



SAFETY DATA SHEET NITOBOND EP BASE

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

1.1. Product identifier

Product name NITOBOND EP BASE
Product number A1711113UK9, A1711115UK9, A1711391UK9

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

Identified uses Base Component of Two-Part Epoxy Bonding 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 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317
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

Hazard pictograms



Signal word Warning

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Hazard statements	H315 Causes skin irritation. H319 Causes serious eye irritation. H317 May cause an allergic skin reaction. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	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	EPOXY RESIN (Type A) (Number average MW ≤ 700), EPOXY RESIN (Type F) (Number average MW ≤ 700)
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. 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 substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)	30-60%
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	30-60%
CAS number: 9003-36-5 EC number: 500-006-8	
Classification Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	

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DI-ISO-DECYL PHTHALATE	5-10%
CAS number: 68515-49-1	EC number: 271-091-4
Classification Not Classified	
TITANIUM DIOXIDE	5-10%
CAS number: 13463-67-7	EC number: 236-675-5
	REACH registration number: 01-2119489379-17-XXXX
Classification Not Classified	
CALCIUM CARBONATE (STEARATE COATED)	5-10%
CAS number: 471-34-1	EC number: 207-439-9
Classification Not Classified	Classification (67/548/EEC or 1999/45/EC) -

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. 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	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 10 minutes. Remove affected person from source of contamination.

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	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

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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

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 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 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 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

DI-ISO-DECYL PHTHALATE

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³

TITANIUM DIOXIDE

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

Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust

CALCIUM CARBONATE (STEARATE COATED)

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

WEL = Workplace Exposure Limit

Ingredient comments WEL = Workplace Exposure Limits

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 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

Formaldehyde, 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

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

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. 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. Wear protective gloves made of the following material: Butyl rubber. Nitrile rubber. Polyvinyl chloride (PVC).

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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	White.
Odour	Mild.
Odour threshold	Not determined.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	>150°C 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	<0.1 kPa @ 20°C
Vapour density	Not determined.
Relative density	1.12 @ at 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

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Other information No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The reactivity data for this product will be typical of those for the following class of materials:
Epoxides.

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions 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 Strong acids. Strong alkalis. Strong oxidising agents.

10.6. Hazardous decomposition products

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

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

SECTION 12: Ecological information

Ecotoxicity Dangerous for the environment. May cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Toxicity Ecotoxic to fish/daphnia/algae

12.2. Persistence and degradability

Persistence and degradability The product is not expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential The product contains potentially bioaccumulating substances.

Partition coefficient Not applicable.

12.4. Mobility in soil

Mobility The product is immiscible with water and will sediment in water systems.

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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 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. (CONTAINS EPOXY RESIN (Type A) (Number average MW <= 700), EPOXY RESIN (Type F) (Number average MW <= 700))

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

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

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



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14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN 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	(-)

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.

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Revision date	07/10/2019
Revision	5b
Supersedes date	03/12/2018
SDS number	12436
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 NITOBOND EP HARDENER

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

1.1. Product identifier

Product name NITOBOND EP HARDENER
Product number A1711114UK9, A1711116UK9, A1711392UK9

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

Identified uses Hardener Component of Two-Part Epoxy Bonding 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 Skin Corr. 1B - H314 Eye Irrit. 2 - H319 Skin Sens. 1 - H317
Environmental hazards Not Classified

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

2.2. Label elements

Hazard pictograms



Signal word Danger

Hazard statements H314 Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.

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Precautionary statements	<p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</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>POLYMER OF C-18 UNSATURATED FATTY ACID DIMER WITH TRIETHYLENETETRAMINE & TALL OIL FATTY ACIDS, N'-(3AMINOPROPYL)-N,N-DIMETHYLPROPANE-1,3-DIAMINE</p>
Supplementary precautionary statements	<p>P260 Do not breathe vapour/ spray.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</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>P310 Immediately call a POISON CENTER/ doctor.</p> <p>P321 Specific treatment (see medical advice on this label).</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>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P405 Store locked up.</p>

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

POLYMER OF C-18 UNSATURATED FATTY ACID DIMER WITH TRIETHYLENETETRAMINE & TALL OIL FATTY ACIDS	50-100%
CAS number: 68082-29-1 EC number: 500-191-5	
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	
BENZYL ALCOHOL	10-30%
CAS number: 100-51-6 EC number: 202-859-9 REACH registration number: 01-2119492630-38-xxxx	
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H332 Eye Irrit. 2 - H319 Aquatic Chronic 2 - H411	

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N'-(3AMINOPROPYL)-N,N-DIMETHYLPROPANE-1,3-DIAMINE	5-10%
CAS number: 10563-29-8	EC number: 234-148-4
Classification	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
Skin Sens. 1 - H317	

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. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. 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. Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur 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	Upper respiratory irritation. Coughing, chest tightness, feeling of chest pressure.
Ingestion	May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.
Skin contact	Chemical burns.
Eye contact	Irritation, burning, lachrymation, blurred vision after liquid splash.

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 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

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. Oxides of nitrogen.

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5.3. Advice for firefighters

Protective actions during firefighting Containers close to fire should be removed or cooled with water.

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 Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Do not breathe vapour.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Contain spillage with sand, earth or other suitable non-combustible material.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Avoid contamination of ponds or watercourses with washing down 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

Usage precautions Provide adequate ventilation. Avoid contact with skin and eyes. Avoid the formation of mists. Do not use in confined spaces without adequate ventilation and/or respirator.

