

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

VOSSCHEMIE

Carsystem Etch Primer

Version		Revision Date:	Date of last issue: 01.07.2021
1.2	GB / EN	26.07.2021	Date of first issue: 07.10.2019

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

1.1 Product identifier

Trade name : Carsystem Etch Primer
Product code : 143.028

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

Use of the Sub-
stance/Mixture : Base coating, Paints
Recommended restrictions : professional use, Industrial use
on use

1.3 Details of the supplier of the safety data sheet

Company : Vosschemie GmbH
Esinger Steinweg 50
25436 Uetersen
Germany
info@vosschemie.de
Telephone : 04122 717 0
Telefax : 04122 717158
Responsible Department : Laboratory
04122 717 0
sds@vosschemie.de

1.4 Emergency telephone number

Telephone : Giftinformationszentrum (GIZ)-Nord,
Göttingen, Deutschland
0551 19240

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Aerosols, Category 1	H222: Extremely flammable aerosol. H229: Pressurised container: May burst if heated.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Supplemental Hazard Statements : EUH066 Repeated exposure may cause skin dryness or cracking.

Buildup of explosive mixtures possible without sufficient ventilation.

Precautionary statements : P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.

Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.

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P260 Do not breathe spray.

Storage:

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Disposal:

P501 Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Hazardous components which must be listed on the label:

acetone
propan-1-ol
2-methylpropan-1-ol
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight 700-1000)

Additional Labelling

EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : aerosol
Mixture

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
acetone	67-64-1 200-662-2 606-001-00-8 01-2119471330-49	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 (Central nervous system)	>= 20 - < 25

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		EUH066	
propan-1-ol	71-23-8 200-746-9 603-003-00-0 01-2119486761-29	Flam. Liq. 2; H225 Eye Dam. 1; H318 STOT SE 3; H336 (Central nervous system)	>= 12.5 - < 20
2-methylpropan-1-ol	78-83-1 201-148-0 603-108-00-1 01-2119484609-23	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H336 (Central nervous system) STOT SE 3; H335 (Respiratory system)	>= 5 - < 10
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7 01-2119475791-29	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system)	>= 2.5 - < 5
Titanium dioxide	13463-67-7 236-675-5 01-2119489379-17	Carc. 2; H351	>= 2.5 - < 5
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight 700-1000)	25068-38-6 500-033-5 603-074-00-8 01-2119456619-26	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Chronic 2; H411 specific concentration limit Eye Irrit. 2; H319 >= 5 % Skin Irrit. 2; H315 >= 5 %	>= 2.5 - < 5
1-methoxy-2-propanol	107-98-2 203-539-1 603-064-00-3 01-2119457435-35	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system)	>= 1 - < 2.5
butan-1-ol	71-36-3 200-751-6 603-004-00-6 01-2119484630-38	Flam. Liq. 3; H226 Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H336 (Central nervous system) STOT SE 3; H335 (Respiratory system) Acute toxicity estimate Acute oral toxicity: 500 mg/kg	>= 1 - < 2.5

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Substances with a workplace exposure limit :			
dimethyl ether	115-10-6 204-065-8 603-019-00-8 01-2119472128-37	Flam. Gas, Press. Gas 1, Compr. Gas; H220	>= 5 - < 10

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : First aider needs to protect himself.
Remove from exposure, lie down.
If unconscious, place in recovery position and seek medical advice.
Take off contaminated clothing and shoes immediately.
- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Protect unharmed eye.
Call a physician immediately.
- If swallowed : Swallowing is not regarded as a possible method for exposure.
Immediately give large quantities of water to drink.
Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Risks : May cause an allergic skin reaction.
Causes serious eye damage.
May cause drowsiness or dizziness.
Repeated exposure may cause skin dryness or cracking.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Carbon dioxide (CO₂)
Dry powder
Water spray jet

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Alcohol-resistant foam

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Vapours may form explosive mixtures with air. Build-up of dangerous/toxic fumes possible in cases of fire/high temperature.

