

TIP TOP COROFLAKE 29

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 21/07/2009 Revision date: 26/08/2026 Supersedes: 27/08/2021 Version: 1.4
SDS No: 00359-1030



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

1.1. Product identifier

Product form : Mixture
Product name : TIP TOP COROFLAKE 29
Product code : 590 0460, 590 0470

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Spray coating material

1.2.2. Uses advised against

No additional information available.

1.3. Details of the supplier of the safety data sheet

Manufacturer

TIP TOP Oberflächenschutz Elbe GmbH
Heuweg 4
06886 Wittenberg
T +49(0)3491/635-50, F +49(0)3491/635-552
E-mail address of competent person responsible for the SDS: sds@gbk-ingelheim.de

1.4. Emergency telephone number

Emergency number : INTERNATIONAL: +49 (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)
Public Poisons Information Line: +353 (0) 1 809 2166 (8am-10pm 7 days a week)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids, Category 3	H226
Acute toxicity (inhal.), Category 4	H332
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 1	H318
Reproductive toxicity, Category 2	H361d
Specific target organ toxicity – Single exposure, Category 3,	H335
Respiratory tract irritation	
Specific target organ toxicity – Repeated exposure, Category 1	H372
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412

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

Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. Causes skin irritation. Causes serious eye damage. Harmful if inhaled. May cause respiratory irritation. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP) :



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Signal word (CLP)	: Danger
Contains	: Styrene; Methacrylic acid; Methanol; N,N-dimethylaniline
Hazard statements (CLP)	: H226 - Flammable liquid and vapour. H315 - Causes skin irritation. H318 - Causes serious eye damage. H332 - Harmful if inhaled. H335 - May cause respiratory irritation. H361d - Suspected of damaging the unborn child. H372 - Causes damage to organs through prolonged or repeated exposure. H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P202 - Do not handle until all safety precautions have been read and understood. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 - Do not breathe vapours. P280 - Wear protective gloves, protective clothing/eye protection/face protection. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P405 - Store locked up.
EUH-statements	: EUH208 - Contains Neodecanoic acid, cobalt salt, 1,2-Ethanediamine, N-[3-(trimethoxysilyl)propyl]-, N-[(ethenylphenyl)methyl], Derivates, Hydrochlorides. May produce an allergic reaction.
Extra phrases	: For professional users only.

2.3. Other hazards

Other hazards not contributing to the classification : Vapours may form explosive mixture with air.

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Comments : Epoxide-vinyl ester-resin in styrene

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Styrene (Note D)	CAS-No.: 100-42-5 EC-No.: 202-851-5 EC Index-No.: 601-026-00-0 REACH-no: 01-2119457861-32	< 35	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361d STOT SE 3, H335 STOT RE 1, H372 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
Methacrylic acid (Note D)	CAS-No.: 79-41-4 EC-No.: 201-204-4 EC Index-No.: 607-088-00-5 REACH-no: 01-2119463884-26	< 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1A, H314 STOT SE 3, H335

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Methanol Substance with a Community workplace exposure limit	CAS-No.: 67-56-1 EC-No.: 200-659-6 EC Index-No.: 603-001-00-X REACH-no: 01-2119433307-44	< 1	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 (ATE=100 mg/kg bodyweight) Acute Tox. 3 (Dermal), H311 (ATE=300 mg/kg bodyweight) Acute Tox. 3 (Inhalation:dust,mist), H331 (ATE=0.5 mg/l/4h) STOT SE 1, H370
Neodecanoic acid, cobalt salt	CAS-No.: 27253-31-2 EC-No.: 248-373-0 EC Index-No.: 607-230-00-6 REACH-no: 01-2119970733-31	< 1	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Skin Sens. 1, H317 Repr. 1B, H360D Aquatic Chronic 3, H412
Tetramethylammonium chloride	CAS-No.: 75-57-0 EC-No.: 200-880-8 REACH-no: 01-2119970924-26	< 1	Acute Tox. 2 (Oral), H300 (ATE=5 mg/kg bodyweight) Acute Tox. 3 (Dermal), H311 (ATE=300 mg/kg bodyweight) Skin Irrit. 2, H315 STOT SE 1, H370 Aquatic Chronic 2, H411
1,2-Ethanediamine, N-[3-(trimethoxysilyl)propyl]-, N-[(ethenylphenyl)methyl], Derivates, Hydrochlorides	CAS-No.: 171869-89-9	< 1	Eye Dam. 1, H318 Skin Sens. 1, H317
N,N-dimethylaniline	CAS-No.: 121-69-7 EC-No.: 204-493-5 EC Index-No.: 612-016-00-0 REACH-no: 01-2119935241-47	< 1	Carc. 2, H351 Acute Tox. 3 (Inhalation), H331 (ATE=0.5 mg/l/4h) Acute Tox. 3 (Dermal), H311 (ATE=300 mg/kg bodyweight) Acute Tox. 3 (Oral), H301 (ATE=100 mg/kg bodyweight) Aquatic Chronic 2, H411
1,4-dihydroxybenzene	CAS-No.: 123-31-9 EC-No.: 204-617-8 EC Index-No.: 604-005-00-4 REACH-no: 01-2119524016-51	< 0.1	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Eye Dam. 1, H318 Skin Sens. 1B, H317 Muta. 2, H341 Carc. 2, H351 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)

Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
Methacrylic acid	CAS-No.: 79-41-4 EC-No.: 201-204-4 EC Index-No.: 607-088-00-5 REACH-no: 01-2119463884-26	(1 ≤ C ≤ 100) STOT SE 3; H335
Methanol	CAS-No.: 67-56-1 EC-No.: 200-659-6 EC Index-No.: 603-001-00-X REACH-no: 01-2119433307-44	(3 ≤ C < 10) STOT SE 2; H371 (10 ≤ C ≤ 100) STOT SE 1; H370

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Note D: Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'.

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 general	: Take off immediately all contaminated clothing. In the event of persistent symptoms receive medical treatment. Move the affected person away from the contaminated area.
First-aid measures after inhalation	: Move to fresh air in case of accidental inhalation of vapours or decomposition products. Call a physician immediately.
First-aid measures after skin contact	: Wash off immediately with soap and plenty of water. Treat subsequently with skin cream. Get medical advice if skin irritation persists.
First-aid measures after eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an eye specialist.
First-aid measures after ingestion	: Do not induce vomiting. Rinse mouth out with water. Drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician immediately. Do not induce vomiting without medical advice.

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

Symptoms/effects	: Causes damage to organs (the ear) through prolonged or repeated exposure.
Symptoms/effects after inhalation	: Harmful if inhaled. May cause respiratory irritation.
Symptoms/effects after skin contact	: Causes skin irritation. Repeated or prolonged contact may cause allergic reactions in very susceptible persons.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: Aspiration hazard.
Chronic symptoms	: Suspected of damaging the unborn child.

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. Alcohol resistant foam. Carbon dioxide.
Unsuitable extinguishing media	: high volume water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Flammable liquid and vapour.
Explosion hazard	: Product is not explosive. Explosive vapour/air mixtures may be formed.
Hazardous decomposition products in case of fire	: Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases). Carbon oxides (CO, CO ₂).

5.3. Advice for firefighters

Precautionary measures fire	: Cool endangered containers with water spray jet.
Firefighting instructions	: Fight fire from safe distance and protected location.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Vapours are heavier than air and may spread along floors. The vapour/air mixture is explosive, even in empty, uncleaned receptacles. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : In case of vapour formation use adequate respirator. Ensure adequate air ventilation. Evacuate personnel to a safe area. Concerning personal protective equipment to use, see section 8. Remove ignition sources.
- 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

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

- For containment : Dam up the liquid spill.
- Methods for cleaning up : Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Shovel or sweep up and put in a closed container for disposal.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

Refer to protective measures listed in sections 7 and 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Use explosion-proof equipment. Take precautionary measures against static discharge. Do not smoke. Keep away from heat and sources of ignition. Use only outdoors or in a well-ventilated area. Vapours are heavier than air and may spread along floors. Keep container tightly closed.
- Hygiene measures : Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of workday. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Pay attention to explosion protection guidelines.
- Storage conditions : Keep container tightly closed in a dry, cool and well-ventilated place.
- Incompatible materials : oxidizing materials. Metal halogenides. Peroxides.
- Storage temperature : Avoid temperatures above 50°C
- Heat and ignition sources : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Information on mixed storage : Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

