



DRIVING SURFACE PERFECTION

RAPTOR ACID ETCH PRIMER AEROSOL

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
SDS Ref. (EU): RPTEPAL-SDS
Issue date: 3/26/2015 Revision date: 12/3/2020 Supersedes version of: 8/13/2020 Version: 7.0

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

1.1. Product identifier

Product form : Mixture
Trade name : RAPTOR ACID ETCH PRIMER AEROSOL
UFI : V4T0-M0WT-K00U-VV0M
Product code : RPTEP/AL
Type of product : Primer
Vaporizer : aerosol
Product group : aerosol

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use
Use of the substance/mixture : Coatings and paints, thinners, paint removers
Function or use category : Primer

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

U-POL Limited
Denington Road
NN8 2QH Wellingborough - United Kingdom
T +44 (0) 1933 230310
technicalsupport@u-pol.com - www.u-pol.com

Importer

U-POL Netherlands B.V.
Hoorgoordreef 15
1101BA Amsterdam - Netherlands
T +31 20 240 2216
technicalsupport@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: +44 (0) 870 8200418 (24 hrs)

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	NHS England, Scotland & Wales	-	Call 111 or a Doctor	In Northern Ireland, contact your local GP or pharmacist during normal hours (www.gpoutofhours.hscni.net)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aerosol, Category 1 H222;H229
Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 1 H318
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation H335

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Specific target organ toxicity — Repeated exposure, Category 2 H373

Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

Pressurised container: May burst if heated. Extremely flammable aerosol. Causes skin irritation. Causes serious eye damage. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Contains

: Xylene; 1-butanol

Hazard statements (CLP)

: H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
H373 - May cause damage to organs through prolonged or repeated exposure.
H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (CLP)
: P210 - Keep away from heat, hot surfaces, open flames, sparks. — No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Pressurized container: Do not pierce or burn, even after use.
P261 - Avoid breathing vapours, spray, fume.
P280 - Wear eye protection, protective clothing, protective gloves.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
EUH-statements
: EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
Unknown acute toxicity (CLP) - SDS
: 2.55% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
2.55% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
10.43% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Vapours))

2.3. Other hazards

Component	
dimethyl ether (115-10-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Xylene (1330-20-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
1-butanol (71-36-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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1-methoxy-2-propanol (107-98-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Ethylbenzene (100-41-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
trizinc bis(orthophosphate) (7779-90-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2-methylpropan-1-ol; iso-butanol (78-83-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
dimethyl ether substance with a Community workplace exposure limit (Note U)	(CAS-No.) 115-10-6 (EC-No.) 204-065-8 (EC Index-No.) 603-019-00-8 (REACH-no) 01-2119472128-37	25 – 50	Flam. Gas 1A, H220 Press. Gas (Liq.), H280
Xylene substance with a Community workplace exposure limit (Note C)	(CAS-No.) 1330-20-7 (EC-No.) 215-535-7 (EC Index-No.) 601-022-00-9 (REACH-no) 01-2119488216-32	10 – 20	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304
1-butanol	(CAS-No.) 71-36-3 (EC-No.) 200-751-6 (EC Index-No.) 603-004-00-6 (REACH-no) 01-2119484630-28	10 – 20	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H336 STOT SE 3, H335
1-methoxy-2-propanol substance with a Community workplace exposure limit	(CAS-No.) 107-98-2 (EC-No.) 203-539-1 (EC Index-No.) 603-064-00-3 (REACH-no) 01-2119457435-35	3 – 10	Flam. Liq. 3, H226 STOT SE 3, H336
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]	(CAS-No.) 13463-67-7 (EC-No.) 236-675-5 (EC Index-No.) 022-006-002 (REACH-no) 01-2119489379-17	3 – 5	Carc. 2, H351

