

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 15.05.2025

Version number 8 (replaces version 7)

Revision: 15.05.2025

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

1.1 Product identifier

- Trade name: **Repair Resin, Repair Kit**
- Article number: 30205, 30206, 30210, 30224, 30225, 30233
- UFI: X173-T0VJ-400V-FCC9

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

- Application of the substance / the mixture: No further relevant information available.
- Reaction resin
- Knife filler/ Surfacer
- Polyester 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 RE 2	H373	May cause damage to the hearing organs through prolonged or repeated exposure.
Aquatic Chronic 3	H412	Harmful to aquatic life with long lasting effects.

- Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- Storage: Store in a well-ventilated place. Keep cool.

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: Warning
- Hazard-determining components of labelling: styrene
maleic anhydride

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<ul style="list-style-type: none"> · <u>Hazard statements</u> 	<p>cobalt(II) 2-ethylhexanoate Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-ethanol</p> <p>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. H373 May cause damage to the hearing organs through prolonged or repeated exposure.</p>
<ul style="list-style-type: none"> · <u>Precautionary statements</u> 	<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. P102 Keep out of reach of children. P103 Read carefully and follow all instructions. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 Do not breathe vapours. P273 Avoid release to the environment. P280 Wear protective gloves / eye protection. P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P314 Get medical advice/attention if you feel unwell. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P501 Dispose of contents/container in accordance with local/regional/national/international regulations.</p>
<ul style="list-style-type: none"> · 2.3 Other hazards · <u>Results of PBT and vPvB assessment</u> · <u>PBT:</u> · <u>vPvB:</u> · <u>Determination of endocrine-disrupting properties</u> 	<p>Not applicable. Not applicable. For information on endocrine disrupting properties see section 11.</p>

SECTION 3: Composition/information on ingredients**3.2 Mixtures**

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

· Dangerous components:

CAS: 25013-15-4 EINECS: 246-562-2 Reg.nr.: 01-2119622074-50-0000	vinyltoluene Flam. Liq. 3, H226 Asp. Tox. 1, H304 Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 Aquatic Chronic 3, H412	12.5-25%
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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	<10%
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%
EC number: 911-490-9 Reg.nr.: 01-2119979579-10	Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-ethanol Eye Dam. 1, H318 Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317 Aquatic Chronic 3, H412	<1%
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	<1%
CAS: 136-52-7 EINECS: 205-250-6 Reg.nr.: 01-2119524678-29-xxxx	cobalt(II) 2-ethylhexanoate Repr. 1A, H360FD Eye Irrit. 2, H319; Skin Sens. 1A, H317 Aquatic Chronic 3, H412	<1%
CAS: 1314-13-2 EINECS: 215-222-5 Index number: 030-013-00-7 Reg.nr.: 01-2119463881-32	zinc oxide Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1)	<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: 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. Take affected persons out into the fresh air. Position and transport stably in side position.
- 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: Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Do not induce vomiting; call for medical help immediately. Drink plenty of water and provide fresh air. Call for a doctor immediately.

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

Headache
Profuse sweating
Nausea
Dizziness
Breathing difficulty
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.

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)
Hydrogen cyanide (HCN)
Under certain fire conditions, traces of other toxic gases cannot be excluded.

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
Wear fully protective suit.

· **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**

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources.

· **6.2 Environmental precautions:**

Use respiratory protective device against the effects of fumes/dust/aerosol.
Prevent seepage into sewage system, workpits and cellars.
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:**

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

· **6.4 Reference to other sections**

Dispose of the material collected according to regulations.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.
 Keep receptacles tightly sealed.
 Store in cool, dry place in tightly closed receptacles.
 Keep away from heat and direct sunlight.
 Prevent formation of aerosols.
 Use only in well ventilated areas.
 Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.
 Protect from heat.
 Protect against electrostatic charges.
 Fumes can combine with air to form an explosive mixture.

