

XCR™ EPOXY COATING RESIN

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Date of issue: 28/05/2015 Revision date: 11/11/2016 Supersedes: 29/06/2016 Version: 2.0

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

1.1. Product identifier

Product form : Mixture
Name : XCR Epoxy Coating Resin
Type of product : Epoxy resin
Product group : Resin

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

1.2.1. Relevant identified uses

Main use category : Industrial use
Industrial/Professional use spec : For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Easy Composites Ltd
Unit 39, Park Hall Business Village
Stoke on Trent, Staffordshire
ST3 5XA
www.easycomposites.co.uk | sales@easycomposites.co.uk

1.4. Emergency telephone number

Emergency number : +44 (0)1782 454499

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 1 H318
Sensitisation — Skin, Category 1 H317
Hazardous to the aquatic environment — Chronic Hazard, Category 2 H411

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

GHS07

GHS09

Signal word (CLP) :

Danger

Hazardous ingredients :

1,4-bis(2,3 epoxypropoxy)butane, butanedioldiglycidyl ether; reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700); Formaldehyde, polymer with (chloromethyl)oxirane and phenol

Hazard statements (CLP) :

H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (CLP) :

P261 - Avoid breathing vapours
P264 - Wash hands, forearms and face thoroughly after handling
P272 - Contaminated work clothing should not be allowed out of the workplace
P273 - Avoid release to the environment

XCR™ EPOXY COATING Resin

Safety Data Sheet

according to Regulation (EC) No. 453/2010

P280 - Wear protective gloves, protective clothing, eye protection
P302+P352 - IF ON SKIN: Wash with plenty of water
EUH-statements : EUH205 - Contains epoxy constituents. May produce an allergic reaction

2.3. Other hazards

Contains PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700)	(CAS No) 25068-38-6 (EC no) 500-033-5 (EC index no) 603-074-00-8 (REACH-no) 01-2119456619-26	≥ 50	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Formaldehyde, polymer with (chloromethyl)oxirane and phenol	(CAS No) 9003-36-5 (EC no) 500-006-8 (REACH-no) 01-2119454393-40	25 - 50	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411
1,4-bis(2,3 epoxypropoxy)butane, butanedioldiglycidyl ether	(CAS No) 2425-79-8 (EC no) 219-371-7 (EC index no) 603-072-00-7 (REACH-no) 01-2119494060-45	10 - 25	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412
benzyl alcohol	(CAS No) 100-51-6 (EC no) 202-859-9 (EC index no) 603-057-00-5 (REACH-no) 01-2119492630-38	3 - 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2, H319
Tinuvin 328 (Benzotriazole UV absorber) substance listed as REACH Candidate (2-(2H-benzotriazol-2-yl)-4,6-diterpentylphenol (UV-328)) non-classified PBT substance non-classified vPvB substance	(CAS No) 25973-55-1 (EC no) 247-384-8 (REACH-no) 01-2119955688-xxxx	< 1	STOT RE 2, H373 Aquatic Chronic 4, H413

Specific concentration limits:

Name	Product identifier	Specific concentration limits
reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700)	(CAS No) 25068-38-6 (EC no) 500-033-5 (EC index no) 603-074-00-8 (REACH-no) 01-2119456619-26	(C ≥ 5) Skin Irrit. 2, H315 (C ≥ 5) Eye Irrit. 2, H319

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

Symptoms/injuries after skin contact : Irritation. May cause an allergic skin reaction.
Symptoms/injuries after eye contact : Serious damage to eyes.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use a heavy water stream.

XCR™ EPOXY COATING Resin

Safety Data Sheet

according to Regulation (EC) No. 453/2010

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Separate working clothes from town clothes. Launder separately. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

Maximum storage period : 2 year

Storage temperature : ≤ 30 °C

Storage area : Store away from heat. Store in a well-ventilated place.

Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Personal protective equipment : Gloves. Protective clothing. Safety glasses.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

XCR™ EPOXY COATING Resin

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. In case of inadequate ventilation wear respiratory protection



Environmental exposure controls : Avoid release to the environment.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Violet.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not Applicable Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.163 g/cm ³
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 1166 cP 20°C
Explosive properties	: Product is not explosive.
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport. Product is not explosive.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

XCR™ EPOXY COATING Resin

Safety Data Sheet

according to Regulation (EC) No. 453/2010

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

1,4-bis(2,3 epoxypropoxy)butane, butanedioldiglycidyl ether (2425-79-8)

LD50 oral rat 1134 mg/kg

benzyl alcohol (100-51-6)

LD50 oral rat 1230 mg/kg

LD50 dermal rabbit 2 g/kg

LC50 inhalation rat (mg/l) 8.8 mg/l/4h

reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700) (25068-38-6)

LD50 oral rat 11400 mg/kg

Formaldehyde, polymer with (chloromethyl)oxirane and phenol (9003-36-5)

LD50 oral rat > 2 g/kg

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : Not classified
Aspiration hazard : Not classified

SP 115 RESIN

Viscosity, kinematic 1002.57953568 mm²/s

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.

benzyl alcohol (100-51-6)

LC50 fish 1 460 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

LC50 fish 2 10 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

EC50 Daphnia 1 23 mg/l (Exposure time: 48 h - Species: water flea)

reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700) (25068-38-6)

LC50 fish 1 1.5 mg/l

LC50 fish 2 2 mg/l

Formaldehyde, polymer with (chloromethyl)oxirane and phenol (9003-36-5)

LC50 fish 1 < 1 mg/l

12.2. Persistence and degradability

reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700) (25068-38-6)

Persistence and degradability May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

benzyl alcohol (100-51-6)

Log Pow 1.1

reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700) (25068-38-6)

Bioaccumulative potential Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component

Tinuvin 328 (Benzotriazole UV absorber) (25973-55-1) This substance/mixture meets the PBT criteria of REACH regulation, annex XIII
This substance/mixture meets the vPvB criteria of REACH regulation, annex XIII

XCR™ EPOXY COATING Resin

Safety Data Sheet

according to Regulation (EC) No. 453/2010

12.6. Other adverse effects

No additional information available




SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Waste disposal recommendations	: Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment.
European List of Waste (LoW) code	: 08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances

SECTION 14: Transport information

In accordance with ADR / IATA / IMDG

ADR	IMDG	IATA
14.1. UN number 3082	3082	3082
14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700) ; Formaldehyde, polymer with (chloromethyl)oxirane and phenol)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700) ; Formaldehyde, polymer with (chloromethyl)oxirane and phenol)	Environmentally hazardous substance, liquid, n.o.s. (reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700) ; Formaldehyde, polymer with (chloromethyl)oxirane and phenol)
Transport document description UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700) ; Formaldehyde, polymer with (chloromethyl)oxirane and phenol), 9, III, (E)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700) ; Formaldehyde, polymer with (chloromethyl)oxirane and phenol), 9, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700) ; Formaldehyde, polymer with (chloromethyl)oxirane and phenol), 9, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es) 9	9	9
		
14.4. Packing group III	III	III
14.5. Environmental hazards Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes
No supplementary information available		

14.6. Special precautions for user

- Overland transport

Classification code (ADR)	: M6
Special provisions (ADR)	: 274, 335, 601
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Special packing provisions (ADR)	: PP1
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T4
Portable tank and bulk container special provisions (ADR)	: TP1, TP29
Tank code (ADR)	: LGBV
Vehicle for tank carriage	: AT

XCR™ EPOXY COATING Resin

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13
Hazard identification number (Kemler No.)	: 90
Orange plates	:



Tunnel restriction code (ADR)	: E
EAC code	: •3Z

- Transport by sea

Special provisions (IMDG)	: 274, 335
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP2, TP29
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-F
Stowage category (IMDG)	: A

- Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
Special provisions (IATA)	: A97, A158, A197
ERG code (IATA)	: 9L

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains a substance on the REACH candidate list in concentration $\geq 0.1\%$ or with a lower specific limit: 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328) (EC 247-384-8, CAS 25973-55-1)

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4

XCR™ EPOXY COATING Resin

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
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
H413	May cause long lasting harmful effects to aquatic life
EUH205	Contains epoxy constituents. May produce an allergic reaction

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Skin Irrit. 2	H315	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Aquatic Chronic 2	H411	Calculation method

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

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

1.1. Product identifier

Product form : Mixture
Name : XCR™ Epoxy Coating Hardener
Product group : Hardener

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
Industrial

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Easy Composites Ltd
Unit 39, Park Hall Business Village
Stoke on Trent, Staffordshire
ST3 5XA
www.easycomposites.co.uk | sales@easycomposites.co.uk

1.4. Emergency telephone number

Emergency number : +44 (0)1782 454499

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4	H302	Calculation method
Acute toxicity (dermal), Category 4	H312	Calculation method
Skin corrosion/irritation, Category 1B	H314	Calculation method
Sensitisation — Skin, Category 1	H317	Calculation method
Germ cell mutagenicity, Category 2	H341	Calculation method
Hazardous to the aquatic environment — Chronic Hazard, Category 3	H412	Calculation method

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) : Danger
Hazardous ingredients : Phenol; Trimethylhexamethylenediamine; 3-aminomethyl-3,5,5-trimethylcyclohexylamine; benzyl alcohol; Salicylic acid
Hazard statements (CLP) : 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
H341 - Suspected of causing genetic defects
H412 - Harmful to aquatic life with long lasting effects

XCR™ Epoxy Coating Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Precautionary statements (CLP) : P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe vapours
P264 - Wash hands, forearms and face thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P272 - Contaminated work clothing should not be allowed out of the workplace

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
3-aminomethyl-3,5,5-trimethylcyclohexylamine	(CAS No) 2855-13-2 (EC no) 220-666-8 (EC index no) 612-067-00-9 (REACH-no) 01-2119514687-32	>= 50	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Trimethylhexamethylenediamine	(CAS No) 25620-58-0 (EC no) 247-134-8	5 - 25	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Skin Sens. 1, H317
benzyl alcohol	(CAS No) 100-51-6 (EC no) 202-859-9 (EC index no) 603-057-00-5 (REACH-no) 01-2119493630-38	10 - 25	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2, H319
Phenol	(CAS No) 108-95-2 (EC no) 203-632-7 (EC index no) 604-001-00-2 (REACH-no) 01-2119471329-32	3 - 10	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Corr. 1B, H314 Muta. 2, H341 STOT RE 2, H373
Salicylic acid	(CAS No) 69-72-7 (EC no) 200-712-3 (REACH-no) 01-2119486984-17	3 - 5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Phenol	(CAS No) 108-95-2 (EC no) 203-632-7 (EC index no) 604-001-00-2 (REACH-no) 01-2119471329-32	(1 =<C < 3) Skin Irrit. 2, H315 (1 =<C < 3) Eye Irrit. 2, H319 (C >= 3) Skin Corr. 1B, H314

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : Move the affected person away from the contaminated area and into the fresh air. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion : Do not induce vomiting. Get immediate medical advice/attention.

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

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/injuries after inhalation : None under normal use.
Symptoms/injuries after skin contact : May cause an allergic skin reaction. May cause moderate irritation.
Symptoms/injuries after eye contact : May cause slight irritation.
Symptoms/injuries after ingestion : None under normal use.