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Ethylbenzene substance with a Community workplace exposure limit	(CAS-No.) 100-41-4 (EC-No.) 202-849-4 (EC Index-No.) 601-023-00-4 (REACH-no) 01-2119489370-35	3 – 5	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Asp. Tox. 1, H304
trizinc bis(orthophosphate)	(CAS-No.) 7779-90-0 (EC-No.) 231-944-3 (EC Index-No.) 030-011-00-6 (REACH-no) 01-2119485044-40	1 – 2.5	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2-methylpropan-1-ol; iso-butanol	(CAS-No.) 78-83-1 (EC-No.) 201-148-0 (EC Index-No.) 603-108-00-1 (REACH-no) 01-2119484609-23	1 – 2.5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H336 STOT SE 3, H335

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note U (Table 3): When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

Product subject to CLP Article 1.1.3.7. The disclosure rules of the components is modified in this case.

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Serious damage to eyes.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
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5.2. Special hazards arising from the substance or mixture

Fire hazard	: Extremely flammable aerosol.
Explosion hazard	: Pressurised container: May burst if heated.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store in a well-ventilated place. Keep cool.
Storage temperature : < 25 °C
Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

dimethyl ether (115-10-6)

EU - Indicative Occupational Exposure Limit (IOEL)

Local name	Dimethylether
IOEL TWA	1920 mg/m ³
IOEL TWA [ppm]	1000 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC COMMISSION DIRECTIVE 2000/39/EC

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dimethyl ether (115-10-6)	
Ireland - Occupational Exposure Limits	
Local name	Dimethyl ether
OEL TWA [1]	1920 mg/m ³
OEL TWA [2]	1000 ppm
Notes (IE)	IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
Local name	Dimethyl ether
WEL TWA (OEL TWA) [1]	766 mg/m ³
WEL TWA (OEL TWA) [2]	400 ppm
WEL STEL (OEL STEL)	958 mg/m ³
WEL STEL (OEL STEL) [ppm]	500 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
Ireland - Occupational Exposure Limits	
Local name	Titanium dioxide
OEL TWA [1]	10 mg/m ³ total inhalable dust 4 mg/m ³ respirable dust
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
Local name	Titanium dioxide
WEL TWA (OEL TWA) [1]	10 mg/m ³ 4 mg/m ³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

1-butanol (71-36-3)	
Ireland - Occupational Exposure Limits	
Local name	Butan-1-ol [n-Butyl alcohol]
OEL TWA [2]	20 ppm
Notes (IE)	Sk
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
Local name	Butan-1-ol
WEL STEL (OEL STEL)	154 mg/m ³
WEL STEL (OEL STEL) [ppm]	50 ppm
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

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2-methylpropan-1-ol; iso-butanol (78-83-1)	
Ireland - Occupational Exposure Limits	
Local name	Isobutyl alcohol [2-Methylpropan-1-ol]
OEL TWA [1]	150 mg/m ³
OEL TWA [2]	50 ppm
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
Local name	2-Methylpropan-1-ol
WEL TWA (OEL TWA) [1]	154 mg/m ³
WEL TWA (OEL TWA) [2]	50 ppm
WEL STEL (OEL STEL)	231 mg/m ³
WEL STEL (OEL STEL) [ppm]	75 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

1-methoxy-2-propanol (107-98-2)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	1-Methoxypropanol-2
IOEL TWA	375 mg/m ³
IOEL TWA [ppm]	100 ppm
IOEL STEL	568 mg/m ³
IOEL STEL [ppm]	150 ppm
Notes	Skin Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	Propylene glycol monomethyl ether [1-Methoxypropan-2-ol]
OEL TWA [1]	375 mg/m ³
OEL TWA [2]	100 ppm
OEL STEL	568 mg/m ³
OEL STEL [ppm]	150 ppm
Notes (IE)	IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
Local name	1-Methoxypropan-2-ol
WEL TWA (OEL TWA) [1]	375 mg/m ³
WEL TWA (OEL TWA) [2]	100 ppm
WEL STEL (OEL STEL)	560 mg/m ³
WEL STEL (OEL STEL) [ppm]	150 ppm
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

