SAFETY DATA SHEET (MSDS)

According to 1907/2006/EC, Article 31
COLOURED EPOXY MORTAR COMP.A

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

1.1 Product identifier
Trade Reference: RonaFloor Epoxy Floor Mortar Part A
Article Number: PC 109

1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Ronacrete Ltd
Ronac House, Flex Meadow
Harlow, Essex, CM19 5TD
E-mail: technical@ronacrete.co.uk
Telephone: +44 (0) 1279 638700

1.4 Emergency telephone number:
Telephone: +44 (0) 1279 638700
9.00am to 5.00pm Mon - Fri

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Corr./Irrit. 2 H315
Eye Dam./Irrit. 2 H319
Skin Sens. 1 H317
Aquatic Chronic 2 H411

See Section 16 for the full text of the H statements declared above.

2.2 Label elements

Hazard pictograms

Signal word: Warning

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

Precautionary statements
Prevention
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release to the environment.
P261 Avoid breathing vapor.
P264 Wash thoroughly after handling.
Response
P391 Collect spillage.
P363 Take off contaminated clothing and wash it before reuse.
P333+P313 IF ON SKIN: Wash with plenty of water.
If skin irritation or rash occurs: Get medical advice or attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.
Disposal
P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.
Storage
Not applicable.

Hazardous ingredients
bis-[4-(2,3-epoxipropoxi)phenyl]propane Bisphenol F diglycidyl ether, reaction mass of isomers oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Supplemental label elements
Not applicable.

2.3 Other hazards

Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII: Not applicable.
Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII: Not applicable.
Other hazards which do not result in classification: None known.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs
bis-[4-(2,3-epoxipropoxi)phenyl]propane	RRN: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2	>= 50 - < 75	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	Skin Irrit. 2, H315: >= 5 % Eye Irrit. 2, H319: >= 5 %
Bisphenol F diglycidyl ether, reaction mass of isomers	RRN: 01-2119454392-40 EC: 701-263-0	>= 25 - < 35	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	-
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	RRN: 01-2119485289-22 EC: 271-846-8 CAS: 68609-97-2 Index: 603-103-00-4	>= 10 - < 20	Skin Irrit. 2, H315 Skin Sens. 1, H317	-
Titanium Dioxide	CAS: 13463-67-7 EINECS: 236-675-5 Index number: 022-006-00-2 RRN: 01-2119489379-17- XXXX Index: 603-103-00-4	2.5 - 5	Carc. 2, H351	-

See Section 16 for the full text of the H statements declared above.
There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type: Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open
Skin contact
Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion
Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first aid personnel
No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

Potential acute health effects
Eye contact
Causes serious eye irritation.
Inhalation
No known significant effects or critical hazards.
Skin contact
Causes skin irritation. May cause an allergic skin reaction.
Ingestion
No known significant effects or critical hazards.

Over-exposure signs/symptoms
Eye contact: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation: No specific data.
Skin contact: Adverse symptoms may include the following: irritation redness

Ingestion: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use dry chemical, CO2, alcohol-resistant foam or water spray (fog).
Unsuitable extinguishing media: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture: In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products: Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds

5.3 Advice for firefighters

Special protective actions for fire-fighters
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
Additional information
Not available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders
If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in “For non-emergency personnel”.

6.2 Environmental precautions
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.Avoid dispersal of spilled

material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections
See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures
Put on appropriate personal protective equipment (see section 8 of SDS). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities
Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully re-sealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)
Recommendations: Not available
Industrial sector specific solutions: Not available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits: No exposure limit value known.
Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal,

workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs
bis-[4-(2,3-epoxipropoxi)phenyl]propane
DNEL: Short term Dermal
Value: 8.3 mg/kg bw/day
Population: Workers
Effects: Systemic
DNEL: Short term Inhalation
Value: 12.3 mg/m³
Population: Workers
Effects: Systemic
DNEL: Long term Dermal
Value: 8.3 mg/kg bw/day
Population: Workers
Effects: Systemic
DNEL: Long term Inhalation
Value: 12.3 mg/m³
Population: Workers
Effects: Systemic
DNEL: Short term Dermal
Value: 3.6 mg/kg bw/day
Population: General population
Effects: Systemic
DNEL: Short term Inhalation
Value: 0.75 mg/m³
Population: General population
Effects: Systemic
DNEL: Short term Oral
Value: 0.75 mg/kg bw/day
Population: General population
Effects: Systemic
DNEL: Long term Dermal
Value: 3.6 mg/kg bw/day
Population: General population
Effects: Systemic
DNEL: Long term Inhalation
Value: 0.75 mg/m³
Population: General population
Effects: Systemic
DNEL: Long term Oral
Value: 0.75 mg/kg bw/day
Population: General population
Effects: Systemic
Bisphenol F diglycidyl ether, reaction mass of isomers
DNEL: Short term Dermal
Value: 8.3 µg/cm²

Population: Workers
Effects: Local
DNEL: Long term Dermal
Value: 104.15 mg/kg bw/day
Population: Workers
Effects: Systemic
DNEL: Long term Inhalation
Value: 29.39 mg/m³
Population: Workers
Effects: Systemic
DNEL: Long term Dermal
Value: 62.5 mg/kg bw/day
Population: General population
Effects: Systemic
DNEL: Long term Inhalation
Value: 8.7 mg/m³
Population: General population
Effects: Systemic
DNEL: Long term Oral
Value: 6.25 mg/kg bw/day
Population: General population
Effects: Systemic
oxirane, mono[(C12-14-alkyloxy)methyl] derivs
DNEL: Long term Inhalation
Value: 3.6 mg/m³
Population: Workers
Effects: Systemic
DNEL: Long term Inhalation
Value: 0.87 mg/m³
Population: General population
Effects: Systemic
DNEL: Long term Dermal
Value: 1.0 mg/kg bw/day
Population: Workers
Effects: Systemic
DNEL: Long term Dermal
Value: 0.5 mg/kg bw/day
Population: General population
Effects: Systemic
DNEL: Long term Oral
Value: 0.5 mg/kg bw/day
Population: General population
Effects: Systemic
DNEL/DMEL Summary: Not available

