SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND THE COMPANY

1.1 Product identifier

Product Name: Cretex MC CSG Resin - Part A

Chemical name: Solution of an acrylic polymer in methacrylic acid esters / acrylic acid esters

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

Recommended use: Binder for floor-coating Roller application or brushing Hand-mixing with intimate contact and only PPE available Wide dispersive indoor use resulting in inclusion into or onto a matrix Wide dispersive outdoor use resulting in inclusion into or onto a matrix.

Recommended restrictions: Applications where liquid monomer is intended to come into contact with skin or nails.

1.3 Details of the supplier of the safety data sheet

Company Name: Polycote UK LLP
Centre Point
Wolseley Road
Woburn Road Industrial Estate
Kempston
Beds
MK42 7EF

Telephone Number: 01234 846400

Emergency Contact Number: 111 (NHS England)

Email address: uksales@polycote.com

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification according to GHS

Physical Hazards:

Flammable liquids	Category 2

Health Hazards:

Acute toxicity (Oral)	Category 5
Skin Corrosion/Irritation	Category 2
Skin sensitizer	Category 1
Specific Target Organ Toxicity - Single Exposure	Category 3 (Respiratory tract irritation.)

Environmental Hazards:

Acute hazards to the aquatic environment	Category 2

2.2 Label elements

Hazard pictograms:

Signal word: Danger

Hazard statements:
Highly flammable liquid and vapor.
May be harmful if swallowed.
Causes skin irritation.
May cause an allergic skin reaction.
May cause respiratory irritation.
Toxic to aquatic life.

Precautionary statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/eye protection/face protection.

Response: Call a POISON CENTER or doctor/ physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water [or shower]. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see on this label). IF INHALED: Remove person to fresh air and keep comfortable for breathing. In case of fire: Use alcohol-resistant foam, carbon dioxide or dry sand to extinguish.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

2.3 Other hazards Take precautionary measures against static discharges. The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
methyl methacrylate	methyl 2-methylprop-2-enoate	80-62-6	30 - <50%

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS (continued)

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
2-ethylhexyl acrylate	2-ethylhexylprop-2-enoate	103-11-7	20 - <30%
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	Tributylcitrate	77-94-1	1 - <10%
triethyleneglycol dimethacrylate	2-(2-{2-[(2-methylprop-2-enoyl)oxy]ethoxy}ethoxy)ethyl 2-methylprop-2-enoate	109-16-0	1 - <10%
N,N-bis-(2-hydroxypropyl)-p-toluidine	1-[(2-hydroxypropyl)(4-methylphenyl)amino]propan-2-ol	38668-48-3	0.25 - <1%
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	2-benzoyl-5-methoxyphenol	131-57-7	0.25 - <1%

*All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition Comments: Solution of an acrylic polymer in methacrylic acid esters / acrylic acid esters

The exact concentration has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

General information: Take off all contaminated clothing immediately. Medical treatment is necessary if symptoms occur which are obviously caused by skin or eye contact with the product or by inhalation of its vapours.

Inhalation: Move subject to fresh air and keep him calm. Seek medical advice if symptoms occur.

Skin contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Wash contaminated clothing before reuse. In the case of skin irritation or allergic reactions see a physician.

Eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. See a physician.

Ingestion Do not induce vomiting. Call a physician immediately. Never give anything by mouth to an unconscious person.

Personal Protection for First-aid Responders: First Aid responders should pay attention to self-protection and use the recommended protective clothing

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

Symptoms: Skin irritation Excessive or prolonged exposure can cause the following: Headache.confusion

Hazards: Sensitising effects

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

Treatment: No data available.

SECTION 5: FIRE FIGHTING MEASURES

General Fire Hazards: Vapours are heavier than air and can form an explosive mixture with air. Flammable liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint.

Remove sources of ignition. Also keep emptied containers away from sources of heat and ignition. Keep out unprotected persons. In case of fire, remove the endangered barrels and bring to a safe place, if this can be done safely. Containers exposed to heat (fire) may build up pressure. Cool by splashing with water. Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Foam, Carbon dioxide, sprinkler system with water, Dry chemical.

Unsuitable extinguishing media: High volume water jet

Special hazards arising from the substance or mixture: May be released in case of fire: carbon monoxide, carbon dioxide, organic products of decomposition. Closed container may rupture if strongly heated. Vapours may form explosive mixtures with air. Combustible air-vapour mixtures are heavier than the air and spread along the floor. Ignition from a considerable distance is possible.

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures: Keep away from sources of ignition - No smoking. Vapors are heavier than air. Flammable liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint.

Take action to prevent static discharges. Use explosion-proof equipment. In the event of fire, cool the endangered containers with water. Fire fighting must be carried out from a safe distance.

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Assure sufficient ventilation. Use personal protective clothing. Use breathing apparatus if exposed to vapours/dust/mist/aerosol. Keep away from open flames, hot surfaces and sources of ignition. Vapours can form explosive mixtures with air. Keep out unprotected persons. Avoid spark generation.

Accidental release measures: Remove sources of ignition. Stop leak if you can do so without risk. Assure sufficient ventilation.

SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

For emergency responders:	Use water SPRAY only to cool containers! Do not put water on leaked material.
Methods and material for containment and cleaning up:	Larger quantities: Remove mechanically (by pumping). Use explosion-proof equipment! Smaller quantities and/or residues: Contain with absorbent material (e.g. sand, diatomaceous earth, acid absorbent, universal absorbent or sawdust). Dispose of in accordance with regulations.
Environmental Precautions:	Prevent product from getting into drains/surface water/groundwater.

SECTION 7: HANDLING AND STORAGE

Handling

Technical measures:	Provide good ventilation or extraction.
Local/Total ventilation:	Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour)
Safe handling advice:	Do not breathe vapors. Avoid contact with skin and eyes. Wash hands before breaks and immediately after handling the product. Safety shower and eye wash fountain should be available. Keep away from sources of ignition - No smoking. Vapors are heavier than air. Flammable liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint. Take action to prevent static discharges. Use explosion-proof equipment. In the event of fire, cool the endangered containers with water. Firefighting must be carried out from a safe distance. When using do not eat, drink or smoke. Avoid inhalation, ingestion and contact with skin and eyes. Provide sufficient ventilation and exhaust at the workplace. Provide good room ventilation even at ground level (vapours are heavier than air). Keep container tightly closed. Open drum carefully as content may be under pressure. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Wash thoroughly after handling. Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Control staff entry to working area. Training for staff on good practice. Recording of any 'near miss' situations. Regular cleaning of equipment and work area. Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour)
Contact avoidance measures:	see section 8.