7.2 Conditions for safe storage, including any incompatibilities**Storage:****Requirements to be met by storerooms and receptacles:**

Store in a cool location.
 Store only in the original receptacle.
 Prevent any seepage into the ground.

Information about storage in one common storage facility:

Do not store together with acids.
 Do not store together with alkalis (caustic solutions).
 Store away from oxidising agents.
 Store away from foodstuffs.

Further information about storage conditions:

Protect from heat and direct sunlight.
 Store in cool, dry conditions in well sealed receptacles.
 Keep container tightly sealed.
 Store receptacle in a well ventilated area.

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**25013-15-4 vinyltoluene**

Oral	DNEL (Langzeit-wiederholt)	0.0833 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	1.65 mg/kg bw/day (ARB) 0.595 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	5.83 mg/m ³ Air (ARB) 1.04 mg/m ³ Air (BEV)

100-42-5 styrene

Oral	DNEL (Langzeit-wiederholt)	2.1 mg/kg bw/day (BEV)
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Dermal	DNEL (Langzeit-wiederholt)	406 mg/kg bw/day (ARB) 343 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	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) 83 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	5 mg/m ³ Air (ARB) 2.5 mg/m ³ Air (BEV)

Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-ethanol

Oral	DNEL (Langzeit-wiederholt)	0.83 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	1.4 mg/kg bw/day (ARB) 0.83 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	9.8 mg/m ³ Air (ARB) 2.9 mg/m ³ Air (BEV)

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

1314-13-2 zinc oxide

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

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)

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· PNECs

25013-15-4 vinyltoluene

PNEC (wässrig)	17 mg/l (KA) 0.000319 mg/l (MW) 0.0000319 mg/l (SW)
PNEC (fest)	0.00471 mg/kg Trockengew (BO) 0.025 mg/kg Trockengew (MWS) 1.245 mg/kg Trockengew (SWS)

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)

7779-90-0 trizinc bis(orthophosphate)

PNEC (wässrig)	0.1 mg/l (KA) 0.0072 mg/l (MW) 0.0144 mg/l (SW)
PNEC (fest)	83.1 mg/kg Trockengew (BO) 162.2 mg/kg Trockengew (MWS) 146.9 mg/kg Trockengew (SWS)

Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-ethanol

PNEC (wässrig)	10 mg/l (KA) 0.005 mg/l (MW) 0.048 mg/l (SW)
PNEC (fest)	0.21 mg/kg Trockengew (BO) 0.12 mg/kg Trockengew (MWS) 1.2 mg/kg Trockengew (SWS)

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

PNEC (wässrig)	3 mg/l (KA) 0.013 mg/l (MW) 0.13 mg/l (SW) 0.17 mg/l (WAS)
PNEC (fest)	0.798 mg/kg Trockengew (BO) 0.438 mg/kg Trockengew (MWS) 4.38 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) 9.5 mg/kg Trockengew (MWS)

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	9.5-11.2 mg/kg Trockengew (SWS)
1314-13-2 zinc oxide	
PNEC (wässrig)	52 mg/l (KA) 6.1 mg/l (MW) 20.6 mg/l (SW)
PNEC (fest)	35.6 mg/kg Trockengew (BO) 56.5 mg/kg Trockengew (MWS) 117 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) 0.379 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 section 7.
- Individual protection measures, such as personal protective equipment
- General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

Do not eat, drink, smoke or sniff while working.

Use skin protection cream for skin protection.

Clean skin thoroughly immediately after handling the product.

- Respiratory protection: 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.

Short term filter device:

Filter A/P2

- Hand protection 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>)



Protective gloves

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

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

The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived

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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 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>).

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>)

· 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.

