

Safety data sheet

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

Printing date 21.06.2024

Version number 5

Revision: 21.06.2024

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

1.1 Product identifier

Trade name: **Akepox 2005 Laminating Resin 3+3
Component B**

Article number: 13675, 13676, 13677, 12207

UFI: VG24-Q0FT-G009-6GU5

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

Epoxy resin adhesive

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

Acute Tox. 4	H302	Harmful if swallowed.
Skin Corr. 1B	H314	Causes severe skin burns and eye damage.
Eye Dam. 1	H318	Causes serious eye damage.
Skin Sens. 1	H317	May cause an allergic skin reaction.
Repr. 2	H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
Aquatic Acute 1	H400	Very toxic to aquatic life.
Aquatic Chronic 1	H410	Very toxic 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.



GHS05 GHS07 GHS08 GHS09

Signal word

Danger

Hazard-determining components of labelling:

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
3-aminomethyl-3,5,5-trimethylcyclohexylamine
4-nonylphenol, branched
Benzylalkohol

Hazard statements

N-(3-(trimethoxysilyl)propyl)ethylenediamine
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

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· <u>Precautionary statements</u>	<p>H317 May cause an allergic skin reaction.</p> <p>H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.</p> <p>H410 Very toxic 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>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>P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.</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>P310 Immediately call a POISON CENTER/doctor.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/container in accordance with local/regional/national/international regulations.</p>
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· **2.3 Other hazards**· Results of PBT and vPvB assessment· PBT: Not applicable.· vPvB:

1760-24-3 | N-(3-(trimethoxysilyl)propyl)ethylenediamine

· Determination of endocrine-disrupting properties

84852-15-3 | 4-nonylphenol, branched

List I

69-72-7 | salicylic acid

List II; III

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**· Description: Mixture of substances listed below with nonhazardous additions.· Dangerous components:

CAS: 100-51-6 EINECS: 202-859-9 Index number: 603-057-00-5 Reg.nr.: 01-2119492630-38-0000	Benzylalkohol Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319	12.5-25%
CAS: 38294-64-3 NLP: 500-101-4 Reg.nr.: 01-2119965165-33	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine Skin Corr. 1B, H314; Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	50-100%
CAS: 2855-13-2 EINECS: 220-666-8 Index number: 612-067-00-9 Reg.nr.: 01-2119514687-32-0000	3-aminomethyl-3,5,5-trimethylcyclohexylamine Skin Corr. 1B, H314; Eye Dam. 1, H318 Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1A, H317 Aquatic Chronic 3, H412 ATE: LD50 oral: 1,030 mg/kg Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.001 %	<12.5%

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CAS: 84852-15-3 EINECS: 284-325-5 Index number: 601-053-00-8 Reg.nr.: 01-2119510715-45-xxxx	4-nonylphenol, branched Repr. 2, H361fd Skin Corr. 1B, H314; Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10) Acute Tox. 4, H302	1-5%
CAS: 69-72-7 EINECS: 200-712-3 Index number: 607-732-00-5 Reg.nr.: 01-2119486984-17	salicylic acid Repr. 2, H361d Eye Dam. 1, H318 Acute Tox. 4, H302	1-5%
CAS: 1760-24-3 EINECS: 217-164-6 Reg.nr.: 01-2119970215-39	N-(3-(trimethoxysilyl)propyl)ethylenediamine Eye Dam. 1, H318 Skin Sens. 1, H317; STOT SE 3, H335 vPvB	1-5%

· SVHC

84852-15-3 4-nonylphenol, branched

· 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 and to be sure call for a doctor.
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.
Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Call for a doctor immediately.
Drink plenty of water and provide fresh air. Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Breathing difficulty
Headache
Dizziness
Dizziness
Nausea
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: Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture

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

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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.

· **5.3 Advice for firefighters**

· Protective equipment:

Wear fully protective suit.

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

· Additional information

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

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

SECTION 6: Accidental release measures

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

Ensure adequate ventilation

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 to penetrate the ground/soil.

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).

Use neutralising agent.

Dispose contaminated material as waste according to section 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**

Keep receptacles tightly sealed.

Store in cool, dry place in tightly closed receptacles.

Use only in well ventilated areas.

Ensure good ventilation/exhaustion at the workplace.

· Information about fire - and explosion protection:

No special measures required.

