SAFETY DATA SHEET
NITOCOTE EP403 Base

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

1.1. Product identifier

Product name NITOCOTE EP403 Base

Product number A1753088UK9, A1753075UK9

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

Identified uses Base component of two part epoxy coating.

1.3. Details of the supplier of the safety data sheet

Supplier

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

1.4. Emergency telephone number

Emergency telephone +44 (0) 1827 265 279 (08.30 to 17.00hrs Mon - Thu; 0.8.30 to 16.00hrs Fri)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT RE 2 - H373

Environmental hazards Aquatic Chronic 2 - H411

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

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

2.2. Label elements

Pictogram

Signal word Warning

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Hazard statements	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H373 May cause damage to organs through prolonged or repeated exposure if inhaled. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P260 Do not breathe 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.
Supplemental label information	EUH205 Contains epoxy constituents. May produce an allergic reaction.
Contains	EPOXY RESIN (Type A) (Number average MW <= 700), EPOXY RESIN (Type F) (Number average MW <= 700), SILICA FLOUR (4-50 Micron), ALKYL GLYCIDYL ETHER C12/C14
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. P314 Get medical advice/ attention if you feel unwell. 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. P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

MICA POWDER **10-30%**

CAS number: 12001-26-2

Classification	Classification (67/548/EEC or 1999/45/EC)
Not Classified	-

EPOXY RESIN (Type A) (Number average MW <= 700) **10-30%**

CAS number: 25068-38-6 EC number: 500-033-5

Classification

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

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EPOXY RESIN (Type F) (Number average MW <= 700) **10-30%**

CAS number: 9003-36-5

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

Classification (67/548/EEC or 1999/45/EC)
R43 Xi;R36/38 N;R51/53

SILICA FLOUR (4-50 Micron) **10-30%**

CAS number: 14808-60-7

Classification
STOT RE 2 - H373

Classification (67/548/EEC or 1999/45/EC)
-

ALKYL GLYCIDYL ETHER C12/C14 **10-30%**

CAS number: 68609-97-2 EC number: 271-846-8

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

Classification (67/548/EEC or 1999/45/EC)
Xi;R38. R43.

TITANIUM DIOXIDE **10-30%**

CAS number: 13463-67-7 EC number: 236-675-5

Classification
Not Classified

SILICA FUME **<1%**

CAS number: 112945-52-5

Classification
Not Classified

XYLENE **<1%**

CAS number: 1330-20-7 EC number: 215-535-7 REACH registration number: 01-2119488216-32-0000

Classification
Flam. Liq. 3 - H226
Acute Tox. 4 - H312
Acute Tox. 4 - H332
Skin Irrit. 2 - H315

PROPYLENE GLYCOL **<1%**

CAS number: 57-55-6 EC number: 200-338-0

Classification
Not Classified

Classification (67/548/EEC or 1999/45/EC)
-

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ISO-BUTANOL	<1%
CAS number: 78-83-1	EC number: 201-148-0

Classification
Flam. Liq. 3 - H226
Skin Irrit. 2 - H315
Eye Dam. 1 - H318
STOT SE 3 - H335, H336

SILICA (HYDROPHOBIC)	<1%
CAS number: 67762-90-7	

Classification	Classification (67/548/EEC or 1999/45/EC)
Not Classified	-

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Get medical attention if any discomfort continues.

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

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

Notes for the doctor No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

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

5.2. Special hazards arising from the substance or mixture

Specific hazards No unusual fire or explosion hazards noted.

Hazardous combustion products Oxides of carbon. 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 Use protective equipment appropriate for surrounding materials. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

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

Storage class Chemical storage.

7.3. Specific end use(s)

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

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

MICA POWDER

Long-term exposure limit (8-hour TWA): WEL 0,8 mg/m³

TITANIUM DIOXIDE

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³

SILICA FUME

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Long-term exposure limit (8-hour TWA): TLV - Threshold Limit Value 2.4 mg/m3 Resp. Dust

XYLENE

Long-term exposure limit (8-hour TWA): WEL 50 ppm 220 mg/m³
Short-term exposure limit (15-minute): WEL 100 ppm 441 mg/m³
Sk

PROPYLENE GLYCOL

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ particulate
Long-term exposure limit (8-hour TWA): WEL 150 ppm 474 mg/m³ total vapour and particulates

ISO-BUTANOL

Long-term exposure limit (8-hour TWA): WEL 50 ppm 154 mg/m³
Short-term exposure limit (15-minute): WEL 75 ppm 231 mg/m³

SILICA (HYDROPHOBIC)

Long-term exposure limit (8-hour TWA): WEL 4 mg/m3 Inhal. Dust 10 mg/m3 Resp. Dust

WEL = Workplace Exposure Limit
Sk = Can be absorbed through the skin.

