

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.01.2023

Version number 2 (replaces version 1)

Revision: 24.01.2023

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

1.1 Product identifier

Trade name: **Stone and Marble Adhesive - MS 76 flowing Special Cast Resin**

Article number: 10925, 10926
 UFI: RW73-V0SH-600T-2S5X

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

No further relevant information available.

Application of the substance / the mixture

Reaction resin

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH
 Lechstrasse 28
 D 90451 Nürnberg
 Tel. +49(0)911-642960
 Fax. +49(0)911-644456
 e-mail info@akemi.de

Further information obtainable from:

Laboratory

1.4 Emergency telephone number:

Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH
 Tel. +49(0)911-64296-59
 Reachable during the following office hours:
 Monday – Thursday from 07:30 a.m. to 16:30 p.m.
 Friday from 07:30 a.m. to 13:30 p.m.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 3	H226	Flammable liquid and vapour.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2	H319	Causes serious eye irritation.
Skin Sens. 1	H317	May cause an allergic skin reaction.
Repr. 2	H361d	Suspected of damaging the unborn child.
STOT SE 3	H335	May cause respiratory irritation.
STOT RE 1	H372	Causes damage to the hearing organs through prolonged or repeated exposure.
Aquatic Chronic 3	H412	Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

The product is classified and labelled according to the CLP regulation.



GHS02 GHS07 GHS08

Signal word

Danger

Hazard-determining components of labelling:

styrene
 maleic anhydride
 cobalt(II) 2-ethylhexanoate

Hazard statements

H226 Flammable liquid and vapour.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H361d Suspected of damaging the unborn child.

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· <u>Precautionary statements</u>	<p>H335 May cause respiratory irritation.</p> <p>H372 Causes damage to the hearing organs through prolonged or repeated exposure.</p> <p>H412 Harmful to aquatic life with long lasting effects.</p> <p>P101 If medical advice is needed, have product container or label at hand.</p> <p>P102 Keep out of reach of children.</p> <p>P103 Read carefully and follow all instructions.</p> <p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P260 Do not breathe vapours.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTER/doctor if you feel unwell.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/container in accordance with local/regional/national/international regulations.</p>
· 2.3 Other hazards	
· Results of PBT and vPvB assessment	
· PBT:	Not applicable.
· vPvB:	Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 100-42-5 EINECS: 202-851-5 Index number: 601-026-00-0 Reg.nr.: 01-2119457861-32	styrene Flam. Liq. 3, H226 Repr. 2, H361d; STOT RE 1, H372; Asp. Tox. 1, H304 Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 Aquatic Chronic 3, H412	25-50%
CAS: 7779-90-0 EINECS: 231-944-3 Index number: 030-011-00-6 Reg.nr.: 01-2119485044-40-0000	trizinc bis(orthophosphate) Aquatic Acute 1, H400; Aquatic Chronic 1, H410	1-5%
CAS: 13463-67-7 EINECS: 236-675-5 Index number: 022-006-00-2 Reg.nr.: 01-2119489379-17-xxxx	titanium dioxide Carc. 2, H351	<1%

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CAS: 38668-48-3 EINECS: 254-075-1 Reg.nr.: 01-2119980937-17	1,1'-(p-tolylimino)dipropan-2-ol Acute Tox. 2, H300 Eye Irrit. 2, H319 Aquatic Chronic 3, H412	<1%
CAS: 136-52-7 EINECS: 205-250-6 Reg.nr.: 01-2119524678-29-xxxx	cobalt(II) 2-ethylhexanoate Repr. 1A, H360Df Aquatic Acute 1, H400 Eye Irrit. 2, H319; Skin Sens. 1A, H317 Aquatic Chronic 3, H412	<1%
CAS: 130-15-4 EINECS: 204-977-6 Reg.nr.: 01-2120760462-57	1,4-naphthoquinone Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 1, H330 Skin Corr. 1C, H314; Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1) Skin Sens. 1, H317; STOT SE 3, H335	<1%
CAS: 108-31-6 EINECS: 203-571-6 Index number: 607-096-00-9 Reg.nr.: 01-2119472428-31	maleic anhydride Resp. Sens. 1, H334; STOT RE 1, H372 Skin Corr. 1B, H314; Eye Dam. 1, H318 Acute Tox. 4, H302; Skin Sens. 1A, H317 EUH071 Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.001 %	<1%

· Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

- General information: Take affected persons out into the fresh air.
Position and transport stably in side position.
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation: Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: If symptoms persist consult doctor.