· **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 oxidising agents.

Store away from foodstuffs.

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- Further information about storage conditions: Store receptacle in a well ventilated area.
Keep container tightly sealed.
- Storage class: 8 A
- **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

38294-64-3 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Dermal	DNEL (Langzeit-wiederholt)	0.14 mg/kg bw/day (ARB)
Inhalative	DNEL (Langzeit-wiederholt)	0.493 mg/m ³ Air (ARB)

100-51-6 Benzylalkohol

Oral	DNEL (Kurzzeit-akut)	20 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	4 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	40 mg/kg bw/day (ARB)
	DNEL (Langzeit-wiederholt)	20 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	8 mg/kg bw/day (ARB)
	DNEL (Kurzzeit-akut)	4 mg/kg bw/day (BEV)
	DNEL (Kurzzeit-akut)	110 mg/m ³ Air (ARB)
	DNEL (Langzeit-wiederholt)	27 mg/m ³ Air (BEV)
	DNEL (Langzeit-wiederholt)	22 mg/m ³ Air (ARB)
		5.4 mg/m ³ Air (BEV)

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Oral	DNEL (Kurzzeit-akut)	0.3 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	0.3 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	0.073 mg/m ³ Air (ARB)
	DNEL (Langzeit-wiederholt)	0.073 mg/m ³ Air (ARB)

84852-15-3 4-nonylphenol, branched

Dermal	DNEL (Langzeit-wiederholt)	7.5 mg/kg bw/day (ARB)
Inhalative	DNEL (Langzeit-wiederholt)	0.5 mg/m ³ Air (ARB)

69-72-7 salicylic acid

Oral	DNEL (Kurzzeit-akut)	4 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	1 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	2 mg/kg bw/day (ARB)
	DNEL (Langzeit-wiederholt)	1 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	16 mg/m ³ Air (ARB)
	DNEL (Langzeit-wiederholt)	0.2-4 mg/m ³ Air (BEV)

1760-24-3 N-(3-(trimethoxysilyl)propyl)ethylenediamine

Oral	DNEL (Langzeit-wiederholt)	2.5 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	5 mg/kg bw/day (ARB)

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Inhalative	DNEL (Langzeit-wiederholt)	17 mg/kg bw/day (BEV)
		5 mg/kg bw/day (ARB)
		2.5 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	35.5 mg/m ³ Air (ARB)
		8.7 mg/m ³ Air (BEV)

· PNECs

38294-64-3 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

PNEC (wässrig)	10 mg/l (KA)
	0.00111 mg/l (MW)
	0.0111 mg/l (SW)
	0.111 mg/l (WAS)
PNEC (fest)	864 mg/kg Trockengew (BO)
	432 mg/kg Trockengew (MWS)
	4,320 mg/kg Trockengew (SWS)

100-51-6 Benzylalkohol

PNEC (wässrig)	39 mg/l (KA)
	0.1 mg/l (MW)
	1 mg/l (SW)
	2.3 mg/l (WAS)
PNEC (fest)	0.456 mg/kg Trockengew (BO)
	0.527 mg/kg Trockengew (MWS)
	5.27 mg/kg Trockengew (SWS)

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

PNEC (wässrig)	3.18 mg/l (KA)
	0.006 mg/l (MW)
	0.06 mg/l (SW)
	0.23 mg/l (WAS)
PNEC (fest)	1.121 mg/kg Trockengew (BO)
	0.578 mg/kg Trockengew (MWS)
	5.784 mg/kg Trockengew (SWS)

84852-15-3 4-nonylphenol, branched

PNEC (wässrig)	0.000527 mg/l (MW)
	0.000614 mg/l (SW)

69-72-7 salicylic acid

PNEC (wässrig)	162 mg/l (KA)
	0.02 mg/l (MW)
	0.2 mg/l (SW)
PNEC (fest)	0.166 mg/kg Trockengew (BO)
	0.142 mg/kg Trockengew (MWS)
	1.42 mg/kg Trockengew (SWS)

1760-24-3 N-(3-(trimethoxysilyl)propyl)ethylenediamine

PNEC (wässrig)	25 mg/l (KA)
	0.0062 mg/l (MW)

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PNEC (fest)	0.062 mg/l (SW)
	0.62 mg/l (WAS)
	0.0075 mg/kg Trockengew (BO)
	0.005 mg/kg Trockengew (MWS)
	0.05 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:
 - 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:
 - Not necessary if room is well-ventilated.
 - 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.
- 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 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 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