Hazardous combustion products : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

5.3 Advice for firefighters

Special protective equipment for firefighters : Use personal protective equipment. Wear suitable respiratory protection equipment.

Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Use water spray to cool unopened containers. In the event of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear personal protective equipment. Evacuate personnel to safe areas. Remove all sources of ignition. Ensure adequate ventilation. Avoid inhalation of vapour or mist. Avoid contact with skin, eyes and clothing.

6.2 Environmental precautions

Environmental precautions : Should not be released into the environment. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Ventilate the area. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Local/Total ventilation : Ensure adequate ventilation.
- Advice on safe handling : Pressurized container: Protect from sunlight and do not expose to temperatures exceeding 50°C / 122 °F. Also after use, do not open with force or burn.
Provide sufficient air exchange and/or exhaust in work rooms.
- Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.
Keep away from open flames, hot surfaces and sources of ignition. Keep away from direct sunlight.

Take measures to prevent the build up of electrostatic charge.
- Hygiene measures : Do not inhale aerosol.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Please observe the storage instructions for aerosols! Keep containers tightly closed in a cool, well-ventilated place. Solvent vapours are heavier than air and may spread along floors. Keep away from direct sunlight. Keep away from heat and sources of ignition.
- Further information on storage conditions : Storage must be in accordance with the BetrSichV (Germany).
- Advice on common storage : Keep away from food and drink.

7.3 Specific end use(s)

- Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
acetone	67-64-1	TWA	500 ppm 1,210 mg/m ³	2000/39/EC
		Further information: Indicative		
		TWA	500 ppm 1,210 mg/m ³	GB EH40
		STEL	1,500 ppm 3,620 mg/m ³	GB EH40
propan-1-ol	71-23-8	STEL	250 ppm 625 mg/m ³	GB EH40

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		Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.		
		TWA	200 ppm 500 mg/m ³	GB EH40
		Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.		
dimethyl ether	115-10-6	TWA	1,000 ppm 1,920 mg/m ³	2000/39/EC
		Further information: Indicative		
		TWA	400 ppm 766 mg/m ³	GB EH40
		STEL	500 ppm 958 mg/m ³	GB EH40
butane (containing < 0,1 % butadiene (203-450-8))	106-97-8	STEL	750 ppm 1,810 mg/m ³	GB EH40
		Further information: Capable of causing cancer and/or heritable genetic damage.		
		TWA	600 ppm 1,450 mg/m ³	GB EH40
		Further information: Capable of causing cancer and/or heritable genetic damage.		
2-methylpropan-1-ol	78-83-1	TWA	50 ppm 154 mg/m ³	GB EH40
		STEL	75 ppm 231 mg/m ³	GB EH40
2-methoxy-1-methylethyl acetate	108-65-6	STEL	100 ppm 550 mg/m ³	2000/39/EC
		Further information: Identifies the possibility of significant uptake through the skin, Indicative		
		TWA	50 ppm 275 mg/m ³	2000/39/EC
		Further information: Identifies the possibility of significant uptake through the skin, Indicative		
		TWA	50 ppm 274 mg/m ³	GB EH40
		Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.		
		STEL	100 ppm 548 mg/m ³	GB EH40
		Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.		
Titanium dioxide	13463-67-7	TWA (inhalable dust)	10 mg/m ³	GB EH40
		TWA (Respirable dust)	4 mg/m ³	GB EH40
1-methoxy-2-propanol	107-98-2	TWA	100 ppm 375 mg/m ³	2000/39/EC

