

Safety data sheet
according to UK REACH

Printing date 30.08.2024

Version number 7 (replaces version 6)

Revision: 30.08.2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name** Epoxy ST 100, Komp. B**Article number:** 1160**1.2 Relevant identified uses of the substance or mixture and uses advised against****Technical function** Plating agent**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**Remmers GmbH
Bernhard-Remmers-Str. 13
D-49624 Lönigen / Germany
Tel.: +49(0)5432/83-0
Fax: +49(0)5432/3985Remmers (UK) Limited
Unit 4 , Lloyds Court
Manor Royal, Crawley – West Sussex RH10 9QU
fon +44 (0) 1293 594 010
fax +44 (0) 1293 594 037**Information department:**Product Safety department: Phone: +44 (0) 1293 594 010
Email: sales@remmers.co.ukk**1.4 Emergency telephone number:**National Poisons Information Service (NPIS):
In England and Wales: NHS 111 - dial 111
In Scotland: NHS 24 - dial 11124h-Transport Emergency Contact Phone Number:
within USA and Canada: 1-800-424-9300
outside USA and Canada: 001-703-527-3887**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Acute Tox. 4	H332 Harmful if inhaled.
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.
Aquatic Chronic 3	H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008**

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

Hazard pictograms

GHS05 GHS07

Signal word Danger**Hazard-determining components of labelling:**benzyl alcohol
3-aminomethyl-3,5,5-trimethylcyclohexylamine
3,6,9-triazaundecamethylenediamine
2,4,6-tris(dimethylaminomethyl)phenol

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2-methylpentane-1,5-diamine

Hazard statements

H332 Harmful if inhaled.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P302+P352 IF ON SKIN: Wash with plenty of soap and 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.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**Determination of endocrine-disrupting properties** Not applicable.* **SECTION 3: Composition/information on ingredients****3.2 Mixtures****Description:** Mixture of the substances listed below with harmless additions.

Dangerous components [% w/w]:		
CAS: 100-51-6 EINECS: 202-859-9 Index number: 603-057-00-5 Reg.nr.: 01-2119492630-38-XXXX	benzyl alcohol Acute Tox. 4, H302; Acute Tox. 4, H332	≥30-<40%
CAS: 38294-64-3 NLP: 500-101-4 Reg.nr.: 01-2119965165-33-XXXX	Reaktionprodukte von 3-Aminomethyl-3,5,5-trimethylcyclohexylamin und 4,4'-Isopropylidendiphenol, oligomerisches Reaktionprodukt mit 1-Chlor-2,3-epoxypropan Skin Corr. 1B, H314; Skin Sens. 1, H317; Aquatic Chronic 3, H412	≥25-<30%
CAS: 112-57-2 EINECS: 203-986-2 Index number: 612-060-00-0	3,6,9-triazaundecamethylenediamine Skin Corr. 1B, H314; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	≥20-<25%
CAS: 2855-13-2 EINECS: 220-666-8 Index number: 612-067-00-9 Reg.nr.: 01-2119514687-32-XXXX	3-aminomethyl-3,5,5-trimethylcyclohexylamine Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Sens. 1A, H317 ATE: LD50 oral: 1,030 mg/kg Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.001 %	≥10-<20%
CAS: 15520-10-2 EINECS: 239-556-6 Reg.nr.: 01-2119976310-41-XXXX	2-methylpentane-1,5-diamine Skin Corr. 1A, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; STOT SE 3, H335	≥3-<5%
CAS: 90-72-2 EINECS: 202-013-9 Index number: 603-069-00-0 Reg.nr.: 01-2119560597-27-XXXX	2,4,6-tris(dimethylaminomethyl)phenol Skin Corr. 1B, H314; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412	≥1-<2.5%

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

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* SECTION 4: First aid measures

4.1 Description of first aid measures

General information

If symptoms occur or in case of doubt, seek medical attention. In case of unconsciousness, do not administer anything orally.

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 call for doctor for safety reasons.

In case of unconsciousness bring patient into stable side position for transport.

After skin contact Wash immediately with water and soap and rinse thoroughly.

After eye contact Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing Drink plenty of water and provide fresh air. Call a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

symptomatic treatment

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture

May be released in case of fire

Nitrogen oxides (NO_x)

Carbon monoxide (CO)

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

5.3 Advice for firefighters

Protective equipment:

Wear self-contained breathing apparatus.

Wear full protective suit.

Put on breathing apparatus.

Additional information

Cool endangered containers with water spray jet.

Collect contaminated fire fighting water separately. It must not enter drains.

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

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Do not allow to enter the ground/soil.

Do not allow product to reach sewage system or water bodies.

Inform responsible authorities in case product reaches bodies of water or sewage system.

Dilute with plenty of water.

6.3 Methods and material for containment and cleaning up:

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

Use neutralising agent.

Dispose of 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 information on disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaust in workplaces.

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

Ventilate storage and work rooms sufficiently.

Prevent any penetration into the ground.

Store only in unopened original containers.

Information on storage in a common storage facility: none**Further information about storage conditions:**

Store container in a well ventilated position.

Protect from frost.

Keep container tightly closed.