· Penetration time of glove material

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

Value for the permeation: Level ≤ 2 , 30 min

· 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:

Chloroprene rubber, CR

Leather gloves

Strong material gloves

· Eye/face protection

Tightly sealed goggles

· Body protection:

Solvent resistant protective clothing

SECTION 9: Physical and chemical properties· **9.1 Information on basic physical and chemical properties**· General Information

· <u>Colour:</u>	greengrey
· <u>Odour:</u>	Specific type
· <u>Melting point/freezing point:</u>	Undetermined.
· <u>Boiling point or initial boiling point and boiling range</u>	145.2 °C
· <u>Lower and upper explosion limit</u>	
· <u>Lower:</u>	1.2 Vol %
· <u>Upper:</u>	8.9 Vol %
· <u>Flash point:</u>	32 °C
· <u>Auto-ignition temperature:</u>	480 °C
· <u>pH</u>	Not determined.
	Not applicable

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· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic at 20 °C:	2,500 mPas
· Solubility	
· water:	Not miscible or difficult to mix.
· Vapour pressure at 20 °C:	6 hPa
· Density and/or relative density	
· Density at 20 °C:	1.36 g/cm ³

9.2 Other information

· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Solvent content:	
· Organic solvents:	25.4 %
· Solids content:	32.5 %

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

SECTION 10: Stability and reactivity

· 10.1 Reactivity	No further relevant information available.
· 10.2 Chemical stability	
· Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications. No decomposition if used and stored according to specifications.
· 10.3 Possibility of hazardous reactions	Exothermic polymerisation. Reacts with peroxides and other radical forming substances. Reacts with strong alkali. Reacts with strong acids. Reacts with strong oxidising agents.
· 10.4 Conditions to avoid	No further relevant information available.
· 10.5 Incompatible materials:	No further relevant information available.

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10.6 Hazardous decomposition**products:**

Carbon monoxide and carbon dioxide
Hydrogen cyanide (prussic acid)
Nitrogen oxides (NO_x)
Possible in traces.

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	>11,737-<93,897 mg/kg (rat)
Inhalative	LC50/4 h	44.8 mg/l

25013-15-4 vinyltoluene

Oral	LD50	3,375 mg/kg (rat)
	NOAEL	600 mg/kg (rat)
Dermal	LD50	4,585 mg/kg (rabbit)
Inhalative	LC50/4h	>16,891 mg/m ³ (rat)
	LC50/4 h	11 mg/l (ATE)

100-42-5 styrene

Oral	LD50	5,000 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) (OECD 401)
Inhalative	LC50/4 h	>5.7 mg/l (rat) (OECD 403)

Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-ethanol

Oral	LD50	619 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

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)

1314-13-2 zinc oxide

Oral	LD50	7,950 mg/kg (mouse)
		>5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	>5,700 mg/l (rat)

108-31-6 maleic anhydride

Oral	LD50	1,090-2,620 mg/kg (rabbit) (OECD 401)
		400-480 mg/kg (rat)
Dermal	LD50	2,620 mg/kg (rabbit)

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Inhalative	LC50/1h	>4.35 mg/l (rat)
	LC50/48h	138 mg/l (lem)

- Primary irritant effect: Causes skin irritation.
- Skin corrosion/irritation Causes serious eye irritation.
- Serious eye damage/irritation May cause an allergic skin reaction.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Suspected of damaging the unborn child.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure May cause damage to the hearing organs through prolonged or repeated exposure.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- 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:

25013-15-4 vinyltoluene

EC50	2.6 mg/l (Bluegill.)
EC50/48h	1.3 mg/l (daphnia magna)
ErC50/72h	4.3 mg/l (Pseudokirchneriella subcapitata)
NOEC	0.563 mg/l (piscis)
NOELR/72h	1.6 mg/l (algae)
NOEC/21d	0.32 mg/l (daphnia magna)
	0.563 mg/l (piscis)
EC10	0.25 mg/l (Desmodesmus subspicatus)
EC50/72h	0.319 mg/l (Desmodesmus subspicatus)
	5.2 mg/l (Fathead minnow)
	2.6 mg/l (senastrum capricornutum)
LC50/96h	5.2-23.4 mg/l (piscis)
	5.2 mg/l (pimephales promelas)

