



SAFETY DATA SHEET
ER1 Epoxy Rapid Repair Resin

Page: 1

Compilation date: 25/06/2015

Revision date: 06/07/2021

Revision No: 9

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

1.1. Product identifier

Product name: ER1 Epoxy Rapid Repair Resin

Product code: EP-RR-A

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

Use of substance / mixture: PC1: Adhesives, sealants. PC9a: Coatings and paints, thinners, paint removers. PC9b: Fillers, putties, plasters, modelling clay. PC32: Polymer preparations and compounds. PROC1: Use in closed process, no likelihood of exposure PROC2: Use in closed, continuous process with occasional controlled exposure PROC3: Use in closed batch process (synthesis or formulation) PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises PROC5: Mixing or blending in batch processes for formulation of preparations* and articles (multistage and/or significant contact) PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC10: Roller application or brushing PROC13: Treatment of articles by dipping and pouring PROC19: Hand-mixing with intimate contact and only PPE available ERC2: Formulation of preparations* ERC3: Formulation in materials ERC5: Industrial use resulting in inclusion into or onto a matrix ERC6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers

1.3. Details of the supplier of the safety data sheet

Company name: Easy Composites Ltd
Unit 39, Park Hall Business Village
Longton, Stoke on Trent
Staffordshire
ST3 5XA
United Kingdom
Tel: +44 (0) 1782 454499
Fax: +44 (0) 1782 596868
Email: sales@easycomposites.co.uk

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Resin

Page: 2

1.4. Emergency telephone number

Emergency tel: +44 (0) 1782 454499
(office hours only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Aquatic Chronic 2: H411; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317

Most important adverse effects: Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.
Toxic to aquatic life with long lasting effects.

2.2. Label elements

Label elements:

Hazard statements: H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H411: Toxic to aquatic life with long lasting effects.

Hazard pictograms: GHS07: Exclamation mark
GHS09: Environmental



Signal words: Warning

Precautionary statements: P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/eye protection/face 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.
P321: Specific treatment (see instructions on this label)
P362+P364: Take off contaminated clothing and wash it before reuse.

Haz. ingredients (label): BIS [4-(2,3-EPOXYPROPOXY) PHENYL] PROPANE; 1,3-PROPANEDIOL, 2,2-BIS (HYDROXYMETHYL)-, POLYMER WITH 2-(CHLOROMETHYL)OXRIANE; 1,4-BIS(2,3-EPOXYPROPOXY) BUTANE; PROPYLENE CARBONATE

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

[cont...]

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Resin

Page: 3

Hazardous ingredients:

BIS [4-(2,3-EPOXYPROPOXY) PHENYL] PROPANE - REACH registered number(s): 01-2119456619-26

EINECS	CAS	PBT / WEL	CLP Classification	Percent
216-823-5	1675-54-3	-	Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317; Aquatic Chronic 2: H411	>50%

1,3-PROPANEDIOL, 2,2-BIS(HYDROXYMETHYL)-, POLYMER WITH 2-(CHLOROMETHYL)OXIRANE

Polymer	30973-88-7	-	Skin Irrit. 2: H315; Eye Irrit. 2: H319; Skin Sens. 1: H317	1-25%
---------	------------	---	--	-------

1,4-BIS(2,3-EPOXYPROPOXY) BUTANE - REACH registered number(s): 01-2119494060-45

219-371-7	2425-79-8	-	Acute Tox. 4: H332; Acute Tox. 4: H312; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317	1-25%
-----------	-----------	---	---	-------

PROPYLENE CARBONATE

203-572-1	108-32-7	-	Eye Irrit. 2: H319	1-25%
-----------	----------	---	--------------------	-------

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Wash out mouth with water. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

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

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

[cont...]

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Resin

Page: 4

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits: No data available.

DNEL/PNEC Values

[cont...]

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Resin

Page: 5

Hazardous ingredients:

BIS [4-(2,3-EPOXYPROPOXY) PHENYL] PROPANE

Type	Exposure	Value	Population	Effect
DNEL	Dermal	8.33 mg/kg/day	Workers	Systemic
DNEL	Inhalation	12.25 mg/kg/day	Workers	Systemic
DNEL	Dermal	3.571 mg/kg/day	Consumers	Systemic
DNEL	Oral	0.75 mg/kg/day	Consumers	Systemic
PNEC	Fresh water	0.006 mg/l	-	-
PNEC	Marine water	0.0006 mg/l	-	-
PNEC	Microorganisms in sewage treatment	10 mg/l	-	-
PNEC	Fresh water sediments	0.996 mg/kg	-	-
PNEC	Marine sediments	0.0996 mg/kg	-	-
PNEC	Soil (agricultural)	0.196 mg/kg/day	-	-

