

SAFETY DATA SHEET **NITOFLOR FC130 BASE**

SECTION 1: Identification of	the substance/mixture and of the company/undertaking		
1.1. Product identifier			
Product name	NITOFLOR FC130 BASE		
Product number	A1837691UK9		
1.2. Relevant identified uses	of the substance or mixture and uses advised against		
Identified uses	Base component of two-part epoxy floor coating.		
1.3. Details of the supplier of	1.3. Details of the supplier of the safety data sheet		
Supplier	Fosroc Limited Drayton Manor Business Park Coleshill Road Tamworth Staffordshire B78 3XN England Tel: +44 (0) 1827 262222 Fax: +44 (0) 1827 262444 enquiryuk@fosroc.com		
1.4. Emergency telephone nu	umber		
Emergency telephone	+44 (0) 1827 265 279 (Monday-Sunday 24 hours a day)		
SECTION 2: Hazards identification			
	Cauon		
2.1. Classification of the subs			
2.1. Classification of the subs Classification (EC 1272/2008	stance or mixture		
2.1. Classification of the subs Classification (EC 1272/2008 Physical hazards	stance or mixture) Not Classified		
2.1. Classification of the subs Classification (EC 1272/2008 Physical hazards Health hazards	stance or mixture) Not Classified Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317		
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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	 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 Dispose of contents/ container in accordance with national regulations.
Contains	EPOXY RESIN (Type A) (Number average MW <= 700), EPOXY RESIN (Type F) (Number average MW <= 700), 2-ETHYL HEXYL GLYCIDYL ETHER
Supplementary precautionary statements	 P261 Avoid breathing vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/ attention. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P337+P313 If eye irritation persists: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P391 Collect spillage.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures		
EPOXY RESIN		60-100%
CAS number: 25068-38-6	EC number: 500-033-5	REACH registration number: 01- 2119456619-26-XXXX
Classification		
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
Skin Sens. 1 - H317		
Aquatic Chronic 2 - H411		
Formaldehyde, oligomeric reaction products with 1-chloro- 2,3-epoxypropane and phenol		10-30%
CAS number: 9003-36-5	EC number: 500-006-8	
Classification		
Skin Irrit. 2 - H315		
Skin Sens. 1 - H317		
Aquatic Chronic 2 - H411		

2-ETHYL HEXYL GLYCIDYL	ETHER 10-30%
CAS number: 2461-15-6	EC number: 219-553-6
Classification Skin Irrit. 2 - H315 Skin Sens. 1 - H317	
The Full Text for all R-Phrases	s and Hazard Statements are Displayed in Section 16.
SECTION 4: First aid measure	95
4.1. Description of first aid mea	asures
General information	Get medical attention if any discomfort continues.
Inhalation	Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
Ingestion	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Give plenty of water to drink. Keep affected person under observation. Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Remove affected person from source of contamination. Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes and get medical attention.
4.2. Most important symptoms	and effects, both acute and delayed
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	May cause respiratory system irritation.
Ingestion	May cause discomfort if swallowed.
Skin contact	Skin irritation. May cause sensitisation or allergic reactions in sensitive individuals.
Eye contact	Irritation of eyes and mucous membranes.
4.3. Indication of any immedia	te medical attention and special treatment needed
Notes for the doctor	Treat symptomatically.
SECTION 5: Firefighting meas	sures
5.1. Extinguishing media	
Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
5.2. Special hazards arising fro	om the substance or mixture
Specific hazards	No unusual fire or explosion hazards noted.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
5.3. Advice for firefighters	