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 (algae)
	1.4 mg/l (senastrum 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 (algae)
EC20/0.5h	140 mg/l (BES) (OECD 209)

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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 (algae)
	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 (Iem)
	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 (algae)

7779-90-0 trizinc bis(orthophosphate)

EC50/48h	0.21-0.34 mg/l (daphnia magna)
ErC50/72h	<0.3 mg/l (Desmodesmus subspicatus)
NOEC	≥0.03-≤1.57 mg/l (daphnia magna)
	≥0.05-≤2.58 mg/l (piscis)
	0.052 mg/l (selenastrum capricornutum)
EC50/48h	<1.7 mg/l (daphnia magna)
EC50/72h	0.089-0.67 mg/l (selenastrum capricornutum)
	0.28 mg/l (Selenastrum capricornutum)
LC50/96h	0.47-0.95 mg/l (piscis)
	<5.1 mg/l (Oncorhynchus mykiss)

Reaction mass of 2,2'-(4-methylphenyl)imino]bisethanol and 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-ethanol

EC50/48h	48 mg/l (daphnia magna)
EC50/72h	>100 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	>100 mg/l (Cyprinus carpio)

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)
NOEC/21d	1.3 mg/l (piscis)
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 (algae)
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1314-13-2 zinc oxide

EC50/48h	>1,000 mg/l (daphnia magna)
NOELR/72h	0.017 mg/l (Pseudokirchneriella subcapitata)
EC50/48h	1 mg/l (daphnia magna)
EC50/72h	0.17 mg/l (selenastrum capricornutum)
LC50/96h	>320 mg/l (Iem)
	1.1 mg/l (Oncorhynchus mykiss)
	2,246 mg/l (pimephales promelas)
LC50/72h	0.17 mg/l (Selenastrum capricornutum)

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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) (OECD 202)
ErC50/72h	74.35 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
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
- Additional ecological information:
- General notes: Do not allow product to reach ground water, water course or sewage system.
Harmful to aquatic organisms
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: Disposal must be made according to official regulations.
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
- Recommended cleansing agents: Alcohol

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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 POLYESTER RESIN KIT, MARINE POLLUTANT
 · IATA POLYESTER RESIN KIT

· **14.3 Transport hazard class(es)**· ADR

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

· IMDG

· Class 3 Flammable liquids.
 · Label 3

· IATA

· Class 3 Flammable liquids.
 · Label 3

· **14.4 Packing group**· ADR, IMDG, IATA III· **14.5 Environmental hazards:**· Marine pollutant: Product contains environmentally hazardous substances:

Symbol (fish and tree)

· **14.6 Special precautions for user**

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

· **14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

· 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

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· IMDG	5L
· Limited quantities (LQ)	Code: See SP340
· Excepted quantities (EQ)	Without hardener component: no dangerous goods < 450 l
· Remarks:	
· IATA	
· Remarks:	Without hardener component: 3/III UN 1866 Resin Solution
· UN "Model Regulation":	UN 3269 POLYESTER RESIN KIT, 3, III

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

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))

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

108-88-3 toluene

3

· 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 pregnant and lactating women must be observed.
Employment restrictions concerning juveniles 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 345.4 g/l

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· DECOPAINT: subject to EU-regulations 2004/42/EG (ANNEX II)

EU Grenzwert für dieses Produkt (Produktkategorie (Kat. B/b)): 250 g/l (2007) / 250 g/l (2010).
Das Produkt enthält max. 125 g/l VOC.

· **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.

This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

· Department issuing SDS:

Laboratory

· Date of previous version:

22.04.2024

· Version number of previous version:

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· 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
ATE: Acute toxicity estimate values
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 2: Acute toxicity – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
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
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
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
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