Storage

Safe storage conditions:	Keep away from open flames, hot surfaces and sources of ignition. Keep away from heat. Protect from the action of light. Protect from direct sunlight. Keep containers tightly closed in a cool, well-ventilated place. Fill the container by approximately 90 % only as oxygen (air) is required for stabilisation. With large storage containers make sure the oxygen (air) supply is sufficient to ensure stability. Keep locked up. Keep only in the original container at a temperature not exceeding 30 °C. Keep away from direct sunlight.
Safe packaging materials:	No data available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational Exposure Limits:

Chemical Identity	Type	Exposure Limit Values	Source
methyl methacrylate	TWA	50 ppm	US. ACGIH Threshold Limit Values, as amended (03 2016)
	STEL	100 ppm	US. ACGIH Threshold Limit Values, as amended (03 2016)

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values

No biological exposure limits noted for the ingredient(s).

Appropriate Engineering Controls:

For monitoring procedures refer for instance to "Empfohlene Analysenverfahren für Arbeitsplatzmessungen", Schriftenreihe der Bundesanstalt für Arbeitsschutz and "NIOSH Manual of Analytical Methods", National Institute for Occupational Safety and Health

Individual protection measures, such as personal protective equipment

General information:	No data available.
Eye/face protection:	Tightly fitting goggles
Hand Protection:	Material: butyl rubber gloves Break-through time: 60 min Guideline: EN 374 Additional Information: Gloves should be replaced regularly, especially after extended contact with the product., For each workplace a suitable glove type has to be selected
Other:	On handling of larger quantities: face mask, chemical-resistant boots and apron
Respiratory Protection:	Breathing apparatus in case of high concentrations if the limit values like TLV are exceeded, when vapours or aerosols occur Respirator with filter for organic vapour
Hygiene measures:	Take off all contaminated clothing immediately. Store work clothing separately. Follow the usual good standards of occupational hygiene. Clean skin thoroughly after work; apply skin cream

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES (continued)

Appearance	
Physical state:	Liquid
Form:	Combustible liquid
Colour:	Colourless
Odour:	Ester like
Odour threshold:	< 1 ppm
Freezing point:	< -22 °F/-30 °C
Boiling point:	Approx. 212 °F/100 °C (1.013 hPa) (estimated) (methyl methacrylate)
Flammability	Highly flammable liquid and vapor.
Upper/lower flammability or explosive limits:	
Explosive limit - upper:	(estimated) approx. 12,5 %(V) (methyl methacrylate)
Explosive limit - lower:	(estimated) approx. 0,9 %(V) (2-ethylhexyl acrylate)
Flash Point:	50 °F/10 °C (estimated) (methyl methacrylate)
Autoignition temperature:	Not spontaneously flammable in air at ambient temperature (not pyrophoric)
Decomposition temperature:	No decomposition if used as directed.
pH:	Approx. 7, 1 % in water
Viscosity	
Dynamic viscosity:	Approx. 50 - 76 mPa.s (73 °F/23 °C)
Kinematic viscosity:	Approx. 50 - 76 mm2/s (73 °F/23 °C, calculated)
Flow Time:	Approx. 38 - 52 s 73 °F/23 °C Method: ISO 2431, 4mm cup
Solubility(ies)	
Solubility in Water:	Approx. 20 g/l (68 °F/20 °C)
Solubility (other):	Miscible with most organic solvents
Partition coefficient (n-octanol/water):	No data available.
Vapor pressure:	Approx. 40 hPa (68 °F/20 °C)
Relative density:	< 1 estimated
Density:	Approx. 0,97 g/cm3 (68 °F/20 °C)
Bulk density:	No data available.
Relative vapor density:	>1 (estimated) 68 °F/20 °C
9.2 Other information	
Auto-ignition temperature:	Approx. 473 °F/245 °C (estimated) (2-ethylhexyl acrylate)
Evaporation Rate:	Approx. 3,1 (methyl methacrylate)

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:	Polymerisation
10.2 Chemical stability:	No decomposition if used as directed. The product is normally stabilized when delivered. However, it might polymerize producing heat and ignite spontaneously if maximum storage time and/or maximum storage temperature have been substantially exceeded.
10.3 Possibility of hazardous reactions:	Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.
10.4 Conditions to avoid:	Heat and ignition sources, aging, contamination, oxygen free atmosphere.
10.5 Incompatible materials:	Peroxides, amines, sulfur compounds, heavy metal ions, alkalis, reducing agents and oxidizing agents.
10.6 Hazardous decomposition products:	None when used as directed.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

General information:	Properties of components in summary.
Information on toxicological effects	
Inhalation:	Relevant route of exposure. Information on effects are given below.
Skin Contact:	Relevant route of exposure. Information on effects are given below.
Eye contact:	Relevant route of exposure. Information on effects are given below.
Ingestion:	If handled correctly, not a relevant route of exposure. Information on effects are given below.
Symptoms related to the physical, chemical and toxicological characteristics	
Inhalation:	Headache. Dizziness.
Skin Contact:	Causes skin irritation. May cause allergic skin reaction.
Eye contact:	Causes serious eye irritation.
Ingestion:	If handled correctly, not a relevant route of exposure. Information on effects are given below.
Information on likely routes of exposure **Acute toxicity (list all possible routes of exposure)**	
Oral	
Product:	Acute toxicity estimate: 2.300 mg/kg (Calculation method)
Components:	
methyl methacrylate	LD 50 (Rat): > 5.000 mg/kg
2-ethylhexyl acrylate	LD 50 (Rat): 4.435 mg/kg

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	LD 50 (Rat): 31.300 mg/kg
triethyleneglycol dimethacrylate	LD 50 (Rat): > 5.000 mg/kg
N,N-bis-(2-hydroxypropyl)-p-toluidine	LD 50 (Rat): 25 mg/kg
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	LD 50 (Rat): > 12.800 mg/kg

Dermal

Product:	Acute toxicity estimate: > 5.000 mg/kg (Calculation method)
Components:	
methyl methacrylate	LD 50 (Rabbit): > 5.000 mg/kg
2-ethylhexyl acrylate	LD 50 (Rabbit): 7.522 mg/kg
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	LD 50 (Rat): 50.000 mg/kg
triethyleneglycol dimethacrylate	LD 50 (Mouse): > 2.000 mg/kg
N,N-bis-(2-hydroxypropyl)-p-toluidine	No data available.
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	LD 50 (Rabbit): > 16.000 mg/kg

Inhalation

Product:	Not classified for acute toxicity based on available data.
Components:	
methyl methacrylate	LC 50 (Rat, 4 h): 29,8 mg/l low toxicity after single exposure; Vapour Not toxic after single exposure; Dust and mist, Not applicable
2-ethylhexyl acrylate	Not toxic after single exposure; Not classified based on available information., Vapour Not toxic after single exposure; Not classified based on available information., Dust and mist
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	Not toxic after single exposure; Not toxic after single exposure, Vapour Not toxic after single exposure; Not toxic after single exposure, Dust and mist
triethyleneglycol dimethacrylate	Not toxic after single exposure; Vapour Not toxic after single exposure; Dust and mist, Not classified for acute toxicity based on available data.
N,N-bis-(2-hydroxypropyl)-p-toluidine	Not toxic after single exposure; The substance or mixture has no acute inhalation toxicity, Dust and mist Not toxic after single exposure; The substance or mixture has no acute inhalation toxicity, Vapour
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	Not toxic after single exposure; Vapour, Not classified based on available information. Not toxic after single exposure; Dust and mist, Not classified based on available information.

