Product Pack for
Fosroc® Conbextra EP
Epoxy Resin Free-flow Grouts

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INDEX

PRODUCT INTRODUCTION

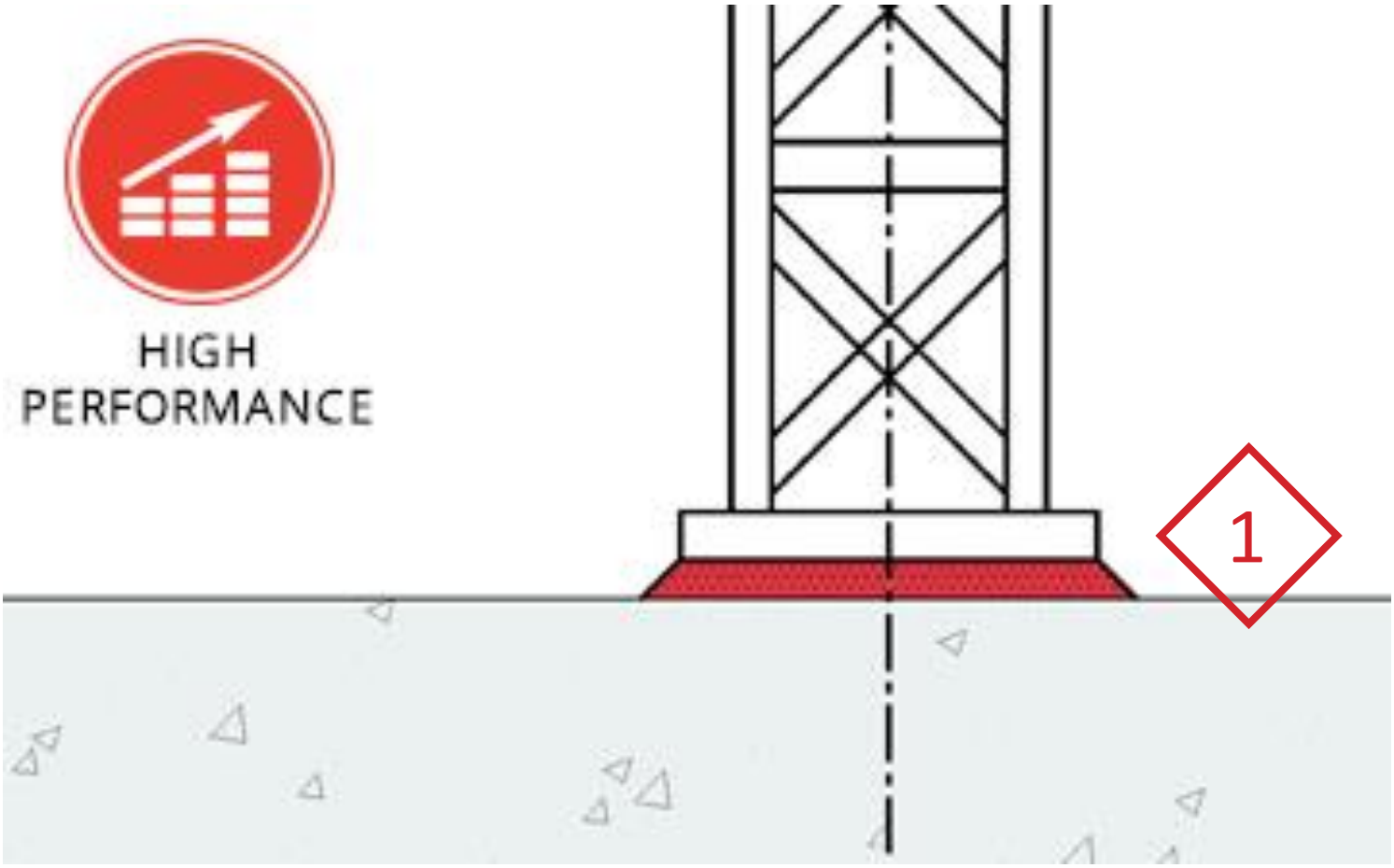
Conbextra EP10
Conbextra EPR

Product Information

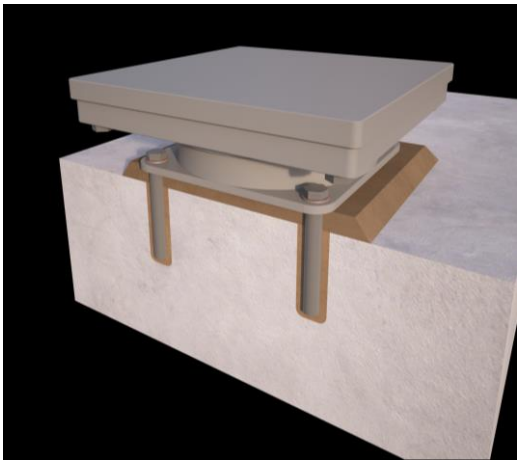
Product Name.	**Conbextra EP10**.	**Conbextra EPR**
Description.	For grouting gap thicknesses from 0.25 to 10 mm. Comprising of a two component, low viscosity unfilled epoxy resin system	For grouting gap thicknesses from 10 to 120 mm. A three-component system consisting of base resin, liquid hardener and specially graded inert fillers.
Photo.		
Colour.	Base: Straw Hardener: colourless	Brown
Packaging:.	3 litre packs, containing liquid base and hardener. (2 x 1.5 litre units)	8 litre and 16 litre packs containing base, hardener and filler

System & Application Area

HIGH PERFORMANCE



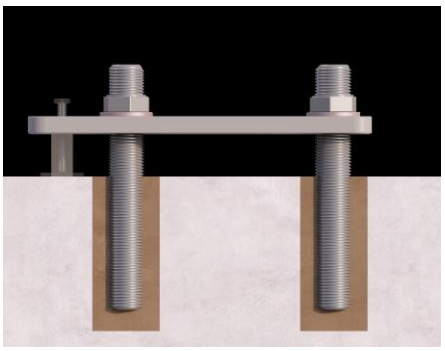
1 Conbextra EP10 /
Conbextra EPR



For grouting under baseplates

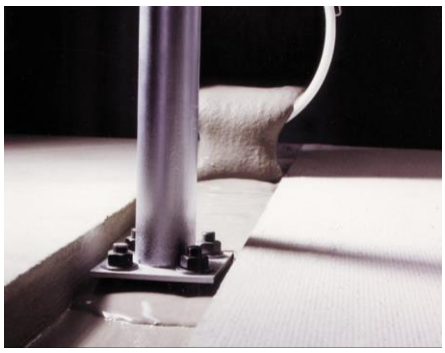
Product Advantages

Conbextra EP10 & EPR are epoxy resin free-flow grouts conforming to the requirements of BS EN1504-3 and BS EN 1504-6 anchoring of reinforcing steel bar



Low creep characteristics under sustained loading

Resistant to repetitive dynamic loads



Non-shrink, ensuring complete surface contact and bond.

High compressive, tensile and flexural strengths

PRODUCT DATA SHEETS

Fosroc® Conbextra EP

constructive solutions

Epoxy resin free-flow grouts conforming to the requirements of BS EN1504-3 and BS EN 1504-6 Anchoring of reinforcing steel bar

Uses

For grouting under baseplates, crane rails, turbines where heavy dynamic loads are encountered and areas where chemical spillage may occur.

Typical applications include:

- Reciprocating machinery
- Testing equipment
- Heavy crane and transporter rails
- High speed turbines
- Centrifuges
- Drop forges
- Electroplating and chemical plants
- Anchoring of steel bars

Advantages

- Low creep characteristics under sustained loading
- Resistant to repetitive dynamic loads
- Non-shrink, ensuring complete surface contact and bond
- High compressive, tensile and flexural strengths
- Fast, convenient installation with rapid strength gain
- Withstands a wide range of chemicals
- Two grades available for gap widths 0.25 - 10 mm and 10 - 120 mm

Description

Conbextra EP are epoxy resin based products designed for free-flow grouting of gap thicknesses from 0.25 to 120 mm. Two grades of product are available:

Conbextra EP10 for grouting gap thicknesses from 0.25 to 10 mm. Comprising of a two component, low viscosity unfilled epoxy resin system which is mixed and poured into the gap.

Conbextra EPR for grouting gap thicknesses from 10 to 120 mm. A three-component system consisting of base resin, liquid hardener and specially graded inert fillers, which are mixed and poured into the gap.