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

Nausea
Headache
Dizziness
Dizziness
Danger of impaired breathing.

· Hazards

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

If swallowed, gastric irrigation with added, activated carbon.

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SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· For safety reasons unsuitable extinguishing agents:

Water with full jet

· **5.2 Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

Carbon monoxide (CO)

Nitrogen oxides (NO_x)

Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:

Hydrogen cyanide (HCN)

· **5.3 Advice for firefighters**

· Protective equipment:

Wear self-contained respiratory protective device.

Mount respiratory protective device.

· Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Keep away from ignition sources.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Dispose of the material collected according to regulations.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Store in cool, dry place in tightly closed receptacles.

Keep away from heat and direct sunlight.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Use only in well ventilated areas.

Ensure good ventilation/exhaustion at the workplace.

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- Information about fire - and explosion protection:
 - Fumes can combine with air to form an explosive mixture.
 - Keep ignition sources away - Do not smoke.
 - Protect against electrostatic charges.

- **7.2 Conditions for safe storage, including any incompatibilities**

- Storage:
- Requirements to be met by storerooms and receptacles:
 - Store only in the original receptacle.
 - Prevent any seepage into the ground.

- Information about storage in one common storage facility:
 - Store away from foodstuffs.
 - Store away from oxidising agents.

- Further information about storage conditions:
 - Store receptacle in a well ventilated area.
 - Keep container tightly sealed.

- Storage class:
 - 3

- **7.3 Specific end use(s)**
 - No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**

- Ingredients with limit values that require monitoring at the workplace:
 - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- DNELs

100-42-5 styrene

Oral	DNEL (Langzeit-wiederholt)	2.1 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	406 mg/kg bw/day (ARB)
Inhalative	DNEL (Kurzzeit-akut)	343 mg/kg bw/day (BEV)
		289-306 mg/m ³ Air (ARB)
		174.25-182.75 mg/m ³ Air (BEV)
	DNEL (Langzeit-wiederholt)	85 mg/m ³ Air (ARB)
		10.2 mg/m ³ Air (BEV)

7779-90-0 trizinc bis(orthophosphate)

Oral	DNEL (Langzeit-wiederholt)	0.83 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	83 mg/kg bw/day (ARB)
Inhalative	DNEL (Langzeit-wiederholt)	83 mg/kg bw/day (BEV)
		5 mg/m ³ Air (ARB)
		2.5 mg/m ³ Air (BEV)

13463-67-7 titanium dioxide

Oral	DNEL (Langzeit-wiederholt)	700 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	10 mg/m ³ Air (ARB)

38668-48-3 1,1'-(p-tolylimino)dipropan-2-ol

Oral	DNEL (Langzeit-wiederholt)	0.25 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	0.7 mg/kg bw/day (ARB)
Inhalative	DNEL (Langzeit-wiederholt)	0.3 mg/kg bw/day (BEV)
		2.47 mg/m ³ Air (ARB)

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		0.4 mg/m ³ Air (BEV)
136-52-7 cobalt(II) 2-ethylhexanoate		
Oral	DNEL (Langzeit-wiederholt)	0.0558 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	0.235 mg/m ³ Air (ARB)
		0.037 mg/m ³ Air (BEV)
130-15-4 1,4-naphthoquinone		
Inhalative	DNEL (Langzeit-wiederholt)	0.033 mg/m ³ Air (ARB)
108-31-6 maleic anhydride		
Oral	DNEL (Langzeit-wiederholt)	0.06 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	0.04 mg/kg bw/day (ARB)
	DNEL (Langzeit-wiederholt)	0.2 mg/kg bw/day (ARB)
		0.1 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	0.2 mg/m ³ Air (ARB)
	DNEL (Langzeit-wiederholt)	0.081 mg/m ³ Air (ARB)
		0.08 mg/m ³ Air (BEV)