Repeated dose toxicity

Product:	No data available.
Components:	
methyl methacrylate	NOAEL (Rat, Inhalativ, 2 years): 25 ppm Findings: Damage to mucous membranes in the nose at 400 ppm NOAEL (Rat, Oral, 2 years): 2000 ppm Findings: no toxic effects
2-ethylhexyl acrylate	No data available.
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	No data available.
triethyleneglycol dimethacrylate	NOAEL (Rat, Oral): 1.000 mg/kg
N,N-bis-(2-hydroxypropyl)-p-toluidine	No data available.
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	No data available.

Skin Corrosion/Irritation

Product:	No data available.
Components:	
methyl methacrylate	(Rabbit): non-irritant, 4 h (Human): Irritating.
2-ethylhexyl acrylate	Irritating.
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	OECD 404 (Rabbit): Not irritant, 144 h
triethyleneglycol dimethacrylate	FDA 1959 Draize, occlusive (Rabbit): Not irritating, 24 h
N,N-bis-(2-hydroxypropyl)-p-toluidine	OECD 404 (Rabbit): Not irritating
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	OECD Guideline 404 (Rabbit)

Serious Eye Damage/Eye Irritation

Product:	No data available.
Components:	
methyl methacrylate	Not irritating OECD 405, FDA 1959 Draize, Rabbit:
2-ethylhexyl acrylate	Not irritating
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	Not irritating OECD 405, Rabbit, 72 h
triethyleneglycol dimethacrylate	Not irritating OECD Test Guideline 405, Rabbit
N,N-bis-(2-hydroxypropyl)-p-toluidine	Moderately irritating OECD Test Guideline 405, Rabbit
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	Not irritating OECD Guide-line 405, Rabbit:

Respiratory or Skin Sensitization

Product:	No data available.
Components:	
methyl methacrylate	Local Lymph Node Assay (LLNA), LLNA (OECD 429) (Mouse): Skin sensitizer Cases of sensitisation also observed in humans. Not classified for respiratory sensitization

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

2-ethylhexyl acrylate	Skin sensitizer Not classified for respiratory sensitization
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	in vivo (Guinea Pig): Not a skin sensitizer. Not classified for respiratory sensitization
triethyleneglycol dimethacrylate	Local Lymph Node Assay (LLNA), OECD 429 (Mouse): Skin sensitizer Not classified for respiratory sensitization
N,N-bis-(2-hydroxypropyl)-p-toluidine	in vivo, OECD 406 (Guinea Pig): Not a skin sensitizer. Not classified for respiratory sensitization
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	Maximization Test (GPMT) (Guinea Pig): Not a skin sensitizer.

Carcinogenicity

Product:	Contains no ingredient listed as a carcinogen (>0.1%).
Components:	
methyl methacrylate	Not classified Non-carcinogenic in inhalation and feeding studies carried out on rats, mice and dogs.
2-ethylhexyl acrylate	Not classified
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	Not classified
triethyleneglycol dimethacrylate	Not classified
N,N-bis-(2-hydroxypropyl)-p-toluidine	Not classified
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	Not classified

Germ Cell Mutagenicity

Contains no ingredient listed as a mutagen (>0.1%).

In vitro

Product:	No data available.
Components:	
methyl methacrylate	gene mutation (OECD 471): negative gene mutation (OECD 476): negative, Chinese hamster lung fibroblasts (V79) Micronucleus test (OECD 487): negative, human lymphocytes
2-ethylhexyl acrylate	No data available.
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	Ames test (OECD 471): negative (US-EPA-method) negative
triethyleneglycol dimethacrylate	gene mutation (OECD 471): negative gene mutation (OECD 476): negative , Chinese hamster lung fibroblasts (V79) Chromosomal aberration (OECD 473): negative CHO-cells
N,N-bis-(2-hydroxypropyl)-p-toluidine	Bacterial reverse mutation assay (OECD TG 471): negative
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	Not classified

In vitro

Product:	No data available.
Components:	
methyl methacrylate	gene mutation (Dominant lethal test) Inhalativ (Mouse): negative
2-ethylhexyl acrylate	No data available.
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	Chromosomal aberration (OECD Test Guideline 475) (Rat): negative
triethyleneglycol dimethacrylate	Based on available data, the classification criteria are not met.
N,N-bis-(2-hydroxypropyl)-p-toluidine	Ames test: negative
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	Not classified

Reproductive toxicity

Product:	Contains no ingredient listed as toxic to reproduction (>0.1%).
Components:	
methyl methacrylate	Not classified No indications of toxic effects were observed in reproduction studies in animals. OECD 414 OECD 416 Oral
2-ethylhexyl acrylate	Not classified
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	Not classified
triethyleneglycol dimethacrylate	Not classified Oral: drinking water
N,N-bis-(2-hydroxypropyl)-p-toluidine	Not classified
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	Animal testing did not show any effects on fertility.

Specific Target Organ Toxicity - Single Exposure

Product:	No data available.
Components:	
methyl methacrylate	Inhalation - vapor: Category 3 with respiratory tract irritation.
2-ethylhexyl acrylate	Inhalation - vapor: Category 3 with respiratory tract irritation.

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	Not classified
triethyleneglycol dimethacrylate	Not classified
N,N-bis-(2-hydroxypropyl)-p-toluidine	Not classified
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	Not classified based on available information.