PNECs
bis-[4-(2,3-epoxipropoxi)phenyl]propane
Compartment detail: Fresh water
Value: 6 µg/l
Compartment detail: Marine
Value: 1 µg/l
Compartment detail: Sewage Treatment Plant
Value: 10 mg/l
Compartment detail: Fresh water sediment

Value: 0.341 mg/kg dwt
Compartment detail: Marine water sediment
Value: 0.034 mg/kg dwt
Compartment detail: Soil
Value: 0.065 mg/kg dwt
Bisphenol F diglycidyl ether, reaction mass of isomers
Compartment detail: Fresh water
Value: 0.003 mg/l
Compartment detail: Marine
Value: 0.0003 mg/l
Compartment detail: Sewage Treatment Plant
Value: 10 mg/l
Compartment detail: Fresh water sediment
Value: 0.294 mg/kg dwt
Compartment detail: Marine water sediment
Value: 0.0294 mg/kg dwt
Compartment detail: Soil
Value: 0.237 mg/kg dwt
Compartment detail: Intermittent Releases
Value: 0.0254 mg/l
oxirane, mono[(C12-14-alkyloxy)methyl] derivs
Compartment detail: Fresh water
Value: 0.0072 mg/l
Compartment detail: Marine
Value: 0.72 µg/l
Compartment detail: Sewage Treatment Plant
Value: 10 mg/l
Compartment detail: Fresh water sediment
Value: 307.16 mg/kg dwt
Compartment detail: Marine water sediment
Value: 30.716 mg/kg dwt
Compartment detail: Soil
Value: 61.42 mg/kg dwt
PNEC Summary: Not available

Derived No-Effect Levels' (DNEL's) and Predicted No-Effect Concentrations' (PNEC's)
Explanatory note
REACH requires manufacturers and importers to establish and report 'Derived No-Effect Levels' (DNEL's) for humans by inhalation, ingestion and dermal routes of exposure and 'Predicted No-Effect Concentrations' (PNEC's) for environmental exposure. DNEL's and PNEC's are established by the registrant without an official consultation process, and are not intended to be directly used for setting workplace or general population exposure limits. They are primarily used as input values in running Quantitative Risk Assessment models (like the ECETOC-TRA model). Due to differences in calculation methodology the DNEL will tend to be lower (sometimes significantly) than any corresponding health-based OEL for that chemical substance. Further although DNEL's (and PNEC's) are an indication for setting risk reduction measures, it should be recognized that these limits do not have the same regulatory application as officially endorsed governmental OEL's.

8.2 Exposure controls

Appropriate engineering controls: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Individual protection measures
Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection
Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Material: 730 Camatril
Minimum break through time: 480 min
Material: 898 Butoject
Minimum break through time: 480 min
Producer: This recommendation is valid only for our Product as delivered. If this product will be mixed with other substances you need to contact a supplier of CE approved protective gloves (e.g. KCL GmbH, D-36124 Eichenzell, Tel. 0049 (0) 6659 87300, Fax. 0049 (0) 6659 87155, email: vertrieb@kcl.de).
Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
General protective measures: Chemical splash goggles or face shield. Chemical-resistant gloves. Suitable protective footwear. Light protective clothing. Eyewash bottle with clean water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state: Liquid
Color: Light yellow
Odor: Not available (not measured)
Odor threshold: Not available (not measured)
pH: Not available (not measured)
Melting point/freezing point: Not available (not measured)
Initial boiling point and boiling range: Not available (not measured)
Flash point: Greater than 150 °C
Evaporation rate: Not available (not measured)
Upper/lower flammability or explosive limits:

Lower: Not available (not measured)
Upper: Not available (not measured)
Vapor pressure: Not available (not measured)
Vapor density: Not available (not measured)
Relative density: Not available (not measured)
Density: 1,120 kg/m3 (ASTM D 4052)
Solubility(ies): Not available (not measured)
Solubility in water: Not available (not measured)
Partition coefficient (n-octanol/water): Not available Not applicable.

Auto-ignition temperature: Estimated. 400 °C (ASTM D 1929)
Decomposition temperature: Not available (not measured)
Viscosity
Dynamic: 0.7 - 1.1 Pa·s @ 25 °C
Kinematic: Not available (not measured)
Explosive properties: Not available (not measured)
Oxidizing properties: Not available (not measured)

9.2 Other information
No additional information

SECTION 10: Stability and reactivity

10.1 Reactivity
Stable under normal conditions

10.2 Chemical stability
The product is stable.

10.3 Possibility of hazardous reactions
Hazardous reactions or instability may occur under certain conditions of storage or use.

10.4 Conditions to avoid
No specific data.

10.5 Incompatible materials
No specific data.

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Classification	Dose
bis-[4-(2,3-epoxipropoxi)phenyl]propane				
	LD50 Oral	Rat	11,400 mg/kg	-
Remarks - Oral	Not acutely toxic in multiple mouse and rat studies, LD50 > 2000 mg/kg of body weight.			