1,4-BIS(2,3-EPOXYPROPOXY) BUTANE

Type	Exposure	Value	Population	Effect
DNEL	Oral (repeated dose)	0.56 mg/kg bw/day	General Population	Systemic
DNEL	Dermal (repeated dose)	5.56 mg/kg bw/day	General Population	Systemic
DNEL	Dermal (repeated dose)	9.26 mg/kg bw/day	Workers	Systemic
DNEL	Inhalation (repeated dose)	0.48 mg/m ³	General Population	Systemic
DNEL	Inhalation (repeated dose)	1.63 mg/m ³	Workers	Systemic
PNEC	Fresh water	0.024 mg/l	-	-
PNEC	Marine water	0.0024 mg/l	-	-
PNEC	Fresh water sediments	0.084 mg/l	-	-
PNEC	Marine sediments	0.0084 mg/l	-	-
PNEC	Microorganisms in sewage treatment	100 mg/l	-	-
PNEC	Soil (agricultural)	0.0027 mg/kg soil dw	-	-

PROPYLENE CARBONATE

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	70.53 mg/m ³	Workers	Systemic
DNEL	Inhalation	20 mg/m ³	Workers	Local
DNEL	Dermal	20 mg/kg bw/day	Workers	Systemic
DNEL	Inhalation	17.4 mg/m ³	Consumers	Systemic
DNEL	Inhalation	10 mg/m ³	Consumers	Local
DNEL	Dermal	10 mg/kg bw/day	Consumers	Systemic

[cont...]

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Resin

Page: 6

PNEC	Fresh water	0.9 mg/l	-	-
PNEC	Marine water	0.09 mg/l	-	-
PNEC	Microorganisms in sewage treatment	7400 mg/l	-	-
PNEC	Soil (agricultural)	0.81 mg/kg d.w.	-	-

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. The floor of the storage room must be impermeable to prevent the escape of liquids.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Protective gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Pale yellow

Odour: Characteristic odour

Evaporation rate: No data available.

Oxidising: No data available.

Solubility in water: No data available.

Viscosity: 1100 mPas (25°C)

Boiling point/range°C: No data available.

Flammability limits %: lower: No data available.

Flash point°C: No data available.

Autoflammability°C: No data available.

Relative density: 1.16 - 1.21

VOC g/l: No data available.

Melting point/range°C: No data available.

upper: No data available.

Part.coeff. n-octanol/water: No data available.

Vapour pressure: No data available.

pH: No data available.

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

[cont...]

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Resin

Page: 7

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

BIS [4-(2,3-EPOXYPROPOXY) PHENYL] PROPANE

DERMAL	RBT	LD50	23000	mg/kg
IPR	RAT	LD50	2200	mg/kg
ORL	MUS	LD50	15600	mg/kg
ORL	RAT	LD50	11300	µl/kg

1,4-BIS(2,3-EPOXYPROPOXY) BUTANE

DERMAL	RBT	LD50	> 2150	mg/kg
ORL	RAT	LD50	1163	mg/kg

PROPYLENE CARBONATE

DERMAL	RBT	LD50	>2000	mg/kg
ORL	RAT	LD50	33520	µl/kg

Relevant hazards for product:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
Respiratory/skin sensitisation	DRM	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

[cont...]

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Resin

Page: 8

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Hazardous ingredients:

BIS [4-(2,3-EPOXYPROPOXY) PHENYL] PROPANE

Daphnia magna	48H EC50	1.8	mg/l
GREEN ALGA (<i>Selenastrum capricornutum</i>)	72H ErC50	11	mg/l
RAINBOW TROUT (<i>Oncorhynchus mykiss</i>)	96H LC50	2	mg/l

1,4-BIS(2,3-EPOXYPROPOXY) BUTANE

Daphnia magna	24H EC50	75	mg/l
FISH	96H LC50	19.8	mg/l

PROPYLENE CARBONATE

Daphnia magna	48H EC50	> 1000	mg/l
FISH (<i>Cyprinus carpio</i>)	96H LC0	> 1000	mg/l
GREEN ALGA (<i>Selenastrum capricornutum</i>)	72H EC50	> 900	mg/l

12.2. Persistence and degradability

Persistence and degradability: Not biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: Bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Toxic to aquatic organisms. Toxic to soil organisms.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Disposal of packaging: Arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

[cont...]

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Resin

Page: 9

Section 14: Transport information

14.1. UN number

UN number: UN3082

14.2. UN proper shipping name

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Epoxy Resin)

14.3. Transport hazard class(es)

Transport class: 9

14.4. Packing group

Packing group: III

14.5. Environmental hazards

Environmentally hazardous: Yes

Marine pollutant: Yes

14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: E

Transport category: 3

Section 15: Regulatory information

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

Specific regulations: Not applicable.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3: H312: Harmful in contact with skin.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H411: Toxic to aquatic life with long lasting effects.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive

[cont...]