* **SECTION 8: Exposure controls/personal protection**

8.1 Control parameters**Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with limit values that have to be monitored at the workplace.

Additional information: The lists that were valid during compilation were used as a 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**

Do not eat, drink or smoke while working.

Use skin protection cream for preventive skin protection.

Keep away from food, beverages and animal feed.

Immediately remove soiled, saturated clothing.

Wash hands before pauses and after work.

Avoid contact with eyes and skin.

The following indication regarding the personal protective equipment are to be considered as suggestions. The selection of the necessary personal protective equipment is to be evaluated by the employer depending on the types of operations and the local circumstances. If a risk assessment on-site shows that there is no risk for employees, the personal protective equipment is not required or the amount of the PPE can be adapted accordingly.

Respiratory equipment:

Short term filter device:

Filter A (brown)

Only use ambient air independent respiratory equipment in pits, shafts and silos!

In case of brief exposure or low pollution load, use respiratory protection equipment with filter. In case of intensive or longer exposure, use self-contained respiratory protection equipment.

Hand protection

Long cuffed gloves

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

Nitrile rubber, NBR

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

Break through time: max. 240 min (DIN EN 374).

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

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

Eye/face protection Tightly sealed safety glasses.

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Body protection: Protective work clothing.

* SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Physical state	Fluid
Colour:	Yellowish
Odour:	Amine-like
Odour threshold:	Not determined.
Melting point/freezing point:	Not determined
Boiling point or initial boiling point and boiling range	>200 °C
Flammability	Not applicable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	> 100 °C
Auto-ignition temperature:	321 °C
Decomposition temperature:	Not determined.
pH at 20 °C	12.0
Viscosity:	
Kinematic viscosity	Not determined.
dynamic at 20 °C:	250 mPas
Solubility	
Water:	Fully miscible
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density	
Density at 20 °C:	0.99 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.

9.2 Other information

Appearance:	
Form:	Fluid
Important information on protection of health and environment, and on safety.	
Explosive properties:	Product is not explosive.
Solvent separation test	< 3 %
Change in condition	
Evaporation rate	Not determined.

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

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Corrosive to metals
Desensitised explosives

Void
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 handled and stored according to specifications.

10.3 Possibility of hazardous reactions No dangerous reactions known

10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products:

None if used properly.

None if stored properly.

* SECTION 11: Toxicological information

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

Acute toxicity: Harmful if inhaled.

LD/LC50 values that are relevant for classification:

CAS: 100-51-6 benzyl alcohol

Oral	LD50	1,620 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>4.178 mg/l (rat)

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

Oral	LD50	1,030 mg/kg (ATE) 1,030 mg/kg (rat)
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Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/irritation: Causes serious eye damage.

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: Based on available data, the classification criteria are not met.

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.

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: No further relevant information available.

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 No further relevant information available.

Remark: Harmful to fish

Additional ecological information:

General notes:

Do not allow product to reach ground water, bodies of water or sewage system.

Hazardous to drinking water even if small quantities leak into soil.

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Harmful to aquatic organisms

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

SECTION 13: Disposal considerations

Recommendation

Not hardened material must be disposed of as hazardous waste according to official regulations. Hardened product remains may be disposed of as building rubble or put into household garbage. The given refuse codes are recommendations based upon the intended use of the product. Because of special use and disposal conditions at the user's, other codes may apply under other conditions.

European waste catalogue

08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
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Uncleaned packaging:



Recommendation:

Disposal must be made according to official regulations.

Packaging can be reused or recycled after cleaning.

Recommended cleaning agent: Water, if necessary with cleaning agent.

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. (3-aminomethyl-3,5,5-trimethylcyclohexylamine)
IMDG, IATA	AMINES, LIQUID, CORROSIVE, N.O.S. (3-aminomethyl-3,5,5-trimethylcyclohexylamine)
14.3 Transport hazard class(es)	
ADR	
	
Class	8 (C7) Corrosive substances.
Label	8
IMDG, IATA	
	
Class	8 Corrosive substances.
Label	8
14.4 Packing group	
ADR, IMDG, IATA	III
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	
hazard identification number:	Warning: Corrosive substances. 80
EMS Number:	F-A,S-B
Segregation groups	(SGG18) Alkalis
Stowage Category	A

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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: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
Transport category	3
Tunnel restriction code	E
IMDG	
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
UN "Model Regulation":	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE), 8, III

SECTION 15: Regulatory information

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

Regulated explosives precursors
None of the ingredients is listed.
Regulated poisons
None of the ingredients is listed.
Reportable explosives precursors
None of the ingredients is listed.
Reportable poisons
None of the ingredients is listed.

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.

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.

National regulations

Other regulations, limitations and prohibition ordinances

APME document: "Epoxy resins and curing agents: Toxicology, working safety, environment."

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This data is based on our present state of knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally valid contractual relationship.

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Delivery specifications are found in the respective Technical Information Sheets.

Relevant phrases

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

Classification according to Regulation (EC) No 1272/2008 Calculation method**Department issuing data specification sheet:** Product Safety department / EHS**Version number of previous version:** 6**Abbreviations and acronyms:**

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

ATE: Acute toxicity estimate values

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

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

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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