	LD50 Oral	Rat	11,400 mg/kg	-
Remarks - Inhalation	Due to the very low vapor pressure, saturated atmosphere = 0.008 ppb, meaningful acute inhalation studies could not be conducted.			
Remarks - Dermal	In a rat OECD no. 402 study the dermal LD50 was > 2000 mg/kg. In multiple rabbit acute dermal studies the LD50 was > 2000 mg/kg. One rabbit study reported an LD50 value of 23 grams/kg.			
	LD50 Dermal	Rat	2,000 mg/kg	-
	LD50 Dermal	Rat	2,000 mg/kg	-
Bisphenol F diglycidyl ether, reaction mass of isomers				
	LD50 Oral	Rat	> 2,000 mg/kg	-
Remarks - Oral	The acute oral median lethal dose (LD50) in the Fischer 344 strain rat was found to be greater than 2000 mg/kg bodyweight.			
Remarks - Inhalation	In accordance with REACH Annex VII, the acute inhalation study does not need to be conducted as oral and dermal studies are available for this substance.			
	LD50 Dermal	Rabbit	> 2,000 mg/kg	-
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.				
	LD50 Oral	Rat	17,100 mg/kg	-
	LD50 Oral	Rat	26,800 mg/kg	-
	LD50 Dermal	Rabbit	> 4,000 mg/kg	-

Conclusion/Summary: Not available

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
bis-[4-(2,3-epoxipropoxi)phenyl]propane	11,400 mg/kg	N/A	N/A	N/A	N/A
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	17,100 mg/kg	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Skin - Erythema/Eschar 404 Acute Dermal Irritation/Corrosion	Rabbit	1.5 - 2		-
	Skin - Edema 404 Acute Dermal Irritation/Corrosion	Rabbit	1.0 - 1.5		-
	eyes - - 405 Acute Eye Irritation/Corrosion	Rabbit	0		-

	eyes - Redness of the conjunctivae	Rabbit	0.7		-
	Skin - Moderate irritant	Rabbit	-	24 hrs	-
	Skin - Severe irritant	Rabbit	-	24 hrs	-
	eyes - Mild irritant	Rabbit	-		-
Bisphenol F diglycidyl ether, reaction mass of isomers	Skin - Erythema/Eschar 404 Acute Dermal Irritation/Corrosion	Rabbit	0.7	4 hrs	72 hrs
	Skin - Edema 404 Acute Dermal Irritation/Corrosion	Rabbit	0	4 hrs	4 - 504 hrs
	eyes - Cornea opacity 405 Acute Eye Irritation/Corrosion	Rabbit	0		1 - 168 hrs
	eyes - Iris lesion 405 Acute Eye Irritation/Corrosion	Rabbit	0		1 - 168 hrs
	eyes - Redness of the conjunctivae 405 Acute Eye Irritation/Corrosion	Rabbit	0		1 - 168 hrs
	eyes - Edema of the conjunctivae 405 Acute Eye Irritation/Corrosion	Rabbit	0		1 - 168 hrs
	Skin - Mild irritant	Rabbit	-	24 hrs	-
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	Skin - Primary dermal irritation index (PDII) OTS 798.4470 Acute Dermal Irritation	Rabbit	4.1	24 hrs	72 hrs
	Skin - Primary dermal irritation index (PDII) 404 Acute Dermal Irritation/Corrosion	Rabbit	5.75	24 hrs	72 hrs
	eyes - Cornea opacity 405 Acute Eye Irritation/Corrosion	Rabbit	2		1 - 24 hrs
	Skin - Moderate irritant	Rabbit	-	24 hrs	-

Conclusion/Summary
Skin: Not available
Eyes: Not available
Respiratory: Not available

Mutagenicity

Product/ingredient name	Test	Experiment	Result
bis-[4-(2,3-epoxipropoxi)phenyl]propane	-	Subject: See Remarks	Positive

Remarks	BADGE induced gene-mutation in Ames/Salmonella tester strains TA1535 and TA100 in multiple studies. Generally, mutagenic activity was greater without liver S9 metabolic activation. Induced gene-mutation in L5178Y mouse lymphoma cells. Induced gene-mutation and chromosome damage in Chinese hamster V79 cells. Induced cell transformation in Syrian hamster BHK cells based on clonal growth in soft agar.		
	-	Subject: Mammalian-Animal	Negative
Remarks	Did not induce evidence of chromosome damage in a mouse dominant lethal oral gavage study conducted up to a high dose level of 10 grams/kg and in a mouse micronucleus test conducted up to a high dose of 5000 mg/kg. Negative in a male mouse spermatocyte cytogenetic assay with treatment for 5 days by oral gavage up to a high dose of 3000 mg/kg. Did not induce an increase in the frequency of chromosome damage in a Chinese hamster bone marrow cytogenetic test by oral gavage up to a high dose of 3300 mg/kg. Failed to induce an increase of DNA strand breaks in rat liver cells following oral gavage treatment with 500mg/kg as measured by alkaline elution.		
Bisphenol F diglycidyl ether, reaction mass of isomers	-	Subject: See Remarks Experiment: In vitro	Positive
Remarks	Bisphenol F Diglycidylether induced gene-mutation in the Ames/ Salmonella mutation test and chromosomal aberrations in human lymphocytes in multiple independent testing guideline GLP studies. Furthermore, the structural analog, Bisphenol A Diglycidylether (BPADGE) induce a significant increase of the mutant frequency in L5178Y mouse lymphoma cells in culture supporting the other findings. Therefore, BPFDGE is genotoxic in vitro.		
	-	Subject: Mammalian-Animal Experiment: In vivo	Negative
Remarks	When Bisphenol F Diglycidylether was evaluated for genotoxicity potential in multiple GLP in vivo assays including the mouse micro-nucleus, rat in vivo/in vitro UDS and MutaMouse tests no evidence of genotoxicity was observed. The results of other in vivo tests for genotoxicity also supported these negative findings for BPFDGE. Therefore, Bisphenol F Diglycidylether is not genotoxic in vivo.		
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	OECD-Guideline 471 (Genetic Toxicology: Salmonella typhimurium, Reverse Mutation Assay)	Subject: Bacteria Experiment: In vitro	Positive
Remarks	Positive in an O.E.C.D. test guideline no. 471 bacterial mutation assay in Salmonella tester strain TA1535 with and without S9 metabolic activation. Negative in an O.E.C.D. test guideline no. 476 Chinese hamster ovary cell (CHO) HGPRT gene-mutation assay conducted up to cytotoxic does levels with and without S9 meta-bolic activation. Negative in a L5178Y mouse lymphoma cell TK gene-mutation assay tested up to cytotoxic dose levels.		