Protective actions during firefighting	No specific firefighting precautions known. Control run-off water by containing and keeping it out of sewers and watercourses.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
SECTION 6: Accidental release	e measures
6.1. Personal precautions, pro	tective equipment and emergency procedures
Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet.
6.2. Environmental precaution	<u>s</u>
Environmental precautions	Avoid discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
6.3. Methods and material for	containment and cleaning up
Methods for cleaning up	Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.
6.4. Reference to other section	ns
Reference to other sections	For waste disposal, see section 13.
SECTION 7: Handling and sto	rage
7.1. Precautions for safe hand	ling
Usage precautions	For professional users only. Provide adequate ventilation. Avoid the formation of mists. Avoid inhalation of vapours/spray and contact with skin and eyes.
7.2. Conditions for safe storag	e, including any incompatibilities
Storage precautions	Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep only in the original container.
Storage class	Chemical storage.
7.3. Specific end use(s)	
Specific end use(s)	The identified uses for this product are detailed in Section 1.2.
SECTION 8: Exposure control	s/Personal protection
8.1. Control parameters	
Ingredient comments	WEL = Workplace Exposure Limits
	EPOXY RESIN (CAS: 25068-38-6)
DNEL	Workers - Inhalation; Short term systemic effects: 12.25 mg/m ³ Workers - Inhalation; Long term systemic effects: 12.25 mg/m ³
PNEC	- Fresh water; 0.006 mg/l
Formaldebyde	e, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (CAS: 9003-36-5)
DNEL	Workers - Inhalation; Long term systemic effects: 29.39 mg/m³ Workers - Dermal; Long term systemic effects: 104.15 mg/kg/day Workers - Dermal; Short term local effects: 8.3 µg/cm2

PNEC	- Fresh water; 0.003 mg/l - marine water; 0.0003 mg/l - STP; 10 mg/l
	2-ETHYL HEXYL GLYCIDYL ETHER (CAS: 2461-15-6)
DNEL	Workers - Dermal; Long term : 4.17 mg/kg/day Workers - Dermal; Short term : 1 mg/kg/day
PNEC	- Fresh water; 0.002 mg/l - marine water; 0.166 μg/l - Sediment (Freshwater); 0.177 mg/kg dw - Sediment (Marinewater); 0.018 mg/kg dw - STP; 0.017 mg/l
8.2. Exposure controls	
Protective equipment	
Appropriate engineering controls	Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Butyl rubber. Nitrile rubber. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact. Wear apron or protective clothing in case of contact.
Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Do not eat, drink or smoke when using this product. Do not smoke in work area.
Respiratory protection	No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs. Organic vapour filter.
SECTION 9: Physical and ch	nemical properties
9.1. Information on basic phy	vsical and chemical properties
Appearance	Clear liquid.
Colour	Colourless.
Odour	Mild.
Odour threshold	Not determined.
	Not determined

Not determined.