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.
Components:	
methyl methacrylate	Not classified
2-ethylhexyl acrylate	Not classified
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	Not classified
triethyleneglycol dimethacrylate	Not classified
N,N-bis-(2-hydroxypropyl)-p-toluidine	Not classified
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	Not classified

Aspiration Hazard

Product:	Not relevant.
Components:	
methyl methacrylate	Not classified
2-ethylhexyl acrylate	Not classified
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	Not classified
triethyleneglycol dimethacrylate	Not classified
N,N-bis-(2-hydroxypropyl)-p-toluidine	Not classified
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	Not classified

Information on health hazards

Other hazards

Product:	There are no toxicological data available for the product as such. Avoid contact with the skin and eyes and inhalation of the product vapours.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
methyl methacrylate	LC 50 (96 h): > 100 mg/l Expert judgement
2-ethylhexyl acrylate	LC 50 (Salmo gairdneri, 96 h): 4,6 mg/l LC 50 (Oncorhynchus mykiss (rainbow trout), 96 h): 1,81 mg/l
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	LC 50 (96 h): 6,8 mg/l
triethyleneglycol dimethacrylate	LC 50 (Danio rerio (zebra fish), 96 h): 16,4 mg/l
N,N-bis-(2-hydroxypropyl)-p-toluidine	LC 50 (Danio rerio (zebra fish), 96 h): 17 mg/l
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	LC 50 (Leuciscus idus (Golden orfe), 96 h): 100 - 220 mg/l The reported toxic effects relate to the nominal concentration. LC 50 (Medaka, high-eyes (Oryzias latipes), 96 h): 3,8 mg/l

Aquatic Invertebrates

Product:	No data available.
Components:	
methyl methacrylate	EC 50 (Daphnia magna (Water flea), 48 h): 69 mg/l
2-ethylhexyl acrylate	EC 50 (Daphnia magna (Water flea), 48 h): 1,3 mg/l
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	EC 50 (Water flea (Daphnia magna), 48 h): 66,8 mg/l
triethyleneglycol dimethacrylate	No data available.
N,N-bis-(2-hydroxypropyl)-p-toluidine	EC 50 (Daphnia magna (Water flea), 48 h): 28,8 mg/l
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	EC50 (Daphnia magna (Water flea), 24 h): 12,9 mg/l The product has low solubility in the test medium. An aqueous dispersion was tested. The reported toxic effects relate to the nominal concentration. EC 50 (Daphnia magna (Water flea), 48 h): 1,87 mg/l

Toxicity to Aquatic Plants

Product:	No data available.

SECTION 12: ECOLOGICAL INFORMATION (continued)

Components:

methyl methacrylate	EC 50 (Selenastrum capricornutum (green algae), 72 h): > 100 mg/l (OECD 201)
2-ethylhexyl acrylate	EC 50 (Desmodesmus subspicatus (green algae), 72 h): 1,71 mg/l (OECD TG 201)
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	EC 50 (Green Algae, 72 h): 100,4 mg/l (OECD 201)
triethyleneglycol dimethacrylate	EC 50 (Pseudokirchneriella subcapitata (green algae), 72 h): > 100 mg/l (OECD TG 201)
N,N-bis-(2-hydroxypropyl)-p-toluidine	EC 50 (Desmodesmus subspicatus (green algae), 72 h): 245 mg/l (OECD TG 201)
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	EC 50 (Desmodesmus subspicatus (green algae), 72 h): 1,4 mg/l The product has low solubility in the test medium. An aqueous dispersion was tested. The reported toxic effects relate to the nominal concentration. EC 50 (Pseudokirchneriella subcapitata (green algae), 72 h): 0,67 mg/l (OECD TG 201)

Toxicity to microorganisms

Product:	No data available.
Components:	
methyl methacrylate	EC3 (Pseudomonas putida, 16 h): 100 mg/l (cell proliferation inhibition test, Bringmann-Kühn)
2-ethylhexyl acrylate	No data available.
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	No data available.
triethyleneglycol dimethacrylate	No data available.
N,N-bis-(2-hydroxypropyl)-p-toluidine	EC10 (30 min): > 1.995 mg/l (OECD Test Guideline 209)
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	EC 50 (Activated sludge, 3 h): > 100 mg/l (Directive 87/302/EEC, part C, p.118)

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
methyl methacrylate	NOEC (Danio rerio (zebra fish)): 9,4 mg/l (OECD 210)
2-ethylhexyl acrylate	NOEC (Salmo salar (Atlantic salmon), 21 d): 0,78 mg/l
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	No data available.
triethyleneglycol dimethacrylate	No data available.
N,N-bis-(2-hydroxypropyl)-p-toluidine	No data available.
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	No data available.

Aquatic Invertebrates

Product:	No data available.
Components:	
methyl methacrylate	NOEC (Daphnia magna (Water flea), 21 d): 37 mg/l (OECD 202 part 2)
2-ethylhexyl acrylate	NOEC (Daphnia magna (Water flea), 21 d): 0,19 mg/l (US-EPA-method) EC 50 (Daphnia magna (Water flea), 21 d): 0,5 mg/l (US-EPA-method)
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	No data available.
triethyleneglycol dimethacrylate	NOEC (Daphnia magna (Water flea), 21 d): 32 mg/l (OECD Test Guideline 211)
N,N-bis-(2-hydroxypropyl)-p-toluidine	No data available.
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	No data available.

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
methyl methacrylate	NOEC (Selenastrum capricornutum (green algae), 72 h): > 110 mg/l (OECD 201)
2-ethylhexyl acrylate	NOEC (Desmodesmus subspicatus): 0,45 mg/l
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	No data available.
triethyleneglycol dimethacrylate	NOEC (Pseudokirchneriella subcapitata (green algae), 72 h): 18,6 mg/l (OECD TG 201)
N,N-bis-(2-hydroxypropyl)-p-toluidine	No data available.
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	NOEC (Pseudokirchneriella subcapitata (green algae), 72 h): 0,18 mg/l (OECD TG 201)

Toxicity to microorganisms

Product:	No data available.
Components:	
methyl methacrylate	EC3 (Pseudomonas putida, 16 h): 100 mg/l (cell proliferation inhibition test, Bringmann-Kühn)
2-ethylhexyl acrylate	No data available.

SECTION 12: ECOLOGICAL INFORMATION (continued)

1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	No data available.
triethyleneglycol dimethacrylate	No data available.
N,N-bis-(2-hydroxypropyl)-p-toluidine	EC10 (30 min): > 1.995 mg/l (OECD Test Guideline 209)
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	EC 50 (Activated sludge, 3 h): > 100 mg/l (Directive 87/302/EEC, part C, p.118)

Persistence and Degradability

Biodegradation

Product:	(monomer constituent), The product is biodegradable.
Components:	
methyl methacrylate	94 % (14 d, OECD 301 C), easily biodegradable
2-ethylhexyl acrylate	70 - 80 % (15 d), Readily biodegradable
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	74 % (28 d, OECD 301 F) The product is easily biodegradable.
triethyleneglycol dimethacrylate	85 % (28 d), Readily biodegradable
N,N-bis-(2-hydroxypropyl)-p-toluidine	39 % (28 d, OECD TG 301 B), Inherently biodegradable
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	60 - 70 % (28 d, OECD TG 301 F / ISO 9408), aerobic, Not readily degradable.