	474 Mammalian Erythrocyte Micronucleus Test	Subject: Mammalian-Animal Experiment: In vivo	Negative
Remarks	Negative for micronucleus (chromosome damage) induction in an O.E.C.D. test guideline no. 474 mouse study conducted up to a high I.P. injection dose of 4.0 grams/kg. Negative in a rat bone marrow chromosome aberration study conducted in a manner similar to O.E.C.D. test guideline no. 475 by I.P. injection up to a high dose of approximately 700 mg/kg.		
	476 In vitro Mammalian Cell Gene Mutation Test	Subject: Mammalian-Animal Experiment: In vivo	Negative
	479 Genetic Toxicology: In vitro Sister Chromatid Exchange Assay in Mammalian Cells	Subject: Mammalian-Animal Experiment: In vivo	Negative
	475 Mammalian Bone Marrow Chromosomal Aberration Test	Subject: Mammalian-Animal Experiment: In vivo	Negative

Conclusion/Summary: Not available

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Negative - Unreported - NOEL	See Remarks		
Remarks	In a rat oral gavage OECD no. 453 study there was no evidence of carcinogenicity up to the high dose level of 100 mg/kg/day. OECD Test Guideline no. 453 dermal exposure studies were conducted on male mice and female rats. No evidence of carcinogenicity was observed in male mice treated up to the high dose of 100 mg/kg/day and female rats exposed up to a high dose level of 1000mg/kg/day.			
Bisphenol F diglycidyl ether, reaction mass of isomers	Negative - Dermal - NOEL	Mouse		
Remarks	Bisphenol F Diglycidylether (BPFDGE) was evaluated for the potential to induce local and systemic tumors in a mouse skin-painting 24 month study. Dermal treatment of mice twice a week with up to a 10% solution of Bisphenol F Diglycidylether (BPFDGE) did not induce any adverse findings of tumor incidence or local dermal effects. Therefore, BPFDGE is not a mouse carcinogen under the conditions of this study. The NOAEL was estimated to be approximately 800 mg/kg/day.			

Conclusion/Summary: Not available

Reproductive toxicity

Conclusion/Summary: Not available

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Negative - Oral	Rabbit	-	-
Remarks	BADGE did not induce any evidence of development toxicity in rats and rabbits exposed by oral gavage or in rabbits treated by the dermal route in OECD Test Guideline no. 414 GLP studies. The oral gavage studies were conducted up to a high dose level of 180 mg/kg/day that produced maternal toxicity base on decreased body weight gain. The rabbit dermal study was conduced up to a high dose of 300 mg/kg/day that induced maternal toxicity based on reduced body weight gain.			
Bisphenol F diglycidyl ether, reaction mass of isomers	Negative - Dermal	Rabbit	-	-
Remarks	Diglycidyl ether of bisphenol A (DGEBPA) was tested for its embryo/fetal toxicity and teratogenicity in pregnant rabbits. DGEBPA was applied daily to the backs (clipped free of hair) of New Zealand White rabbits at dose levels of 0 (polyethylene glycol, vehicle control), 30, 100 or 300 mg/kg body weight/day at a dose volume of 1 ml/kg body weight/day on days 6 through 18 of gestation. Twenty six inseminated rabbits were used per dose group resulting in a minimum of 20 pregnant rabbits per exposure level. An occlusive bandage of absorbent gauze and non-absorbent cotton was placed over the dosing area on the back of each rabbit. The bandage was held in place for a minimum of 6 hours/day using a lycra/spandex jacket. Following the occlusion period the bandage and jacket were removed. Maternal toxicity was observed among pregnant rabbits in the 300 mg/kg dose group as evidenced by moderate to severe erythema, fissures, hemorrhage and slight edema at the exposure site. Similar, but less severe skin lesions were observed in pregnant rabbits in the 100 mg/kg/day exposure group. Skin effects (slight erythema) observed in pregnant rabbits in the 30 mg/kg/day dose group were not considered toxicicologically significant. No evidence of embryo/fetal toxicity or teratogenicity was observed at any dose level resulting in a embryo/fetal no-observed-effect level of 300 mg/kg body weight/day.			
oxirane, mono[(C12-14-alkyloxy)methyl] derivs	Negative - Dermal OECD Test Guideline 414	Rat	-	-
Remarks	In a U.S. E.P. A. OTS 798.4420 and O.E.C.D. test guideline no. 414 developmental toxicity study conducted by the dermal route in the rat, the NOAEL for both maternal and developmental adverse effects was greater than the high dose level of 200 mg/kg/day.			

Conclusion/Summary: Not available

Specific target organ toxicity (single exposure)
Not available

Specific target organ toxicity (repeated exposure)
Not available

Aspiration hazard
Not available

Information on likely routes of exposure: Not available

Potential acute health effects

Eye contact: Causes serious eye irritation.
Inhalation: No known significant effects or critical hazards.
Skin contact: Causes skin irritation. May cause an allergic skin reaction.
Ingestion: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following: pain or irritation, watering, redness
Inhalation: No specific data.
Skin contact: Adverse symptoms may include the following: irritation, redness
Ingestion: No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure
Potential immediate effects: Not available
Potential delayed effects: Not available
Long term exposure
Potential immediate effects: Not available
Potential delayed effects: Not available

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
oxirane, mono[(C12-14-alky-loxy)methyl] derivs.	NOAEL Dermal	Rat	1 mg/kg/d Repeated dose 411 Subchronic Dermal Toxicity: 90-day Study	90 days Repeated dose; 5 days per week Repeated dose

Conclusion/Summary: Not available
General: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Reproductive toxicity: No known significant effects or critical hazards.