CE
0370
09
0370-CPR-0845

DOP: UK9-18	
Fosroc International Ltd Drayton Manor Business Park, Coleshill Road, Tamworth, B78 3XN, UK	
Conbextra EPR	
EN1504-3: Structural and non-structural repair methods 3 and 4 EN1504-6: Anchoring of reinforcing rebar	
Compressive strength	Class R4 (≥45 MPa)
Adhesion strength by pull-off test	≥ 2.0MPa
Chloride ion content	≤ 0.05 %
Determination of shrinkage and expansion	Shrinkage 2.9 MPa Expansion 2.8 MPa
Elastic modulus	>20 GPa
Testing of anchoring products by the pull-out method	≤ 0.6mm
Creep under tensile load	≤ 0.6mm
Glass transition temperature	>45°C
Fire classification	Class C
Dangerous substances	Complies with 5.3 (EN1504-6) 5.4 (EN1504-3)

CE
0370
09
0370-CPR-0845

DOP: UK9-19	
Fosroc International Ltd Drayton Manor Business Park, Coleshill Road, Tamworth, B78 3XN, UK	
Conbextra EP10	
EN1504-3: Structural and non-structural repair method 3 EN1504-6: Anchoring of reinforcing rebar	
Compressive strength	Class R4 (≥45 MPa)
Adhesion strength by pull-off test	≥ 2.0MPa
Chloride ion content	≤ 0.05 %
Determination of shrinkage and expansion	Shrinkage 3.1 MPa Expansion 3.1 MPa
Testing of anchoring products by the pull-out method	≤ 0.6mm at 75 kN
Creep under tensile load	≤ 0.6mm
Glass transition temperature	>45°C
Fire classification	Class C
Dangerous substances	Complies with 5.3 (EN1504-6) 5.4 (EN1504-3)

Fosroc® Conbextra EP

Properties

The following results were obtained at a temperature of 20°C unless otherwise stated.

Test method	Standard	EN 1504 Requirement	Test result		
			Conbextra EP10		Conbextra EPR
Compressive Strength	EN 12190:1999	Class R4 ≥ 45 MPa	- MPa 100MPa	@ 1 Day @ 7 Day	90 MPa 100 MPa
Bond strength by pull off:	EN 1542:1999	Class R4 ≥ 2.0 MPa	3.2 MPa		2.9 MPa
Chloride ion content:	EN 1015-17:2000	Class R4 ≤ 0.05 %	0.00 %		0.00 %
Determination of shrinkage and expansion:	EN 12617-4:2002	Class R4 > 2MPa	3.1 MPa 3.1 MPa	Shrinkage Expansion MPa	2.9 MPa 2.8 MPa
Elastic modulus in compression	EN 13412:2002	Class R4 ≥ 20 GPa	-		22 GPa
Testing of anchoring products by pull out method	EN 1881:2006	@ 75 KN load ≤ 0.6 mm	0.45 mm 0.51 mm	Dry test Wet test	0.30 mm 0.38 mm
Determination of creep under sustained load	EN 1544:2007	Displacement ≤ 0.6 mm @ 3 months	0.36 mm		0.43 mm
Glass transition temperature	EN 12614:2006	> 45 or 20°C above max ambient temperature	51°C		56°C
Fire rating	EN 13501-1	-	Class C1 s1 dO		
Flexural strength	BS 6319 Pt 3:1990	-	81 MPa		37 MPa
Flexural modulus	BS 6319 Pt 3 1990	-	3.6 GPa		15.5 GPa
Tensile strength	BS 6319 Pt 3:1985	-	29 MPa		14 MPa
Pot life	-		40 min 20 min 10 min	@ 10°C @ 20°C @ 30°C	60 min 30min 15 min
Minimum thickness Maximum thickness	- -		0.25 mm 10 mm		10 mm 120 mm

Clarification of property values: The typical properties given above are derived from laboratory testing. Results derived from field applied samples may vary.

Flow characteristics

The maximum distance of flow is governed by the gap thickness, the head of grout applied and the ambient temperature. The following table gives typical data for flow design.

	Temperature °C	Gap thickness(mm)	Hydrostatic head (mm)	Maximum flow (mm)
EPR:	5	12	100	450
	5	35	100	900
	20	12	100	900
	20	35	100	2000
EP10:			Flow determined by gap thickness and pressure applied	

Fosroc® Conbextra EP

Specification Clause

The epoxy grout shall be Conbextra EP, a multi-component resin grout conforming to the requirements of BS EN 1504-3 and BS EN 1504-6. For gaps between 0.25 and 10 mm Conbextra EP10 should be used and for gaps between 10 and 120 mm Conbextra EPR should be used.

Conbextra EPR: The hardened grout shall have a compressive strength in excess of 95 MPa at 7 days and a flexural strength in excess of 37 MPa at 7 days.

Conbextra EP10: The hardened grout shall have a compressive strength in excess of 95 MPa at 7 days and a flexural strength in excess of 80 MPa at 7 days.

The storage handling and placement of the grout shall be in strict accordance with the manufacturer's instructions.

Standard Compliance

Conbextra EPR complies with the classification R4 according
to BS EN 1504-3.

Conbextra EP10 and Conbextra EPR comply with the requirements of BS EN 1504-6 : Anchoring of reinforced steel bar.

Conbextra EP10 complies with the classification R2 according to BS EN 1504-3 for elastic modulus and classification R4 for all other performance aspects.

Application instructions

Preparation

Foundation surface

All contact surfaces must be free from oil, grease, free-standing water or any loosely adherent material. Concrete surfaces should be cut back to a sound base either by a grit blast or light scabble. All dust must be removed and bolt holes or fixing pockets blown clean of any dirt or debris.

Steel surfaces

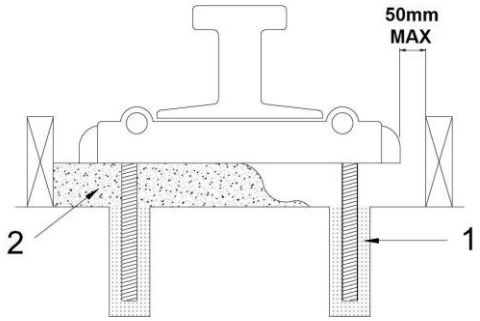
All steel surfaces should be shot blasted to SA2.5, free of rust and mill scale. Cleaned surfaces may be protected by the application of Nitoprime 28.

Formwork

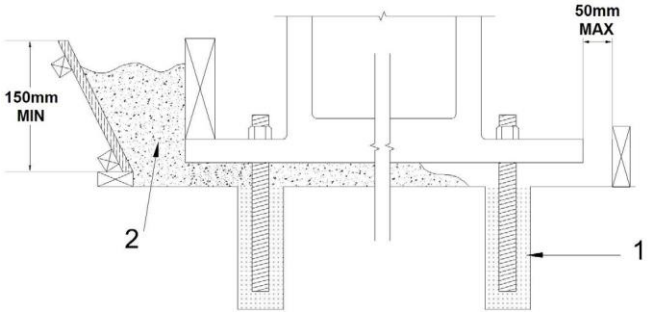
The formwork should be constructed to be leakproof as Conbextra EP products are free-flowing grouts. Loss of grout once the material is placed but not hardened, will result in incomplete filling of the gap.

For free-flow grout conditions it is essential to provide a hydrostatic head of grout. To achieve this a feeding hopper system should be used.

Example of Conbextra EP grout to individual rail baseplate:



Example of Conbextra EP grout to machinery baseplate:



1 *Lokfix resin anchor
2 Conbextra EP grout
* Also available from Fosroc.

Mixing

Conbextra EP10

Pour all the contents of the hardener pack into the base container. Mix using a slow speed drill and paddle until homogeneous. Note: any un-used mixed Conbextra EP10 in quantities above 200g will generate heat and release vapour. Move container to an exterior location and do not breath fumes.

Conbextra EPR

Base and hardener must be poured into a container of 25 litres capacity before mixing. Once mixed add filler component and mix with a slow speed drill and Conbextra (MR3) mixing paddle for 2 minutes until a uniform colour and consistency. It is recommended to keep the paddle head below the material surface during mixing to minimise air entrainment.

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Placing

The mixed grout should be poured steadily from one side only to eliminate the entrapment of air.

Continuous grout flow is essential.

Sufficient grout must be available prior to starting.

The time taken to pour a batch should be regulated to the time taken to prepare the next batch.

After curing the unrestrained grout should be cut back below the bottom of the baseplate using a skill saw.

Cleaning

All tools and equipment should be cleaned immediately after use with Fosroc Solvent 102. Spillages should be absorbed with sand or sawdust and disposed in accordance with local regulations.

Estimating

Supply

EP10: base	3 litre packs, containing liquid and hardener. 2 x 1.5 litre units
EPR:	15 litre packs, containing base, hardener and filler
Fosroc Solvent 102:	5 and 25 litre containers

Limitations

Temperature

During application:

For both products grouting may be carried out without special precautions at ambient temperatures from 5°C to 25°C. Where ambient temperatures exceed 20°C note the pot life will be reduced.

Cure temperatures below 15°C will result in slower strength build up; at 5 °C cure will stop until the material warms.

Exotherm: All epoxy systems will develop a temperature rise on mixing. Its extent will be a function of the volume to surface ratio, the ambient temperature as well as the mass and thermal conductivity of the surrounding materials. Contact Fosroc Technical Services for specific advice.