XCR™ Epoxy Coating Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Symptoms/injuries upon intravenous administration : None under normal use.
Chronic symptoms : Skin irritation, dermatitis and sensitisation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : None under normal use.
Explosion hazard : None under normal use.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire : Evacuate area.
Firefighting instructions : Exercise caution when fighting any chemical fire.
Protection during firefighting : Self-contained breathing apparatus.
Other information : Collect contaminated fire fighting water separately. It must not enter drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Protective clothing.

6.1.2. For emergency responders

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Recover mechanically the product. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

For further information refer to section 13. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station.
Hygiene measures : Do not eat, drink or smoke when using this product. Separate working clothes from town clothes. Launder separately. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep cool. Protect from sunlight.
Storage temperature : ≤ 30 °C
Storage area : Store away from heat. Store in a well-ventilated place.
Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Phenol (108-95-2)		
EU	IOELV TWA (mg/m ³)	8 mg/m ³
EU	IOELV TWA (ppm)	2 ppm
EU	IOELV STEL (mg/m ³)	16 mg/m ³
EU	IOELV STEL (ppm)	4 ppm

XCR™ Epoxy Coating Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Phenol (108-95-2)		
United Kingdom	Local name	Phenol
United Kingdom	WEL TWA (mg/m ³)	7.8 mg/m ³
United Kingdom	WEL TWA (ppm)	2 ppm
United Kingdom	WEL STEL (mg/m ³)	16 mg/m ³
United Kingdom	WEL STEL (ppm)	4 ppm
United Kingdom	Remark (WEL)	Sk

8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Personal protective equipment	: Gloves. Protective clothing. Safety glasses.
Hand protection	: Protective gloves
Eye protection	: Safety glasses



Environmental exposure controls	: Avoid release to the environment.
Other information	: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Yellow.
Odour	: Amine-like.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable.
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.969 g/cm ³
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 173 cP 20°C
Explosive properties	: Product is not explosive.
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Product is not explosive.

10.2. Chemical stability

Stable under normal conditions.

XCR™ Epoxy Coating Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. Dermal: Harmful in contact with skin.

ATE CLP (oral)	607.526 mg/kg bodyweight
ATE CLP (dermal)	1383.186 mg/kg bodyweight

Phenol (108-95-2)	
LD50 oral rat	340 mg/kg
LD50 dermal rabbit	630 mg/kg

Trimethylhexamethylenediamine (25620-58-0)	
LD50 oral rat	910 mg/kg

3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	
LD50 oral rat	1030 mg/kg

benzyl alcohol (100-51-6)	
LD50 oral rat	1230 mg/kg
LD50 dermal rabbit	2 g/kg
LC50 inhalation rat (mg/l)	8.8 mg/l/4h

Salicylic acid (69-72-7)	
LD50 oral rat	891 mg/kg
LC50 inhalation rat (mg/l)	> 900 mg/m ³ (Exposure time: 1 h)

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Serious eye damage, category 1, implicit

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Suspected of causing genetic defects.

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

SP 115 HARDENER	
Viscosity, kinematic	178.53457172 mm ² /s

SECTION 12: Ecological information

12.1. Toxicity

Phenol (108-95-2)	
LC50 fish 1	11.9 - 50.5 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 2	20.5 - 25.6 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	4.24 - 10.7 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 Daphnia 2	10.2 - 15.5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h algae (1)	187 - 279 mg/l (Species: Desmodesmus subspicatus [static])
EC50 96h algae (1)	46.42 mg/l (Species: Pseudokirchneriella subcapitata)
EC50 96h algae (2)	0.0188 - 0.1044 mg/l (Species: Pseudokirchneriella subcapitata [static])

Trimethylhexamethylenediamine (25620-58-0)	
EC50 72h algae (1)	29.5 mg/l (Species: Desmodesmus subspicatus)