BOD/COD Ratio

Product:	No data available.
Components:	
methyl methacrylate	No data available.
2-ethylhexyl acrylate	No data available.
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	No data available.
triethyleneglycol dimethacrylate	No data available.
N,N-bis-(2-hydroxypropyl)-p-toluidine	No data available.
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product:	No specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy)
Components:	
methyl methacrylate	Accumulation in organisms is not expected due to the coefficient of distribution of n-octanol in water (log Pow).
2-ethylhexyl acrylate	Bioconcentration Factor (BCF): 282,4
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	Bioconcentration Factor (BCF): 94,7
triethyleneglycol dimethacrylate	Accumulation in organisms is not expected due to the coefficient of distribution of n-octanol in water (log Pow).
N,N-bis-(2-hydroxypropyl)-p-toluidine	No data available.
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	Cyprinus carpio (Carp), Bioconcentration Factor (BCF): 33 - 156 Accumulation in aquatic organisms is expected. Accumulation in terrestrial organisms is expected.

Partition Coefficient n-octanol / water (log Kow)

Product:	No data available.
Components:	
methyl methacrylate	Log Kow: 1,38 20 °C (Measured)
2-ethylhexyl acrylate	Log Kow: 4,64 25 °C
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	Log Kow: 3,5 23 °C
triethyleneglycol dimethacrylate	Log Kow: 2,3 20 °C (OECD Test Guideline 117)
N,N-bis-(2-hydroxypropyl)-p-toluidine	Log Kow: 2,1 (OECD Test Guideline 107)
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	Log Kow: 3,52 25 °C

Mobility in soil:

Product:	No specific test data available
Components:	
methyl methacrylate	Binding to the solid soil phase, sediment or clarification sludge is not expected. The substance evaporates gradually into the atmosphere from the surface of the water. If the substance does get into the environment, it tends to remain in the compartment it was discharged into.
2-ethylhexyl acrylate	No data available.
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	No data available.
triethyleneglycol dimethacrylate	No data available.

SECTION 12: ECOLOGICAL INFORMATION (continued)

N,N-bis-(2-hydroxypropyl)-p-toluidine	No data available.
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	No data available.

Results of PBT and vPvB assessment:

Product:	No data available.

Components:

methyl methacrylate	Non-classified vPvB substance Non-classified PBT substance
2-ethylhexyl acrylate	No data available.
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	This substance is not considered to be very persistent and very bioaccumulating (vPvB)., This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
triethyleneglycol dimethacrylate	No data available.
N,N-bis-(2-hydroxypropyl)-p-toluidine	No data available.
(2-hydroxy-4-methoxyphenyl)phenyl-methanone	No data available.

Other adverse effects:

Other hazards

Product:	Prevent substance from entering soil, natural bodies of water and sewer systems.

SECTION 13: DISPOSAL CONSIDERATIONS

General information:	This material and/or its container must be disposed of as hazardous waste.
Disposal methods:	Waste is hazardous. It must be disposed of in accordance with the regulations after consultation of the competent local authorities and the disposal company in a suitable and licensed facility.
Contaminated Packaging:	Contaminated packaging should ideally be emptied; it can then be recycled after having been decontaminated. Packaging that cannot be cleaned should be disposed of professionally. Uncontaminated packaging may be taken for recycling.

SECTION 14: TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No:	UN 1866
Proper shipping name:	Resin solution STABILIZED
Class:	3
Packing group:	II
Labels:	3
Packing instruction (cargo aircraft):	364
Packing instruction (passenger aircraft):	353

IMDG-Code

UN/ID No:	UN 1866
Proper shipping name:	Resin solution STABILIZED
Class:	3
Packing group:	II
Labels:	3
EmS Code	F-E, S-E
Marine pollutant	No

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Special precautions for user
The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15: REGULATORY INFORMATION

International regulations

Montreal protocol
Ozone Depletion Potential:

1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	No data available.

Stockholm convention

1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	No data available. Not applicable

Rotterdam convention

1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	No data available. Not applicable

SECTION 15: REGULATORY INFORMATION (continued)	
Kyoto protocol	
1,2,3-tributyl 2-hydroxypropane-1,2,3-tricarboxylate	Not applicable
Inventory Status:	
Registration, Evaluation and Authorisation of Chemicals (REACH):	Preregistered, registered or exempted
US TSCA Inventory:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
Canada NDSL Inventory:	Not on Inventory.
Australia AICS:	On or in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Philippines PICCS:	On or in compliance with the inventory

SECTION 16: OTHER INFORMATION	
Further Information:	The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND THE COMPANY

1.1 Product identifier

Product Name: Cretex MC CSG - Hardener Powder Part B

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

Identified uses: Curing agent for Polycote resin and powder systems
Uses advised against: None known

1.3 Details of the supplier of the safety data sheet

Company Name: Polycote UK LLP
Centre Point
Wolseley Road
Woburn Road Industrial Estate
Kempston
Beds
MK42 7EF

Telephone Number: 01234 846400
Emergency Contact Number: 111 (NHS England)
Email address: uksales@polycote.com

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

Regulation (EC) No. 1272/2008 (CLP):
Aquatic Acute 1: Very toxic to aquatic life.
Eye Irrit. 2: Causes serious eye irritation.
Org. Perox. B: Heating may cause a fire or explosion.
Skin Sens. 1: May cause an allergic skin reaction.

2.2 Label elements

Signal word(s): Danger

Hazard pictograms:

Hazard statements:
H241: Heating may cause a fire or explosion.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H400: Very toxic to aquatic life.

Precautionary statements: None

2.3 Other hazards: None known

2.4 Additional Information: For full text of H/P Statements see section 16.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance:

Hazardous Ingredient(s)	CAS No.	EC No. / REACH Registration No.	% W/W	Hazard Statement(s)	Hazard Pictogram(s)
dibenzoyl peroxide benzoyl peroxide	94-36-0	202-327-6 01-2119511472-50	0.00	Org. Perox. B H241; Skin Sens. 1 H317; Eye Irrit. 2 H319	

3.2 Mixture:
Non-applicable

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Inhalation: Treat symptomatically.

Skin contact: Take off immediately all contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention/ Specific treatment (see Medical Advice on this label).

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion Treat symptomatically.