In service:

The cured grouts, which are completely resistant to frost and sub-zero temperatures, are suitable for use up to 45°C. Contact Fosroc Technical Services for advice.

Storage

Conbextra EP products have a shelf life of 18 months if kept in dry conditions at 20°C.

Precautions

Health and safety

For further information refer to appropriate Product Safety Data Sheet available at www.fosroc.com

Fire

Fosroc Solvent 102 is flammable. In the event of fire extinguish with CO_2 or foam.

Flash point

Fosroc Solvent 102:	33°C

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enquiryuk@fosroc.com

December 2024

SDS

SAFETY DATA SHEET
CONBEXTRA EP10 BASE

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

1.1. Product identifier

Product name CONBEXTRA EP10 BASE

Product number 1158021UK9, A1158131UK9

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

Identified uses Base Component of Two-part Epoxy Grout

3. Details of the supplier of the safety data sheet

Supplier

Fosroc International Limited
Drayton Manor Business Park
Coleshill Road
Tamworth
Staffordshire
B78 3XN
England
Tel: +44 (0) 1827 262222
Fax: +44 (0) 1827 262444
enquiryuk@fosroc.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1827 265 279 (Monday-Sunday 24 hours a day)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 2 - H411

Human health May cause skin sensitisation or allergic reactions in sensitive individuals.

Environmental The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Hazard pictograms

Signal word Warning

CONBEXTRA EP10 BASE

Hazard statements	H315 Causes skin irritation. H319 Causes serious eye irritation. H317 May cause an allergic skin reaction. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P261 Avoid breathing vapour/ spray. P273 Avoid release to the environment. 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. P501 Dispose of contents/ container in accordance with national regulations.
Contains	bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE, Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol, 1.4 BUTANE DIGLYCIDYL ETHER
Supplementary precautionary statements	P264 Wash contaminated skin thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P310 Immediately call a POISON CENTER/ doctor. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/ attention. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P391 Collect spillage.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE **60-100%**

CAS number: 1675-54-3 EC number: 216-823-5

Classification
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Skin Sens. 1 - H317
Aquatic Chronic 2 - H411

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol **10-30%**

CAS number: 9003-36-5 EC number: 500-006-8

Classification
Skin Irrit. 2 - H315
Skin Sens. 1 - H317
Aquatic Chronic 2 - H411

CONBEXTRA EP10 BASE

1.4 BUTANE DIGLYCIDYL ETHER		10-30%
CAS number: 2425-79-8	EC number: 219-371-7	

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H332
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Skin Sens. 1 - H317

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Get medical attention if any discomfort continues.

Inhalation Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

Ingestion Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Give plenty of water to drink. Keep affected person under observation. Get medical attention if any discomfort continues.

Skin contact Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

Eye contact Remove affected person from source of contamination. Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

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

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation May cause respiratory system irritation.

Ingestion May cause discomfort if swallowed.

Skin contact Skin irritation. May cause sensitisation or allergic reactions in sensitive individuals.

Eye contact Irritation of eyes and mucous membranes.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards No unusual fire or explosion hazards noted.

CONBEXTRA EP10 BASE

Hazardous combustion products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Provide adequate ventilation. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions For professional users only. Provide adequate ventilation. Avoid the formation of mists. Avoid inhalation of vapours/spray and contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep only in the original container.

Storage class Chemical storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (CAS: 9003-36-5)

DNEL
Workers - Inhalation; Long term systemic effects: 29.39 mg/m³
Workers - Dermal; Long term systemic effects: 104.15 mg/kg/day
Workers - Dermal; Short term local effects: 8.3 µg/cm2

PNEC
- Fresh water; 0.003 mg/l
- marine water; 0.0003 mg/l
- STP; 10 mg/l

CONBEXTRA EP10 BASE

1.4 BUTANE DIGLYCIDYL ETHER (CAS: 2425-79-8)

DNEL	Industry - Dermal; Long term systemic effects: 9.26 mg/kg/day Industry - Inhalation; Long term systemic effects: 1.63 mg/m³
PNEC	- STP; 100 mg/l - Fresh water; 0.024 mg/l - Sediment (Freshwater); 0.084 mg/kg - marine water; 0.0024 mg/l - Sediment (Marinewater); 0.0084 mg/kg - Soil; 0.0027 mg/kg

8.2. Exposure controls

Protective equipment

Appropriate engineering controls	Provide adequate ventilation.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Butyl rubber. Nitrile rubber.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact. Wear apron or protective clothing in case of contact.
Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Do not eat, drink or smoke when using this product. Do not smoke in work area.
Respiratory protection	Respiratory protection may be required if excessive airborne contamination occurs. Gas filter, type A2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Straw.
Odour	Mild.
Odour threshold	Not determined.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	>200°C @ 1 atm
Flash point	>150°C
Evaporation rate	Not determined.
Evaporation factor	Not determined.

CONBEXTRA EP10 BASE

Flammability (solid, gas)	No.
Upper/lower flammability or explosive limits	The product is not flammable.
Other flammability	Not applicable.
Vapour pressure	0.1 kPa @ 25°C
Vapour density	Not determined.
Relative density	1.15 @ 25°C
Bulk density	Not applicable.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not determined.
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	No data available.

SECTION 10: Stability and reactivity

1. Reactivity

Reactivity	The following materials may react with the product: Acids. Alkalis. Amines.

2. Chemical stability

Stability	Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.

4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time.

5. Incompatible materials

Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products	When heated, vapours/gases hazardous to health may be formed. Oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

CONBEXTRA EP10 BASE

ATE oral (mg/kg)	3,623.19

Acute toxicity - inhalation

ATE inhalation (gases ppm)	32,608.7
ATE inhalation (vapours mg/l)	79.71
ATE inhalation (dusts/mists mg/l)	10.87

Serious eye damage/irritation

Serious eye damage/irritation	Causes eye irritation.

Skin sensitisation

Skin sensitisation	May cause sensitisation by skin contact.

Inhalation	Gas or vapour may irritate the respiratory system.
Ingestion	May cause discomfort if swallowed.
Skin contact	Irritating to skin. May cause sensitisation by skin contact.
Eye contact	Irritating to eyes.
Route of exposure	Skin and/or eye contact

Toxicological information on ingredients.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} >5000 mg/kg, Oral, Rat

1.4 BUTANE DIGLYCIDYL ETHER

Acute toxicity - oral

ATE oral (mg/kg)	500.0

Acute toxicity - inhalation

ATE inhalation (gases ppm)	4,500.0
ATE inhalation (vapours mg/l)	11.0
ATE inhalation (dusts/mists mg/l)	1.5

SECTION 12: Ecological information

Ecotoxicity	Dangerous for the environment. May cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Toxicity	The product contains a substance which is harmful to aquatic organisms.

Ecological information on ingredients.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

CONBEXTRA EP10 BASE

Toxicity	Toxic to aquatic life with long lasting effects.

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 2.54 mg/l, Freshwater fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: >1000 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hours: >1.8 mg/l, Selenastrum capricornutum (OECD 201)

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 0.3 mg/l, Daphnia magna

1.4 BUTANE DIGLYCIDYL ETHER

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 19.8 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, : 75 mg/l, Daphnia magna 24 hours

12.2. Persistence and degradability

Persistence and degradability The product is not expected to be biodegradable.

Ecological information on ingredients.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Persistence and degradability	Not readily biodegradable.
Biodegradation	- Degradation 0%: 28 days

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not applicable.

Ecological information on ingredients.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Bioaccumulative potential	Potentially bioaccumulating. BCF: Estimated value. 150,
Partition coefficient	: log Pow = Approximately 3.8 at 25 C

12.4. Mobility in soil

Mobility The product is insoluble in water.

Ecological information on ingredients.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Mobility	Not considered mobile.
Adsorption/desorption coefficient	- Koc: 4460 @ 20°C

12.5. Results of PBT and vPvB assessment

CONBEXTRA EP10 BASE

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

1. UN number

UN No. (ADR/RID) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

UN No. (ADN) 3082

2. UN proper shipping name

Proper shipping name (ADR/RID) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE, EPOXY RESIN (Type F) (Number average MW <= 700))

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE, EPOXY RESIN (Type F) (Number average MW <= 700))

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE, EPOXY RESIN (Type F) (Number average MW <= 700))

Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE, EPOXY RESIN (Type F) (Number average MW <= 700))

14.3. Transport hazard class(es)

ADR/RID class 9

ADR/RID classification code M6

ADR/RID label 9

IMDG class 9

ICAO class/division 9

ADN class 9

CONBEXTRA EP10 BASE

Transport labels

4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

5. Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	•3Z
Hazard Identification Number (ADR/RID)	90
Tunnel restriction code	(-)

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

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

National regulations	The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).
EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015.
Guidance	Workplace Exposure Limits EH40. Respiratory protective equipment at work (HSG53).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

CONBEXTRA EP10 BASE

General information	The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	04/09/2020
Revision	4b
Supersedes date	31/07/2018
Hazard statements in full	H302 Harmful if swallowed. 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. H411 Toxic to aquatic life with long lasting effects.