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Resin

Page: 10

and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

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

1.1. Product identifier

Product name: ER1 Epoxy Rapid Repair Hardener

Product code: EP-RR-B

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

Use of substance / mixture: PC1: Adhesives, sealants. PC9a: Coatings and paints, thinners, paint removers. PC9b: Fillers, putties, plasters, modelling clay. PC32: Polymer preparations and compounds. PROC1: Use in closed process, no likelihood of exposure PROC2: Use in closed, continuous process with occasional controlled exposure PROC3: Use in closed batch process (synthesis or formulation) PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises PROC5: Mixing or blending in batch processes for formulation of preparations* and articles (multistage and/or significant contact) PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC10: Roller application or brushing PROC13: Treatment of articles by dipping and pouring PROC19: Hand-mixing with intimate contact and only PPE available ERC2: Formulation of preparations* ERC3: Formulation in materials ERC5: Industrial use resulting in inclusion into or onto a matrix ERC6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers

1.3. Details of the supplier of the safety data sheet

Company name: Easy Composites Ltd
Unit 39, Park Hall Business Village
Longton, Stoke on Trent
Staffordshire
ST3 5XA
United Kingdom
Tel: +44 (0) 1782 454499
Email: sales@easycomposites.co.uk

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Hardener

Page: 2

1.4. Emergency telephone number

Emergency tel: +44 (0) 1782 454499
(office hours only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Acute Tox. 4: H302+H312; Repr. 2: H361; Aquatic Chronic 2: H411; Aquatic Chronic 3: H412; Skin Corr. 1B: H314; Skin Sens. 1: H317; STOT RE 1: H372

Most important adverse effects: Harmful if swallowed or in contact with skin Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Label elements:

Hazard statements: H302+H312: Harmful if swallowed or in contact with skin
H314: Causes severe skin burns and eye damage.
H317: May cause an allergic skin reaction.
H361: Suspected of damaging fertility or the unborn child.
H372: Causes damage to organs through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.
H412: Harmful to aquatic life with long lasting effects.

Hazard pictograms: GHS05: Corrosion
GHS07: Exclamation mark
GHS08: Health hazard
GHS09: Environmental



Signal words: Danger

Precautionary statements: P260: Do not breathe dust/fumes/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312: IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P302+P352: IF ON SKIN: Wash with plenty of water.
P362+P364: Take off contaminated clothing and wash it before reuse.

Haz. ingredients (label): AMINOETHYLPIPERAZINE; PHENOL, STYRENATED

2.3. Other hazards

Other hazards: Danger of serious damage to health by prolonged exposure.
PBT: This product is not identified as a PBT/vPvB substance.

[cont...]

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Hardener

Page: 3

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

AMINOETHYLPIPERAZINE - REACH registered number(s): 01-2119471486-30

EINECS	CAS	PBT / WEL	CLP Classification	Percent
205-411-0	140-31-8	-	Acute Tox. 4: H302; Acute Tox. 3: H311; Skin Corr. 1B: H314; Eye Dam. 1: H318; Skin Sens. 1: H317; Repr. 2: H361; STOT RE 1: H372; Aquatic Chronic 3: H412	>50%

PHENOL, STYRENATED - REACH registered number(s): 01-2119980970-27

262-975-0	61788-44-1	-	Skin Irrit. 2: H315; Skin Sens. 1: H317; Aquatic Chronic 2: H411	25-50%
-----------	------------	---	---	--------

TRIETHANOLAMINE - REACH registered number(s): 01-2119488930-28

203-049-8	102-71-6	-	Skin Irrit. 2: H315; Eye Dam. 1: H318; STOT RE 2: H373	1-25%
-----------	----------	---	---	-------

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL - REACH registered number(s): 01-2119560597-27

202-013-9	90-72-2	-	Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315	1-25%
-----------	---------	---	--	-------

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin.

Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

Ingestion: Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

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

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

[cont...]

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Hardener

Page: 4

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Corrosive. In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Notify the police and fire brigade immediately. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air.

[cont...]

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Hardener

Page: 5

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits: No data available.

DNEL/PNEC Values

Hazardous ingredients:

AMINOETHYLPIPERAZINE

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	10.6 mg/m ³	Workers	Systemic
DNEL	Inhalation	5.3 mg/m ³	Consumers	Systemic
PNEC	Fresh water	0.058 mg/l	-	-
PNEC	Marine water	0.0058 mg/l	-	-
PNEC	Fresh water sediments	215 mg/kg	-	-
PNEC	Marine sediments	21.5 mg/kg	-	-
PNEC	Soil (agricultural)	1 mg/kg (dry wt)	-	-
PNEC	Microorganisms in sewage treatment	250 mg/l	-	-
DNEL	Inhalation	0.015 mg/m ³	Workers	Local, long term
DNEL	Inhalation	80 mg/m ³	Workers	Local, acute

PHENOL, STYRENATED

Type	Exposure	Value	Population	Effect
DNEL	Dermal	2.1 mg/kg bw/d	Workers	-
DNEL	Inhalation	7.4 mg/m ³	Workers	-
PNEC	Fresh water	0.03 mg/l	-	-
PNEC	Marine water	0.003 mg/l	-	-

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	0.31 mg/m ³	Workers	Systemic
PNEC	Fresh water	0.084 mg/l	-	-
PNEC	Marine water	0.0084 mg/l	-	-

[cont...]