4.2 Most important symptoms and effects, both acute and delayed:
May cause irritation. Allergic contact dermatitis.

4.3 Indication of any immediate medical attention and special treatment needed:
Specific treatment (see Medical Advice on this label). Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:	Use to extinguish.
Unsuitable extinguishing media:	None
5.2 Special hazards arising from the substance or mixture:	Heating may cause a fire or explosion. Explosion risk.
5.3 Advice for firefighters:	Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:	Provide adequate ventilation. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems. Wear suitable protective clothing, gloves and eye/face protection.
6.2 Environmental precautions:	Avoid release to the environment. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.
6.3 Methods and material for containment and cleaning up:	Collect spillage. Sweep up spilled substance and remove to safe place. Use vacuum equipment for collecting spilt materials, where practicable. Contain spillages with sand, earth or any suitable adsorbent material. Earth may be shovelled to contain spillage and to avoid contamination of sewers and watercourses.
6.4 Reference to other sections:	See also section 8, 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep only in original packaging. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. Wash hands and exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapours/spray.
7.2 Conditions for safe storage, including any Incompatibilities:	Store in a well-ventilated area. Protect from sunlight. Store separately.
Storage temperature:	Store at temperatures not exceeding °C/°F
Storage life:	Stable under normal conditions.
7.3 Specific end use(s)	A BPO Hardener powder for use with Polycote repair resins and powder systems.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

8.1.1 Occupational Exposure Limits:

Occupational Exposure Limits:						
Substance	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Methyl methacrylate	94-36-0		5			

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

Remark	Notes

8.2 Exposure controls:

8.2.1. Appropriate engineering controls:

Provide adequate ventilation, including appropriate local extraction. A washing facility/water for eye and skin cleaning purposes should be present.

8.2.2. Personal protection equipment:

PPE	Remarks
 Eye Protection	Wear eye protection with side protection (EN166).
 Skin Protection	Wear protective clothing and gloves: Impervious gloves (EN 374).
 Respiratory Protection	Where engineering controls are not fitted or inadequate, wear suitable respiratory protective equipment. A suitable dust mask or dust respirator with filter type P (EN143 or EN405) may be appropriate.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

PPE	Remarks
 Thermal hazards	None known

8.2.3. Environmental Exposure Controls: Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:	Solid
Colour:	White
Odour:	Faint
Odour threshold:	Not known
pH:	Not known
Melting point/freezing point:	Decomposes before melting
Initial boiling point and boiling range:	Not applicable
Flash point:	Not applicable
Evaporation rate:	Not known
Flammability (solid, gas)	Decomposition products may be flammable
Upper/lower flammability or explosive limits:	No data available
Vapour pressure:	Not known
Vapour density:	Not known
Density (g/ml):	540 kg/m³ at 20°C
Relative density:	1.895 at 20°C
Solubility(ies)	Solubility (Water): At 20°C insoluble Solubility (Other): No data available
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	Not known
Decomposition temperature (°C):	SADT -60°C (Self accelerating decomposition temperature) is the lowest temperature at which self-accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT. Contact with incompatible substances can cause decomposition below the SADT.
Viscosity:	Not known
Explosive properties:	Not explosive
Oxidising properties:	Not classified as oxidising. 9.2 Other information Active Oxygen Content: 2.1 - 2.2% Organic peroxides

9.2 Other information

Active Oxygen Content:	2.1 - 2.2 %
Organic peroxides:	32 - 33%
Conditions to avoid:	Do not allow to dry out.
Materials to avoid:	Contact with incompatible materials will result in hazardous decomposition. Do not mix with peroxide accelerators, unless under controlled processing. Use only stainless steel 316, PP, polyethylene or glass-lined equipment. Acids and bases Iron Copper Reducing agents heavy metals rust
Hazardous decomposition products:	Calcium oxide Phosphorous oxides Benzoic acid

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:	Keep away from heat and direct sunlight.
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:
LD50: >5,000 mg/kg. Species: Rat

Acute toxicity – Skin Contact:
Slightly irritation.

Acute toxicity – Inhalation:
LC50 (Rat): >24.3 mg/l. Exposure time: 4h. Test atmosphere: vapour. Assessment: The substance or mixture has no acute inhalation toxicity. May cause irritation of the mucous membranes.

Skin corrosion/irritation:
Product dust may be irritating to skin. May cause an allergic skin reaction. May cause skin irritation.

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Serious eye damage/irritation:
Causes serious eye irritation.

Skin sensitization data:
May cause an allergic skin reaction.

Respiratory sensitization data:
Thermal decomposition can lead to release of irritating gases and vapours. Product dust may be irritating to the respiratory system.

Germ cell mutagenicity:
Not mutagenic.

Carcinogenicity:
Not carcinogenic.

Reproductive toxicity:
No toxicity to reproduction. Species: Rat, male. Application Route: Oral. General Toxicity – Parent: No observed adverse effect level: 1,000 mg/kg bw/day. Method: OECD Test Guideline 422. Species: Rat, females. Application Route: Oral. General Toxicity – Parent: No observed adverse effect level: 500 mg/kg bw/day. Method: OECD Test Guideline 422.

Lactation:
Not classified

STOT – single exposure:
Exposure routes: Ingestion. The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT – repeated exposure:
Exposure routes: Ingestion. The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard:
No data available

11.2 Other information:
Not known

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:	Very toxic to aquatic life.
Toxicity - Aquatic invertebrates:	EC50: 0.11 mg/l. Exposure time: 48h. Species: Daphnia magna (water flea).
Toxicity - Fish:	LC50: 0.06 mg/l/ Exposure time: 96h.
Toxicity - Algae:	EC50: 0.06 mg/l. Exposure time: 72h. Species: algae.
Toxicity - Sediment Compartment:	EC50: 35 mg/l. Species: Bacteria.
Toxicity - Terrestrial Compartment:	Not classified

12.2 Persistence and Degradation:
Inherently biodegradable

12.3 Bioaccumulative potential:
Bioconcentration factor (BCF): 66.6

12.4 Mobility in soil:
No information available

12.5 Results of PBT and vPvB assessment:
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher: Not classified as PBT or vPvB

12.6 Other adverse effects:
Not known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Dispose of contents in accordance with local, state or national legislation. Send to a licensed recycler, reclaimer or incinerator. Dispose of this material and its container to hazardous or special waste collection point. Normal disposal is via incineration operated by an accredited disposal contactor. Dispose at suitable refuse site.

13.2 Additional Information
Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to ADR 2021 and RID 2021:

14.1	**UN number:**	3106
14.2	**UN proper shipping name:**	ORGANIC PEROXIDE TYPE D, SOLID
14.3	**Transport Hazard Class(es):**	
	ABR/RID	
	ADR/RID Class	5.2
	ADR Classification Code	P1
	Special Provisions	122 274
	Limited Quantities	500g
	Excepted Quantities	E0
	Emergency Action Code	2Z
	Mixed Packing Instructions for Packages:	CV15 CV22

SECTION 14: TRANSPORT INFORMATION (continued)

Special Packing Provisions for Packages:	PP12 B3
Mixed Packing Instructions for Packages:	MP10
Packing Instructions for Portable tanks:	T1 BK1 BK2
Special Provisions for Portable tanks:	TP33
Tank Code for Tanks:	SGAV LGBV
Special Provisions for tanks Vehicle for Tank Carriage:	Not applicable
Vehicle for Tank Carriage:	AT
ADR Transport Category:	3
Tunnel Restriction Code:	E
Special Provisions for Carriage - Packages:	V1
Special Provisions for Carriage - Bulk:	VV1
Special Provisions for Carriage - Loading, Unloading and Handling:	CV13
Special Provisions for Carriage - Operation:	Not applicable
ADR HIN	90