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	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	150 ppm 568 mg/m ³	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	100 ppm 375 mg/m ³	GB EH40
	Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL	150 ppm 560 mg/m ³	GB EH40
	Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
butan-1-ol	71-36-3	STEL	50 ppm 154 mg/m ³	GB EH40
	Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
acetone	Workers	Inhalation	Long-term systemic effects	1210 mg/m ³
	Workers	Inhalation	Long-term local effects	2420 mg/m ³
	Workers	Skin contact	Long-term systemic effects	186 mg/kg
	Consumers	Inhalation	Long-term systemic effects	200 mg/m ³
	Consumers	Skin contact, Oral	Long-term systemic effects	62 mg/kg
propan-1-ol	Workers	Inhalation	Long-term systemic effects	268 mg/m ³
	Workers	Inhalation	Acute systemic effects	1723 mg/m ³
	Workers	Skin contact	Long-term systemic effects	136 mg/kg
	Consumers	Inhalation	Long-term systemic effects	80 mg/m ³
	Consumers	Inhalation	Acute systemic effects	1036 mg/m ³
	Consumers	Skin contact	Long-term systemic effects	81 mg/kg
	Consumers	Oral	Long-term systemic effects	61 mg/kg
2-methylpropan-1-ol	Consumers	Oral	Long-term systemic effects	25 mg/kg
	Consumers	Inhalation	Long-term systemic effects	55 mg/m ³

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	Workers	Inhalation	Long-term local effects	310 mg/m ³
2-methoxy-1-methylethyl acetate	Workers	Inhalation	Long-term systemic effects	275 mg/m ³
	Workers	Inhalation	Acute local effects	550 mg/m ³
	Workers	Skin contact	Long-term systemic effects	796 mg/kg
	Consumers	Inhalation	Long-term systemic effects, Long-term local effects	33 mg/m ³
	Consumers	Skin contact	Long-term systemic effects	320 mg/kg
	Consumers	Oral	Long-term systemic effects	36 mg/kg
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight 700-1000)	Workers	Inhalation	Long-term systemic effects	12.25 mg/m ³
	Workers	Skin contact	Long-term systemic effects	8.33 mg/m ³
1-methoxy-2-propanol	Workers	Inhalation	Long-term systemic effects	369 mg/m ³
	Workers	Inhalation	Acute systemic effects, Acute local effects	553.5 mg/m ³
	Workers	Skin contact	Long-term systemic effects	183 mg/kg
	Consumers	Inhalation	Long-term systemic effects	43.9 mg/m ³
	Consumers	Skin contact	Long-term systemic effects	78 mg/kg
	Consumers	Oral	Long-term systemic effects	33 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
acetone	Fresh water	10.6 mg/l
	Marine water	1.06 mg/l
	Sewage treatment plant	100 mg/l
	Fresh water sediment	30.4 mg/kg
	Marine sediment	3.04 mg/kg
	Soil	29.5 mg/kg
propan-1-ol	Fresh water	10 mg/l
	Marine water	1 mg/l
	Sewage treatment plant	96 mg/l
	Fresh water sediment	22.8 mg/kg
	Marine sediment	2.28 mg/kg
2-methylpropan-1-ol	Soil	2.2 mg/kg
	Fresh water	0.4 mg/l
	Marine water	0.04 mg/l
	Fresh water sediment	1.52 mg/l

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	Marine sediment	0.152 mg/l
	Sewage treatment plant	10 mg/l
	Soil	0.0699 mg/kg
2-methoxy-1-methylethyl acetate	Fresh water	0.635 mg/l
	Marine water	0.064 mg/l
	Sewage treatment plant	100 mg/l
	Fresh water sediment	3.29 mg/kg
	Marine sediment	0.329 mg/kg
	Soil	0.29 mg/kg
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight 700-1000)	Fresh water	0.006 mg/l
	Marine water	0.0006 mg/l
	Fresh water sediment	0.0627 mg/kg
	Marine sediment	0.00627 mg/kg
	Sewage treatment plant	10 mg/l
	Soil	0.0478 mg/kg
1-methoxy-2-propanol	Fresh water	10 mg/l
	Marine water	1 mg/l
	Sewage treatment plant	100 mg/l
	Fresh water sediment	52.3 mg/kg
	Marine sediment	5.2 mg/kg
	Soil	4.59 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye protection : Tightly fitting safety goggles
Safety glasses with side-shields conforming to EN166

Hand protection

Material : butyl-rubber
Break through time : > 480 min
Glove thickness : >= 0.4 mm
Directive : DIN EN 374
Protective index : Class 6