SAFETY DATA SHEET
CONBEXTRA EP10 HARDENER

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

1.1. Product identifier

Product name CONBEXTRA EP10 HARDENER

Product number A1151132UK9, 1158023UK9

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

Identified uses Hardener component of two part epoxy system

3. Details of the supplier of the safety data sheet

Supplier

Fosroc Limited
Drayton Manor Business Park
Coleshill Road
Tamworth
Staffordshire
B78 3XN
England
Tel: +44 (0) 1827 262222
Fax: +44 (0) 1827 262444
enquiryuk@fosroc.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1827 265 279 (Monday-Sunday 24 hours a day)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 3 - H412

Human health Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. The product contains a small amount of sensitising substance. May cause skin sensitisation or allergic reactions in sensitive individuals.

Environmental The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Hazard pictograms

Signal word Danger

CONBEXTRA EP10 HARDENER

Hazard statements	H302 Harmful if swallowed. 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	P260 Do not breathe vapour/ spray. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/ doctor. P405 Store locked up. P501 Dispose of contents/ container in accordance with national regulations.
Contains	TRIMETHYL HEXAMETHYLENEDIAMINE, PARA TOLUENE SULPHONIC ACID MONO HYDRATE
Supplementary precautionary statements	P261 Avoid breathing vapour/ spray. P264 Wash contaminated skin 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. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P312 IF SWALLOWED: Call a POISON CENTRE/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. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P321 Specific treatment (see medical advice on this label). P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P363 Wash contaminated clothing before reuse.

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

TRIMETHYL HEXAMETHYLENEDIAMINE **60-100%**

CAS number: 25620-58-0 EC number: 247-134-8

Classification

Acute Tox. 4 - H302
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Aquatic Chronic 3 - H412

CONBEXTRA EP10 HARDENER

PARA TOLUENE SULPHONIC ACID MONO HYDRATE	1-5%
CAS number: 6192-52-5	EC number: 695-067-1

Classification
Met. Corr. 1 - H290
Skin Corr. 1B - H314
Eye Dam. 1 - H318
STOT SE 3 - H335

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

Ingestion Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention immediately.

Skin contact Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact Remove affected person from source of contamination. Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention immediately.

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

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation Difficulty in breathing. Coughing, chest tightness, feeling of chest pressure. May cause an asthma-like shortness of breath. Severe irritation of nose and throat. Headache. Nausea, vomiting.

Ingestion May cause chemical burns in mouth and throat.

Skin contact May cause sensitisation by skin contact. May cause serious chemical burns to the skin.

Eye contact Eye contact may cause serious and potentially irreversible injuries.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of nitrogen.

5.3. Advice for firefighters

CONBEXTRA EP10 HARDENER

Protective actions during firefighting	No specific firefighting precautions known.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin and eyes.

2. Environmental precautions

Environmental precautions	Avoid or minimise the creation of any environmental contamination.

3. Methods and material for containment and cleaning up

Methods for cleaning up	Do not touch or walk into spilled material. Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water.

6.4. Reference to other sections

Reference to other sections	For personal protection, see Section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Provide adequate ventilation. Avoid inhalation of vapours/spray and contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep only in the original container.
Storage class	Corrosive storage.

7.3. Specific end use(s)

Specific end use(s)	The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

1. Control parameters

Ingredient comments	No exposure limits known for ingredient(s).

2. Exposure controls

Protective equipment

Appropriate engineering controls	Provide adequate ventilation.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

CONBEXTRA EP10 HARDENER

Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Polyvinyl chloride (PVC). Nitrile rubber. Viton rubber (fluoro rubber).
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact. Use barrier creams to minimise skin contact.
Hygiene measures	Provide eyewash station and safety shower. Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap and water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.
Respiratory protection	Respiratory protection may be required if excessive airborne contamination occurs. It is recommended to use respiratory equipment with combination filter, type A2/P2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless.
Odour	Amine.
Odour threshold	Not determined.
pH	pH (concentrated solution): 11
Melting point	Not determined.
Initial boiling point and range	>230°C @ 1 atm
Flash point	110°C
Evaporation rate	Not determined.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 1.2 vol %
Other flammability	Not determined.
Vapour pressure	0.002 kPa @ 20°C
Vapour density	Not determined.
Relative density	0.88 - 0.90 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Miscible with water.
Partition coefficient	Not determined.
Auto-ignition temperature	350°C
Decomposition Temperature	Not determined.
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

CONBEXTRA EP10 HARDENER

9.2. Other information

Other information Not available.

SECTION 10: Stability and reactivity

1. Reactivity

Reactivity The following materials may react with the product: Acids.

2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Reacts with Acids, Alkalis and Oxidising Agents

4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time.

5. Incompatible materials

Materials to avoid Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 517.22

Inhalation Harmful by inhalation. May cause damage to mucous membranes in nose, throat, lungs and bronchial system.

Ingestion Harmful if swallowed. May cause burns in mucous membranes, throat, oesophagus and stomach.

Skin contact Causes burns. Harmful in contact with skin. May cause sensitisation by skin contact.

Eye contact Causes burns. Risk of serious damage to eyes.

Acute and chronic health hazards This product is corrosive.

Route of exposure Inhalation Ingestion. Skin and/or eye contact

Target organs No specific target organs known.

Toxicological information on ingredients.

TRIMETHYL HEXAMETHYLENEDIAMINE

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg) 910.0

Species Rat

Skin sensitisation

CONBEXTRA EP10 HARDENER

Skin sensitisation Sensitising.

SECTION 12: Ecological information

Ecotoxicity The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Toxicity Ecotoxic to fish/daphnia/algae

Ecological information on ingredients.

TRIMETHYL HEXAMETHYLENEDIAMINE

Acute aquatic toxicity

Acute toxicity - fish	LC50, 48 hours: 174 mg/l, Leuciscus idus (Golden orfe)
Acute toxicity - aquatic invertebrates	EC_{50}, 24 hours: 31.5 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hours: 29.5 mg/l, Scenedesmus subspicatus
Acute toxicity - microorganisms	EC10, 16 hours: 72 mg/l, Pseudomonas putida

12.2. Persistence and degradability

Persistence and degradability The product is not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

12.4. Mobility in soil

Mobility The product is miscible with water and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not relevant.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Note that fully cured material is not considered as hazardous waste.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 2327

CONBEXTRA EP10 HARDENER

UN No. (IMDG) 2327

UN No. (ICAO) 2327

14.2. UN proper shipping name

Proper shipping name (ADR/RID) TRIMETHYLHEXAMETHYLENEDIAMINES

Proper shipping name (IMDG) TRIMETHYLHEXAMETHYLENEDIAMINES

Proper shipping name (ICAO) TRIMETHYLHEXAMETHYLENEDIAMINES

Proper shipping name (ADN) TRIMETHYLHEXAMETHYLENEDIAMINES

14.3. Transport hazard class(es)

ADR/RID class 8

ADR/RID label 8

IMDG class 8

ICAO class/division 8

Transport labels

4. Packing group

ADR/RID packing group III

IMDG packing group III

ICAO packing group III

5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS F-A, S-B

Emergency Action Code 2X

Hazard Identification Number (ADR/RID) 80

Tunnel restriction code (E)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not relevant.

SECTION 15: Regulatory information

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

National regulations Control of Substances Hazardous to Health Regulations 2002 (as amended).

CONBEXTRA EP10 HARDENER

EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015.
Guidance	Workplace Exposure Limits EH40. Approved Classification and Labelling Guide (Sixth edition) L131.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	ATE: Acute Toxicity Estimate. DNEL: Derived No Effect Level. PNEC: Predicted No Effect Concentration. Kow: Octanol-water partition coefficient.
General information	For professional users only. The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	16/07/2019
Revision	5
Supersedes date	22/05/2017
Hazard statements in full	H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H335 May cause respiratory irritation. H412 Harmful to aquatic life with long lasting effects.

SAFETY DATA SHEET
CONBEXTRA EPR BASE

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

1.1. Product identifier

Product name CONBEXTRA EPR BASE

Product number A1168001UK9, A1168005UK9

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

Identified uses Base component of three-part epoxy grout.

3. Details of the supplier of the safety data sheet

Supplier

Fosroc International Limited
Drayton Manor Business Park
Coleshill Road
Tamworth
Staffordshire
B78 3XN
England
Tel: +44 (0) 1827 262222
Fax: +44 (0) 1827 262444
enquiryuk@fosroc.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1827 265 279 (Monday-Sunday 24 hours a day)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 2 - H411

Human health The product is irritating to eyes and skin. May cause sensitisation by skin contact.