See Section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

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Styrene (100-42-5)	
Ireland - Biological limit values	
Local name	Styrene
BMGV	400 mg/g creatinine Parameter: mandelic acid plus phenylglyoxylic acid - Medium: urine - Sampling time: End of shift - Notations: Ns (Non-specific) 0.2 mg/l Parameter: styrene - Medium: venous blood - Sampling time: End of shift - Notations: Sq (Semi-quantitative)
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
Methacrylic acid (79-41-4)	
Ireland - Occupational Exposure Limits	
Local name	Methacrylic acid
OEL TWA	70 mg/m ³
	20 ppm
OEL STEL	140 mg/m ³
	40 ppm
Remark	Advisory OELV (Advisory Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2026
Methanol (67-56-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Methanol
IOEL TWA	260 mg/m ³
	200 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
Ireland - Biological limit values	
Local name	Methanol
BMGV	15 mg/l Parameter: methanol - Medium: urine - Sampling time: End of shift - Notations: B (Background), Ns (Non-specific)
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
Aluminium oxide (1344-28-1)	
Ireland - Occupational Exposure Limits	
Local name	Aluminium oxides
OEL TWA	10 mg/m ³ total inhalable dust
	4 mg/m ³ respirable dust
Remark	Advisory OELV (Advisory Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2026
N,N-dimethylaniline (121-69-7)	
Ireland - Occupational Exposure Limits	
Local name	N,N-Dimethylaniline
OEL TWA	25 mg/m ³

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N,N-dimethylaniline (121-69-7)	
	5 ppm
OEL STEL	50 mg/m ³
	10 ppm
Remark	Advisory OELV (Advisory Occupational Exposure Limit Values), Skin (Substances which have the capacity to penetrate intact skin when they come in contact with it and be absorbed into the body. A substantial contribution to the total body burden via dermal exposure is possible)
Regulatory reference	Chemical Agents Code of Practice 2026

Titanium dioxide (13463-67-7)	
Ireland - Occupational Exposure Limits	
Local name	Titanium dioxide
OEL TWA	10 mg/m ³ total inhalable dust 4 mg/m ³ respirable dust
Regulatory reference	Chemical Agents Code of Practice 2026

8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	A specific exposure sampling method is not available.
Biological monitoring methods	A specific exposure sampling method is not available

8.1.3. Air contaminants formed

No additional information available.

8.1.4. DNEL and PNEC

No additional information available.

8.1.5. Control banding

No additional information available.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Pay attention to explosion protection guidelines. Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Eyewash bottle with clean water (EN 15154)

Eye protection			
Type	Field of application	Characteristics	Standard
Protective goggles (EN 166)	Liquid splashes may occur		EN 166

8.2.2.2. Skin protection

Skin and body protection	
Type	Standard
Long sleeved protective clothing	EN ISO 6530
Chemical resistant apron	EN 467

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Hand protection:

Chemical protective gloves made of nitrile, nitrile/cotton, butyl or neoprene, with a minimum thickness of 0.7 mm, permeation time of approx. 480 minutes. This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions. Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves. Pls. find examples in the protective gloves database under: <http://bestglove.com/site/chemrest/>

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Respiratory protection			
Device	Filter type	Condition	Standard
Respiratory protective device with a gas filter	Type A - High-boiling (>65 °C) organic compounds	In case of inadequate ventilation wear	EN 14387

8.2.2.4. Thermal hazards

No additional information available.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not inhale vapour. Wash hands before breaks and at the end of workday. Wash hands immediately after handling the product. Do not eat, drink or smoke during use. Take off contaminated clothing and wash it before reuse. Avoid contact with eyes, skin or mucous membrane.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: yellowish
Appearance	: Liquid.
Odour	: Pungent
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: 145 °C
Flammability	: Not available
Explosive properties	: Product is not explosive. May form flammable/explosive vapour-air mixture.
Oxidising properties	: Not oxidising.
Lower explosive limit (LEL)	: 1 Vol-%
Upper explosive limit (UEL)	: 6 Vol-%
Flash point	: 26 °C
Auto-ignition temperature	: 490 °C
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: > 20.5 mm²/s (40 °C)
Viscosity, dynamic	: 3000 – 3500 mPa·s
Solubility	: Water: Not miscible
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 6 hPa (20 °C)
Vapour pressure at 50°C	: Not available
Density	: 1.15 – 1.19 g/cm³ (20 °C)
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable.

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9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available.

9.2.2. Other safety characteristics

VOC content : < 5 %

Additional information : Solvent separation test (%) <3. Solvent content < 5%. Efflux time > 40 s (Ford No. 6)

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts with: oxidizing materials. Peroxides. Metal halogenides.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat. Vapour/air-mixtures are explosive at intense warming. Heating can release vapours which can be ignited. Do not expose to temperatures exceeding 50 °C/ 122 °F. Polymerisation occurs when exposed to heat.

10.5. Incompatible materials

Metal halogenides. Oxidizing agent. Peroxides.

10.6. Hazardous decomposition products

No dangerous reactions known under normal conditions of use. Thermal decomposition generates : Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases). Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Harmful if inhaled.