11.2 Information on other hazards

Endocrine disrupting properties: Not available

Other information: Not available

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
bis-[4-(2,3-epoxipropoxi)phenyl]propane			

	Acute LC50 1.3 mg/l - 203 Fish, Acute Toxicity Test	Fish	96 h
	Acute LC50 1.3 mg/l 203 Fish, Acute Toxicity Test	Fish	96 h
	Acute EC50 2.1 mg/l - 202 Daphnia sp. Acute Immobilization Test and Reproduction Test	Water flea	48 h
	Acute LC50 > 11 mg/l -	Algae	72 h
	Acute LC50 > 11 mg/l	Algae	72 h
	Chronic No-observable-effect-concentration 0.3 mg/l semi-static test 211 Daphnia Magna Reproduction Test	Water flea	21 d
Bisphenol F diglycidyl ether, reaction mass of isomers			
	Acute LC50 2.54 mg/l -	Fish	96 h
	Acute EC50 2.55 mg/l - 202 Daphnia sp. Acute Immobilization Test and Reproduction Test	Water flea	48 h
	Acute EC50 > 1,000 mg/l - 201 Alga, Growth Inhibition Test	Algae	72 h
oxirane, mono[(C12-14-alkyloxy)methyl] derivs			
	Acute LC50 > 1.8 g/l - 203 Fish, Acute Toxicity Test	Rainbow trout, donaldson trout	96 h
	Acute LC50 > 5.0 g/l - 203 Fish, Acute Toxicity Test	Bluegill	96 h
	Acute LC50 > 100.0 mg/l - 203 Fish, Acute Toxicity Test	Rainbow trout, donaldson trout	96 h
	Acute EC50 7.2 mg/l - 202 Daphnia sp. Acute Immobilization Test and Reproduction Test	Water flea	96 h 48 h
	Acute EC50 844 mg/l - 201 Alga, Growth Inhibition Test	Algae	72 h
	Acute EC50 > 100 mg/l Fresh water OECD-Guideline No. 209	activated sludge, domestic (adaptation not specified)	3 h

Conclusion/Summary: Not available

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
bis-[4-(2,3-epoxipropoxi)phenyl]propane	OECD-Guideline 301 F (Manometric Respirometry Test)	6 - 12 % - No biodegradation - 28 d	-	Activated sludge
Remarks	The level of biodegradation in an “enhanced” OECD 301F study was 5% within the 28 day contact period. Biodegradation reached 6 - 12 % after 28 days of contact in an OECD test guideline no. 301B study. Therefore, BADGE is not readily biodegradable under the conditions of the studies.			
Bisphenol F diglycidyl ether, reaction mass of isomers	OECD-Guideline 301 B (CO2 Evolution Test)	16 % - No biodegradation - 28d	10 mg/l	Activated sludge
Remarks	Bisphenol F Diglycidylether was not readily biodegradable under the conditions of the O.E.C.D. 301 B and 301 D screening studies. The maximum percent biodegradation observed in one of the O.E.C.D. 301 B studies was 16% for 10 mg/L at 28 days of contact.			
oxirane, mono[(C12-14-alkyloxy)methyl] derivs	OECD-Guideline 301 F (Manometric Respirometry Test)	87 % - Readily biodegradable - 28 d	-	Activated sludge

Conclusion/Summary: Not available

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
bis-[4-(2,3-epoxipropoxi)phenyl]propane	2.64 - 3.78	3 - 31 31.00	Low
Bisphenol F diglycidyl ether, reaction mass of isomers	3.3	150 150.00	Low
oxirane, mono[(C12-14-alkyloxy)methyl] derivs	3.77	160 - 263 160.00	Low

12.4 Mobility in soil

Soil/water partition coefficient (KOC): Not available
Mobility: Not available

12.5 Results of PBT and vPvB assessment
This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties
Not available.

12.7 Other adverse effects
No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product
Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
Hazardous waste: The classification of the product may meet the criteria for a hazardous waste.

Packaging
Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

14.1 UN-Number

ADR/ADN 3082
RID 3082
ICAO/IATA 3082
IMO/IMDG 3082

14.2 UN proper Shipping name

ADR/ADN Enviromentally hazardous substance, liquid, N.O.S. (Epoxide derivatives)
RID Enviromentally hazardous substance, liquid, N.O.S. (Epoxide derivatives)
ICAO/IATA Enviromentally hazardous substance, liquid, N.O.S. (Epoxide derivatives)
IMO/IMDG Enviromentally hazardous substance, liquid, N.O.S. (Epoxide derivatives)

14.3 Transport hazard class(es)

ADR/ADN 9
RID 9
ICAO/IATA 9
IMO/IMDG 9

14.4 Packing group

ADR/ADN III
RID III
ICAO/IATA III
IMO/IMDG III

14.5 Environmental hazards

Environmentally hazardous and/or Marine Pollutant: Yes

14.6 Special precautions for user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)
Annex XIV - List of substances subject to authorization
Annex XIV: None required.

Substances of very high concern
None required.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not applicable.

Other EU regulations REACH Status: The substance(s) in this product has (have) been Registered, or are exempted from registration, according to Regulation (EC) No. 1907/2006 (REACH).

Prior Informed Consent (PIC) (649/2012/EU): None required.
Seveso Directive: This product is controlled under the Seveso Directive.

Danger criteria
Category: E2

National regulations

International regulations
International lists:
Australia inventory (AICS): All components are listed or exempted.
Canada inventory: All components are listed or exempted.
Japan inventory: All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Korea inventory (KECI): All components are listed or exempted.
New Zealand Inventory (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
United States inventory (TSCA 8b): All components are active or exempted.
Taiwan inventory (TCSI): All components are listed or exempted.
Thailand inventory: Not determined.
Vietnam inventory: Not determined.