Remarks : The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. The exact break through time can be obtained from the protective glove producer and this has to be observed. Preventive skin protection

Skin and body protection : Please wear suitable protective clothing, e.g. made of cotton or heat-resistant synthetic fibres.
Long sleeved clothing

Respiratory protection : No personal respiratory protective equipment normally required.
In case of inadequate ventilation wear respiratory protection.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

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Filter type : Filter type A-P

Protective measures : Use only with adequate ventilation.
When using do not eat, drink or smoke.
Avoid contact with skin, eyes and clothing.
Do not breathe vapours or spray mist.

Environmental exposure controls

Soil : Avoid subsoil penetration.
Water : Do not flush into surface water or sanitary sewer system.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : aerosol

Colour : grey

Odour : solvent-like

Melting point/freezing point : not determined

Initial boiling point and boiling range : Not applicable

Upper explosion limit / Upper flammability limit : 13 %(V)

Lower explosion limit / Lower flammability limit : 1.2 %(V)

Flash point : < 0 °C

Ignition temperature : 240 °C

pH : not determined substance/mixture is non-soluble (in water)

Viscosity

 Viscosity, dynamic : not determined

 Viscosity, kinematic : not determined

Solubility(ies)

 Water solubility : immiscible

Partition coefficient: n-octanol/water : not determined

Vapour pressure : 4,000 hPa (20 °C)

Density : 0.794 g/cm³ (20 °C)

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9.2 Other information

Explosives : Not explosive
In use, may form flammable/explosive vapour-air mixture.

Self-ignition : not auto-flammable

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if used as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Keep away from heat and sources of ignition.
Strong sunlight for prolonged periods.

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

Build-up of dangerous/toxic fumes possible in cases of fire/high temperature.

SECTION 11: Toxicological information

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

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Components:

acetone:

Acute oral toxicity : LD50 Oral (Rat): 5,800 mg/kg

Acute inhalation toxicity : LC50 (Rat): ca. 132 mg/l
Exposure time: 3 h
Test atmosphere: vapour

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Acute dermal toxicity : LD50 Dermal (Rabbit): > 7,426 mg/kg

propan-1-ol:

Acute oral toxicity : LD50 Oral (Rat): ca. 8,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 33.8 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 Dermal (Rabbit): 4,032 mg/kg
Method: OECD Test Guideline 402

2-methylpropan-1-ol:

Acute oral toxicity : LD50 Oral (Rat): 2,460 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 3,400 mg/kg

2-methoxy-1-methylethyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 6,190 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC0 (Rat): > 1883 ppm
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5,000 mg/kg
Method: OECD Test Guideline 402

Titanium dioxide:

Acute oral toxicity : LD50 Oral (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LD50 (Rat): > 6.8 mg/l
Exposure time: 4 h

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight 700-1000):

Acute oral toxicity : LD50 Oral (Rat): 15,000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 23,000 mg/kg

1-methoxy-2-propanol:

Acute oral toxicity : LD50 Oral (Rat): 4,016 mg/kg

Acute inhalation toxicity : LC0 (Rat): > 7000 ppm

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Test atmosphere: vapour
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 Dermal (Rat): > 2,000 mg/kg
Method: Regulation (EC) No. 440/2008, Annex, B.3

butan-1-ol:

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg
Method: Converted acute toxicity point estimate
(*) Converted acute toxicity point estimate according to Table 3.1.2 of Annex I.

Acute dermal toxicity : (Rabbit): 3,430 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Repeated exposure may cause skin dryness or cracking.

Product:

Result : No skin irritation

Result : Repeated exposure may cause skin dryness or cracking.

Components:

Titanium dioxide:

Remarks : No skin irritation

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

Titanium dioxide:

Remarks : Dust contact with the eyes can lead to mechanical irritation.

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

Components:

Titanium dioxide:

Remarks : No known sensitising effect.

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Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

May cause drowsiness or dizziness.