· PNECs

100-42-5 styrene

PNEC (wässrig)	5 mg/l (KA)
	0.014 mg/l (MW)
	0.028 mg/l (SW)
	0.04 mg/l (WAS)
PNEC (fest)	0.2 mg/kg Trockengew (BO)
	0.307 mg/kg Trockengew (MWS)
	0.614 mg/kg Trockengew (SWS)

13463-67-7 titanium dioxide

PNEC (wässrig)	100 mg/l (KA)
	1 mg/l (MW)
	0.127 mg/l (SW)
PNEC (fest)	100 mg/kg Trockengew (BO)
	100 mg/kg Trockengew (MWS)
	1,000 mg/kg Trockengew (SWS)

38668-48-3 1,1'-(p-tolylimino)dipropan-2-ol

PNEC (wässrig)	199.5 mg/l (KA)
	0.0017 mg/l (MW)
	0.017 mg/l (SW)
	0.17 mg/l (WAS)
PNEC (fest)	0.005 mg/kg Trockengew (BO)
	0.00782 mg/kg Trockengew (MWS)
	0.0782 mg/kg Trockengew (SWS)

136-52-7 cobalt(II) 2-ethylhexanoate

PNEC (wässrig)	0.37 mg/l (KA)
	0.00236 mg/l (MW)
	0.00051 mg/l (SW)
PNEC (fest)	10.9 mg/kg Trockengew (BO)

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	9.5 mg/kg Trockengew (MWS) 9.5-11.2 mg/kg Trockengew (SWS)
130-15-4 1,4-naphthoquinone	
PNEC (wässrig)	0.172 mg/l (KA) 0.00261 mg/l (MW) 0.0261 mg/l (SW)
PNEC (fest)	0.049 mg/kg Trockengew (BO) 0.0321 mg/kg Trockengew (MWS) 0.321 mg/kg Trockengew (SWS)
108-31-6 maleic anhydride	
PNEC (wässrig)	44.6 mg/l (KA) 0.0038 mg/l (MW) 0.038 mg/l (SW) 0.4281 mg/l (WAS)
PNEC (fest)	0.037 mg/kg Trockengew (BO) 0.0296 mg/kg Trockengew (MWS) 0.296 mg/kg Trockengew (SWS)

· Additional information: The lists valid during the making were used as basis.

· **8.2 Exposure controls**

- Appropriate engineering controls No further data; see item 7.
- Individual protection measures, such as personal protective equipment
- General protective and hygienic measures:

Use skin protection cream for skin protection.
Clean skin thoroughly immediately after handling the product.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

· Respiratory protection: Short term filter device:
Filter A/P2
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Preventive skin protection by use of skin-protecting agents is recommended.
After use of gloves apply skin-cleaning agents and skin cosmetics.
Skin protection agent recommendation for preventive skin shelter without use of protective gloves:
ARRETIL (<http://www.stoko.com>)
Skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:
STOKO EMULSION (<http://www.stoko.com>)
Skin protection recommendation for skin cleaning after product handling:
Kresto Classic (<http://debstoko.com>)
Skin protection agent recommendation for skin aftercare:
STOKO VITAN (<http://www.stoko.com>)
The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times´ data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory analyses of the company KCL GmbH in compliance with EN374.
This recommendation refers exclusively to the material safety data sheet

· Hand protection

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referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: <http://www.kcl.de>).



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

Butyl rubber, BR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

Value for the permeation: Level ≤ 1 , 30 min

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· For the permanent contact gloves made of the following materials are suitable:

Butyl rubber, BR

Butoject (KCL, Art_No. 897, 898)

· As protection from splashes gloves made of the following materials are suitable:

Butyl rubber, BR

Butoject (KCL, Art_No. 897, 898)

· Not suitable are gloves made of the following materials:

Natural rubber, NR

Chloroprene rubber, CR

Leather gloves

Strong material gloves

· Eye/face protection



Tightly sealed goggles

· Body protection:

Protective work clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· General Information

· Colour:

Grey

· Odour:

Characteristic

· Melting point/freezing point:

Undetermined.

