



SAFETY DATA SHEET

NITOPROOF 800 MEMBRANE RESIN

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

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

1.1. Product identifier

Product name NITOPROOF 800 MEMBRANE RESIN
Product number 1970500 UK9

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

Identified uses Base component of polyurethane based flooring.

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 number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified
Health hazards Not Classified
Environmental hazards Not Classified

Human health See Section 11 for additional information on health hazards.

Environmental The product is not expected to be hazardous to the environment.

2.2. Label elements

Hazard statements NC Not Classified

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

NITOPROOF 800 MEMBRANE RESIN

ACETYLACETONE	0.5 - 1%
CAS number: 123-54-6	
Classification	
Flam. Liq. 3 - H226	
Acute Tox. 4 - H302	
Acute Tox. 3 - H311	
Acute Tox. 3 - H331	

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	No specific recommendations. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Keep affected person under observation.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing immediately and wash skin with soap and water.
Eye contact	Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention.

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

General information	No specific symptoms noted.
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4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with the following media: Foam, carbon dioxide or dry powder. Dry chemicals, sand, dolomite etc.
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5.2. Special hazards arising from the substance or mixture

Specific hazards	During fire, gases hazardous to health may be formed. No unusual fire or explosion hazards noted.
Hazardous combustion products	Carbon dioxide (CO ₂). Carbon monoxide (CO).

5.3. Advice for firefighters

Protective actions during firefighting	Move containers from fire area if it can be done without risk. No specific firefighting precautions known. Control run-off water by containing and keeping it out of sewers and watercourses.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	For personal protection, see Section 8.
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6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. For waste disposal, see Section 13.

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. Good personal hygiene procedures should be implemented.

7.2. Conditions for safe storage, including any incompatibilities

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

Storage class 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

ACETYLACETONE (CAS: 123-54-6)

DNEL	Workers - Inhalation; Long term systemic effects: 84 mg/m ³ Workers - Dermal; Long term systemic effects: 12 mg/kg bw/day General population - Oral; Long term systemic effects: 7 mg/kg bw/day
PNEC	- Fresh water; 0.2 mg/l Aqua - marine water; 0.02 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles.

Hand protection

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

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

Respiratory protection No specific recommendations.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Black.
Odour	Characteristic.
Odour threshold	Not determined.
pH	Not applicable.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	Not applicable.
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	The product is not flammable.
Other flammability	Not applicable.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	Not determined.
Bulk density	Not applicable.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not determined.
Viscosity	Not determined.
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

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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 None known.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects This product has low toxicity.

Acute toxicity - oral

ATE oral (mg/kg) 50,000.0

Acute toxicity - dermal

ATE dermal (mg/kg) 30,000.0

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l) 50.0

General information No specific health hazards known.

Medical symptoms No specific symptoms noted, but this chemical may still have adverse health impact, either in general or on certain individuals.

Toxicological information on ingredients.

ACETYLACETONE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 760 mg/kg bw, Oral, Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ 790 mg/kg bw, Dermal, Rabbit

ATE dermal (mg/kg) 300.0

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ 1224 ppm, Inhalation, Rat

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ATE inhalation 0.5
(dusts/mists mg/l)

SECTION 12: Ecological information

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity Not expected to be ecotoxic to fish/daphnia/algae

Ecological information on ingredients.

ACETYLACETONE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 175 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 75 mg/l, Daphnia magna
EC₅₀, 14 days: 1 mg/l, Daphnia pulex

Acute toxicity - aquatic plants EC₅₀, 72 hours: 8.36 mg/l, Pseudokirchnerella subcapitata

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

12.4. Mobility in soil

Mobility No data available.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

Other adverse effects Not known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

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

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 number

Not applicable.

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14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

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

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. Respiratory protective equipment at work (HSG53).
Authorisations (Annex XIV Regulation 1907/2006)	No specific authorisations are known for this product.
Restrictions (Annex XVII Regulation 1907/2006)	No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information	Only trained personnel should use this material. For professional users only.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	11/11/2019
Revision	2b
Supersedes date	12/11/2015
SDS number	23510

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Hazard statements in full

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H331 Toxic if inhaled.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



SAFETY DATA SHEET NITOPROOF 800 MEMBRANE HARDENER

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

1.1. Product identifier

Product name NITOPROOF 800 MEMBRANE HARDENER

Product number 1970500 H UK9

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

Identified uses Hardener component for Polyurethane based floor-coating system.

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 number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Carc. 2 - H351 STOT SE 3 - H335 STOT RE 2 - H373

Environmental hazards Not Classified

Human health

Heating may generate vapours which irritate the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. May cause drowsiness or dizziness.