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- 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 \leq 6, 480 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)
Nitrile rubber, NBR
Camatril (KCL, Art_No. 730, 731, 732, 733)
Dermatril (Art_No. 740, 741, 742)
Chloroprene rubber, CR
Camapren (KCL, Art_No. 720, 722, 726)
- As protection from splashes gloves made of the following materials are suitable:
Nitrile rubber, NBR
Camatril (KCL, 730, 731, 732, 733)
Chloroprene rubber, CR
Camapren (KCL, Art_No. 720, 722, 726)
- Not suitable are gloves made of the following materials:
Natural rubber, NR
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: Yellow
- Odour: Characteristic
- Melting point/freezing point: Undetermined.
- Boiling point or initial boiling point and boiling range 205 °C
- Lower and upper explosion limit
- Lower: 1.2 Vol %
- Upper: 13 Vol %
- Flash point: 101 °C
- Auto-ignition temperature: 380 °C
- Decomposition temperature: > 250 °C
- pH Not determined.
Not applicable
- Viscosity:
- Kinematic viscosity Not determined.
- Dynamic at 20 °C: 5,000 mPas
- Solubility
- water: Not miscible or difficult to mix.

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· Vapour pressure at 20 °C:	0.1 hPa
· Density and/or relative density	
· Density at 20 °C:	1.01 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 does not present an explosion hazard.
· Solvent content:	
· Organic solvents:	12.8 %
· Solids content:	83.0 %

· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· 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 and stored according to specifications.
· 10.3 Possibility of hazardous reactions	Strong exothermic reaction with 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.
· 10.6 Hazardous decomposition products:	Corrosive gases/vapours

SECTION 11: Toxicological information

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

· Acute toxicity	Harmful if swallowed.
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· LD/LC50 values relevant for classification:		
Oral	LD50	>400 mg/kg (rat)

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38294-64-3 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

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

100-51-6 Benzylalkohol

Oral	LD50	1,040 mg/kg (mouse) 1,040 mg/kg (rabbit) 1,620 mg/kg (rat)
	NOEL	400 mg/kg (rat)
	NOAEL	200 mg/kg (mouse) 1,045 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
Inhalative	LC50/8h	1,000 ppm (rat)
	LC50/4 h	>4.178 mg/l (rat) (OECD 403)
	LC50/48h	360 mg/l (daphnia magna) 645 mg/l (goo)

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Oral	LD50	1,030 mg/kg (ATE) 1,030 mg/kg (rat)
	NOAEL-Werte	>250 mg/kg (rat)
Dermal	LD50	1,840 mg/kg (rabbit) >2,000 mg/kg (rat)
	Inhalative	LC50/4 h

84852-15-3 4-nonylphenol, branched

Oral	LD50	1,210 mg/kg (rat)
Dermal	LD50	2,031-2,831 mg/kg (rabbit)
Inhalative	LC50/4 h	3.636 mg/l (mouse)

69-72-7 salicylic acid

Oral	LD50	891 mg/kg (rat)
	NOAEL-Werte	250 mg/kg (rat) (OECD 416)
Dermal	LD50	>2,000 mg/kg (rabbit)
	LC50/48h	90 mg/l (Leuciscus idus)

1760-24-3 N-(3-(trimethoxysilyl)propyl)ethylenediamine

Oral	LD50	2,995 mg/kg (rat)
	NOEL	≥500 mg/kg (rat) (OECD 422)
	NOAEL	≥500 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	1.49 mg/l (rat)

- Skin corrosion/irritation Causes severe skin burns and eye damage.
- Serious eye damage/irritation Causes serious eye damage.
- 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 fertility. Suspected of damaging the unborn child.
- STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure Based on available data, the classification criteria are not met.