15.2 Chemical safety assessment
This product contains substances for which Chemical Safety Assessments are still required.

SAFETY DATA SHEET (MSDS)

According to 1907/2006/EC, Article 31
COLOURED EPOXY MORTAR COMP.A

SECTION 16: Other information

Abbreviations and acronyms

ATE: Acute Toxicity Estimate
CLP: Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level
EUH statement: CLP-specific Hazard statement
N/A: Not available
PBT: Persistent, Bioaccumulative and Toxic
PNEC: Predicted No Effect Concentration
RRN: REACH Registration Number
SGG: Segregation Group
vPvB: Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements
Not applicable.

Full text of classifications [CLP/GHS]
Skin corrosion/irritation
Skin sensitisation
Serious eye damage/eye irritation
Aquatic hazard (Long-term)

SAFETY DATA SHEET (MSDS)

According to 1907/2006/EC, Article 31
COLOURED EPOXY MORTAR COMP.B

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

1.1 Product identifier
Trade Reference: RonaFloor Epoxy Floor Mortar Part B
Article Numbe: PC 109

1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.
Application of the substance / the mixture Epoxy binder

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Ronacrete Ltd
Ronac House, Flex Meadow
Harlow, Essex, CM19 5TD
E-mail: technical@ronacrete.co.uk
Telephone: +44 (0) 1279 638700

1.4 Emergency telephone number:
Telephone: +44 (0) 1279 638700
9.00am to 5.00pm Mon - Fri

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
GHS08
Muta. 2 H341 Suspected of causing genetic defects.
GHS05
Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.
GHS07
Acute Tox. 4 H332 Harmful if inhaled.
Skin Sens. 1 H317 May cause an allergic skin reaction.

2.2 Label elements
Label according to Directive 67/548/EEC or Directive 1999/45/EC
Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.

Pictograms

GHS07 **GHS08** **GHS05**

Signal Word: Danger

Hazard-determining components of labelling: Cashew (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled m-Phenylenebis(methylamine) Phenol 3-Aminopropyldimethylamine

Hazard statements
H332 Harmful if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.

Precautionary statements
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
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.
P321 Specific treatment (see on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards
Not applicable

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation: Substances
None

3.2 Chemical characterisation: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
CAS: 8007-24-7 EC number: 700-991-6 Reg.nr.: 01-2119502450-57-0000	Cashew (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Skin Sens. 1A, H317	= ≤ 10 - 30%
CAS: 90-72-2 EINECS: 202-013-9 Index number: 603-069-00-0	2,4,6-Tris(Dimethylaminomethyl)Phenol Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319	= ≤ 0 - 15%
CAS: 1477-55-0 EINECS: 216-032-5 Reg.nr.: 01-2119480150-50-0000	m-Phenylenebis(methylamine) Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317; Aquatic Chronic 3, H412	= ≤ 0 - 15%
CAS: 108-95-2 EINECS: 203-632-7 Index number: 604-001-00-2	Phenol Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Muta. 2, H341; STOT RE 2, H373; Skin Corr. 1B, H314	= ≤ 0 - 10%

CAS: 109-55-7 EINECS: 203-680-9 Index number: 612-061-00-6	3-Aminopropyldimethylamine	0 - 15%
	Flam. Liq. 3, H226; Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
After inhalation: Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
After skin contact: Immediately wash with water and soap and rinse thoroughly.
After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.

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

No further relevant information available

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced

5.3 Advice for firefighters

Promptly isolate the scene by removing all person from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Protective equipment: Mouth respiratory protective device.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.

Information about fire and explosion protection: Keep respiratory protective device available.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed and in a well ventilated place.

Storage
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: Keep container tightly sealed.

7.3 Specific end use(s)
No further relevant information available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace
108-95-2 Phenol: IOELV. Short-term value: 16 mg/m³, 4 ppm Long-term value: 8 mg/m³, 2 ppm Skin
DNELs: 8007-24-7 Cashew (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled
Oral:
0.25 mg/kg/day (General Population)
Dermal:
0.25 mg/kg/day (General Population)
0.5 mg/kg/day (Workers)
Inhalative:
0.2 mg/m3 (General Population)
0.88 mg/m3 (Workers)

PNECs 8007-24-7 Cashew (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled
µg/l (Aqua (freshwater))
30 µg/l (Aqua (intermittent release))

10 mg/kg (Oral)
0.97 mg/kg (Sediment (freshwater))
0.088 mg/kg (Sediment (marine water))
6.71 mg/kg (Soil)

8.2 Exposure controls
Use local exhaust ventilation. Suitable respiratory equipment should be used in cases of insufficient ventilation.

Personal protective equipment
General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
Breathing protection
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Hand protection
Protective gloves: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Material of gloves: The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection
Tightly sealed goggles
Skin protection
Protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form: Liquid
Colour: Red-brown
Odour: Amine-like
Odour threshold: Not determined.
pH-value at 25 °C: 10.5
Change in condition
Melting point/freezing point: Undetermined.
Initial boiling point and boiling range: Undetermined.
Flash point: 101 °C
Flammability (solid, gas): Not applicable.
Decomposition temperature: Not determined.
Auto-ignition temperature: Product is not selfigniting.
Explosive properties: Product does not present an explosion hazard.
Explosion limits
Lower: Not determined.
Upper: Not determined.
Vapour pressure: Not determined.
Density at 25 °C: 0.98977 g/cm³
Relative density: Not determined.
Vapour density: Not determined.
Evaporation rate: Not determined.

Solubility in / Miscibility with water: Not miscible or difficult to mix.
Partition coefficient: n-octanol/water: Not determined.
Viscosity
Dynamic at 25 °C: 1050 cps
Kinematic: Not determined.