Environmental The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Hazard pictograms

Signal word Warning

CONBEXTRA EPR BASE

Hazard statements	H315 Causes skin irritation. H319 Causes serious eye irritation. H317 May cause an allergic skin reaction. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P261 Avoid breathing vapour/ spray. P273 Avoid release to the environment. 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. P501 Dispose of contents/ container in accordance with national regulations.
Contains	bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE, Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol, 2-ETHYL HEXYL GLYCIDYL ETHER
Supplementary precautionary statements	P264 Wash contaminated skin thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/ attention. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P337+P313 If eye irritation persists: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P391 Collect spillage.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE **60-100%**

CAS number: 1675-54-3 EC number: 216-823-5

Classification
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Skin Sens. 1 - H317
Aquatic Chronic 2 - H411

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol **10-30%**

CAS number: 9003-36-5 EC number: 500-006-8

Classification
Skin Irrit. 2 - H315
Skin Sens. 1 - H317
Aquatic Chronic 2 - H411

CONBEXTRA EPR BASE

2-ETHYL HEXYL GLYCIDYL ETHER	5-10%
CAS number: 2461-15-6	EC number: 219-553-6

Classification
Skin Irrit. 2 - H315
Skin Sens. 1 - H317

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Get medical attention if any discomfort continues.

Inhalation Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

Ingestion Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Give plenty of water to drink. Keep affected person under observation. Get medical attention if any discomfort continues.

Skin contact Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

Eye contact Remove affected person from source of contamination. Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

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

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation May cause respiratory system irritation.

Ingestion May cause discomfort if swallowed.

Skin contact Skin irritation. May cause sensitisation or allergic reactions in sensitive individuals.

Eye contact Irritation of eyes and mucous membranes.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards No unusual fire or explosion hazards noted.

Hazardous combustion products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

CONBEXTRA EPR BASE

Protective actions during firefighting	Control run-off water by containing and keeping it out of sewers and watercourses.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. Provide adequate ventilation.

6.4. Reference to other sections

Reference to other sections For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions For professional users only. Provide adequate ventilation. Avoid the formation of mists. Avoid inhalation of vapours/spray and contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep only in the original container.

Storage class Chemical storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE (CAS: 1675-54-3)

DNEL

Workers - Dermal; Short term systemic effects: 8.33 mg/kg/day
Workers - Inhalation; Short term systemic effects: 12.25 mg/kg/day
Workers - Dermal; Long term systemic effects: 8.33 mg/kg/day
Workers - Inhalation; Long term systemic effects: 12.25 mg/kg/day
Consumer - Dermal; Short term systemic effects: 3.571 mg/kg/day
Consumer - Oral; Short term systemic effects: 0.75 mg/kg/day
Consumer - Dermal; Long term systemic effects: 3.571 mg/kg/day
Consumer - Oral; Long term systemic effects: 0.75 mg/kg/day

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (CAS: 9003-36-5)

CONBEXTRA EPR BASE

DNEL	Workers - Inhalation; Long term systemic effects: 29.39 mg/m³ Workers - Dermal; Long term systemic effects: 104.15 mg/kg/day Workers - Dermal; Short term local effects: 8.3 µg/cm2
PNEC	- Fresh water; 0.003 mg/l - marine water; 0.0003 mg/l - STP; 10 mg/l

2-ETHYL HEXYL GLYCIDYL ETHER (CAS: 2461-15-6)

DNEL	Workers - Dermal; Long term : 4.17 mg/kg/day Workers - Dermal; Short term : 1 mg/kg/day
PNEC	- Fresh water; 0.002 mg/l - marine water; 0.166 µg/l - Sediment (Freshwater); 0.177 mg/kg dw - Sediment (Marinewater); 0.018 mg/kg dw - STP; 0.017 mg/l

8.2. Exposure controls

Protective equipment

Appropriate engineering controls	Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Butyl rubber. Nitrile rubber. Protective gloves should have a minimum thickness of 0.4 mm.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact. Wear apron or protective clothing in case of contact.
Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Do not eat, drink or smoke when using this product. Do not smoke in work area.
Respiratory protection	Respiratory protection may be required if excessive airborne contamination occurs. Gas filter, type A2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Off-white.
Odour	Mild.
Odour threshold	Not determined.
pH	Not determined.

CONBEXTRA EPR BASE

Melting point	Not determined.
Initial boiling point and range	> 200°C @ 1 atm
Flash point	> 200°C
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	No.
Upper/lower flammability or explosive limits	The product is not flammable.
Other flammability	Not applicable.
Vapour pressure	0.001 kPa @ 20°C
Vapour density	Not determined.
Relative density	1.14 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not determined.
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The reactivity data for this product will be typical of those for the following class of materials: Epoxides.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.

10.4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to avoid	Amines. Acids. Strong alkalis.

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10.6. Hazardous decomposition products

Hazardous decomposition products When heated, vapours/gases hazardous to health may be formed. Oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation Gas or vapour may irritate the respiratory system.

Ingestion May cause discomfort if swallowed.

Skin contact Irritating to skin. May cause sensitisation by skin contact.

Eye contact Irritating to eyes.

Route of exposure Skin and/or eye contact

Toxicological information on ingredients.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Acute toxicity - oral

Notes (oral LD_{50}) LD_{50} >5000 mg/kg, Oral, Rat

2-ETHYL HEXYL GLYCIDYL ETHER

Acute toxicity - oral

Notes (oral LD_{50}) LD_{50} >5000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD_{50}) LD_{50} >2000 mg/kg, Dermal, Rat

Acute toxicity - inhalation

Notes (inhalation LC_{50}) LC_{50} (7 hr) 0.15 mg/l, Inhalation, Rat

SECTION 12: Ecological information

Ecotoxicity Dangerous for the environment. May cause long-term adverse effects in the aquatic environment.

Ecological information on ingredients.

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

Ecotoxicity Toxic to aquatic life with long lasting effects.

12.1. Toxicity

Toxicity The product contains a substance which is harmful to aquatic organisms.

Ecological information on ingredients.

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

Toxicity Very toxic to aquatic life with long lasting effects.

Acute aquatic toxicity

Acute toxicity - fish LC_{50}, 96 hours: 2 mg/l, Oncorhynchus mykiss (Rainbow trout)

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Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 1.8 mg/l, Daphnia magna
Acute toxicity - aquatic plants	ErC50, 72 hours: 11 mg/l, Scenedesmus capricornutum (fresh water algae)

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 0.3 mg/l, Daphnia magna

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Toxicity	Toxic to aquatic life with long lasting effects.

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 2.54 mg/l, Freshwater fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: >1000 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hours: >1.8 mg/l, Selenastrum capricornutum (OECD 201)

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 0.3 mg/l, Daphnia magna

2-ETHYL HEXYL GLYCIDYL ETHER

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 5000 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC_{50}, : 7.2 mg/l, Freshwater invertebrates
Acute toxicity - aquatic plants	NOEC, 72 hours: 500 mg/l, Freshwater algae

12.2. Persistence and degradability

Persistence and degradability The product is not expected to be biodegradable.

Ecological information on ingredients.

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

Persistence and degradability	The product is not readily biodegradable.
Biodegradation	- Degradation 12%: 28 days OECD 302B

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Persistence and degradability	Not readily biodegradable.
Biodegradation	- Degradation 0%: 28 days

12.3. Bioaccumulative potential

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Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not applicable.

Ecological information on ingredients.

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

Bioaccumulative potential Potentially bioaccumulating.

Partition coefficient log Pow: 3.24 Estimated value

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Bioaccumulative potential Potentially bioaccumulating. BCF: Estimated value. 150,

Partition coefficient : log Pow = Approximately 3.8 at 25 C

2-ETHYL HEXYL GLYCIDYL ETHER

Partition coefficient : 3.83

12.4. Mobility in soil

Mobility The product is insoluble in water.

Ecological information on ingredients.

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

Mobility Low mobility.

Adsorption/desorption coefficient - Koc: Estimated value. 1800 - 4400 @ 20°C

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Mobility Not considered mobile.

Adsorption/desorption coefficient - Koc: 4460 @ 20°C

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

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

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

CONBEXTRA EPR BASE

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

1. UN number

UN No. (ADR/RID) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

UN No. (ADN) 3082

2. UN proper shipping name

Proper shipping name (ADR/RID) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE, EPOXY RESIN (Type F) (Number average MW <= 700))

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE, EPOXY RESIN (Type F) (Number average MW <= 700))

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE, EPOXY RESIN (Type F) (Number average MW <= 700))

Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS bis[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE, EPOXY RESIN (Type F) (Number average MW <= 700))

14.3. Transport hazard class(es)

ADR/RID class 9

ADR/RID classification code M6

ADR/RID label 9

IMDG class 9

ICAO class/division 9

ADN class 9

Transport labels

14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ICAO packing group III

ADN packing group III

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14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	•3Z
Hazard Identification Number (ADR/RID)	90
Tunnel restriction code	(-)

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

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

National regulations	The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).
EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015.
Guidance	Workplace Exposure Limits EH40. Respiratory protective equipment at work (HSG53).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	ATE: Acute Toxicity Estimate. CAS: Chemical Abstracts Service. DMEL: Derived Minimal Effect Level. DNEL: Derived No Effect Level. PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative.
General information	The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	04/09/2020

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Revision	5b
Supersedes date	01/08/2018
SDS number	12283
Hazard statements in full	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.