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Xylene (1330-20-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Xylene, mixed isomers, pure
IOEL TWA	221 mg/m ³
IOEL TWA [ppm]	50 ppm
IOEL STEL	442 mg/m ³
IOEL STEL [ppm]	100 ppm
Notes	Skin Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	Xylene, mixed isomers
OEL TWA [1]	221 mg/m ³
OEL TWA [2]	50 ppm
OEL STEL	442 mg/m ³
OEL STEL [ppm]	100 ppm
Notes (IE)	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2020
Ireland - Biological limit values	
Local name	Xylene
BLV	1.5 g/g creatinine Parameter: methylhippuric acids - Medium: urine - Sampling time: End of Shift
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
United Kingdom - Occupational Exposure Limits	
Local name	Xylene
WEL TWA (OEL TWA) [1]	220 mg/m ³
WEL TWA (OEL TWA) [2]	50 ppm
WEL STEL (OEL STEL)	441 mg/m ³
WEL STEL (OEL STEL) [ppm]	100 ppm
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
United Kingdom - Biological limit values	
Local name	Xylene, o-, m-, p- or mixed isomers
BMGV	650 mmol/mol Creatinine Parameter: methyl hippuric acid - Medium: urine - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

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Ethylbenzene (100-41-4)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Ethylbenzene
IOEL TWA	442 mg/m ³
IOEL TWA [ppm]	100 ppm
IOEL STEL	884 mg/m ³
IOEL STEL [ppm]	200 ppm
Notes	Skin Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	Ethylbenzene
OEL TWA [1]	442 mg/m ³
OEL TWA [2]	100 ppm
OEL STEL	884 mg/m ³
OEL STEL [ppm]	200 ppm
Notes (IE)	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2020
Ireland - Biological limit values	
Local name	Ethyl benzene
BLV	0.7 g/g creatinine Parameter: mandelic acid and phenylglyoxylic acid - Medium: urine - Sampling time: End of shift at end of workweek - Notations: Ns (Non-specific), Sq (Semi-quantitative) Parameter: ethylbenzene - Medium: end-exhaled air - Sampling time: Not critical - Notations: Sq (Semi-quantitative)
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
United Kingdom - Occupational Exposure Limits	
Local name	Ethylbenzene
WEL TWA (OEL TWA) [1]	441 mg/m ³
WEL TWA (OEL TWA) [2]	100 ppm
WEL STEL (OEL STEL)	552 mg/m ³
WEL STEL (OEL STEL) [ppm]	125 ppm
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

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8.1.4. DNEL and PNEC

1-butanol (71-36-3)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	310 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	3.125 mg/kg bodyweight/day
Long-term - systemic effects, dermal	3.125 mg/kg bw/day
Long-term - local effects, inhalation	55 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.082 mg/l
PNEC aqua (marine water)	0.0082 mg/l
PNEC aqua (intermittent, freshwater)	2.25 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.178 mg/kg dwt
PNEC sediment (marine water)	0.0178 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.015 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	2476 mg/l

Xylene (1330-20-7)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	289 mg/m ³
Acute - local effects, inhalation	289 mg/m ³
Long-term - systemic effects, dermal	180 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	77 mg/m ³
Long-term - local effects, inhalation	77 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	174 mg/m ³
Acute - local effects, inhalation	174 mg/m ³
Long-term - systemic effects, oral	1.6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	14.8 mg/m ³
Long-term - systemic effects, dermal	108 mg/kg bodyweight/day
Long-term - local effects, inhalation	65.3 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.327 mg/l
PNEC aqua (marine water)	0.327 mg/l
PNEC aqua (intermittent, freshwater)	0.327 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	12.46 mg/kg dwt
PNEC sediment (marine water)	12.46 mg/kg dwt

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PNEC (Soil)	
PNEC soil	2.31 mg/kg dw
PNEC (STP)	
PNEC sewage treatment plant	6.58 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:
Safety glasses

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Protective gloves

Other skin protection
Materials for protective clothing:
Impermeable clothing

8.2.2.3. Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

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Colour	: Light grey.
Appearance	: aerosol.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Extremely flammable aerosol.
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: Not applicable
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: insoluble in water. soluble in most organic solvents.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 0.802 g/cm ³
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

9.2. Other information

VOC content	: 690 g/l
Gas group	: Press. Gas (Liq.)