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ATE CLP (gases)	4500 ppmv/4h
ATE CLP (vapours)	11 mg/l/4h
ATE CLP (dust,mist)	165.017 mg/l/4h

Styrene (100-42-5)

LD50 oral rat	> 5000 mg/kg
LD50 oral	> 6000 mg/kg bodyweight Hamster
LD50 dermal rat	> 2000 mg/kg bodyweight rat, (OECD 402 method)
LC50 Inhalation - Rat (Dust/Mist)	11.8 mg/l/4h

Methacrylic acid (79-41-4)

LD50 oral	2224 mg/kg
LD50 dermal	500 mg/kg

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Methacrylic acid (79-41-4)	
LC50 Inhalation - Rat (Dust/Mist)	7.1 mg/l/4h
Methanol (67-56-1)	
LD50 oral rat	1187 – 2769 mg/kg bodyweight rat
LC50 Inhalation - Rat (Vapours)	22500 ppmv
ATE CLP (oral)	100 mg/kg bodyweight
ATE CLP (dermal)	300 mg/kg bodyweight
ATE CLP (gases)	22500 ppmv/4h
ATE CLP (vapours)	22500 mg/l/4h
ATE CLP (dust,mist)	0.5 mg/l/4h
Tetramethylammonium chloride (75-57-0)	
LD50 dermal rabbit	200 – 500 mg/kg bodyweight Rabbit, (OECD 402 method)
ATE CLP (oral)	5 mg/kg bodyweight
ATE CLP (dermal)	300 mg/kg bodyweight
Neodecanoic acid, cobalt salt (27253-31-2)	
ATE CLP (oral)	500 mg/kg bodyweight
N,N-dimethylaniline (121-69-7)	
ATE CLP (oral)	100 mg/kg bodyweight
ATE CLP (dermal)	300 mg/kg bodyweight
ATE CLP (gases)	700 ppmv/4h
ATE CLP (vapours)	3 mg/l/4h
ATE CLP (dust,mist)	0.5 mg/l/4h
1,4-dihydroxybenzene (123-31-9)	
LD50 oral	302 mg/kg
LD50 dermal	4800 mg/kg
ATE CLP (oral)	500 mg/kg bodyweight

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Suspected of damaging the unborn child.
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties	: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %
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11.2.2. Other information

Potential adverse human health effects and symptoms : High concentration of vapours may induce: headache, nausea, dizziness. Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

Styrene (100-42-5)	
LC50 fish 1	10 mg/l Pimephales promelas
EC50 Daphnia 1	4.7 mg/l Daphnia magna (Water flea)
EC50 72h - Algae [1]	4.9 mg/l Pseudokirchneriella subcapitata
EC50 96h - Algae [1]	6.3 mg/l Pseudokirchneriella subcapitata
NOEC (chronic)	1.01 mg/l Daphnia magna (Water flea), 21 d
Methacrylic acid (79-41-4)	
ErC50 algae	14 mg/l
NOEC chronic crustacea	53 mg/l
NOEC chronic algae	9.8 mg/l
Methanol (67-56-1)	
LC50 fish 1	15400 mg/l Lepomis macrochirus (Bluegill)
EC50 96h - Algae [1]	≈ 22000 mg/l Raphidocelis subcapitata
NOEC (chronic)	208 mg/l Daphnia magna (Water flea), 21 d
NOEC chronic fish	446.7 mg/l Pimephales promelas, 28 d
Tetramethylammonium chloride (75-57-0)	
LC50 fish 1	462 mg/l Pimephales promelas
EC50 Daphnia 1	3 mg/l Daphnia magna (Water flea)
EC50 72h - Algae [1]	96.3 mg/l Pseudokirchneriella subcapitata
1,4-dihydroxybenzene (123-31-9)	
LC50 fish 1	0.044 mg/l
NOEC chronic crustacea	0.003 mg/l
NOEC chronic algae	0.0015 mg/l

12.2. Persistence and degradability

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Persistence and degradability	No data available.

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12.3. Bioaccumulative potential

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Bioaccumulative potential	No data available.
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Styrene (100-42-5)

Partition coefficient n-octanol/water (Log Kow)	2.96
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Methanol (67-56-1)

Partition coefficient n-octanol/water (Log Kow)	-0.77
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12.4. Mobility in soil

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Ecology - soil	No data available.
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12.5. Results of PBT and vPvB assessment

No additional information available.

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

12.7. Other adverse effects

Other adverse effects : Product is toxic to fish and their nutrient animals.

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Other information	Do not flush into surface water or sewer system
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Recycling is preferred to disposal or incineration. Can be incinerated according to local regulations. Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Packaging that cannot be cleaned should be disposed of like the product. Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Empty containers should be taken for local recycling, recovery or waste disposal.

Additional information : Flammable vapours may accumulate in the container.