IMDG

IMDG Class	9
Special Provisions	274 335 601
Limited Quantities	5 kg
Excepted Quantities	E1
Mixed Packing Instructions for Packages:	P002 IBC08 LP02 R001
Special Packing Provisions for Packages:	PP12 B3
Packing Instructions for Portable tanks:	T1 BK1 BK2
Special Provisions for Portable tanks:	TP33
IMDG EMS:	Not applicable
Stowage and Handling:	Not applicable
Segregation	Not determined

ICAO/IATA

Excepted Quantities	E1
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:	Y956
Passenger and Cargo Aircraft Limited Quantities Max net Qty:	30Kg
Passenger and Cargo Aircraft Packing Instructions:	956
Passenger and Cargo Aircraft Max net Qty:	400Kg
Cargo Aircraft Packing Instructions:	956
Cargo Aircraft Max net qty:	400Kg
Special Provisions	A97, A158, A179, A197
Emergency Response Guidebook (ERG) Code:	9L
Labels	9

14.4	**Packing group:**	III
14.5	**Environmental hazards:**	Classified as a Marine Pollutant
14.6	**Special precautions for user**	Not known
14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code:**	No information available

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 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) No 850/2004 of the European Parliament and of the Council on persistent organic pollutants:	Not listed
Regulation (EC) No 2037/2000 on substances that deplete the ozone layer:	Not listed
Regulation (EU) No 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals:	Not listed

SECTION 15: REGULATORY INFORMATION (continued)

National regulations
Other: Not known

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

SECTION 16: OTHER INFORMATION

Hazard pictograms:

GHS01 GHS02 GHS07 GHS09

Hazard classification:
Eye irrit. 2: Serious eye damage/irritation, Category 2.
Org. Perox. B: Organic peroxide, Category B.
Skin Sens. 1: Skin sensitization, Category 1.

Hazard Statements:
H241: Heating may cause a fire or explosion.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H400: Very toxic to aquatic life.

Precautionary Statements:
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P234: Keep only in original packaging.
P235: Keep cool.
P240: Ground and bond container and receiving equipment.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P264: Wash hands and exposed skin thoroughly after handling.
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/hearing protection.
P302+P352: IF ON SKIN: Wash with plenty of water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321: Specific treatment (see Medical Advice on this label).
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.
P370+P380+P375+P378: In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Use to extinguish.
P391: Collect spillage.
P403: Store in a well-ventilated place.
P410: Protect from sunlight.
P411: Store at temperatures not exceeding °C/°F.
P420: Store separately.
P501: Dispose of contents in accordance with local, state or national legislation.

Passenger aircraft/rail:
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
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
IATA: International Air Transport Association
IBC: Intermediate Bulk Container
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods
LTEL: Long term exposure limit
PBT: Persistent, Bioaccumulative and Toxic
PNEC: Predicted No Effect Concentration
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
STEL: Short term exposure limit
STOT: Specific Target Organ Toxicity
UN: United Nations
vPvB: very Persistent and very Bioaccumulative

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND THE COMPANY

1.1 Product identifier

Product Name: Cretex MC Aggregate Powder Part C

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

Identified Use(s): A concrete repair powder blend for use with Polycote resin in cold temperatures.
Uses Advised Against: None known

1.3 Details of the supplier of the safety data sheet

Company Name: Polycote UK LLP
Centre Point
Wolseley Road
Woburn Road Industrial Estate
Kempston
Beds
MK42 7EF

Telephone Number: 01234 846400
Emergency Contact Number: 111 (NHS England)
Email address: uksales@polycote.com

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:
Regulation (EC) No 1272/2008:

Aquatic Acute 1: Very toxic to aquatic life.
Eye Irrit. 2: Causes serious eye irritation.
Org. Perox. B: Heating may cause a fire or explosion.

2.2 Label elements
According to Regulation (EC) No 1272/2008 (CLP):
Hazard pictograms:

Signal word(s): Danger

Hazard statements:
H241: Heating may cause a fire or explosion.
H319: Causes serious eye irritation.
H400: Very toxic to aquatic life.

Precautionary statements: None

2.3 Other hazards: None known

2.4 Additional Information: For full text of H/P Statements see section 16.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance:
Not applicable

3.2 Mixture:
Non-applicable

Hazardous Ingredient(s)	CAS No.	EC No. / REACH Registration No.	%WW	Hazard Statement(s)	Hazard Pictogram(s)
Crystalline Sillica Quartz		604-504-7	0.00	Not classified	
Lexmark Acrylic Copolymer		420-880-3	0.00	Not classified	
dibenzoyl peroxide benzoyl peroxide	94-36-0	202-327-6 01-2119511472-50	0.00	Org. Perox. B H241 Skin Sens. 1 H317 Eye Irrit. 2 H319	
barium sulfate	7727-43-7	231-784-4	0.00	Not classified	
Pigment Additive 009		432-260-1	0.00	Not classified	
Chalk	13397-25-6	603-784-8	0.00	Not classified	

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Inhalation: Treat symptomatically.

Skin contact: Treat symptomatically.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion Treat symptomatically.

SECTION 4: FIRST AID MEASURES (continued)

4.2 Most important symptoms and effects, both acute and delayed:
May cause irritation.

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

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:	Use to extinguish
Unsuitable extinguishing media:	None
5.2 Special hazards arising from the substance or mixture:	Heating may cause a fire or explosion. Explosion risk.
5.3 Advice for firefighters:	Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:	Provide adequate ventilation. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems. Wear suitable protective clothing, gloves and eye/face protection.
6.2 Environmental precautions:	Avoid release to the environment. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.
6.3 Methods and material for containment and cleaning up:	Sweep up spilled substance and remove to a safe place. Use vacuum equipment for collecting spilt materials, where practicable. Contain spillages with sand, earth or any suitable absorbent material. Earth may be shovelled to contain spillage and to avoid contamination of sewers and watercourses.
6.4 Reference to other sections:	See also Section 8, 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep only in original packaging. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. Wash hands and exposed skin thoroughly after handling.
7.2 Conditions for safe storage, including any incompatibilities	Store in a well-ventilated area. Protect from sunlight. Store separately.
Storage temperature:	Store at temperatures not exceeding °C/°F
Storage life:	Stable under normal conditions.
Incompatible materials:	None known
7.3 Specific end use(s):	A concrete repair powder blend for use with Polycote resin in cold temperatures

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

8.1.1 Occupational Exposure Limits:

Occupational Exposure Limits:						
Substance	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Dibenzoyl peroxide	94-36-0		5			
Barium sulphate inhalable dust	7727-43-7		10			
Barium sulphate respirable dust	7727-43-7		4			

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

Remark	Notes

8.2 Exposure controls:

8.2.1. Appropriate engineering controls:
Provide adequate ventilation, including appropriate local extraction. A washing facility/water for eye and skin cleaning purposes should be present.