9.2.1. Information with regard to physical hazard classes

% of flammable ingredients	: 84.41180761155696
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9.2.2. Other safety characteristics

Gas group	: Press. Gas (Liq.)
VOC content	: 690 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol. Pressurised container: May burst if heated.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

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10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

dimethyl ether (115-10-6)

LC50 Inhalation - Rat	309 mg/l (Other, 4 h, Rat, Male, Experimental value, Inhalation (gases))
LC50 Inhalation - Rat [ppm]	164000 ppm Animal: rat, Animal sex: male, 95% CL: 142000 - 203000

trizinc bis(orthophosphate) (7779-90-0)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 5.41 mg/l/4h (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male/female, Read-across, Inhalation (dust))

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 6.82 mg/l (Other, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))

carbon black (1333-86-4)

LD50 oral rat	> 8000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 4.6 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Experimental value, Inhalation (dust))

amorphous silica (67762-90-7)

LD50 oral rat	> 5000 mg/kg (OECD Test Guideline 401, comparable product)
LD50 dermal rat	> 2000 mg/kg (OECD Test Guideline 402)

toluene (108-88-3)

LD50 oral rat	5580 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: EU Method B.1 (Acute Toxicity (Oral)), 95% CL: 5300 - 5910
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Animal sex: male, 95% CL: 9,63 - 20,77
LC50 Inhalation - Rat	25.7 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male, Experimental value, Inhalation (vapours))
LC50 Inhalation - Rat (Vapours)	25.7 mg/l/4h (Equivalent or similar to OECD 403, 4 h, Rat, Male, Experimental value, Inhalation (vapours))

1-butanol (71-36-3)

LD50 oral rat	\approx 2292 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
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LD50 dermal rabbit	≈ 3430 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
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phenol; carbolic acid; monohydroxybenzene; phenylalcohol (108-95-2)

LD50 oral rat	650 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rat	660 mg/kg (Equivalent or similar to OECD 402, 24 h, Rat, Female, Experimental value, Dermal, 7 day(s))
LC50 Inhalation - Rat	> 0.9 mg/l (Equivalent or similar to OECD 403, 8 h, Rat, Female, Experimental value, Inhalation (aerosol), 14 day(s))

2-methylpropan-1-ol; iso-butanol (78-83-1)

LD50 oral rat	> 2830 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 18.18 mg/l air (6 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
LC50 Inhalation - Rat (Vapours)	24.6 mg/l/4h (Other, 4 h, Rat, Male/female, Experimental value, Inhalation (vapours))

quartz (14808-60-7)

LD50 oral rat	> 500 mg/kg
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2-methoxypropanol (1589-47-5)

LD50 oral rat	5710 mg/kg (Rat, Oral)
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1-methoxy-2-propanol (107-98-2)

LD50 oral rat	4016 mg/kg bodyweight (EU Method B.1 tris: Acute oral toxic – Acute toxic class method, Rat, Male / female, Experimental value, Oral)
LD50 dermal rat	13 g/kg

phosphoric acid ... %, orthophosphoric acid ... % (7664-38-2)

LD50 oral rat	301 mg/kg (OECD 423)
LD50 dermal rabbit	2750 mg/kg

bisphenol-A(epichlorhydrin), epoxy resin (25068-38-6)

LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))

Xylene (1330-20-7)

LD50 oral rat	3523 mg/kg bodyweight (Equivalent or similar to EU Method B.1: Acute Toxicity (Oral), Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rat	12126 mg/kg (Non-GLP, read-across from supporting substance, single dermal dose under occlusion followed by observation for 14 days)
LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male