· Boiling point or initial boiling point and boiling range 145 °C

· Lower and upper explosion limit

· Lower:

1.2 Vol %

· Upper:

8.9 Vol %

· Flash point:

31 °C

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· <u>Ignition temperature:</u>	480 °C
· <u>pH</u>	Not determined. Not applicable
· <u>Viscosity:</u>	
· <u>Kinematic viscosity</u>	Not determined.
· <u>Dynamic at 20 °C:</u>	2,600 mPas
· <u>Solubility</u>	
· <u>water:</u>	Not miscible or difficult to mix.
· <u>Vapour pressure at 20 °C:</u>	6 hPa
· <u>Density and/or relative density</u>	
· <u>Density at 20 °C:</u>	1.41 g/cm ³

· **9.2 Other information**

· <u>Appearance:</u>	
· <u>Form:</u>	Fluid
· <u>Important information on protection of health and environment, and on safety.</u>	
· <u>Auto-ignition temperature:</u>	Product is not selfigniting.
· <u>Explosive properties:</u>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <u>Solvent content:</u>	
· <u>Organic solvents:</u>	25.7 %
· <u>Solids content:</u>	72.1 %

· Information with regard to physical hazard classes

· <u>Explosives</u>	Void
· <u>Flammable gases</u>	Void
· <u>Aerosols</u>	Void
· <u>Oxidising gases</u>	Void
· <u>Gases under pressure</u>	Void
· <u>Flammable liquids</u>	Flammable liquid and vapour.
· <u>Flammable solids</u>	Void
· <u>Self-reactive substances and mixtures</u>	Void
· <u>Pyrophoric liquids</u>	Void
· <u>Pyrophoric solids</u>	Void
· <u>Self-heating substances and mixtures</u>	Void
· <u>Substances and mixtures, which emit flammable gases in contact with water</u>	
· <u>Oxidising liquids</u>	Void
· <u>Oxidising solids</u>	Void
· <u>Organic peroxides</u>	Void
· <u>Corrosive to metals</u>	Void
· <u>Desensitised explosives</u>	Void

SECTION 10: Stability and reactivity

· 10.1 Reactivity	No further relevant information available.
· 10.2 Chemical stability	
· <u>Thermal decomposition / conditions to be avoided:</u>	No decomposition if used and stored according to specifications.
· 10.3 Possibility of hazardous reactions	Exothermic polymerisation.

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- **10.4 Conditions to avoid** Reacts with peroxides and other radical forming substances.
- **10.5 Incompatible materials:** Reacts with strong alkali.
- **10.6 Hazardous decomposition products:** Reacts with strong acids.
Reacts with strong oxidising agents.
No further relevant information available.
No further relevant information available.
Danger of forming toxic pyrolysis products.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral	LD50	>11,967-<95,740 mg/kg (rat)
Inhalative	LC50/4 h	46.3 mg/l

100-42-5 styrene

Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat) (OECD-Prüfrichtlinie 402)
Inhalative	LC50/4h	9.5 mg/m ³ (mouse)
		11,800 mg/m ³ (rat)
	LC50/4 h	11.8 mg/l (rat)
	NOAEC	4.34 mg/l (rat)

7779-90-0 trizinc bis(orthophosphate)

Oral	LD50	>5,000 mg/kg (rat)
Inhalative	LC50/4 h	>5.7 mg/l (rat)

13463-67-7 titanium dioxide

Oral	LD50	>5,010 mg/kg (rat)
	NOAEL	24,000 mg/kg (rat)
Dermal	LD50	>10,010 mg/kg (rbt)
	NOAEL	10 mg/m ³ (rat)
Inhalative	LC50/48h	>100 mg/l (daphnia magna)

38668-48-3 1,1'-(p-tolylimino)dipropan-2-ol

Oral	LD50	>25-<200 mg/kg (rat) (OECD 423)
Dermal	LD50	>2,000 mg/kg (rabbit) (OECD 402)

