

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

Personal protection
Use suitable eye protection.
Wear suitable coveralls to prevent exposure to the skin.

Other conditions affecting worker exposure

Temperature: Assumes process temperature up to .... 40°C

1.3 Exposure estimation and reference to its source

1.3. CS1: Environment Contributing Scenario (ERC8c, ERC8f)

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)

freshwater	= 0.00694 mg/L	EUSES	< 0.00694
marine water	= 0.00545 mg/L	EUSES	< 0.00545
Agricultural soil	= 0.24 mg/kg dry weight	EUSES	< 0.24
soil	= 0.24 mg/kg dry weight	EUSES	< 0.24

1.3. CS2: Worker Contributing Scenario: Handling and dilution of concentrates - Bulk transfers (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 0.029 mg/m³	N/A	= 0.582
inhalative, local, short-term	= 0.058 mg/m³	N/A	= 0.582

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, short-term	0.017 mg/m³	N/A	= 0.328
inhalative, local, short-term	= 0.034 mg/m³	N/A	= 0.328

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

Guidance to check compliance with the exposure scenario:

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

Exposure Scenario
2-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

Table of contents

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

Worker Contributing Scenario

CS2 Large surfaces - Rolling, Brushing	PROC10

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)

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)

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/m³	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
N-butyl acetate

Exposure Scenario, 13/07/2021

Substance identity	
	N-butyl acetate
CAS No.	123-86-4
INDEX No.	607-025-00-1
EINECS No.	204-658-1
Registration number	01-2119485493-29

Table of contents

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	14/05/2021 - 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

Worker Contributing Scenario

CS2 Equipment cleaning and maintenance - Roller, spreader, flow application	PROC11
CS3 Equipment cleaning and maintenance - Rolling, Brushing - Material transfers	PROC8a - PROC10

1.2 Conditions of use affecting exposure

1.2. CS1: Environment Contributing Scenario (ERC8a)

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

Product (article) characteristics

Physical form of product:
Liquid

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:
Application rate = 4000 t(onnes)/year

Conditions and measures related to sewage treatment plant

STP type:
Municipal Sewage Treatment Plant
Water - minimum efficiency of: = 89.1 %

Other conditions affecting environmental exposure

Local marine water dilution factor: 100
Local freshwater dilution factor: 10
Receiving surface water flow: 18000 m³/day
Covers indoor and outdoor use

1.2. CS2: Worker Contributing Scenario: Equipment cleaning and maintenance - Roller, spreader, flow application (PROC11)

Process Categories	Non industrial spraying (PROC11)

Product (article) characteristics

Physical form of product:
Liquid

Vapour pressure:
< 10000 Pa

Concentration of substance in product:
Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures
Closed systems
Open systems

Other conditions affecting worker exposure

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

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

Additional Good Practice Advice:
Wear suitable respiratory protection.

1.2. CS3: Worker Contributing Scenario: Equipment cleaning and maintenance - Rolling, Brushing - Material transfers (PROC8a, PROC10)

Process Categories	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Roller application or brushing (PROC8a, PROC10)

Product (article) characteristics

Physical form of product:
Liquid

Vapour pressure:
< 10000 Pa

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

Amount used, frequency and duration of use/exposure

Duration:
Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures
Closed systems
Open systems

Other conditions affecting worker exposure

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)

Release route	Release rate	Release estimation method
N/A	N/A	ESVOC SPERC 8.3b.v1

1.3. CS2: Worker Contributing Scenario: Equipment cleaning and maintenance - Roller, spreader, flow application (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, long-term	= 242 mg/m³	ECETOC TRA worker v3	= 0.504

1.3. CS3: Worker Contributing Scenario: Equipment cleaning and maintenance - Rolling, Brushing - Material transfers (PROC8a, PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, long-term	= 290.4 mg/m³	ECETOC TRA worker v3	= 0.605

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
Ethyl acetate

Exposure Scenario, 13/07/2021

Substance identity	
	Ethyl acetate
CAS No.	141-78-6
INDEX No.	607-022-00-5
EINECS No.	205-500-4
Registration number	01-2119475103-46

Table of contents

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 by brush or roller - Handling and dilution of concentrates
Date - Version	13/07/2021 - 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)

Environment Contributing Scenario

CS1	ERC8a - ERC8d

Worker Contributing Scenario

CS2 Handling and dilution of concentrates	PROC8a
CS3 Handling and dilution of concentrates	PROC10

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)

Product (article) characteristics

Physical form of product:
Liquid

Concentration of substance in product:
Covers percentage substance in the product up to 100 %.