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LC50 Inhalation - Rat [ppm]	6700 ppm/4h (EU Method B.2 (Acute Toxicity (Inhalation)), 4h, rat, male)
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Ethylbenzene (100-41-4)

LD50 oral rat	3500 mg/kg (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	15432 mg/kg bodyweight (24 h, Rabbit, Male, Experimental value, Dermal)
LC50 Inhalation - Rat	17.8 mg/l (4 h, Rat, Male, Experimental value, Inhalation (vapours))

decamethylcyclopentasiloxane (541-02-6)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	8.67 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EPA OTS 798.1150 (Acute inhalation toxicity), 95% CL: 7,3 - 10,32

Unknown acute toxicity (CLP) - SDS : 2.55% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
2.55% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
10.43% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Vapours))

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified.

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)

IARC group	2B - Possibly carcinogenic to humans
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Xylene (1330-20-7)

IARC group	3 - Not classifiable
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Ethylbenzene (100-41-4)

IARC group	2B - Possibly carcinogenic to humans
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bisphenol-A(epichlorhydrin), epoxy resin (25068-38-6)

NOAEL (chronic, oral, animal/male, 2 years)	15 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Guideline: EPA OPPTS 870.4300 (Combined Chronic Toxicity / Carcinogenicity), Guideline: other:MITI, Japanese ministry of international trade and industry, February 1998, Remarks on results: other:Effect type: toxicity (migrated information)
NOAEL (chronic, oral, animal/female, 2 years)	100 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Guideline: EPA OPPTS 870.4300 (Combined Chronic Toxicity / Carcinogenicity), Guideline: other:MITI, Japanese ministry of international trade and industry, February 1998, Remarks on results: other:Effect type: toxicity (migrated information)

Reproductive toxicity : Not classified

phosphoric acid ... %, orthophosphoric acid ... % (7664-38-2)

NOAEL (animal/male, F0/P)	> 500
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STOT-single exposure : May cause respiratory irritation.

toluene (108-88-3)	
STOT-single exposure	May cause drowsiness or dizziness.

1-butanol (71-36-3)	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.

2-methylpropan-1-ol; iso-butanol (78-83-1)	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.

2-methoxypropanol (1589-47-5)	
STOT-single exposure	May cause respiratory irritation.

1-methoxy-2-propanol (107-98-2)	
STOT-single exposure	May cause drowsiness or dizziness.

Xylene (1330-20-7)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

toluene (108-88-3)	
LOAEL (oral, rat, 90 days)	1250 mg/kg bodyweight Animal: rat, Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	625 mg/kg bodyweight Animal: rat, Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation, rat, vapour, 90 days)	2.355 mg/l air Animal: rat, Guideline: EU Method B.29 (Sub-Chronic Inhalation Toxicity:90-Day Study)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

1-butanol (71-36-3)	
LOAEL (oral, rat, 90 days)	500 mg/kg bodyweight Animal: rat
NOAEL (oral, rat, 90 days)	125 mg/kg bodyweight Animal: rat

phenol; carbolic acid; monohydroxybenzene; phenylalcohol (108-95-2)	
LOAEL (dermal, rat/rabbit, 90 days)	260 mg/kg bodyweight Animal: rabbit
NOAEL (dermal, rat/rabbit, 90 days)	130 mg/kg bodyweight Animal: rabbit
STOT-repeated exposure	May cause damage to organs (central nervous system, skin, liver, kidneys) through prolonged or repeated exposure.