130-15-4 1,4-naphthoquinone

Oral	LD50	124 mg/kg (rat)
	NOAEL-Werte	2 mg/kg (rat)
Dermal	LD50	300 mg/kg (ATE)
	LD50	202 mg/kg (rat)
Inhalative	LC50/4h	46 mg/m ³ (rat)
	LC50/4 h	0.005 mg/l (ATE)

108-31-6 maleic anhydride

Oral	LD50	1,090-2,620 mg/kg (rabbit)
		400-480 mg/kg (rat)

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Dermal	LD50	2,620 mg/kg (rabbit)
Inhalative	LC50/1h	>4.35 mg/l (rat)
	LC50/48h	138 mg/l (lem)

- Skin corrosion/irritation Causes skin irritation.
- Serious eye damage/irritation Causes serious eye irritation.
- Respiratory or skin sensitisation May cause an allergic skin reaction.
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity 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 the hearing organs through prolonged or repeated exposure.
- Aspiration hazard Based on available data, the classification criteria are not met.

11.2 Information on other hazards

- Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

- Aquatic toxicity:

100-42-5 styrene

EC50/96h	6.3 mg/l (Pseudokirchneriella subcapitata)
EC50	500 mg/l (BES) (ISO Vorschrift 8192-1986 E)
	5.5 mg/l (Photobac. phosphoreum)
IC50/72h	4.9 mg/l (green alge)
	1.4 mg/l (selenastrum capricornutum)
IC5/8d	>200 mg/l (Scenedesmus quadricauda)
EC10/16h	72 mg/l (pseudomonas putida)
EC50/16h	>72 mg/l (pseudomonas putida)
EC50/8d	>200 mg/l (Scenedesmus quadricauda)
EC50/72u	>1-<10 mg/l (green alge)
EC20/0.5h	140 mg/l (BES) (OECD 209)
NOEC/21d	1.01 mg/l (daphnia magna)
EC10	0.28 mg/l (Pseudokirchneriella subcapitata) (EPA OTS 797.1050)
EC50/48h	0.56 mg/l (green alge)
	3.3-7.4 mg/l (daphnia magna)
EC50/72h	0.46-4.3 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	>1-<10 mg/l (piscis)
	19.03-33.53 mg/l (lem)
	3.24-4.99 mg/l (pimephales promelas)
	6.75-14.5 mg/l (Pimephales promelas)
	58.75-95.32 mg/l (poecilia reticulata)
LC50/72h	4.9 mg/l (green alge)

7779-90-0 trizinc bis(orthophosphate)

EC50/48h	28.2 mg/l (daphnia magna)
ErC50/72h	<0.3 mg/l (Desmodesmus subspicatus)

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EC50/48h	<1.7 mg/l (daphnia magna)
EC50/72h	0.28 mg/l (Selenastrum capricornutum)
LC50/96h	<5.1 mg/l (Oncorhynchus mykiss)

13463-67-7 titanium dioxide

EC50	>1,000 mg/l (bacteria)
EC50/48h	>100 mg/l (daphnia magna)
EC50/72h	16 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	>100 mg/l (Oncorhynchus mykiss) >1,000 mg/l (pimephales promelas)

38668-48-3 1,1'-(p-tolylimino)dipropan-2-ol

EC50/48h	28.8 mg/l (daphnia magna) (OECD 202)
EC20/0.5h	>1,995 mg/l (BES) (OECD 209)
EC50/72h	245 mg/l (Desmodesmus subspicatus) (OECD 201)
LC50/96h	17 mg/l (Brachydanio rerio)

136-52-7 cobalt(II) 2-ethylhexanoate

IC50/72h	528 mg/l (green alge)
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130-15-4 1,4-naphthoquinone

NOEC	0.011 mg/kg (green alge)
EC50/48h	0.026 mg/l (daphnia magna)
EC50/72h	0.011 mg/l (green alge) 0.42 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	0.045 mg/l (Oryzias latipes)