Components:

2-methoxy-1-methylethyl acetate:

Exposure routes : Oral
Target Organs : Central nervous system
Assessment : May cause drowsiness or dizziness.

1-methoxy-2-propanol:

Assessment : May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight 700-1000):

NOAEL : 50 mg/kg
Application Route : Oral

NOAEL : 100 mg/kg
Application Route : Skin contact

Aspiration toxicity

Not classified based on available information.

Components:

1-methoxy-2-propanol:

No aspiration toxicity classification

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation

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(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Components:

acetone:

- Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 8,120 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia pulex (Water flea)): 8,800 mg/l
End point: mortality
Exposure time: 48 h
- Toxicity to algae/aquatic plants : NOEC (Microcystis aeruginosa (blue-green algae)): 430 mg/l
Exposure time: 96 h
- Toxicity to microorganisms : EC10 (Bacteria): 1,000 mg/l
Exposure time: 0.5 h
Method: OECD Test Guideline 209
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 2,212 mg/l
Exposure time: 28 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

propan-1-ol:

- Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 4,555 mg/l
End point: mortality
Exposure time: 96 h
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 3,644 mg/l
End point: Immobilization
Exposure time: 48 h
Method: DIN 38412
- Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 9,170 mg/l
End point: Growth rate
Exposure time: 48 h
- Toxicity to microorganisms : IC50 (Bacteria): > 1,000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: > 100 mg/l
Exposure time: 21 d

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ic toxicity) Species: *Daphnia magna* (Water flea)
Method: OECD Test Guideline 211

2-methoxy-1-methylethyl acetate:

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): 100 - 180 mg/l
End point: mortality
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): > 500 mg/l
End point: Immobilization
Exposure time: 48 h
Method: Regulation (EC) No. 440/2008, Annex, C.2

Toxicity to algae/aquatic plants : EC50 (*Pseudokirchneriella subcapitata* (green algae)): > 1,000 mg/l
End point: Growth rate
Exposure time: 96 h
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOEC: 47.5 mg/l
Exposure time: 14 d
Species: *Oryzias latipes* (Orange-red killifish)
Method: OECD Test Guideline 204

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: \geq 100 mg/l
Exposure time: 21 d
Species: *Daphnia magna* (Water flea)
Method: OECD Test Guideline 211

Titanium dioxide:

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): > 1,000 mg/l
Exposure time: 48 h

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight 700-1000):

Toxicity to fish : LC50 (*Leuciscus idus* (Golden orfe)): 2 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia* (water flea)): 1.8 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (algae): 11 mg/l
Exposure time: 72 h

1-methoxy-2-propanol:

Toxicity to fish : NOEC (*Oncorhynchus mykiss* (rainbow trout)): \geq 1,000 mg/l
End point: mortality
Exposure time: 96 h
Method: OECD Test Guideline 203

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Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 21,100 - 25,900 mg/l
End point: Immobilization
Exposure time: 48 h

Toxicity to microorganisms : IC50 (Bacteria): > 1,000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Ecotoxicology Assessment

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

12.2 Persistence and degradability

Components:

acetone:

Biodegradability : Biodegradation: 90.9 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

propan-1-ol:

Biodegradability : Biodegradation: 83 - 92 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

2-methoxy-1-methylethyl acetate:

Biodegradability : Biodegradation: 90 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

1-methoxy-2-propanol:

Biodegradability : Biodegradation: 96 %
Exposure time: 28 d
Method: OECD Test Guideline 301E

12.3 Bioaccumulative potential

Components:

acetone:

Bioaccumulation : Bioconcentration factor (BCF): 3

Partition coefficient: n-octanol/water : log Pow: -0.24 (20 °C)

propan-1-ol:

Bioaccumulation : Bioconcentration factor (BCF): 0.88

Partition coefficient: n-octanol/water : Pow: 1.6 (25 °C)
log Pow: 0.2 (25 °C)

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pH: 7

2-methoxy-1-methylethyl acetate:

Partition coefficient: n-octanol/water : log Pow: 1.2 (20 °C)
pH: 6.8

1-methoxy-2-propanol:

Partition coefficient: n-octanol/water : log Pow: < 1 (20 °C)
pH: 6.8

butan-1-ol:

Partition coefficient: n-octanol/water : log Pow: 1.0 (25 °C)

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Dispose of in conjunction with appropriate waste disposal authorities and in accordance with disposal regulations.