2-methylpropan-1-ol; iso-butanol (78-83-1)	
NOAEL (oral, rat, 90 days)	> 1450 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

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1-methoxy-2-propanol (107-98-2)	
LOAEL (oral, rat, 90 days)	2757 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
NOAEL (oral, rat, 90 days)	919 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
NOAEL (dermal, rat/rabbit, 90 days)	> 1000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

phosphoric acid ... %, orthophosphoric acid ... % (7664-38-2)	
NOAEL (oral, rat, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Xylene (1330-20-7)	
LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Ethylbenzene (100-41-4)	
NOAEL (oral, rat, 90 days)	75 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
STOT-repeated exposure	May cause damage to organs (hearing sense) through prolonged or repeated exposure.

decamethylcyclopentasiloxane (541-02-6)	
NOAEL (oral, rat, 90 days)	≥ 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEL (dermal, rat/rabbit, 90 days)	≥ 1600 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

Aspiration hazard : Not classified

RAPTOR ACID ETCH PRIMER AEROSOL	
Vaporizer	aerosol

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

dimethyl ether (115-10-6)	
LC50 - Fish [1]	> 4.1 g/l Test organisms (species): Poecilia reticulata
EC50 - Crustacea [1]	> 4.4 g/l Test organisms (species): Daphnia magna

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EC50 96h - Algae [1]	154.917 mg/l Test organisms (species): other:green algae
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trizinc bis(orthophosphate) (7779-90-0)

LC50 - Fish [1]	0.169 mg/l (ASTM E729-88, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Read-across, Nominal concentration)
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titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)

LC50 - Fish [1]	155 mg/l Test organisms (species): other:Japanese Medaka
EC50 - Crustacea [1]	19.3 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	27.8 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	61 mg/l (EPA 600/9-78-018, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
NOEC (chronic)	≥ 2.92 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

1-butanol (71-36-3)

LC50 - Fish [1]	1376 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	1328 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	225 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	4.1 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic crustacea	4.1 mg/l

2-methylpropan-1-ol; iso-butanol (78-83-1)

LC50 - Fish [1]	1430 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	1100 mg/l Test organisms (species): Daphnia pulex
ErC50 algae	1799 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
NOEC (chronic)	20 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

1-methoxy-2-propanol (107-98-2)

LC50 - Fish [1]	≥ 1000 mg/l (Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Other aquatic organisms [1]	2954 mg/l Test organisms (species): other aquatic crustacea:Acartia tonsa
ErC50 algae	> 1000 mg/l (Other, 168 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

Xylene (1330-20-7)

LC50 - Fish [1]	2.6 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia
EC50 72h - Algae [1]	2.2 mg/l
ErC50 algae	4.36 mg/l (OECD 201: Alga, Growth Inhibition Test, 73 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

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NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'
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Ethylbenzene (100-41-4)	
LC50 - Fish [1]	5.1 mg/l Test organisms (species): Menidia menidia
EC50 - Crustacea [1]	1.8 – 2.4 mg/l (US EPA, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h - Algae [1]	4.9 mg/l Test organisms (species): Skeletonema costatum
EC50 72h - Algae [2]	5.4 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	7.7 mg/l Test organisms (species): Skeletonema costatum
EC50 96h - Algae [2]	3.6 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
LOEC (chronic)	1.7 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC (chronic)	0.96 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'

12.2. Persistence and degradability

dimethyl ether (115-10-6)	
Persistence and degradability	Non degradable in the soil. Not readily biodegradable in water.

trizinc bis(orthophosphate) (7779-90-0)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

1-butanol (71-36-3)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.1 – 1.92 g O ₂ /g substance
Chemical oxygen demand (COD)	2.46 g O ₂ /g substance
ThOD	2.59 g O ₂ /g substance
BOD (% of ThOD)	0.33 – 0.79

2-methylpropan-1-ol; iso-butanol (78-83-1)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.

1-methoxy-2-propanol (107-98-2)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
ThOD	1.95 g O ₂ /g substance

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Xylene (1330-20-7)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.