9.2 Other information
No further relevant information available

SECTION 10: Stability and reactivity

10.1 Reactivity
No further relevant information available.

10.2 Chemical stability
Product is stable.
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions
No dangerous reactions known

10.4 Conditions to avoid
No further relevant information available

10.5 Incompatible materials
No further relevant information available

10.6 Hazardous decomposition products
No dangerous decomposition products known

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity: Harmful if inhaled
LD/LC50 values relevant for classification: Irritating to eyes and skin
8007-24-7 Cashew (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled
Oral LD50 >2,000 mg/kg (rat)
Dermal LD50 2,000 mg/kg (rat)
90-72-2 2,4,6-Tris(Dimethylaminomethyl)Phenol
Oral LD50 2,169 mg/kg (rat)
Dermal LD50 1,260 mg/kg (rabbit)
1477-55-0 m-Phenylenebis(methylamine)
Oral LD50 1,040 mg/kg (rat)
Inhalative LC50/4 h 2.4 mg/l (rat)
108-95-2 Phenol
Oral LD50 317 mg/kg (rat)
Dermal LD50 850 mg/kg (rabbit)
109-55-7 3-Aminopropyldimethylamine
Oral LD50 1,870 mg/kg (rat)
Dermal LD50 490 mg/kg (rabbit)

Primary irritant effect
Skin corrosion/irritation: Causes severe skin burns and eye damage

Serious eye damage/irritation: Causes serious eye damage.
Respiratory or skin sensitisation: May cause an allergic skin reaction.
Additional toxicological information:
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
Germ cell mutagenicity: Suspected of causing genetic defects.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.
STOT-single exposure: Based on available data, the classification criteria are not met.
STOT-repeated exposure: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity: 8007-24-7 Cashew (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled
EC50 1,300 mg/l (Algae)
LL50 1,000 mg/l (Fish)

12.2 Persistence and degradability
No further relevant information available

12.3 Bioaccumulative potential
No further relevant information available

12.4 Mobility in soil
No further relevant information available

12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects
No further relevant information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Uncleaned packaging
Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number
ADR, ADN, IMDG, IATA: Non-hazardous for transport

14.2 UN proper shipping name
Not regulated as dangerous goods

ADR, ADN, IMDG, IATA: Non-hazardous for transport

14.3 Transport hazard class(es)

ADR
Class: Non-hazardous for transport
Miscellaneous dangerous substances and articles.
Label: -
ADN/R Class: Non-hazardous for transport

IMDG, IATA
Class: Non-hazardous for transport
Label: -

14.4 Packing group
ADR, IMDG, IATA: Non-hazardous for transport

14.5 Environmental hazards:
Marine pollutant: No

14.6 Special precautions for user
Not applicable

14.7 Transport in bulk according to Annex II of

Marpol and the IBC Code: Not applicable.
UN "Model Regulation": Non-hazardous for transport

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.

Pictograms


GHS07


GHS08


GHS05

Signal Word: Danger

Hazard-determining components of labelling:
Cashew (Anacardium occidentale) Nutshell Extract, decarboxylated, Distilled
m-Phenylenebis(methylamine)
Phenol
3-Aminopropyldimethylamine

Hazard statements
H332 Harmful if inhaled.
H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.

Precautionary statements
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.

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.
P321 Specific treatment (see on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Directive 2012/18/EU
Named dangerous substances - ANNEX I: None of the ingredients is listed

REGULATION (EC) No 1907/2006 ANNEX XVII: Conditions of restriction: 3
DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II: None of the ingredients is listed

REGULATION (EU) 2019/1148
Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3): None of the ingredients is listed
Annex II - REPORTABLE EXPLOSIVES PRECURSORS: None of the ingredients is listed
Regulation (EC) No 273/2004 on drug precursors: None of the ingredients is listed
Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors: None of the ingredients is listed

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

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

H phrases
H226 Flammable liquid and vapour.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H341 Suspected of causing genetic defects.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.

Department issuing SDS: Product safety department
Contact: Jofa Resins Limited.
Abbreviations and acronyms:
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods

SAFETY DATA SHEET (MSDS)

According to 1907/2006/EC, Article 31
COLOURED EPOXY MORTAR COMP.B

IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative Flam. Liq. 3: Flammable liquids – Category 3 Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1A: Skin sensitisation – Category 1A
Muta. 2: Germ cell mutagenicity – Category 2
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

SAFETY DATA SHEET (MSDS)

According to 1907/2006/EC, Article 31
COLOURED EPOXY MORTAR COMP.C

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

1.1 Product identifier
Trade name: RonaFloor Epoxy Floor Mortar Part C
Article number: PC 109

1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Ronacrete Ltd
Ronac House, Flex Meadow
Harlow, Essex, CM19 5TD
E-mail: technical@ronacrete.co.uk
Telephone: +44 (0) 1279 638700

1.4 Emergency telephone number:
Telephone: +44 (0) 1279 638700
9.00am to 5.00pm Mon - Fri

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Regulation (EC) No. 1272/2008 (CLP): Not classified as dangerous for supply/use.

2.2 Label elements
According to Regulation (EC) No. 1272/2008 (CLP)

Hazard Pictogram(s): None
Signal Word(s): None
Hazard Statement(s): None
Precautionary Statement(s): None

2.3 Other hazards
None known

2.4 Additional Information
None

SECTION 3: Composition/information on ingredients

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / REACH Registration No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
Quartz (SiO2)	14808-60-7	238-878-4	100%	Not classified.	None

SAFETY DATA SHEET (MSDS)

According to 1907/2006/EC, Article 31
COLOURED EPOXY MORTAR COMP.C

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if you feel unwell.
Skin Contact: Wash skin with water and soap.
Eye Contact: Flush eyes with water for at least 15 minutes. Seek medical attention if irritation persists.
Ingestion: Wash out mouth with water. Do not induce vomiting. Seek medical attention if you feel unwell.