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- Aspiration hazard Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

- Endocrine disrupting properties

84852-15-3	4-nonylphenol, branched	List I
69-72-7	salicylic acid	List II; III

SECTION 12: Ecological information

- **12.1 Toxicity**

- Aquatic toxicity:

38294-64-3 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

EC50	>1,000 mg/l (BES)
EL50/48h	11.1 mg/l (daphnia magna) (OECD 202)
EL50/72h	79.4 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
LL50/96h	70.7 mg/l (Oncorhynchus mykiss) (OECD 203)
EC50/72h	11.3 mg/l (algae)

100-51-6 Benzylalkohol

EC50/24h	55-400 mg/l (daphnia magna)
EC50/96h	640 mg/l (Scenedesmus pluvialis)
EC50	2,100 mg/l (BES) (OECD 209)
	79 mg/l (Scenedesmus quadricauda)
EC10/16h	658 mg/l (pseudomonas putida)
EC50/48h	230 mg/l (daphnia magna) (OECD 202)
ErC50/72h	770 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
EC0	640 mg/l (Scenedesmus quadricauda)
EC50/16h	658 mg/l (pseudomonas putida)
EC50/30min	71.4 mg/l (Photobac. phosphoreum)
	400 mg/l (pseudomonas putida)
IC5/96h	640 mg/l (Scenedesmus quadricauda)
NOEC	310 mg/kg (Pseudokirchneriella subcapitata) (OECD 201)
NOEC/21d	51 mg/l (daphnia magna) (OECD211)
EC50/72h	770 mg/l (algae) (OECD 201)
	500 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
LC50/96h	645 mg/l (goo)
	10 mg/l (lepomis macrochirus)
	8.9 mg/l (Oncorhynchus mykiss)
	460 mg/l (Pimephales promelas) (EPA OPP 72-1)

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

EC50/24h	44 mg/l (daphnia magna)
LC 0/96h	70 mg/l (piscis)
EC10/18h	1,120 mg/l (pseudomonas putida)
EC50/48h	23 mg/l (daphnia magna) (OECD TG 202)
ErC50/72h	>50 mg/l (Scenedesmus subspicatus) (EG 88/302)
NOEC/21d	3 mg/l (daphnia magna) (OECD 202)

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EC10	11.2 mg/l (Desmodesmus subspicatus)
EC50/72h	37 mg/l (algae) (EG 88/302)
	>50 mg/l (Desmodesmus subspicatus)
	37 mg/l (Scenedesmus subspicatus)
LC50/96h	110 mg/l (Brachydanio rerio) (EG 84/449)
	110 mg/l (Leuciscus idus) (EG 84/449)

84852-15-3 4-nonylphenol, branched

EC50/96h	0.41 mg/l (algae)
EC50/48h	0.085 mg/l (daphnia magna)
NOEC/21d	0.024 mg/l (daphnia magna)
EC50/72h	0.33 mg/l (Scenedesmus subspicatus)
LC50/96h	0.05 mg/l (piscis) (EPA-660-75-009)
	0.128 mg/l (Pimephales promelas)

69-72-7 salicylic acid

EC50	380 mg/l (BES) (OECD 209)
LC50/24h	105-230 mg/l (daphnia magna)
EC50/48h	870 mg/l (daphnia magna) (OECD 202)
EC50/16h	380 mg/l (bacteria)
NOEC/21d	10 mg/l (daphnia magna) (OECD 202 II)
EC50/72h	>100 mg/l (algae) (OECD 201)
LC50/96h	1,370 mg/l (piscis) (OECD 203)
	1,380 mg/l (pimephales promelas)

1760-24-3 N-(3-(trimethoxysilyl)propyl)ethylenediamine

EC50	435 mg/l (Klärschlamm: Atmungs-/Vermehrungshemmung)
	67 mg/l (pseudomonas putida) (DIN 38412 part 8)
IC50/72h	8.8 mg/l (algae) (OECD 201)
EC50/48h	81 mg/l (daphnia magna)
ErC50/72h	8.8 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
EC50/16h	67 mg/l (pseudomonas putida)
NOEC	3.1 mg/kg (algae) (OECD 201)
	≥1,000 mg/kg (Eisenia fetida (Regenwürmer)) (OECD 207)
NOELR/72h	3.1 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
NOEC/21d	>1 mg/l (daphnia magna)
EC50/48h	87.4 mg/l (daphnia magna)
EC50/72h	5 mg/l (algae)
	126 mg/l (Scenedesmus subspicatus)
LC50/96h	344 mg/l (Brachydanio rerio)
	597 mg/l (Danio rerio.)
	168 mg/l (pimephales promelas)

· **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.