108-31-6 maleic anhydride

EC50/24h	316-330 mg/l (daphnia magna)
EC50	77 mg/l (daphnia magna)
EC10/18h	44.6 mg/l (pseudomonas putida)
EC50/48h	42.81 mg/l (daphnia magna)
ErC50/72h	74.35 mg/l (Pseudokirchneriella subcapitata) (OECD 202)
NOELR/72h	150 mg/l (Pseudokirchneriella subcapitata)
NOEC/21d	10 mg/l (daphnia magna)
EC50/72h	29 mg/l (Desmodesmus subspicatus) 74.32 mg/l (Pseudokirchneriella subcapitata) >150 mg/l (Selenastrum capricornutum)
LC50/96h	75 mg/l (Iepomis macrochirus) 75 mg/l (Oncorhynchus mykiss)

· **12.2 Persistence and****degradability**

No further relevant information available.

· **12.3 Bioaccumulative potential**

No further relevant information available.

· **12.4 Mobility in soil**

No further relevant information available.

· **12.5 Results of PBT and vPvB assessment**

· PBT: Not applicable.

· vPvB: Not applicable.

· **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

· **12.7 Other adverse effects**

· Remark: Harmful to fish

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- Additional ecological information:
- General notes:

Harmful to aquatic organisms
Do not allow product to reach ground water, water course or sewage system.
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

- Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- European waste catalogue

20 00 00	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01 00	separately collected fractions (except 15 01)
20 01 27*	paint, inks, adhesives and resins containing hazardous substances

- Uncleaned packaging:

- Recommendation: Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
- Recommended cleansing agents: Alcohol

SECTION 14: Transport information

· **14.1 UN number or ID number**

- ADR, IMDG, IATA UN3269

· **14.2 UN proper shipping name**

- ADR 3269 POLYESTER RESIN KIT
- IMDG, IATA POLYESTER RESIN KIT

· **14.3 Transport hazard class(es)**

- ADR



- Class 3 (F3) Flammable liquids.
- Label 3

- IMDG, IATA



- Class 3 Flammable liquids.
- Label 3

· **14.4 Packing group**

- ADR, IMDG, IATA III

· **14.5 Environmental hazards:**

- Marine pollutant: No

· **14.6 Special precautions for user**

Warning: Flammable liquids.

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· Hazard identification number (Kemler code):	-
· EMS Number:	F-E,S-D
· Stowage Category	A

· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
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· Transport/Additional information:

· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Transport category	3
· Tunnel restriction code	E
· Remarks:	Without hardener component: no dangerous goods < 450 l

· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: See SP340
· Remarks:	Without hardener component: no dangerous goods < 30 l

· IATA	
· Remarks:	Without hardener component: 3/III UN 1866 Resin Solution

· UN "Model Regulation":	UN 3269 POLYESTER RESIN KIT, 3, III
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SECTION 15: Regulatory information

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

· Directive 2012/18/EU	
· Named dangerous substances - ANNEX I	None of the ingredients is listed.
· Seveso category	P5c FLAMMABLE LIQUIDS
· Qualifying quantity (tonnes) for the application of lower-tier requirements	5,000 t
· Qualifying quantity (tonnes) for the application of upper-tier requirements	50,000 t
· REGULATION (EC) No 1907/2006 ANNEX XVII	Conditions of restriction: 3

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II
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None of the ingredients is listed.

· REGULATION (EU) 2019/1148

· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))
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None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors
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108-88-3	toluene	3
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· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

108-88-3 toluene

3

· National regulations:

· Information about limitation of use: Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.

· Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.

· Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients is listed.

· VOC EU 362.1 g/l

· **15.2 Chemical safety
assessment:**

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Laboratory

· Date of previous version: 24.01.2023

· Version number of previous version: 1

· Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 2: Acute toxicity – Category 2
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 1: Acute toxicity – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Corr. 1C: Skin corrosion/irritation – Category 1C
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1A: Skin sensitisation – Category 1A
Carc. 2: Carcinogenicity – Category 2
Repr. 1A: Reproductive toxicity – Category 1A
Repr. 2: Reproductive toxicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

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Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

EU