2.2. Label elements

Hazard pictograms



Signal word

Danger

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Hazard statements	<p>H315 Causes skin irritation.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H319 Causes serious eye irritation.</p> <p>H332 Harmful if inhaled.</p> <p>H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p> <p>H335 May cause respiratory irritation.</p> <p>H351 Suspected of causing cancer.</p> <p>H373 May cause damage to organs through prolonged or repeated exposure.</p>
Precautionary statements	<p>P260 Do not breathe vapour/ spray.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Contains	<p>4,4'-Methylenediphenyl diisocyanate, DIPHENYLMETHANE DIISOCYANATE</p>
Supplementary precautionary statements	<p>P201 Obtain special instructions before use.</p> <p>P202 Do not handle until all safety precautions have been read and understood.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P284 [In case of inadequate ventilation] wear respiratory protection.</p> <p>P308+P313 IF exposed or concerned: Get medical advice/ attention.</p> <p>P312 Call a POISON CENTRE/doctor if you feel unwell.</p> <p>P314 Get medical advice/ attention if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p>

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

NITOPROOF 800 MEMBRANE HARDENER

4,4'-METHYLENEDIPHENYL DIISOCYANATE	60 - 70%
CAS number: 101-68-8	EC number: 202-966-0
Classification Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Carc. 2 - H351 STOT SE 3 - H335 STOT RE 2 - H373	
DIPHENYLMETHANE DIISOCYANATE	20 - 30%
CAS number: 9016-87-9	EC number: 618-498-9
Classification Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Carc. 2 - H351 STOT SE 3 - H335 STOT RE 2 - H373	

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	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention immediately.
Skin contact	Remove affected person from source of contamination. Wash immediately with copious quantities of water. Remove contaminated clothing immediately. Obtain medical advice if skin orders develop.
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. Show this Safety Data Sheet to the medical personnel.

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	Irritation of nose, throat and airway. May cause sensitisation by inhalation.
Ingestion	Harmful if swallowed.
Skin contact	May cause sensitisation by skin contact. Symptoms following overexposure may include the following: Redness. Dryness and/or cracking.

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Eye contact Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. May cause blurred vision and serious eye damage.

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

Notes for the doctor Treatment of acute irritation or bronchial constriction is primarily symptomatic.

Specific treatments Treatment:- Treat according to symptoms (decontamination, vital functions), no known specific antidote, administer corticosteroid dose aerosol to prevent pulmonary edema.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide or dry powder. Larger fires: Water spray.

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 Closed containers can burst violently when heated, due to excess pressure build-up. No unusual fire or explosion hazards noted.

Hazardous combustion products Heating may generate the following products: Carbon monoxide (CO). Oxides of nitrogen. Isocyanates.

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Control run-off water by containing and keeping it out of sewers and watercourses.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure suitable respiratory protection is worn during removal of spillages in confined areas. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Do not 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 Remove mechanically; cover the remainder with wet, absorbent material (e.g. sawdust, chemical binder based on calcium silicate hydrate, sand). After approx. one hour transfer to waste container and do not seal (evolution of CO₂!). Keep damp in a safe ventilated area for several days. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Spill area can be decontaminated with 10% sodium carbonate, 2% detergent solution in water.

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

NITOPROOF 800 MEMBRANE HARDENER

Usage precautions

Provide adequate general and local exhaust ventilation. Avoid inhalation of vapours and spray/mists. Avoid contact with skin, eyes and clothing. Observe any occupational exposure limits for the product or ingredients. Avoid spilling. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Do not eat, drink or smoke when using this product.

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. Protect from moisture.

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

4,4'-METHYLENEDIPHENYL DIISOCYANATE

Long-term exposure limit (8-hour TWA): 0.02 mg/m³

as -NCO

Sen

Short-term exposure limit (15-minute): 0.07 mg/m³

DIPHENYLMETHANE DIISOCYANATE

Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m³

Short-term exposure limit (15-minute): WEL 0.07 mg/m³

WEL = Workplace Exposure Limit

Sen = Capable of causing occupational asthma.

4,4'-METHYLENEDIPHENYL DIISOCYANATE (CAS: 101-68-8)

DNEL

Industrial - Dermal; Acute systemic effects: 50 mg/kg
 Industrial - Inhalative; Acute local effects: 0.1 mg/m³
 Industrial - Inhalative; Long term local effects: 0.05 mg/m³
 Industrial - Inhalative; Acute systemic effects: 0.1 mg/m³
 Industrial - Dermal; Acute local effects: 28.7 mg/cm²
 Industrial - Inhalative; Long term systemic effects: 0.05 mg/m³

PNEC

- STP; 1 mg/l
 - Soil; 1 mg/kg
 - marine water; 0.1 mg/l
 - Fresh water; 1 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

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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: Wear tight-fitting, chemical splash goggles or face shield.
Hand protection	Wear protective gloves made of the following material: Chloroprene rubber. Nitrile rubber. Viton rubber (fluoro rubber). Butyl rubber. The selected gloves should have a breakthrough time of at least 4 hours. 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 liquid contact and repeated or prolonged vapour contact.
Hygiene measures	Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. 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	If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Gas filter, type A2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Yellowish.
Odour	earthy, musty
Odour threshold	Not available.
pH	Not applicable.
Melting point	No information available.
Initial boiling point and range	>200°C @ 101 kPa
Flash point	200°C
Evaporation rate	Not available.
Evaporation factor	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Not available.
Other flammability	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.
Bulk density	Not available.
Solubility(ies)	Not available.
Partition coefficient	Not determined.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.