Melting point

Initial boiling point and range	>200°C @ 1 atm
Flash point	> 200°C
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not determined.
Other flammability	Not applicable.
Vapour pressure	0.001 kPa @ 20°C
Vapour density	Not determined.
Relative density	1.12 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Miscible with water.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not determined.
Explosive properties	Not considered to be explosive.
Explosive under the influence	Not considered to be explosive.
of a flame	
of a flame Oxidising properties	Does not meet the criteria for classification as oxidising.
	Does not meet the criteria for classification as oxidising.
Oxidising properties	Does not meet the criteria for classification as oxidising. Not available.
Oxidising properties 9.2. Other information	Not available.
Oxidising properties 9.2. Other information Other information	Not available.
Oxidising properties 9.2. Other information Other information SECTION 10: Stability and rea	Not available.
Oxidising properties 9.2. Other information Other information SECTION 10: Stability and rea 10.1. Reactivity	Not available. Inctivity The reactivity data for this product will be typical of those for the following class of materials:
Oxidising properties <u>9.2. Other information</u> Other information SECTION 10: Stability and real <u>10.1. Reactivity</u> Reactivity	Not available. Inctivity The reactivity data for this product will be typical of those for the following class of materials:
Oxidising properties 9.2. Other information Other information SECTION 10: Stability and real 10.1. Reactivity Reactivity 10.2. Chemical stability Stability 10.3. Possibility of hazardous in	Not available.
Oxidising properties 9.2. Other information Other information SECTION 10: Stability and real 10.1. Reactivity Reactivity 10.2. Chemical stability Stability	Not available.
Oxidising properties 9.2. Other information Other information SECTION 10: Stability and rea 10.1. Reactivity Reactivity 10.2. Chemical stability Stability 10.3. Possibility of hazardous Possibility of hazardous	Not available. Inctivity The reactivity data for this product will be typical of those for the following class of materials: Epoxides. Stable at normal ambient temperatures. reactions
Oxidising properties 9.2. Other information Other information SECTION 10: Stability and real 10.1. Reactivity Reactivity 10.2. Chemical stability Stability 10.3. Possibility of hazardous Possibility of hazardous reactions	Not available. Inctivity The reactivity data for this product will be typical of those for the following class of materials: Epoxides. Stable at normal ambient temperatures. reactions
Oxidising properties9.2. Other informationOther informationSECTION 10: Stability and read10.1. ReactivityReactivity10.2. Chemical stabilityStability10.3. Possibility of hazardousPossibility of hazardousreactions10.4. Conditions to avoidConditions to avoid10.5. Incompatible materials	Not available. intrivity The reactivity data for this product will be typical of those for the following class of materials: Epoxides. Stable at normal ambient temperatures. reactions Under normal conditions of storage and use, no hazardous reactions will occur. Avoid excessive heat for prolonged periods of time.
Oxidising properties9.2. Other informationOther informationSECTION 10: Stability and read10.1. ReactivityReactivity10.2. Chemical stabilityStability10.3. Possibility of hazardous reactions10.4. Conditions to avoid Conditions to avoid	Not available. Inctivity The reactivity data for this product will be typical of those for the following class of materials: Epoxides. Stable at normal ambient temperatures. Freactions Under normal conditions of storage and use, no hazardous reactions will occur.

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

Toxicological information on ingredients.

EPOXY RESIN

Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	5,000.0
Species	Rat
Notes (oral LD₅₀)	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	5,000.0
Acute toxicity - dermal	
Acute toxicity dermal (LD∞ mg/kg)	20,000.0
Species	Rabbit
ATE dermal (mg/kg)	20,000.0
Skin corrosion/irritation	
Animal data	Rabbit Moderately irritating.
Skin sensitisation	
Skin sensitisation	May cause sensitisation by skin contact.
Formaldehyde,	oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Acute toxicity - oral	
Notes (oral LD ₅₀)	LD₅₀ >5000 mg/kg, Oral, Rat
	2-ETHYL HEXYL GLYCIDYL ETHER
Acute toxicity - oral	
Notes (oral LD ₅₀)	LD₅₀ >5000 mg/kg, Oral, Rat
Acute toxicity - dermal	
Notes (dermal LD₅₀)	LD₅₀ >2000 mg/kg, Dermal, Rat
Acute toxicity - inhalation	
Notes (inhalation LC₅₀)	LC₅₀ (7 hr) 0.15 mg/l, Inhalation, Rat