Ethylbenzene (100-41-4)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.44 g O ₂ /g substance
Chemical oxygen demand (COD)	2.1 g O ₂ /g substance
ThOD	3.17 g O ₂ /g substance

12.3. Bioaccumulative potential

dimethyl ether (115-10-6)	
Partition coefficient n-octanol/water (Log Pow)	0.1 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

trizinc bis(orthophosphate) (7779-90-0)	
BCF - Other aquatic organisms [1]	116 – 60960 (21 day(s), Gammarus sp., Semi-static system, Salt water, Read-across, Fresh weight)
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
Bioaccumulative potential	Not bioaccumulative.

1-butanol (71-36-3)	
BCF - Other aquatic organisms [1]	3.16 (BCFWIN, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	1 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

2-methylpropan-1-ol; iso-butanol (78-83-1)	
Partition coefficient n-octanol/water (Log Pow)	1 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

1-methoxy-2-propanol (107-98-2)	
BCF - Fish [1]	1 (Pimephales promelas)
Partition coefficient n-octanol/water (Log Pow)	< 1 (Experimental value, Equivalent or similar to OECD 117, 20 °C)
Bioaccumulative potential	Not bioaccumulative.

Xylene (1330-20-7)	
BCF - Fish [1]	7.2 – 25.9 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Read-across)
Partition coefficient n-octanol/water (Log Pow)	3.2 (Read-across, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

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Ethylbenzene (100-41-4)	
BCF - Fish [1]	1 (6 week(s), Oncorhynchus kisutch, Flow-through system, Salt water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	3.6 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

dimethyl ether (115-10-6)	
Surface tension	0.02 N/m (-40 °C)
Ecology - soil	Not applicable (gas).

trizinc bis(orthophosphate) (7779-90-0)	
Ecology - soil	Adsorbs into the soil.

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
Ecology - soil	Low potential for mobility in soil.

1-butanol (71-36-3)	
Surface tension	0.07 N/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Partition coefficient n-octanol/water (Log Koc)	0.388 (log Koc, PCKOCWIN v1.66, Calculated value)
Ecology - soil	Highly mobile in soil. May be harmful to plant growth, blooming and fruit formation.

2-methylpropan-1-ol; iso-butanol (78-83-1)	
Surface tension	69.7 mN/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Partition coefficient n-octanol/water (Log Koc)	0.47 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

1-methoxy-2-propanol (107-98-2)	
Surface tension	0.0707 N/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Ecology - soil	Low potential for adsorption in soil.

Xylene (1330-20-7)	
Surface tension	28.01 – 29.76 mN/m (25 °C)
Partition coefficient n-octanol/water (Log Koc)	2.73 (log Koc, Equivalent or similar to OECD 121, Read-across)
Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.

Ethylbenzene (100-41-4)	
Surface tension	71.2 mN/m (23 °C, 0.058 g/l, EU Method A.5: Surface tension)
Partition coefficient n-octanol/water (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, QSAR)
Ecology - soil	Low potential for adsorption in soil. Toxic to soil organisms.

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12.5. Results of PBT and vPvB assessment

Component	
dimethyl ether (115-10-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Xylene (1330-20-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
1-butanol (71-36-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
1-methoxy-2-propanol (107-98-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Ethylbenzene (100-41-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
trizinc bis(orthophosphate) (7779-90-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2-methylpropan-1-ol; iso-butanol (78-83-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR) : UN 1950
UN-No. (IMDG) : UN 1950
UN-No. (IATA) : UN 1950
UN-No. (ADN) : UN 1950
UN-No. (RID) : UN 1950

14.2. UN proper shipping name

Proper Shipping Name (ADR) : AEROSOLS
Proper Shipping Name (IMDG) : AEROSOLS
Proper Shipping Name (IATA) : Aerosols, flammable
Proper Shipping Name (ADN) : AEROSOLS
Proper Shipping Name (RID) : AEROSOLS
Transport document description (ADR) : UN 1950 AEROSOLS, 2.1, (D)