Ingredient comments WEL = Workplace Exposure Limits

EPOXY RESIN (Type A) (Number average MW <= 700) (CAS: 25068-38-6)

DNEL
Workers - Inhalation; Short term systemic effects: 12.25 mg/m³
Workers - Inhalation; Long term systemic effects: 12.25 mg/m³

PNEC
- Fresh water; 0.006 mg/l

EPOXY RESIN (Type F) (Number average MW <= 700) (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

ALKYL GLYCIDYL ETHER C12/C14 (CAS: 68609-97-2)

DNEL
Workers - Inhalation; Long term systemic effects: 3.6 mg/m³
Workers - Dermal; Long term systemic effects: 1 mg/kg/day

PNEC
- Fresh water; 0.0072 mg/l
- Marine water; 0.00072 mg/l

TITANIUM DIOXIDE (CAS: 13463-67-7)

DNEL
Industry - Inhalation; Long term local effects: 10 mg/m³
Consumer - Oral; Long term systemic effects: 700 mg/kg/day

PNEC
- Fresh water; 0.127 mg/l
- Sediment (Freshwater); >=1000 mg/kg
- Marine water; 1 mg/l
- Sediment (Marinewater); >= 100 mg/kg
- Soil; 100 mg/kg
- STP; 100 mg/l

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XYLENE (CAS: 1330-20-7)

DNEL	Workers - Inhalation; Long term systemic effects: 77 mg/m³ Workers - Inhalation; Short term systemic effects: 289 mg/m³ Workers - Dermal; Long term systemic effects: 180 mg/kg/day
PNEC	- Fresh water; 0.327 mg/l - Marine water; 0.327 mg/l - STP; 6.58 mg/l

ISO-BUTANOL (CAS: 78-83-1)

DNEL	Workers - Inhalation; Long term local effects: 310 mg/m³
PNEC	- Fresh water; 0.4 mg/l - Marine water; 0.04 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.
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.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour	Grey. White/off-white.
Odour	Slight / faint.
Odour threshold	Not determined.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	Not determined.

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Flash point	> 150°C CC (Closed cup).
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	<0.40 kPa @ 20°C
Vapour density	Not determined.
Relative density	1.90 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not determined.
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The following materials may react with the product: Amino, hydroxyl or carboxyl groups

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

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

10.4. Conditions to avoid

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

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

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Hazardous decomposition products	Fire creates: Carbon monoxide (CO). Carbon dioxide (CO2). Irritant fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD_{50})	3730 mg/kg (rat) The toxological assessment is based on a knowledge of the toxicity of the product's components.

Skin corrosion/irritation

Animal data	Irritating.

Serious eye damage/irritation

Serious eye damage/irritation	Moderately irritating.

Skin sensitisation

Skin sensitisation	Sensitising.

Inhalation	Gas or vapour may irritate the respiratory system.
Ingestion	May cause discomfort if swallowed. May cause irritation of mouth, throat and digestive tract.
Skin contact	Irritating to skin. May cause sensitisation by skin contact.
Eye contact	Irritating to eyes.
Acute and chronic health hazards	Repeated and prolonged skin contact may lead to skin disorders.
Route of entry	Skin and/or eye contact

EPOXY RESIN (Type A) (Number average MW <= 700)

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	5,000.0
Species	Rat
Notes (oral LD_{50})	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	5,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} 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.

EPOXY RESIN (Type F) (Number average MW <= 700)

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Acute toxicity - oral

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

SECTION 12: Ecological Information

Ecotoxicity Dangerous for the environment. The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Toxicity Toxic to aquatic organisms.

EPOXY RESIN (Type A) (Number average MW <= 700)

Acute toxicity - fish LC_{50}, 96 hours: 3.6 mg/l, Leuciscus idus (Golden orfe)
LC_{50}, 96 hours: 2 mg/l, Onchorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC_{50}, 48 hours: 1.8 mg/l, Daphnia magna

Acute toxicity - aquatic plants ErC50, 72 hours: 11 mg/l, Scenedesmus capricornutum (fresh water algae)

EPOXY RESIN (Type F) (Number average MW <= 700)

Acute toxicity - fish LC_{50}, 96 hours: >1000 mg/l, Onchorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC_{50}, 48 hours: >1000 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability The product is not readily biodegradable.

EPOXY RESIN (Type A) (Number average MW <= 700)

Persistence and degradability The product is not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential The product contains potentially bioaccumulating substances.

Partition coefficient Not applicable.

EPOXY RESIN (Type A) (Number average MW <= 700)

Partition coefficient log Pow: 3.242

EPOXY RESIN (Type F) (Number average MW <= 700)

Partition coefficient : log Pow = Approximately 3.8 at 25 C

12.4. Mobility in soil

Mobility The product is insoluble in water.

EPOXY RESIN (Type A) (Number average MW <= 700)

Mobility Potential for mobility is low.

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Adsorption/desorption coefficient	Water - Koc: 445 @ °C

12.5. Results of PBT and vPvB assessment

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

EPOXY RESIN (Type A) (Number average MW <= 700)

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

12.6. Other adverse effects

Other adverse effects	None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	Waste is classified as hazardous waste.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

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. (EPOXY RESINS (Type A & F) (Number average MW <= 700), ALKYLS GLYCIDYL ETHER C12/14)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESINS (Type A & F) (Number average MW <= 700), ALKYLS GLYCIDYL ETHER C12/14)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESINS (Type A & F) (Number average MW <= 700), ALKYLS GLYCIDYL ETHER C12/14)
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESINS (Type A & F) (Number average MW <= 700), ALKYLS GLYCIDYL ETHER C12/14)

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

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Transport labels

14.4. Packing group

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

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 453/2010 of 20 May 2010.
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

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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	25/05/2017
Revision	4a
Hazard statements in full	H226 Flammable liquid and vapour. H312 Harmful in contact with skin. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H373 May cause damage to organs through prolonged or repeated exposure if inhaled. H373 May cause damage to organs (Lungs) through prolonged or repeated exposure if inhaled. H411 Toxic to aquatic life with long lasting effects.
Supersedes date	06/06/2015
SDS number	12320

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.