SECTION 12: Ecological information			
Ecotoxicity		Dangerous for the environment. May cause long-term adverse effects in the aquatic environment.	
12.1. Toxic	ity		
Toxicity			
Ecological	Ecological information on ingredients.		
		EPOXY RESIN	
	Acute aquatic tox	icity	
	Acute toxicity - fis	h LC₅₀, 96 hours: 3.6 mg/l, Leuciscus idus (Golden orfe) LC₅₀, 96 hours: 2 mg/l, Oncorhynchus mykiss (Rainbow trout)	
	Acute toxicity - aq invertebrates	quatic EC₅₀, 48 hours: 1.8 mg/l, Daphnia magna	
	Acute toxicity - aq plants	quatic EC50, 72 hours: 11 mg/l, Scenedesmus capricornutum (fresh water algae)	
	Forma	aldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	
	Acute aquatic tox	icity	
	Acute toxicity - fis	h LC₅₀, 96 hours: >1000 mg/l, Oncorhynchus mykiss (Rainbow trout)	
	Acute toxicity - aq invertebrates	quatic EC₅₀, 48 hours: >1000 mg/l, Daphnia magna	
		2-ETHYL HEXYL GLYCIDYL ETHER	
	Acute aquatic toxi	icity	
	Acute toxicity - fis	h LC₅₀, 96 hours: 5000 mg/l, Oncorhynchus mykiss (Rainbow trout)	
	Acute toxicity - aq invertebrates	quatic EC ₅₀ , : 7.2 mg/l, Freshwater invertebrates	
	Acute toxicity - aq plants	quatic NOEC, 72 hours: 500 mg/l, Freshwater algae	
12.2. Persis	stence and degrada	bility	
Persistence	e and degradability	The product is not expected to be biodegradable.	
Ecological	Ecological information on ingredients.		
		EPOXY RESIN	
	Persistence and degradability	The product is not readily biodegradable.	
12.3. Bioac	cumulative potentia	<u>u</u>	
Bioaccumu	lative potential	No data available on bioaccumulation.	
Partition co	pefficient	Not applicable.	
Ecological	Ecological information on ingredients.		

EPOXY RESIN

Partition coefficier	nt log Pow: 3.242
Forma	aldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Partition coefficier	t : log Pow = Approximately 3.8 at 25 C
	2-ETHYL HEXYL GLYCIDYL ETHER
Partition coefficier	nt : 3.83
12.4. Mobility in soil	
Mobility	Not applicable.
Ecological information on ingre	dients.
	EPOXY RESIN
Mobility	The product has poor water-solubility.
Adsorption/desorp	vtion Water - Koc: 445 @ °C
coefficient	
12.5. Results of PBT and vPvB	
Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.
Ecological information on ingre	dients.
	EPOXY RESIN
Results of PBT ar assessment	Id vPvB This product does not contain any substances classified as PBT or vPvB.
12.6. Other adverse effects	
Other adverse effects	None known.
SECTION 13: Disposal conside	Prations
13.1. Waste treatment methods	
General information	Waste is classified as hazardous waste.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
SECTION 14: Transport inform	ation
14.1. UN number	
UN No. (ADR/RID)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082
14.2. UN proper shipping name	
Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Types A and F) (Number average MW <= 700))

Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Types A and F) (Number average MW <= 700))
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Types A and F) (Number average MW <= 700))
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Types A and F) (Number average MW <= 700))

14.3. Transport hazard class(es)

ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9
Transport labels	

14.4. Packing group	
ADR/RID packing group	Ш
IMDG packing group	Ш
ICAO packing group	Ш
ADN packing group	

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user		
EmS	F-A, S-F	
ADR transport category	3	
Emergency Action Code	•3Z	
Hazard Identification Number (ADR/RID)	90	
Tunnel restriction code	(E)	
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code		
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.	

SECTION 15: Regulatory information

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

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

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information	The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	30/08/2019
Revision	4b
Supersedes date	25/05/2017
SDS number	21562
Hazard statements in full	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.