SAFETY DATA SHEET
CONBEXTRA EPR HARDENER

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

1.1. Product identifier

Product name CONBEXTRA EPR HARDENER

Product number A1168002UK9, A1168004UK9

UFI UFI: QPJ0-K0V8-X00V-AF0P

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

Identified uses Hardener component of three-part epoxy grout.

3. Details of the supplier of the safety data sheet

Manufacturer

Fosroc International Limited
Drayton Manor Business Park
Coleshill Road
Tamworth
Staffordshire
B78 3XN
England
Tel: +44 (0) 1827 262222
Fax: +44 (0) 1827 262444
enquiryuk@fosroc.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1827 265 279 (Monday-Sunday 24 hours a day)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1A - H314 Eye Dam. 1 - H318 STOT SE 3 - H335

Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms

Signal word Danger

Hazard statements

H302+H312 Harmful if swallowed or in contact with skin.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

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Precautionary statements	P260 Do not breathe vapour/ spray. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/ doctor. P405 Store locked up. P501 Dispose of contents/ container in accordance with national regulations.
Contains	1,5-PENTANEDIAMINE, 2-METHYL, PARA TOLUENE SULPHONIC ACID MONOHYDRATE
Supplementary precautionary statements	P261 Avoid breathing vapour/ spray. P264 Wash contaminated skin 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. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P312 IF SWALLOWED: Call a POISON CENTRE/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. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P321 Specific treatment (see medical advice on this label). P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P363 Wash contaminated clothing before reuse.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

1,5-PENTANEDIAMINE, 2-METHYL **60-100%**

CAS number: 15520-10-2 EC number: 239-556-6 REACH registration number: 01-2119976310-41-0000

Classification

Acute Tox. 4 - H302
Acute Tox. 4 - H312
Acute Tox. 4 - H332
Skin Corr. 1A - H314
Eye Dam. 1 - H318
STOT SE 3 - H335

PARA TOLUENE SULPHONIC ACID MONOHYDRATE **1-5%**

CAS number: 6192-52-5 EC number: 203-180-0

Classification

Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
STOT SE 3 - H335

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

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SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Get medical attention if any discomfort continues.
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention immediately.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.
Eye contact	Remove affected person from source of contamination. Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention immediately.

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

General information	Get medical attention promptly if symptoms occur after washing.
Inhalation	May cause respiratory irritation. May cause coughing and difficulties in breathing.
Ingestion	May cause chemical burns in mouth and throat.
Skin contact	May cause sensitisation by skin contact. May cause serious chemical burns to the skin.
Eye contact	Eye contact may cause serious and potentially irreversible injuries.

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

Notes for the doctor	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of nitrogen.

5.3. Advice for firefighters

Protective actions during firefighting	Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. In case of fire and/or explosion do not breathe fumes.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	For personal protection, see Section 8. Do not touch or walk into spilled material.
For emergency responders	Keep unnecessary personnel away. Do not touch damaged containers, or spilled material, unless wearing appropriate protective clothing. Remove all sources of ignition.

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6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid contact with skin and eyes. Avoid breathing gas, fume, vapours or spray. Wear suitable protective equipment for prolonged exposure and/or high concentrations of vapours, spray or mist. Wash hands thoroughly after handling.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from food, drink and animal feeding stuffs. Keep away from heat, sparks and open flame.

Storage class Corrosive storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

No exposure limits known for ingredient.

Ingredient comments No exposure limits known for ingredient(s).

Biological limit values No biological exposure limits noted for the ingredient.

1,5-PENTANEDIAMINE, 2-METHYL (CAS: 15520-10-2)

DNEL

Industry/Professional - Dermal; Long term : 1.5 mg/kg/day
Industry/Professional - Inhalation; Short term : 0.5 mg/m³
Industry/Professional - Inhalation; Long term : 0.25 mg/m³

PNEC

Industry/Professional - Fresh water; 0.42 mg/l
Industry/Professional - Intermittent release; 0.42 mg/l
Industry/Professional - marine water; 0.42 mg/l

8.2. Exposure controls

Protective equipment

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Appropriate engineering controls	Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Polyvinyl chloride (PVC). Nitrile rubber. Viton rubber (fluoro rubber). Protective gloves should have a minimum thickness of 0.4 mm. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact. Wear apron or protective clothing in case of contact.
Hygiene measures	Provide eyewash station and safety shower. Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap and water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.
Respiratory protection	Respiratory protection may be required if excessive airborne contamination occurs. Gas filter, type K.
Environmental exposure controls	Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Clear.
Odour	Amine.
Odour threshold	Not determined.
pH	Not available.
Melting point	-60 - -56°C/(-76 - -68.8)°F
Initial boiling point and range	192°C/377.6°F
Flash point	83°C / 181°F Method: Tag closed cup.
Evaporation rate	Not available.
Evaporation factor	Not applicable.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Not available.
Other flammability	Not applicable.
Vapour pressure	0.22 mm Hg @ 20°C
Vapour density	Not available.
Relative density	0.86 g/cm3 @ 25°C

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Bulk density	Not applicable.
Solubility(ies)	Miscible with water.
Partition coefficient	(n-Octanol/Water) <1
Auto-ignition temperature	350°C
Decomposition Temperature	Not available.
Viscosity	3 mPa s @ 22.6°C
Explosive properties	Not available.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

9.2. Other information

Other information	No data available.

SECTION 10: Stability and reactivity

1. Reactivity

Reactivity	Stable at normal ambient temperatures and when used as recommended.

2. Chemical stability

Stability	Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No potentially hazardous reactions known.

4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition.

5. Incompatible materials

Materials to avoid	Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg)	1,196.32

Acute toxicity - dermal

ATE dermal (mg/kg)	1,912.07

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l)	5.01

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Inhalation	Harmful by inhalation. May cause damage to mucous membranes in nose, throat, lungs and bronchial system.
Ingestion	Harmful if swallowed. May cause burns in mucous membranes, throat, oesophagus and stomach.
Skin contact	Causes burns. Harmful in contact with skin. May cause sensitisation by skin contact.
Eye contact	Causes burns. Risk of serious damage to eyes.
Acute and chronic health hazards	This product is corrosive.

Toxicological information on ingredients.

1,5-PENTANEDIAMINE, 2-METHYL

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	1,170.0
Species	Rat
ATE oral (mg/kg)	1,170.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	1,870.0
Species	Rabbit
ATE dermal (mg/kg)	1,870.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} dust/mist mg/l)	4.9
Species	Rat
ATE inhalation (dusts/mists mg/l)	4.9

SECTION 12: Ecological information

12.1. Toxicity

Toxicity	The product contains a substance which is harmful to aquatic organisms.

Acute aquatic toxicity

Acute toxicity - fish	EC_{50}, : 1825 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 19.8 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hours: >100 mg/l, Algae

Ecological information on ingredients.

1,5-PENTANEDIAMINE, 2-METHYL

Acute aquatic toxicity

Acute toxicity - fish	Fish 1825 mg/l.

CONBEXTRA EPR HARDENER

Acute toxicity - aquatic invertebrates	Crustacea EC50 Daphnia 19.8mg/l, 48 hours.
Acute toxicity - aquatic plants	Algae EC50 >100mg/l, 72 hours.

12.2. Persistence and degradability

Persistence and degradability The product is readily biodegradable.

Ecological information on ingredients.

1,5-PENTANEDIAMINE, 2-METHYL

Persistence and degradability	The substance is readily biodegradable.

3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient (n-Octanol/Water) <1

4. Mobility in soil

Mobility The product is miscible with water and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB. This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Waste material and any included combustible absorbent and containers should be suitable for incineration at an approved facility. Note that fully cured material is not considered as hazardous waste.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	2735
UN No. (IMDG)	2735
UN No. (ICAO)	2735
UN No. (ADN)	2735

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,5-PENTANEDIAMINE, 2-METHYL)
Proper shipping name (IMDG)	AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,5-PENTANEDIAMINE, 2-METHYL)

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Proper shipping name (ICAO)	AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,5-PENTANEDIAMINE, 2-METHYL)
Proper shipping name (ADN)	AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,5-PENTANEDIAMINE, 2-METHYL)

14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID classification code	C7
ADR/RID label	8
IMDG class	8
ICAO class/division	8
ADN class	8

Transport labels

4. Packing group

ADR/RID packing group	I
IMDG packing group	I
ICAO packing group	I
ADN packing group	I

5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

IMDG Code segregation group	18. Alkalis
EmS	F-A, S-B
ADR transport category	1
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	88
Tunnel restriction code	(E)

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

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

National regulations	The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).

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EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015.
Guidance	Workplace Exposure Limits EH40. Respiratory protective equipment at work (HSG53).