XCR™ Epoxy Coating Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	
EC50 Daphnia 1	14.6 - 21.5 mg/l (Exposure time: 48 h - Species: Daphnia magna [semi-static])
EC50 72h algae (1)	37 mg/l (Species: Desmodesmus subspicatus)
benzyl alcohol (100-51-6)	
LC50 fish 1	460 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
LC50 fish 2	10 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	23 mg/l (Exposure time: 48 h - Species: water flea)
Salicylic acid (69-72-7)	
EC50 Daphnia 1	870 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Phenol (108-95-2)	
BCF fish 1	(no significant bioaccumulation)
Log Pow	1.47
Trimethylhexamethylenediamine (25620-58-0)	
Log Pow	0.77 (at 23 °C)
3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	
Log Pow	0.79 (at 23 °C)
benzyl alcohol (100-51-6)	
Log Pow	1.1
Salicylic acid (69-72-7)	
BCF fish 1	>= 1000
Log Pow	0 - 2.26 (at 37 °C)

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Waste disposal recommendations	: Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment.
European List of Waste (LoW) code	: 08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	: 2735
UN-No. (IMDG)	: 2735
UN-No. (IATA)	: 2735

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: POLYAMINES, LIQUID, CORROSIVE, N.O.S.
Proper Shipping Name (IMDG)	: POLYAMINES, LIQUID, CORROSIVE, N.O.S.
Proper Shipping Name (IATA)	: Polyamines, liquid, corrosive, n.o.s.
Transport document description (ADR)	: UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (3-aminomethyl-3,5,5-trimethylcyclohexylamine ; phenol, carboic acid, monohydroxybenzene, phenylalcohol), 8, II, (E)
Transport document description (IMDG)	: UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (3-aminomethyl-3,5,5-trimethylcyclohexylamine ; phenol, carboic acid, monohydroxybenzene, phenylalcohol), 8, II

XCR™ Epoxy Coating Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Transport document description (IATA) : UN 2735 Polyamines, liquid, corrosive, n.o.s., 8, II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 8
Danger labels (ADR) : 8



IMDG

Transport hazard class(es) (IMDG) : 8
Danger labels (IMDG) : 8



IATA

Transport hazard class(es) (IATA) : 8
Hazard labels (IATA) : 8



14.4. Packing group

Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

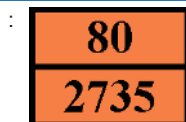
Classification code (ADR) : C7
Special provisions (ADR) : 274
Limited quantities (ADR) : 11
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P001, IBC02
Mixed packing provisions (ADR) : MP15
Portable tank and bulk container instructions (ADR) : T11
Portable tank and bulk container special provisions (ADR) : TP1, TP27
Tank code (ADR) : L4BN
Vehicle for tank carriage : AT
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 80

XCR™ Epoxy Coating Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Orange plates



Tunnel restriction code (ADR) : E
EAC code : 2X
APP code : B

- Transport by sea

Special provisions (IMDG) : 274
Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
Tank instructions (IMDG) : T11
Tank special provisions (IMDG) : TP1, TP27
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B
Stowage category (IMDG) : A
Properties and observations (IMDG) : Colourless to yellowish liquids or solutions with a pungent odour. Miscible with or soluble in water. When involved in a fire, evolve toxic gases. Corrosive to most metals, especially to copper and its alloys. Reacts violently with acids. Cause burns to skin, eyes and mucous membranes.

- Air transport

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y840
PCA limited quantity max net quantity (IATA) : 0.5L
PCA packing instructions (IATA) : 851
PCA max net quantity (IATA) : 1L
CAO packing instructions (IATA) : 855
CAO max net quantity (IATA) : 30L
Special provisions (IATA) : A3
ERG code (IATA) : 8L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3

XCR™ Epoxy Coating Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Muta. 2	Germ cell mutagenicity, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Sens. 1	Sensitisation — Skin, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H301	Toxic if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin
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
H331	Toxic if inhaled
H332	Harmful if inhaled
H341	Suspected of causing genetic defects
H373	May cause damage to organs through prolonged or repeated exposure
H412	Harmful to aquatic life with long lasting effects

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product