SAFETY DATA SHEET NITOFLOR FC130 Hardener

SECTION 1: Identification o	SECTION 1: Identification of the substance/mixture and of the company/undertaking		
1.1. Product identifier			
Product name	NITOFLOR FC130 Hardener		
Product number	A1837102UK9, A1837162UK9, A1837802UK9		
1.2. Relevant identified uses	s of the substance or mixture and uses advised against		
Identified uses	Hardener component of two part epoxy system		
1.3. Details of the supplier of	of the safety data sheet		
Supplier	Fosroc Limited Drayton Manor Business Park Coleshill Road Tamworth Staffordshire B78 3XN England Tel: +44 (0) 1827 262222 Fax: +44 (0) 1827 262444 enquiryuk@fosroc.com		
1.4. Emergency telephone r	number		
Emergency telephone	+44 (0) 1827 265 279 (Monday-Sunday 24 hours a day)		
SECTION 2: Hazards identi	fication		
SECTION 2: Hazards identi 2.1. Classification of the sub			
	ostance or mixture		
2.1. Classification of the sub	ostance or mixture		
2.1. Classification of the sub Classification (EC 1272/200	ostance or mixture 18)		
2.1. Classification of the sub Classification (EC 1272/200 Physical hazards	Distance or mixture 18) Not Classified		
2.1. Classification of the sub Classification (EC 1272/200 Physical hazards Health hazards	ostance or mixture (8) Not Classified Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317		
2.1. Classification of the sub Classification (EC 1272/200 Physical hazards Health hazards Environmental hazards	Destance or mixture (8) Not Classified Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412 Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. The product contains a small amount of sensitising substance. May cause		
2.1. Classification of the sub Classification (EC 1272/200 Physical hazards Health hazards Environmental hazards Human health	Destance or mixture (8) Not Classified Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412 Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. The product contains a small amount of sensitising substance. May cause skin sensitisation or allergic reactions in sensitive individuals. The product contains a substance which is harmful to aquatic organisms and which may		
2.1. Classification of the sub Classification (EC 1272/200 Physical hazards Health hazards Environmental hazards Human health Environmental	Destance or mixture (8) Not Classified Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412 Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. The product contains a small amount of sensitising substance. May cause skin sensitisation or allergic reactions in sensitive individuals. The product contains a substance which is harmful to aquatic organisms and which may		
2.1. Classification of the sub Classification (EC 1272/200 Physical hazards Health hazards Environmental hazards Human health Environmental 2.2. Label elements	Destance or mixture (8) Not Classified Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412 Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. The product contains a small amount of sensitising substance. May cause skin sensitisation or allergic reactions in sensitive individuals. The product contains a substance which is harmful to aquatic organisms and which may		

Hazard statements	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects.
Precautionary statements	 P261 Avoid breathing vapour/ spray. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 Dispose of contents/ container in accordance with national regulations.
Contains	PENTAETHYLENEHEXAMINE
Supplementary precautionary statements	 P264 Wash contaminated skin thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/ attention. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P337+P313 If eye irritation persists: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

П

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

SECTION 3: Composition/information on ingredients		
3.2. Mixtures		
BARIUM SULPHATE		10-30%
CAS number: 7727-43-7	EC number: 231-784-4	
Classification Not Classified	Classification (67/548/EEC or 1999/45/EC) -	
SILICA FUME		1-5%
CAS number: 112945-52-5	EC number: 601-216-3	
Not Classified		

PENTAETHYLENEHEXAMINE			1-5%
CAS number: 4067-16-7	EC number: 223-775-9	REACH registration number: 01- 2119485826-22-0000	
M factor (Acute) = 1	M factor (Chronic) = 1		
Classification			
Acute Tox. 4 - H302			
Acute Tox. 4 - H312			
Skin Corr. 1B - H314			
Eye Dam. 1 - H318			
Skin Sens. 1 - H317			
Aquatic Acute 1 - H400			
Aquatic Chronic 1 - H410			

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

SECTION 4: First aid measures		
4.1. Description of first aid measures		
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.	
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention immediately.	
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.	
Eye contact	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention immediately.	
4.2. Most important symptoms	and effects, both acute and delayed	
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.	
Inhalation	Gas or vapour in high concentrations may irritate the respiratory system. Coughing, chest tightness, feeling of chest pressure.	
Ingestion	May cause discomfort if swallowed.	
Skin contact	May cause sensitisation by skin contact. May cause irritation.	
Eye contact	Irritating to eyes.	
4.3. Indication of any immedia	te medical attention and special treatment needed	
Notes for the doctor	Treat symptomatically.	
SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.	
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.	