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· vPvB:

1760-24-3 N-(3-(trimethoxysilyl)propyl)ethylenediamine

· **12.6 Endocrine disrupting properties**

For information on endocrine disrupting properties see section 11.

· **12.7 Other adverse effects**

· Remark:

Toxic for fish

· Additional ecological information:· General notes:

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even small quantities leak into the ground.

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
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20 01 00	separately collected fractions (except 15 01)
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20 01 27*	paint, inks, adhesives and resins containing hazardous substances
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· 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

UN2735

· **14.2 UN proper shipping name**

· ADR

2735 AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine, 4-nonylphenol, branched), ENVIRONMENTALLY HAZARDOUS

· IMDG

AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine, 4-nonylphenol, branched), MARINE POLLUTANT

· IATA

AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine, 4-nonylphenol, branched)

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· **14.3 Transport hazard class(es)**

· ADR



· Class 8 (C7) Corrosive substances.
· Label 8

· IMDG



· Class 8 Corrosive substances.
· Label 8

· IATA



· Class 8 Corrosive substances.
· Label 8

· **14.4 Packing group**

· ADR, IMDG, IATA III

· **14.5 Environmental hazards:**

· Marine pollutant: Product contains environmentally hazardous substances:
No
Symbol (fish and tree)
Symbol (fish and tree)

· Special marking (ADR):

· **14.6 Special precautions for user**

· Hazard identification number (Kemler code): Warning: Corrosive substances.
80
· EMS Number: F-A,S-B
· Segregation groups (SGG18) Alkalis
· Stowage Category A
· Segregation Code SG35 Stow "separated from" SGG1-acids

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

Not applicable.

· Transport/Additional information:

· ADR
· Limited quantities (LQ) 5L
· Excepted quantities (EQ) Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml
· Transport category 3
· Tunnel restriction code E

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<ul style="list-style-type: none"> · <u>IMDG</u> · <u>Limited quantities (LQ)</u> · <u>Excepted quantities (EQ)</u> 	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
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<ul style="list-style-type: none"> · <u>UN "Model Regulation":</u> 	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (4,4'-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, REACTION PRODUCTS WITH 3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE, 4-NONYLPHENOL, BRANCHED), 8, III, ENVIRONMENTALLY HAZARDOUS
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SECTION 15: Regulatory information

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

<ul style="list-style-type: none"> · <u>Directive 2012/18/EU</u> · <u>Named dangerous substances - ANNEX I</u> · <u>Seveso category</u> · <u>Qualifying quantity (tonnes) for the application of lower-tier requirements</u> · <u>Qualifying quantity (tonnes) for the application of upper-tier requirements</u> · <u>REGULATION (EC) No 1907/2006 ANNEX XVII</u> 	None of the ingredients is listed. E1 Hazardous to the Aquatic Environment 100 t 200 t Conditions of restriction: 3
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<ul style="list-style-type: none"> · <u>Regulation (EU) No 649/2012</u> 	84852-15-3 4-nonylphenol, branched	Annex I Part 1 Annex I Part 2
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<ul style="list-style-type: none"> · <u>DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II</u> 	None of the ingredients is listed.
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<ul style="list-style-type: none"> · <u>REGULATION (EU) 2019/1148</u> 	None of the ingredients is listed.
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<ul style="list-style-type: none"> · <u>Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))</u> 	None of the ingredients is listed.
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<ul style="list-style-type: none"> · <u>Annex II - REPORTABLE EXPLOSIVES PRECURSORS</u> 	None of the ingredients is listed.
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<ul style="list-style-type: none"> · <u>Regulation (EC) No 273/2004 on drug precursors</u> 	None of the ingredients is listed.
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<ul style="list-style-type: none"> · <u>Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors</u> 	None of the ingredients is listed.
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- National regulations:

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

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· **Waterhazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.

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

84852-15-3	4-nonylphenol, branched
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· **VOC EU** 129.0 g/l

· **15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

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

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:** 07.09.2023

· **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)
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organisation
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
 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
 Acute Tox. 4: Acute toxicity – Category 4
 Skin Corr. 1B: Skin corrosion/irritation – Category 1B
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 Skin Sens. 1: Skin sensitisation – Category 1
 Skin Sens. 1A: Skin sensitisation – Category 1A
 Repr. 2: Reproductive toxicity – Category 2
 Repr. 2: Reproductive toxicity – Category 2
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 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