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Transport document description (IMDG)	: UN 1950 AEROSOLS, 2.1
Transport document description (IATA)	: UN 1950 Aerosols, flammable, 2.1
Transport document description (ADN)	: UN 1950 AEROSOLS, 2.1
Transport document description (RID)	: UN 1950 AEROSOLS, 2.1

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: 2.1
Danger labels (ADR)	: 2.1

:



IMDG

Transport hazard class(es) (IMDG)	: 2.1
Danger labels (IMDG)	: 2.1

:



IATA

Transport hazard class(es) (IATA)	: 2.1
Danger labels (IATA)	: 2.1

:



ADN

Transport hazard class(es) (ADN)	: 2.1
Danger labels (ADN)	: 2.1

:



RID

Transport hazard class(es) (RID)	: 2.1
Danger labels (RID)	: 2.1

:



14.4. Packing group

Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No

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Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : 5F
Special provisions (ADR) : 190, 327, 344, 625
Limited quantities (ADR) : 1I
Excepted quantities (ADR) : E0
Packing instructions (ADR) : P207
Special packing provisions (ADR) : PP87, RR6, L2
Mixed packing provisions (ADR) : MP9
Transport category (ADR) : 2
Special provisions for carriage - Packages (ADR) : V14
Special provisions for carriage - Loading, unloading and handling (ADR) : CV9, CV12
Special provisions for carriage - Operation (ADR) : S2
Tunnel restriction code (ADR) : D

Transport by sea

Special provisions (IMDG) : 63, 190, 277, 327, 344, 381, 959
Packing instructions (IMDG) : P207, LP200
Special packing provisions (IMDG) : PP87, L2
EmS-No. (Fire) : F-D
EmS-No. (Spillage) : S-U
Stowage category (IMDG) : None
Stowage and handling (IMDG) : SW1, SW22
Segregation (IMDG) : SG69

Air transport

PCA Excepted quantities (IATA) : E0
PCA Limited quantities (IATA) : Y203
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 203
PCA max net quantity (IATA) : 75kg
CAO packing instructions (IATA) : 203
CAO max net quantity (IATA) : 150kg
Special provisions (IATA) : A145, A167, A802
ERG code (IATA) : 10L

Inland waterway transport

Classification code (ADN) : 5F
Special provisions (ADN) : 190, 327, 344, 625
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E0
Equipment required (ADN) : PP, EX, A
Ventilation (ADN) : VE01, VE04
Number of blue cones/lights (ADN) : 1

Rail transport

Classification code (RID) : 5F
Special provisions (RID) : 190, 327, 344, 625
Limited quantities (RID) : 1L
Excepted quantities (RID) : E0
Packing instructions (RID) : P207, LP200
Special packing provisions (RID) : PP87, RR6, L2
Mixed packing provisions (RID) : MP9
Transport category (RID) : 2
Special provisions for carriage – Packages (RID) : W14
Special provisions for carriage - Loading, unloading and handling (RID) : CW9, CW12
Colis express (express parcels) (RID) : CE2
Hazard identification number (RID) : 23

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:		
Reference code	Applicable on	Entry title or description
3(a)	RAPTOR ACID ETCH PRIMER AEROSOL ; isobutanol ; Xylene ; Ethylbenzene ; 1-methoxy-2-propanol ; 1-butanol	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	RAPTOR ACID ETCH PRIMER AEROSOL ; isobutanol ; Xylene ; Ethylbenzene ; 1-methoxy-2-propanol ; 1-butanol	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	RAPTOR ACID ETCH PRIMER AEROSOL	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
40.	dimethyl ether ; isobutanol ; Xylene ; Ethylbenzene ; 1-methoxy-2-propanol ; 1-butanol	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

Contains no substance on the REACH candidate list $\geq 0,1\%$ / SCL

Contains organic solvents ($\geq 1\%$)

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : 690 g/l

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aerosol 1	Aerosol, Category 1
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2

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Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Gas 1A	Flammable gases, Category 1A
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Press. Gas (Liq.)	Gases under pressure : Liquefied gas
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
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.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

For professional use only.

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