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

None anticipated. Treat symptomatically.

4.3 Indication of any immediate medical attention and special treatment needed

Unlikely to be required but if necessary treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable Extinguishing media: As appropriate for surrounding fire.
Unsuitable extinguishing media: None

5.2 Special hazards arising from the substance or mixture

None anticipated

5.3 Advice for firefighters

As appropriate for surrounding fire

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid airborne dust generation. Wear personal protective equipment in compliance with national legislation

6.2 Environmental precautions

Do not release large quantities into the surface water or into drains.

6.3 Methods and material for containment and cleaning up

Sweep spilled substances into containers if appropriate moisten first to prevent dusting. Wear personal protective equipment in compliance with national legislation.

6.4 Reference to other sections

See Also Section 8, 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid airborne dust generation. Provide appropriate exhaust ventilation at places where airborne dust is generated. In case of insufficient ventilation, wear suitable protective equipment. Handle packaged products carefully to prevent accidental bursting. If you require advice on safe handling techniques, please contact your supplier or check the Good Practice Guide referred to in Section16.
Do not eat, drink or smoke in work areas. Wash hands after use.
Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature: Ambient.
Storage life: Stable under normal conditions.
Incompatible materials: None known.

7.3 Specific end use(s)
Not known

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Occupational Exposure Limits					
SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)
Silica, respirable crystalline	14808-60-7		0.1		

Region: Source
Europe: EU Occupational Exposure Limits
United Kingdom: Workplace Exposure Limits (WEL)

8.2 Exposure controls

Appropriate engineering controls: Ensure adequate ventilation

Personal protection equipment
Eye Protection: Wear eye protection with side protection (EN166).
Skin protection: Not normally required.
Respiratory protection: In case of prolonged exposure to airborne dust concentrations, wear respiratory protective equipment that complies with the requirements of European or national legislation.
Thermal hazards: None known

Environmental Exposure Controls
Do not release large quantities into the surface water or into drains.
Avoid wind dispersal.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Solid
Colour: Various
Odour: Odourless
Odour threshold: Not known
pH: (400g/l water at 20ºC) 5 – 8.
Melting point/freezing point: 1710ºC
Initial boiling point and boiling range: Not applicable
Flash Point: Not applicable
Evaporation rate: Not known
Flammability (solid, gas): Not known

SAFETY DATA SHEET (MSDS)

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COLOURED EPOXY MORTAR COMP.C

SECTION 9: Physical and chemical properties

Upper/lower flammability or explosive limits: Not known
Vapour pressure: Not known
Vapour density: Not known
Density (g/ml): Not known
Relative density: 2.65g/cm³
Solubility(ies):
Solubility (Water): None
Solubility (Other): Hydrofluoric acid
Partition coefficient: n-octanol/water: Not known
Auto-ignition temperature: Not known
Decomposition Temperature (°C): Not known
Viscosity: Not known
Explosive properties: Not known
Oxidising properties: Not known

9.2 Other information
None

SECTION 10: Stability and reactivity

10.1 Reactivity
None anticipated

10.2 Chemical stability
Stable under normal conditions

10.3 Possibility of hazardous reactions
No hazardous reactions known if used for its intended purpose

10.4 Conditions to avoid
None anticipated

10.5 Incompatible materials
Not known

10.6 Hazardous decomposition products
No hazardous decomposition products known

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity - Ingestion: Low acute toxicity
Acute toxicity - Skin Contact: Low acute toxicity
Acute toxicity - Inhalation: Low acute toxicity
Skin corrosion/irritation: Non-irritant
Serious eye damage/irritation: Non-irritant
Skin sensitization data: Not classified
Respiratory sensitization data: Not classified
Germ cell mutagenicity: There is no evidence of mutagenic potential
Carcinogenicity: No evidence of carcinogenicity
Reproductive toxicity: Not classified
Lactation: Not classified

STOT - single exposure: Not classified
STOT - repeated exposure: Not classified
Aspiration hazard: Not classified

11.2 Information on other hazards
Not known

SECTION 12: Ecological information

12.1 Toxicity

Toxicity - Aquatic invertebrates: Low toxicity to invertebrates
Toxicity - Fish: Low toxicity to fish
Toxicity - Algae: Low toxicity to algae
Toxicity - Sediment Compartment: Not classified
Toxicity - Terrestrial Compartment: Not classified

12.2 Persistence and degradability
Not known

12.3 Bioaccumulative potential
Not known

12.4 Mobility in soil
Not known

12.5 Results of PBT and vPvB assessment
Not known

12.6 Other adverse effects
Not known

SECTION 13: Disposal considerations

13.1 Waste treatment methods
No special precautions are required for this product.

13.2 Additional Information
No special precautions are required for this product.

SECTION 14: Transport information

Not classified as hazardous for transport.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation: Not listed
REACH: ANNEX XIV list of substances subject to authorisation: Not listed
REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not listed
Community Rolling Action Plan (CoRAP): Not listed

Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants: Not listed
Regulation (EC) N° 2037/2000 on substances that deplete the ozone layer: Not listed
Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals: Not listed

National regulations
Other: Not known

15.2 Chemical safety assessment
A REACH chemical safety assessment has not been carried out.

SECTION 16: Other information

The following sections contain revisions or new statements:

LEGEND
Hazard Pictogram(s): None
Hazard Pictogram(s): None
Hazard Statement(s): None

Precautionary Statement(s): None
Acronyms
CAS: Chemical Abstracts Service
CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL: Derived No Effect Level
EC: European Community
EINECS: European Inventory of Existing Commercial Chemical Substances
LTEL: Long Term Exposure Limit
PBT: Persistent, Bioaccumulative and Toxic
PNEC: Predicted No Effect Concentration
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL: Short Term Exposure Limit
STOT: Specific Target Organ Toxicity
vPvB: very Persistent and very Bioaccumulative