1.2. CS2: Worker Contributing Scenario: Handling and dilution of concentrates (PROC8a)

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

Product (article) characteristics

Physical form of product:
Liquid

Concentration of substance in product:
Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:
Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

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: Handling and dilution of concentrates (PROC10)

Process Categories	Roller application or brushing (PROC10)

Product (article) characteristics

Physical form of product:

Liquid

Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
Ensure control measures are regularly inspected and maintained.
Provide extract ventilation to points where emissions occur.

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)

Release route	Release rate	Release estimation method
Water	0.014 kg/day	N/A
Air	0.666 kg/day	N/A
soil	0 kg/day	N/A

protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater	= 0.0004036 mg/L	N/A	< 0.01
freshwater sediment	= 0.002 mg/kg KW	N/A	< 0.01
marine sediment	= 0.0003587 mg/kg KW	N/A	< 0.01
Agricultural soil	= 0.000113 mg/kg KW	N/A	< 0.336

1.3. CS2: Worker Contributing Scenario: Handling and dilution of concentrates (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 51.39 mg/m³	ECETOC TRA worker v3	= 0.07
inhalative, local, long-term	= 51.39 mg/m³	ECETOC TRA worker v3	= 0.07
dermal, systemic, long-term	= 13.71 mg/kg bw/day	ECETOC TRA worker v3	= 0.218

1.3. CS3: Worker Contributing Scenario: Handling and dilution of concentrates (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	= 51.39 mg/m³	ECETOC TRA worker v3	= 0.07
inhalative, local, long-term	= 51.39 mg/m³	ECETOC TRA worker v3	= 0.07
dermal, systemic, long-term	= 27.43 mg/kg bw/day	ECETOC TRA worker v3	= 0.435

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

reaction mass of ethylbenzene and m-xylene and p-xylene

Exposure Scenario, 30/08/2021

Substance identity	
	reaction mass of ethylbenzene and m-xylene and p-xylene
EINECS No.	905-562-9
Registration number	01-2119555267-33

Table of contents

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	30/08/2021 - 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 - ERC8d

Worker Contributing Scenario

CS2 Material transfers	PROC8a
CS3 Rolling, Brushing - Roller, spreader, flow application	PROC10 - 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)

Product (article) characteristics

Physical form of product:
Liquid, vapour pressure 0,5 - 10 kPa at STP

Vapour pressure:
= 821 Pa

Concentration of substance in product:
Covers concentrations up to 51 %

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

Amounts used:
Annual site tonnage 10 t(onnes)/year

Maximum allowable site tonnage (MSafe): 4628 kg/day

Emission days: 365 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

	Water - minimum efficiency of: = 93.67 %

Conditions and measures related to sewage treatment plant

STP type:
Onsite Sewage Treatment Plant
Water - minimum efficiency of: = 93.67 %

STP effluent (m³/day): 2000

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

Waste treatment
External treatment and disposal of waste should comply with applicable local and/or national regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100
Local freshwater dilution factor: 10

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

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

Product (article) characteristics

Physical form of product:
Liquid, vapour pressure 0,5 - 10 kPa at STP

Vapour pressure:
= 821 Pa

Concentration of substance in product:
Covers concentrations up to 51 %

Amount used, frequency and duration of use/exposure

Duration:
Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

Other conditions affecting worker exposure

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

1.2. CS3: Worker Contributing Scenario: Rolling, Brushing - Roller, spreader, flow application (PROC10, PROC11)

Process Categories	Roller application or brushing - Non industrial spraying (PROC10, PROC11)

Product (article) characteristics

Physical form of product:
Liquid, vapour pressure 0,5 - 10 kPa at STP

Vapour pressure:
= 821 Pa

Concentration of substance in product:
Covers concentrations up to 51 %

Amount used, frequency and duration of use/exposure

Duration:
Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures
Provide a good standard of controlled ventilation (10 to 15 air changes per hour).

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

Personal protection
Wear a respirator conforming to EN140.

Other conditions affecting worker exposure

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

1.3 Exposure estimation and reference to its source

N/A

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.