European List of Waste (LoW, EC 2000/532) : 08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1866	UN 1866	UN 1866	UN 1866	UN 1866

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ADR	IMDG	IATA	ADN	RID
14.2. UN proper shipping name				
RESIN SOLUTION	RESIN SOLUTION	Resin solution	RESIN SOLUTION	RESIN SOLUTION
14.3. Transport hazard class(es)				
3	3	3	3	3
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No

Other information
No supplementary information available.

14.6. Special precautions for user

Overland transport

Transport regulations (ADR)	: Transport in accordance with section 2.2.3.1.5 of the ADR (viscous substance) may be applied
Classification code (ADR)	: F1
Special provisions (ADR)	: 640E
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Special packing provisions (ADR)	: PP1
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T2
Portable tank and bulk container special provisions (ADR)	: TP1
Tank code (ADR)	: LGBF
Vehicle for tank carriage	: FL
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Operation (ADR)	: S2
Hazard identification number (Kemler No.)	: 30
Orange plates	: 

Tunnel restriction code (ADR) : D/E

Transport by sea

Transport regulations (IMDG)	: Transport in accordance with section 2.3.2.5 of the IMDG (viscous substance) may be applied
Special provisions (IMDG)	: 223, 955
Packing instructions (IMDG)	: P001, LP01
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T2
Tank special provisions (IMDG)	: TP1

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EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-E
Stowage category (IMDG)	: A

Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 366
CAO max net quantity (IATA)	: 220L
Special provisions (IATA)	: A3
ERG code (IATA)	: 3L

Inland waterway transport

Transport regulations (ADN)	: Transport in accordance with section 2.2.3.1.5 of the ADN (viscous substance) may be applied
Classification code (ADN)	: F1
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 0

Rail transport

Transport regulations (RID)	: Transport in accordance with section 2.2.3.1.5 of the RID (viscous substance) may be applied
Classification code (RID)	: F1
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Special packing provisions (RID)	: PP1
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T2
Portable tank and bulk container special provisions (RID)	: TP1
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Colis express (express parcels) (RID)	: CE4
Hazard identification number (RID)	: 30

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

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
40.	Methanol	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.
69.	Methanol	Methanol

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains substance(s) listed on the REACH Candidate List < 0.1% or SCL.

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation (EU) 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation (EU) 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items: Aluminium oxide (1344-28-1).

VOC Directive

VOC content : < 5 %

Seveso Directive (Disaster Risk Reduction)

Seveso III Part I (Categories of dangerous substances)	Qualifying quantity (tonnes)	
	Lower-tier	Upper-tier
P5c FLAMMABLE LIQUIDS Flammable liquids, Categories 2 or 3 not covered by P5a and P5b	5000	50000

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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SECTION 16: Other information

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
DOT	Department of Transport
TDG	Transportation of Dangerous Goods
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
GHS	Globally Harmonized System of Classification, Labelling and Packaging of Chemicals
IARC	International Agency for Research on Cancer
vPvB	Very Persistent and Very Bioaccumulative
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
CAS	CAS (Chemical Abstracts Service) number
IBC-Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ATE	Acute Toxicity Estimate
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
BCF	Bioconcentration factor
MARPOL 73/78	MARPOL 73/78: International Convention for the Prevention of Pollution From Ships
ADG	Transport of Australian Dangerous Goods

Other information

: Data of sections 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities. The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge. The delivery specifications are contained in the corresponding product sheet. This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

Full text of H- and EUH-statements:

Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4

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Full text of H- and EUH-statements:	
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 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Muta. 2	Germ cell mutagenicity, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT SE 1	Specific target organ toxicity – single exposure, Category 1
STOT SE 2	Specific target organ toxicity – Single exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H300	Fatal if swallowed.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.

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Full text of H- and EUH-statements:	
H351	Suspected of causing cancer.
H360D	May damage the unborn child.
H361d	Suspected of damaging the unborn child.
H370	Causes damage to organs.
H371	May cause damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains Neodecanoic acid, cobalt salt, 1,2-Ethanediamine, N-[3-(trimethoxysilyl)propyl]-, N-[(ethenylphenyl)methyl], Derivates, Hydrochlorides. May produce an allergic reaction.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Flam. Liq. 3	H226	On basis of test data
Acute Tox. 4 (Inhalation)	H332	
Skin Irrit. 2	H315	Calculation method
Eye Dam. 1	H318	Calculation method
Repr. 2	H361d	Calculation method
STOT SE 3	H335	Calculation method
STOT RE 1	H372	Calculation method
Aquatic Chronic 3	H412	Calculation method

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should therefore not be construed as guaranteeing any specific property of the product.