Contaminated packaging : Dispose of in accordance with local regulations.

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Waste Code : The following Waste Codes are only suggestions:
08 01 11, waste paint and varnish containing organic solvents
or other hazardous substances
15 01 10, packaging containing residues of or contaminated
by hazardous substances

SECTION 14: Transport information

14.1 UN number or ID number

ADN : UN 1950
ADR : UN 1950
RID : UN 1950
IMDG : UN 1950
IATA : UN 1950

14.2 UN proper shipping name

ADN : AEROSOLS
ADR : AEROSOLS
RID : AEROSOLS
IMDG : AEROSOLS
IATA : Aerosols, flammable

14.3 Transport hazard class(es)

ADN : 2
ADR : 2
RID : 2
IMDG : 2.1
IATA : 2.1

14.4 Packing group

ADN
Packing group : Not assigned by regulation
Classification Code : 5F
Labels : 2.1

ADR
Packing group : Not assigned by regulation
Classification Code : 5F
Labels : 2.1
Tunnel restriction code : (D)

RID
Packing group : Not assigned by regulation
Classification Code : 5F
Hazard Identification Number : 23

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Labels : 2.1

IMDG

Packing group : Not assigned by regulation

Labels : 2.1

EmS Code : F-D, S-U

IATA (Cargo)

Packing instruction (cargo aircraft) : 203

Packing instruction (LQ) : Y203

Packing group : Not assigned by regulation

Labels : Division 2.1 - Flammable gases

IATA (Passenger)

Packing instruction (passenger aircraft) : 203

Packing instruction (LQ) : Y203

Packing group : Not assigned by regulation

Labels : Division 2.1 - Flammable gases

14.5 Environmental hazards

ADN

Environmentally hazardous : no

ADR

Environmentally hazardous : no

RID

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

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Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors

Acquisition, introduction, possession or use of the explosive precursor by the general public is subject to reporting obligations. acetone (ANNEX II)

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. P3a FLAMMABLE AEROSOLS

Volatile organic compounds : Directive 2004/42/EC
Volatile organic compounds (VOC) content: < 840 g/l
VOC content for the product in a ready to use condition.

Other regulations:

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

15.2 Chemical safety assessment

A chemical safety assessment according to (EC) regulation 1907/2006 (REACH) has not been carried out for this product.

SECTION 16: Other information

Full text of H-Statements

H220	: Extremely flammable gas.
H225	: Highly flammable liquid and vapour.
H226	: Flammable liquid and vapour.
H302	: Harmful if swallowed.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
H335	: May cause respiratory irritation.
H336	: May cause drowsiness or dizziness.
H351	: Suspected of causing cancer if inhaled.
H411	: Toxic to aquatic life with long lasting effects.
EUH066	: Repeated exposure may cause skin dryness or cracking.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Chronic	: Long-term (chronic) aquatic hazard

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Carc.	: Carcinogenicity
Eye Dam.	: Serious eye damage
Eye Irrit.	: Eye irritation
Flam. Gas	: Flammable gases
Flam. Liq.	: Flammable liquids
Press. Gas	: Gases under pressure
Skin Irrit.	: Skin irritation
Skin Sens.	: Skin sensitisation
STOT SE	: Specific target organ toxicity - single exposure
2000/39/EC	: Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
GB EH40	: UK. EH40 WEL - Workplace Exposure Limits
2000/39/EC / TWA	: Limit Value - eight hours
2000/39/EC / STEL	: Short term exposure limit
GB EH40 / TWA	: Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL	: Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:

Aerosol 1

H222, H229

Classification procedure:

Calculation method

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Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
STOT SE 3	H336	Calculation method
Aquatic Chronic 3	H412	Calculation method

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