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
5.3. Advice for firefighters	
Protective actions during firefighting	No specific firefighting precautions known.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
SECTION 6: Accidental release	se measures
6.1. Personal precautions, pro	tective equipment and emergency procedures
Personal precautions	Provide adequate ventilation. Avoid inhalation of vapours and contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet.
6.2. Environmental precaution	<u>s</u>
Environmental precautions	Avoid or minimise the creation of any environmental contamination.
6.3. Methods and material for	containment and cleaning up
Methods for cleaning up	Do not touch or walk into spilled material. Stop leak if safe to do so. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.
6.4. Reference to other section	ns
Reference to other sections	For personal protection, see Section 8. For waste disposal, see section 13.
SECTION 7: Handling and sto	rage
7.1. Precautions for safe hand	ling
Usage precautions	Provide adequate ventilation. Avoid inhalation of vapours/spray and contact with skin and eyes.
7.2. Conditions for safe storag	e, including any incompatibilities
Storage precautions	Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep only in the original container.
Storage class	Chemical storage.
7.3. Specific end use(s)	
Specific end use(s)	The identified uses for this product are detailed in Section 1.2.
SECTION 8: Exposure controls/Personal protection	
8.1. Control parameters Occupational exposure limits BARIUM SULPHATE	
Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust	
SILICA FUME	
Long-term exposure limit (8-hour TWA): ACGIH/TLV:0.1 mg/m3 res TLV - Threshold Limit Value 2.4 mg/m3 Resp. Dust WEL = Workplace Exposure Limit	

Ingredient comments WEL = Workplace Exposure Limits

PENTAETHYLENEHEXAMINE (CAS: 4067-16-7)

DNEL	Industry - Inhalation; Short term systemic effects: 8550 mg/m ³ Industry - Inhalation; Long term systemic effects: 1.59 mg/m ³ Industry - Dermal; Long term systemic effects: 0.4 mg/kg/day Industry - Dermal; Long term local effects: 0.044 mg/cm ² Industry - Dermal; Long term systemic effects: 0.91 mg/kg/day
PNEC	- Fresh water, marine water; 0.0025 mg/l - STP; 0.025 mg/l
8.2. Exposure controls	
Protective equipment	
Appropriate engineering controls	Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Wear tight-fitting, chemical splash goggles or face shield.
Hand protection	To protect hands from chemicals, gloves should comply with European Standard EN374. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. It is recommended that gloves are made of the following material: Nitrile rubber.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	Provide eyewash station and safety shower. Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap and water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.
Respiratory protection	No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs. Organic vapour filter.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Various colours.
Odour	Amine.
Odour threshold	Not determined.
pН	Not determined.
Melting point	Not determined.
Initial boiling point and range	>100°C @ 1 atm
Flash point	>110°C

Evaporation rate	Not determined.	
Evaporation factor	Not determined.	
Flammability (solid, gas)	Not applicable.	
Upper/lower flammability or explosive limits	Not applicable.	
Other flammability	Not determined.	
Vapour pressure	1 kPa @ 20°C	
Vapour density	Not determined.	
Relative density	1.25 @ at 20°C	
Bulk density	Not applicable.	
Solubility(ies)	Miscible with water.	
Auto-ignition temperature	Not determined.	
Decomposition Temperature	Not determined.	
Viscosity	Not determined.	
Explosive properties	Not considered to be explosive.	
Explosive under the influence of a flame	Not considered to be explosive.	
Oxidising properties	Does not meet the criteria for classification as oxidising.	
9.2. Other information		
Volatile organic compound	This product contains a maximum VOC content of 3 g/litre.	
SECTION 10: Stability and rea	ictivity	
10.1. Reactivity		
Reactivity	There are no known reactivity hazards associated with this product.	
10.2. Chemical stability		
Stability	Stable at normal ambient temperatures.	
10.3. Possibility of hazardous reactions		
Possibility of hazardous reactions	Hazardous reactions will not occur under normal transport or storage conditions.	
10.4. Conditions to avoid		
Conditions to avoid	Avoid excessive heat for prolonged periods of time. Temperatures below 5°C	
10.5. Incompatible materials		
Materials to avoid	Strong acids. Strong alkalis. Strong oxidising agents. Strong reducing agents.	
10.6. Hazardous decompositio	on products	
Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.	
SECTION 11: Toxicological int	formation	
11.1. Information on toxicological effects		