NITOPROOF 800 MEMBRANE HARDENER

Viscosity Not available.

Explosive properties Not available.

Explosive under the influence of a flame Not available.

Oxidising properties Not available.

9.2. Other information

Other information No additional information.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The following materials may react with the product: Water, forming CO₂; in closed containers, risk of bursting owing to pressure increase. The reactivity data for this product will be typical of those for the following class of materials: Isocyanates.

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Reacts with water, with formation of carbon dioxide. Reacts with substances which contain active hydrogen.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Materials to avoid Water, Alcohols, Amines, Bases and Acids.

10.6. Hazardous decomposition products

Hazardous decomposition products No hazardous decomposition products when stored and handled correctly. Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂). Hydrogen cyanide (HCN). Nitrous gases (NO_x). Hydrocarbons. Isocyanates.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l) 1.5

Inhalation Harmful by inhalation. May cause respiratory system irritation. May cause sensitisation by inhalation.

Ingestion Harmful if swallowed.

Skin contact Harmful in contact with skin. Irritating to skin. May cause sensitisation by skin contact.

Eye contact Irritating to eyes.

Target organs Skin Eyes Respiratory system, lungs

Toxicological information on ingredients.

4,4'-METHYLENEDIPHENYL DIISOCYANATE

NITOPROOF 800 MEMBRANE HARDENER

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >10000 mg/kg, Oral, Rat LD₅₀ 100 mg/kg, Oral, Rabbit

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >9400 mg/kg, Dermal, Rabbit (OECD 402)

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Inhalative, Conversion value: 1.5 mg/l/4h (Dust/mist) LC₅₀ 0.368 mg/l/4hr, Inhalative, Rat LC₅₀ 0.49 mg/l/4hr, Inhalative, (Mist), Rat NOAEL 12 mg/m³, Inhalative, Rat (OECD 403) (OECD 414 Prenatal Development Toxicity study)

ATE inhalation (dusts/mists mg/l) 1.5

DIPHENYLMETHANE DIISOCYANATE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >10000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >9400 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 0.31

Species Rat

Notes (inhalation LC₅₀) The substance was tested in a form that is different from the forms in which the substance is placed on the market and which it can reasonably be expected to be used. Therefore a modified classification is justified.

ATE inhalation (dusts/mists mg/l) 1.5

Skin sensitisation

Skin sensitisation Local Lymph Node Assay (LLNA) - Mouse: Sensitising.

Carcinogenicity

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

SECTION 12: Ecological information

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment. Do not allow to escape into waterways, wastewater, ground water, sewage treatment or soil.

12.1. Toxicity

Ecological information on ingredients.

4,4'-METHYLENEDIPHENYL DIISOCYANATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >1000 mg/l, Danio rerio (OECD 203)

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Acute toxicity - aquatic plants EC₅₀, 72 hours: >1640 mg/l, Scenedesmus subspicatus (OECD 201)
 EC₅₀, 24 hours: >1000 mg/l, Daphnae (OECD 202)

DIPHENYLMETHANE DIISOCYANATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: > 1000 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: > 1000 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: >1640 mg/l, Scenedesmus subspicatus

Acute toxicity - microorganisms EC₅₀, 3 hours: >100 mg/l, Activated sludge

12.2. Persistence and degradability

Ecological information on ingredients.

DIPHENYLMETHANE DIISOCYANATE

Persistence and degradability The product is not biodegradable.

Stability (hydrolysis) - Half-life : 20 hours @ 25°C
 Hydrolyses rapidly in water.

12.3. Bioaccumulative potential

Partition coefficient Not determined.

Ecological information on ingredients.

4,4'-METHYLENEDIPHENYL DIISOCYANATE

Bioaccumulative potential BCF: 200,

Partition coefficient log Pow: 4.51

DIPHENYLMETHANE DIISOCYANATE

Bioaccumulative potential Reacts with water.

12.4. Mobility in soil

Mobility No data available.

12.5. Results of PBT and vPvB assessment

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

Ecological information on ingredients.

DIPHENYLMETHANE DIISOCYANATE

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

12.6. Other adverse effects

NITOPROOF 800 MEMBRANE HARDENER

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Note that fully cured material is not considered 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

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

Road transport notes Not classified.

Rail transport notes Not classified.

Sea transport notes Not classified.

Air transport notes Not classified.

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Not applicable.

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

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

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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. Introduction to Local Exhaust Ventilation HS(G)37.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information	Only trained personnel should use this material. For professional users only.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	11/11/2019
Revision	2a
Supersedes date	11/11/2015
SDS number	23499
Hazard statements in full	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H351 Suspected of causing cancer. H351 Suspected of causing cancer by inhalation. H373 May cause damage to organs through prolonged or repeated exposure. H373 May cause damage to organs (Respiratory system, lungs) through prolonged or repeated exposure if inhaled.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.