8.2.2. Personal protection equipment:

PPE	Remarks
 Eye Protection	Wear eye protection with side protection (EN166).
 Skin Protection	Wear protective clothing and gloves: Impervious gloves (EN 374).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

PPE	Remarks
 Respiratory Protection	Where engineering controls are not fitted or inadequate, wear suitable respiratory protective equipment. A suitable dust mask or dust respirator with filter type P (EN143 or EN405) may be appropriate.
 Thermal hazards	None known

8.2.3 Environmental Exposure Controls: Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:	Solid
Colour:	Off white (unless pigmented)
Odour:	Faint
Odour threshold:	Not known
pH:	Not known
Melting point/freezing point:	Not applicable
Initial boiling point and boiling range:	Not applicable
Flash point:	Not applicable
Evaporation rate:	Not known
Flammability (solid, gas):	Not applicable
Upper/lower flammability or explosive limits:	Not applicable
Vapour pressure:	Not known
Vapour density:	Not known
Density (g/ml):	Not known
Relative density:	Not known
Solubility(ies)	Solubility (Water): Not soluble Solubility (Other): Not known
Partition coefficient: n-octanol/water:	Not applicable
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:	Keep away from heat and direct sunlight
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:	Self-classification: Causes serious eye irritation
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 Other information:	Not known

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:	Very toxic to aquatic life.
Toxicity - Aquatic invertebrates:	Not known
Toxicity - Fish:	Not known
Toxicity - Algae:	Not known
Toxicity - Sediment Compartment:	Not classified
Toxicity - Terrestrial Compartment:	Not classified
12.2 Persistence and Degradation:	Not known
12.3 Bioaccumulative potential:	Not known
12.4 Mobility in soil:	The product has high mobility in soil
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

Dispose of contents in accordance with local, state or national legislation. Send to a licensed recycler, reclaimer or incinerator. Dispose of this material and its container to hazardous or special waste collection point. Normal disposal is via incineration operated by an accredited disposal contactor. Dispose at suitable refuse site.

13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

14.1	**UN number:**	3077
14.2	**UN proper shipping name:**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID. N.O.S.
14.3	**Transport Hazard Class(es):**	
	ABR/RID	
	ADR/RID Class	9
	ADR Classification Code	M7
	Special Provisions	274 335 601
	Limited Quantities	5 kg
	Excepted Quantities	E1
	Emergency Action Code	2Z
	Mixed Packing Instructions for Packages:	P002 IBC08 LP02 R001
	Special Packing Provisions for Packages:	PP12 B3
	Mixed Packing Instructions for Packages:	MP10
	Packing Instructions for Portable tanks:	T1 BK1 BK2
	Special Provisions for Portable tanks:	TP33
	Tank Code for Tanks:	SGAV LGBV
	Special Provisions for tanks Vehicle for Tank Carriage:	Not applicable
	Vehicle for Tank Carriage:	AT
	ADR Transport Category:	3
	Tunnel Restriction Code:	E
	Special Provisions for Carriage - Packages:	V13
	Special Provisions for Carriage - Bulk:	VV1
	Special Provisions for Carriage - Loading, Unloading and Handling:	CV13
	Special Provisions for Carriage - Operation:	Not applicable
	ADR HIN	90
	IMDG	
	IMDG Class	9
	Special Provisions	274 335 601
	Limited Quantities	5 kg
	Excepted Quantities	E1
	Mixed Packing Instructions for Packages:	P002 IBC08 LP02 R001
	Special Packing Provisions for Packages:	PP12 B3
	Packing Instructions for Portable tanks:	T1 BK1 BK2
	Special Provisions for Portable tanks:	TP33
	IMDG EMS:	Not applicable
	Stowage and Handling:	Not applicable
	Segregation	Not determined
	ICAO/IATA	
	Excepted Quantities	E1
	Passenger and Cargo Aircraft Limited Quantities Packing Instructions:	Y956
	Passenger and Cargo Aircraft Limited Quantities Max net Qty:	30 kg

SECTION 14: TRANSPORT INFORMATION (continued)

	Passenger and Cargo Aircraft Packing Instructions:	956
	Passenger and Cargo Aircraft Max net Qty:	400 Kg
	Cargo Aircraft Packing Instructions:	956
	Cargo Aircraft Max net qty:	400 Kg
	Special Provisions	A97, A158, A179, A197
	Emergency Response Guidebook (ERG) Code:	9L
	Labels	9

14.4	**Packing group:**	III
14.5	**Environmental hazards:**	Classified as a Marine Pollutant
14.6	**Special precautions for user**	Not known
14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code:**	No information available

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 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) No 850/2004 of the European Parliament and of the Council on persistent organic pollutants:	Not listed
Regulation (EC) No 2037/2000 on substances that deplete the ozone layer:	Not listed
Regulation (EU) No 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

Hazard pictograms:

GHS01 GHS02 GHS07 GHS09

Hazard classification:

Eye Irrit. 2: Serious eye damage/irritation, Category 2
Org. Perox. B: Organic peroxide, Category B
Skin Sens. 1: Skin sensitization, Category 1

Hazard Statements:

H241: Heating may cause a fire or explosion.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H400: Very toxic to Aquatic life.

Precautionary Statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P234: Keep only in original packaging.
P235: Keep cool.
P240: Ground and bond container and receiving equipment.
P264: Wash hands and exposed skin thoroughly after handling.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P305+P351+P338: IF In EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P370+P380+P378: In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Use to extinguish.
P391: Collect spillage.
P403: Store in a well-ventilated place.
P410: Protect from sunlight.
P411: Store at temperatures not exceeding °C/°F.
P420: Store separately.
P501: Dispose of contents in accordance with local, state or national legislation.

SECTION 16: OTHER INFORMATION (continued)	
Passenger aircraft/rail:	ADN: European Agreement concerning the international carriage of dangerous goods by inland waterways ADR: European Agreement concerning the international carriage of dangerous goods by road 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 IATA: International Air Transport Association IBC: Intermediate Bulk Container ICAO: International Civil Aviation Organisation IMDG: International maritime dangerous goods code LTEL: Long term exposure limit PBT: Persistent, Bioaccumulative and Toxic PNEC: Predicted No Effect Concentration REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals RID: Regulations concerning the international carriage of dangerous goods by rail STEL: Short term exposure limit STOT: Specific Target Organ Toxicity UN: United Nations vPvB: very Persistent and very Bioaccumulative