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Hardener

Page: 6

PNEC	Intermittent release	0.84 mg/l	-	-
------	----------------------	-----------	---	---

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Impermeable gloves.

Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin protection: Impermeable protective clothing.

Environmental: The floor of the storage room must be impermeable to prevent the escape of liquids.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Pale green

Odour: Characteristic odour

Evaporation rate: No data available.

Oxidising: No data available.

Solubility in water: No data available.

Viscosity: 150 mPas (25°C)

Boiling point/range°C: No data available.

Flammability limits %: lower: No data available.

Flash point°C: No data available.

Autoflammability°C: No data available.

Relative density: 0.96 - 1.01

VOC g/l: No data available.

Melting point/range°C: No data available.

upper: No data available.

Part.coeff. n-octanol/water: No data available.

Vapour pressure: No data available.

pH: No data available.

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

[cont...]

SAFETY DATA SHEET
ER1 Epoxy Rapid Repair Hardener

Page: 7

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values:

Route	Species	Test	Value	Units
ORAL	RAT	LD50	866	mg/kg

Hazardous ingredients:

AMINOETHYLPIPERAZINE

DERMAL	RBT	LD50	866	mg/kg
ORAL	RAT	LD50	2140	mg/kg
ORAL	RBT	LD50	2097	mg/kg

PHENOL, STYRENATED

DERMAL	RAT	LD50	>2000	mg/kg
DUST/MIST	RAT	4H LC0	4.9	mg/l
ORAL	RAT	LD50	>2000	mg/kg

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

ORAL	RAT	LD50	2169	mg/kg
------	-----	------	------	-------

Relevant hazards for product:

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	DRM ING	Hazardous: calculated
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
Respiratory/skin sensitisation	DRM	Hazardous: calculated
Reproductive toxicity	--	Hazardous: calculated
STOT-repeated exposure	-	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

[cont...]

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Hardener

Page: 8

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Hazardous ingredients:

AMINOETHYLPIPERAZINE

Daphnia magna	48H EC50	58	mg/l
FISH	96H LC50	2190	mg/l
GREEN ALGA (Selenastrum capricornutum)	72H EC50	> 1000	mg/l

PHENOL, STYRENATED

ALGAE (Scenedesmus sp.)	72H EL50	3.14	mg/l
Daphnia magna	48H EL50	1 - 10	mg/l
Daphnia magna	NOEC (21d)	0.115	mg/l
FISH	96H LL50	14.8	mg/l

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

COMMON CARP (Cyprinus carpio)	96H LC50	175	mg/l
COMMON CARP (Cyprinus carpio)	24H LC50	249	mg/l
RAINBOW TROUT (Oncorhynchus mykiss)	24H LC50	222	mg/l
RAINBOW TROUT (Oncorhynchus mykiss)	96H LC0	180	mg/l
RAINBOW TROUT (Oncorhynchus mykiss)	96H LC100	240	mg/l
Scenedesmus Subspicatus	72H EC50	84	mg/l

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

[cont...]

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Hardener

Page: 9

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Disposal of packaging: Arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: UN2735

14.2. UN proper shipping name

Shipping name: AMINES, LIQUID, CORROSIVE, N.O.S.
(Aliphatic amines)

14.3. Transport hazard class(es)

Transport class: 8

14.4. Packing group

Packing group: III

14.5. Environmental hazards

Environmentally hazardous: Yes

Marine pollutant: Yes

14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: E

Transport category: 3

Section 15: Regulatory information

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

Specific regulations: Not applicable.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

* indicates text in the SDS which has changed since the last revision.

[cont...]

SAFETY DATA SHEET

ER1 Epoxy Rapid Repair Hardener

Page: 10

Phrases used in s.2 and s.3: H302: Harmful if swallowed.
H302+H312: Harmful if swallowed or in contact with skin
H311: Toxic in contact with skin.
H314: Causes severe skin burns and eye damage.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H319: Causes serious eye irritation.
H361: Suspected of damaging fertility or the unborn child.
H372: Causes damage to organs through prolonged or repeated exposure ((inhalation (vapour))).
H372: Causes damage to organs through prolonged or repeated exposure.
H373: May cause damage to organs through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.
H412: Harmful to aquatic life with long lasting effects.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.