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	ATE: Acute Toxicity Estimate. CAS: Chemical Abstracts Service. DNEL: Derived No Effect Level. DMEL: Derived Minimal Effect Level. PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative.
General information	For professional users only. The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	06/10/2021
Revision	6
Supersedes date	27/10/2020
SDS number	12286
Hazard statements in full	H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation.

SAFETY DATA SHEET
CONBEXTRA EPR FILLER

This SDS is not mandated under REACH Regulation (EC) No 1907/2006 and is provided for information only.

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

1.1. Product identifier

Product name CONBEXTRA EPR FILLER

Product number A1168003UK9, A1168006UK9

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

Identified uses Filler component of three-part epoxy grout.

3. Details of the supplier of the safety data sheet

Supplier

FOSROC Limited
Drayton Manor Business Park
Coleshill Road
Tamworth
Staffordshire
B78 3XN
Tel. +44 (0) 1827 262222
Fax. +44 (0) 1827 262444
enquiryuk@fosroc.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1827 265 279 (Monday-Sunday 24 hours a day)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Human health Dust may irritate the eyes and the respiratory system.

2.2. Label elements

Hazard statements NC Not Classified

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

CONBEXTRA EPR FILLER

SILICA SAND	**60-100%**
CAS number: 14808-60-7	EC number: 238-878-4
Classification	**Classification (67/548/EEC or 1999/45/EC)**
Not Classified	-

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments Contains <1% respirable silica

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Remove affected person from source of contamination. Move affected person to fresh air at once. Get medical attention if any discomfort continues.

Ingestion Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.

Skin contact Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

Eye contact Remove affected person from source of contamination. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

Inhalation Dust may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.

Eye contact Dust or splashes from the mixture may cause permanent eye damage.

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

Notes for the doctor No specific recommendations.

SECTION 5: Firefighting measures

1. Extinguishing media

Suitable extinguishing media The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

2. Special hazards arising from the substance or mixture

Hazardous combustion products No known hazardous decomposition products.

5.3. Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid inhalation of dust. Avoid contact with eyes and prolonged skin contact. Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Collect and dispose of spillage as indicated in Section 13.

6.3. Methods and material for containment and cleaning up

CONBEXTRA EPR FILLER

Methods for cleaning up Avoid generation and spreading of dust. Collect spillage with a shovel and broom, or similar and reuse, if possible.

6.4. Reference to other sections

Reference to other sections For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid inhalation of dust and contact with skin and eyes. Observe any occupational exposure limits for the product or ingredients.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage class Unspecified storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

SILICA SAND

Long-term exposure limit (8-hour TWA): WEL 0,1 mg/m³ Respirable crystalline silica
WEL = Workplace Exposure Limit

Ingredient comments WEL = Workplace Exposure Limits

8.2. Exposure controls

Protective equipment

Appropriate engineering controls Provide adequate ventilation. Avoid inhalation of dust. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Dust-resistant, chemical splash goggles. (conform EN 166)

Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Polyvinyl chloride (PVC). Rubber (natural, latex).

Other skin and body protection Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

Respiratory protection Wear a suitable dust mask. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m3. Dust filter P2 (for fine dust). Dust filter P3 (for especially fine dust/powder) Particulate filters should comply with European Standard EN143.

CONBEXTRA EPR FILLER

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Dusty powder.
Colour	White/off-white.
Odour	Odourless.
pH	Not applicable.
Melting point	Not applicable.
Initial boiling point and range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Relative density	2.02 @ 25°C
Solubility(ies)	Insoluble in water.

9.2. Other information

Other information	Not available.

SECTION 10: Stability and reactivity

1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.

2. Chemical stability

Stability	Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Will not polymerise.

4. Conditions to avoid

Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.

5. Incompatible materials

Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products	No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation	Dust may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.
Eye contact	Dust in the eyes will cause irritation.

SECTION 12: Ecological Information

Ecotoxicity	Not regarded as dangerous for the environment.

CONBEXTRA EPR FILLER

1. Toxicity

Toxicity Not considered toxic to fish.

2. Persistence and degradability

Persistence and degradability The product is not expected to be biodegradable.

3. Bioaccumulative potential

Bioaccumulative potential Not expected to be bioaccumulative.

12.4. Mobility in soil

Mobility The product is not volatile but may be spread by dust-raising handling.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information The material is inert and suitable for disposal at an approved solid waste disposal or landfill site.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

1. UN number

Not applicable.

2. UN proper shipping name

Not applicable.

3. Transport hazard class(es)

No transport warning sign required.

4. Packing group

Not applicable.

5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

6. Special precautions for user

Not applicable.

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

CONBEXTRA EPR FILLER

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

National regulations The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).

EU legislation Commission Regulation (EU) No 453/2010 of 20 May 2010.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Guidance Respiratory protective equipment at work (HSG53).
Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information Only trained personnel should use this material. For professional users only.

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date 29/05/2018

Revision 6b

Supersedes date 22/05/2015

SDS number 12287

DECLARATION OF PERFORMANCE

Number: UK9-19

UK DECLARATION OF PERFORMANCE

In compliance with the Construction Products Regulation (EU) No 305/2011 as amended by The Construction Products (Amendment etc.) (EU Exit) Regulations 2019 (S.I. 2019/465)

1 Unique identification code of the product-type:

CONBEXTRA EP10, 1158004

2 Intended use as foreseen by the manufacturer of the construction product in accordance with the harmonised technical specification:

Structural and non-structural repair principle 3

Anchoring of reinforcing steel bar

3 Name, registered trade name or registered trade mark and contact address of the manufacturer as set out in article 11 (5)

Fosroc International Limited
Drayton Manor Business Park
Coleshill Road, Tamworth
Staffordshire, B78 3XN, UK

4 Name and contact address of the authorised representative who has received a mandate for the tasks set out on Article 12 (2):

Not Relevant

5 System or systems for assessment and verification of constancy of performance of the construction product in accordance with Annex V

System 2+

6a In the case of a declaration of performance concerning a construction product that is covered by a harmonised standard

EN 1504-3:2005
EN 1504-6:2006

The notified body

BBA 0836

6b In case of a declaration of performance concerning a construction product for which a European Technical Assessment was issued

Not Relevant

Issue Number: 1

Number: UK9-19

7 Declared performance

Essential Characteristics	Performance	Test Method
Compressive strength	Class R4: ≥ 45 MPa	EN 12190:1999
Adhesion strength by pull-off test	≥ 2.0 MPa	EN 1542:1999
Chloride ion content	≤0.05%	EN 1015-17:2000
Determination of shrinkage and expansion	≥ 2.0 MPa	EN 12617-4:2002
Testing of anchoring products by the pull-out method	≤ 0.6 mm at 75 kN	EN 1881:2006
Creep under tensile load	≤ 0.6 mm	EN 1544:2007
Glass transition temperature	≥ 45°C	EN 12614:2006
Reaction to fire	Class C s1 d0	EN 13501-1
Dangerous substances	Complies with 5.3 (EN1504-6) Complies with 5.4 (EN1504-3)	

8 Appropriate Technical Documentation and/or Specific Technical Documentation:

Not Relevant

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued under the sole responsibility of the manufacturer identified above.

Signed for the manufacturer and in the name of the manufacturer by:

Jon Potter

Technical Manager

Place and Date of Issue: 30th June 2022 Tamworth

Issue Number: 1

Number: UK9-18

DECLARATION OF PERFORMANCE

In accordance with Annex III of Registration (EU) No. 305/2011
(Construction Product Regulation)
amended by Commission Delegated Regulation (EU) No 574/2014

1 Unique identification code of the product-type:

CONBEXTRA EPR, 1168000, 1168001

2 Intended use as foreseen by the manufacturer of the construction product in accordance with the harmonised technical specification:

Structural and non-structural repair methods 3 and 4

Anchoring of reinforcing steel bar

3 Name, registered trade name or registered trade mark and contact address of the manufacturer as set out in article 11 (5)

Fosroc International Limited
Drayton Manor Business Park
Coleshill Road, Tamworth
Staffordshire, B78 3XN, UK

4 Name and contact address of the authorised representative who has received a mandate for the tasks set out on Article 12 (2):

Not Relevant

5 System or systems for assessment and verification of constancy of performance of the construction product in accordance with Annex V

System 2+

6a In the case of a declaration of performance concerning a construction product that is covered by a harmonised standard

EN 1504-3:2005
EN 1504-6:2006

The notified body

APPlus 0370

6b In case of a declaration of performance concerning a construction product for which a European Technical Assessment was issued

Not Relevant

Issue number: 5

Number: UK9-18

7 Declared performance

Essential Characteristics	Performance	Test Method
Compressive strength	Class R4: ≥ 45 MPa	EN 12190:1999
Adhesion strength by pull-off test	≥ 2.0 MPa	EN 1542:1999
Determination of shrinkage and expansion	≥ 2.0 MPa	EN 12617-4:2002
Elastic modulus	≥ 20 GPa	EN 13412:2002
Testing of anchoring products by the pull-out method	≤ 0.6 mm at 75 kN load	EN 1881:2006
Creep under tensile load	≤ 0.6 mm	EN 1544:2007
Glass transition temperature	≥ 45°C	EN 12614:2006
Chloride ion content	≤0.05%	EN 1015-17:2000
Reaction to fire	Class C	EN 13501-1
Dangerous substances	Complies with 5.3 (EN1504-6) Complies with 5.3 (EN1504-3)	

8 Appropriate Technical Documentation and/or Specific Technical Documentation:

Not Relevant

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for the manufacturer and in the name of the manufacturer by:

Jon Potter

Technical Manager

Place and Date of Issue: 05/10/2021 Tamworth

Issue number: 5

METHOD STATEMENT

EPOXY RESIN FREE-FLOW GROUTS - Conbextra EP

1. Foundation surface

a. All contact surfaces must be free from oil, grease, free- standing water or any loosely adherent material. Concrete surfaces should be cut back to a sound base either by a grit blast or light scabble. All dust must be removed and bolt holes or fixing pockets blown clean of any dirt or debris.