11.1. Information on toxicological effects

Toxicological effects	No information available.
Inhalation	Gas or vapour in high concentrations may irritate the respiratory system.
Ingestion	May cause discomfort if swallowed.
Skin contact	May cause sensitisation by skin contact. May cause irritation.
Eye contact	Irritating to eyes.

Toxicological information on ingredients.

PENTAETHYLENEHEXAMINE

Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	1,591.4
Species	Rat
ATE oral (mg/kg)	1,591.4
Acute toxicity - dermal	
Acute toxicity dermal (LD₅₀ mg/kg)	1,720.0
Species	Rabbit
ATE dermal (mg/kg)	1,720.0

SECTION 12: Ecological information

Ecotoxicity

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

12.1. Toxicity

Toxicity Ecotoxic to fish/daphnia/algae

Acute aquatic toxicity

Acute toxicity - fish Not determined.

Ecological information on ingredients.

SILICA FUME

Acute aquatic toxicity	
Acute toxicity - fish	LC₅₀, 96 hours: >10000 mg/l, Fish

Acute toxicity - aquatic	EC₅₀, 48 hours: >10000 mg/l, Daphnia magna
invertebrates	

PENTAETHYLENEHEXAMINE

Acute aquatic toxicity	
LE(C)50	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC₅₀, 96 hours: 180 mg/l, Poecilia reticulata (Guppy)

	Acute toxicity - ac invertebrates	quatic EC₅₀, 48 hours: 17.5 mg/l, Daphnia magna	
	Acute toxicity - ac plants	quatic EC₅₀, 72 hours: 0.7 mg/l, Pseudokirchneriella subcapitata	
	Chronic aquatic to	toxicity	
	M factor (Chronic	c) 1	
12.2. Persis	tence and degrada	ability	
Persistence	and degradability	The product is not expected to be biodegradable.	
12.3. Bioacc	cumulative potentia	al	
Bioaccumula	ative potential	Not expected to be bioaccumulative.	
12.4. Mobilit	y in soil		
Mobility		Mobile. Partially soluble in water.	
12.5. Result	s of PBT and vPvE	B assessment	
Results of P assessment	BT and vPvB	This product does not contain any substances classified as PBT or vPvB.	
12.6. Other	adverse effects		
Other adver	se effects	Not known.	
SECTION 1	3: Disposal conside	lerations	
13.1. Waste	treatment method	ls	
General info	ormation	When handling waste, the safety precautions applying to handling of the product should be considered.	
Disposal me	ethods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.	
SECTION 14: Transport information			
General		The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).	
14.1. UN nu	mber		
Not applicat			
	oper shipping name	IE CONTRACTOR OF CONTRACTOR	
Not applicable.			
14.3. Transport hazard class(es)			
No transport warning sign required.			
14.4. Packing group			
Not applicat			
14.5. Enviro	nmental hazards		
Environmentally hazardous substance/marine pollutant No.			

Not applicable.

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

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

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture		
National regulations	Control of Substances Hazardous to Health Regulations 2002 (as amended).	
EU legislation	 Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015. 	
Guidance	Workplace Exposure Limits EH40. Approved Classification and Labelling Guide (Sixth edition) L131.	

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information	
General information	For professional users only. The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision. Revised classification.
Revision date	30/08/2019
Revision	5
Supersedes date	06/06/2015
SDS number	12390
Hazard statements in full	 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. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.