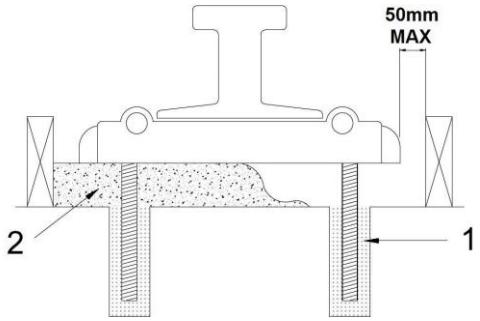
2. Steel surfaces

a. All steel surfaces should be shot blasted to SA2.5, free of rust and mill scale. Cleaned surfaces may be protected by the application of Nitoprime 28.

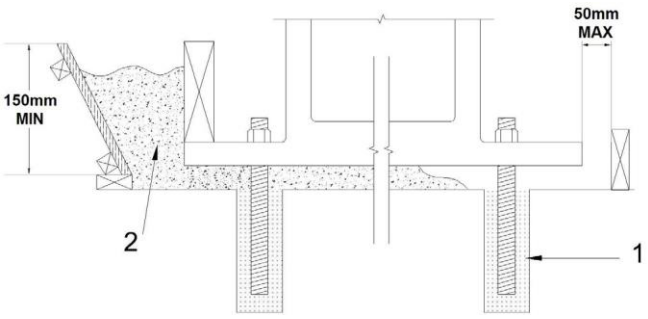
3. Formwork

a. The formwork should be constructed to be leakproof as Conbextra EP products are free-flowing grouts. Loss of grout once the material is placed but not hardened, will result in incomplete filling of the gap.

b. For free-flow grout conditions it is essential to provide a hydrostatic head of grout. To achieve this a feeding hopper system should be used.



Example of Conbextra EP grout to machinery baseplate



Example of Conbextra EP grout to machinery baseplate:

1 *Lokfix resin anchor
2 Conbextra EP grout
* Also available from Fosroc.

4. Mixing - Conbextra EP10

a. Pour all the contents of the hardener pack into the base container. Mix using a slow speed drill and paddle until homogeneous. Note: any un-used mixed Conbextra EP10 in quantities above 200g will generate heat and release vapour. Move container to an exterior location and do not breath fumes.

5. Mixing - Conbextra EPR

a. Base and hardener must be poured into a container of 25 litres capacity before mixing. Once mixed add filler component and mix with a slow speed drill and Conbextra (MR3) mixing paddle for 2 minutes until a uniform colour and consistency. It is recommended to keep the paddle head below the material surface during mixing to minimise air entrainment.

6. Placing

a. The mixed grout should be poured steadily from one side only to eliminate the entrapment of air.

b. Continuous grout flow is essential.

c. Sufficient grout must be available prior to starting.

d. The time taken to pour a batch should be regulated to the time taken to prepare the next batch.

e. After curing the unrestrained grout should be cut back below the bottom of the baseplate using a skill saw.

7. Cleaning

a. All tools and equipment should be cleaned immediately after use with Fosroc Solvent 102. Spillages should be absorbed with sand or sawdust and disposed in accordance with local regulations.

PROJECT REFERENCES

FOSROC

constructive solutions

CASE STUDY

Project Name

Hitachi Rail Factory

Newton Aycliffe, Country Durham, UK

CUSTOMER
Hitachi / Agility Trains Consortium

SECTOR
Industrial

DATE
2015

PRODUCTS

- Conbextra EPR

THE PROJECT

Hitachi, world renowned for their train manufacturing expertise, is part of the Agility Trains consortium awarded a £5.8BN contract to finance, design, manufacture, maintain and service the next generation of intercity carriages to improve the UK's mainline rail services. Nearly 900 new carriages will be made in a factory currently under construction at Merchant Park, a site in Newton Aycliffe, County Durham.
Fosroc first became involved in the project in November 2014 when we were asked to advise on grouting new machine rails into place ready for the manufacture of the carriages. Throughout the project cementitious grout had been specified for the installation of the traverser rails. Fosroc met with the contractor, sub-contractor, civil engineer and QS to discuss a more cost effective solution which would ensure longevity.

Exterior of factory

THE SOLUTION

Conbextra EPR was demonstrated to provide a better long term solution than competitors' grouts, due to its ability to operate under dynamic load and also its non-shrink qualities, backed by its successful track record across Europe and beyond, in similar installations.
The scale of this project required ongoing site support from Fosroc's sales team, as well as the Technical Department throughout the installation, working closely with Trackwork's designer and QS to answer all questions and queries. In addition, regular visits were made to site to assist with smooth installation.
The supply schedule was extremely challenging with the customer changing time frames which involved all the Fosroc supply chain and production team working closely together to supply a year's production of Conbextra EPR in 6 months. Over 60,000ltrs of Conbextra EPR has been laid to date on this project, which is still ongoing.

Site visit carried out to assist with smooth installation

THE BENEFITS

Conbextra EPR's non-shrink resistance to repetitive dynamic loads and high compressive, tensile and flexural strength provided a highly attractive solution and although other companies had discussed epoxy based grout, no one else had provided benefits backed up with technical expertise, site support and differing grades if required. The design life of the Conbextra EPR provided additional security for the client maintaining their reputation for excellence.
Following Fosroc's ability to support and supply this project to schedule, Fosroc are now supplying all epoxy based grout for identical projects and have become supplier of choice. This has led to Fosroc securing the Doncaster rail project at an estimated value of £200k.

Machine rail grouted in using Conbextra EPR

T: 01827 262222 **F: 01827 262444** **E: enquiryuk@fosroc.com**
Fosroc Limited, Drayton Manor Business Park, Coleshill Road, Tamworth, B78 3XN, UK

www.fosroc.com

CASE STUDIES

Thackeray Building, London

The Thackeray Building is a 5-storey block of residential flats in Herbrand Street dating back to the early 1900's, constructed of concrete and brick. Over the years the concrete elements have suffered from water ingress which has resulted in spalling and also corrosion of steel 'H' sections above the windows. Fosroc were able to supply a total solution package.

ICAIR, Sheffield

During construction the concrete to form the tanks had been poured to the wrong measurements and in order to correct the situation a product was required that could withstand the pressure and load from the stored water and gain a compressive strength similar to the parent concrete. Repairs were successfully carried out using Renderoc LA60.

A404M, Cannon Lane

Works included reconstruction of the joint edges and repairing defective concrete in the bridge deck with a clear objective to get the works completed quickly and reduce the closure of the very busy major route.
Patchroc 250 thick section repair mortar which exceeds the requirements of BS EN 1504, and Highways England was successfully installed minimising disruption and allowing a rapid return to service.

Central Station, Glasgow

When platform repairs were required at Central Station, Glasgow Fosroc's Paveroc pavement reinstatement mortar was selected due to its rapid strength gain which means it can accept pedestrian traffic at 12 hours. In addition to providing a rapid return to service of the platforms Paveroc's high strength, abrasion and weather resistance ensures that it will provide a durable repair.

Victoria Hospital, Blackpool

The Maternity Wing at Blackpool Victoria Hospital was constructed in the 1960's and over the years had been subjected to many environmental stresses, particularly due to its marine location. Fosroc provided a specification to repair the degraded concrete and bring a new lease of life to the structure using the Renderoc Repair System.

Oldbury Viaduct, M5 Midlands

Fosroc delivered a sustainable motorway repair solution using Renderoc LA60 meeting Highways England's quality standards. Fosroc successfully introduced innovations in product design, and in bulk supply, maintaining regular supply to site through a fully integrated supply chain and production process. This approach helped reduce costs, save time and enabled concrete repairs to be carried out effectively in a challenging environment.

Fosroc offers a full range of construction chemical solutions, helping to protect structures throughout the world. Please refer to our brochures, which include:

www.fosroc.com

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constructive solutions