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 Corrosive 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

BENZYL ALCOHOL (CAS: 100-51-6)

DNEL	Workers - Inhalation; Short term systemic effects: 110 mg/m ³ Workers - Inhalation; Long term systemic effects: 22 mg/m ³ Workers - Dermal; Short term systemic effects: 40 mg/kg bw/day Workers - Dermal; Long term systemic effects: 8 mg/kg bw/day
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PNEC	- Fresh water; 1 mg/l - marine water; 0.1 mg/l - STP; 39 mg/l
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N'-(3AMINOPROPYL)-N,N-DIMETHYLPROPANE-1,3-DIAMINE (CAS: 10563-29-8)

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DNEL	Workers - Inhalation; Long term local effects, systemic effects: 3.7 mg/m ³ Workers - Inhalation; Long term local effects, systemic effects: 7.5 mg/m ³ Workers - Dermal; Long term systemic effects: 0.67 mg/kg/day
PNEC	- Fresh water; 9.2 µg/l - marine water; 0.92 µg/l - STP; 18.1 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

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. Wear protective gloves made of the following material: Nitrile rubber. Viton rubber (fluoro rubber). Polyvinylidene chloride/polyethylene (PVDC/PE).

Other skin and body protection

Wear apron or protective clothing in case of contact.

Hygiene measures

Provide eyewash station and safety shower. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes wet or contaminated.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. In confined or poorly-ventilated spaces, a supplied-air respirator must be worn. Gas filter, type A2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Green.
Odour	Amine.
Odour threshold	Not determined.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	> 200°C @ 1 atm
Flash point	130°C
Evaporation factor	Not determined.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 13% Lower flammable/explosive limit: 1.3%
Other flammability	Not determined.

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Vapour pressure	0.01 kPa @ 20°C
Vapour density	Not determined.
Relative density	1.15 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	335°C
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

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 Not determined. Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid Avoid heat.

10.5. Incompatible materials

Materials to avoid Strong acids. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Ammonia or amines. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 3,168.92

Acute toxicity - dermal

ATE dermal (mg/kg) 11,275.11

Acute toxicity - inhalation

ATE inhalation (gases ppm) 23,062.73

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ATE inhalation (vapours mg/l) 56.38

ATE inhalation (dusts/mists mg/l) 7.69

Inhalation	May cause respiratory system irritation.
Ingestion	Causes burns. May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.
Skin contact	Product has a defatting effect on skin. May cause allergic contact eczema. May cause sensitisation by skin contact. Causes burns. Harmful in contact with skin.
Eye contact	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. Risk of serious damage to eyes.
Acute and chronic health hazards	May cause sensitisation by skin contact.
Route of exposure	Inhalation Ingestion. Skin and/or eye contact

Toxicological information on ingredients.

BENZYL ALCOHOL

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,620.0

Species Rat

ATE oral (mg/kg) 1,620.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rabbit

ATE dermal (mg/kg) 2,001.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 4.178

Species Rat

ATE inhalation (dusts/mists mg/l) 4.178

Skin sensitisation

Skin sensitisation Not sensitising.

Carcinogenicity

Carcinogenicity NOAEL 200 mg/kg/day, Oral, Mouse There is no evidence that the product can cause cancer.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 400 mg/kg, Oral, Rat

NITOBOND EP HARDENER

General information	Contact physician if discomfort continues..
Inhalation	May cause coughing and difficulties in breathing.
Ingestion	May cause burns in mucous membranes, throat, oesophagus and stomach.
Skin contact	Prolonged and frequent contact may cause redness and irritation.
Eye contact	Severe irritation, burning and tearing.

N'-(3AMINOPROPYL)-N,N-DIMETHYLPROPANE-1,3-DIAMINE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 1545 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ 1310 mg/kg, Dermal, Rat

SECTION 12: Ecological information

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

12.1. Toxicity

Toxicity Ecotoxic to fish/daphnia/algae

Ecological information on ingredients.

BENZYL ALCOHOL

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 460 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 230 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 770 mg/l, Pseudokirchneriella subcapitata

N'-(3AMINOPROPYL)-N,N-DIMETHYLPROPANE-1,3-DIAMINE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >100 mg/l, Brachydanio rerio (Zebra Fish)

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product. The product is not expected to be biodegradable.

Ecological information on ingredients.

BENZYL ALCOHOL

Persistence and degradability The product is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation. Not expected to be bioaccumulative.

NITOBOND EP HARDENER

Partition coefficient Not determined.

Ecological information on ingredients.

BENZYL ALCOHOL

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Partition coefficient log Kow: 1.10

12.4. Mobility in soil

Mobility The product is immiscible with water and will sediment in water systems.

Ecological information on ingredients.

BENZYL ALCOHOL

Mobility Insoluble in water.

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.

BENZYL ALCOHOL

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

N'-(3AMINOPROPYL)-N,N-DIMETHYLPROPANE-1,3-DIAMINE

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

Other adverse effects None known.

Ecological information on ingredients.

BENZYL ALCOHOL

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Waste material and any included combustible absorbent and containers should be suitable for incineration at an approved facility. Note that fully cured material is not considered as hazardous waste.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 2735

NITOBOND EP HARDENER

UN No. (IMDG)	2735
UN No. (ICAO)	2735
UN No. (ADN)	2735

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	AMINES, LIQUID, CORROSIVE, N.O.S. (TRIETHYLENETETRAMINE)
Proper shipping name (IMDG)	AMINES, LIQUID, CORROSIVE, N.O.S. (TRIETHYLENETETRAMINE)
Proper shipping name (ICAO)	AMINES, LIQUID, CORROSIVE, N.O.S. (TRIETHYLENETETRAMINE)
Proper shipping name (ADN)	AMINES, LIQUID, CORROSIVE, N.O.S. (TRIETHYLENETETRAMINE)

14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID classification code	C7
ADR/RID label	8
IMDG class	8
ICAO class/division	8
ADN class	8

Transport labels



14.4. Packing group

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

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

IMDG Code segregation group	18. Alkalis
EmS	F-A, S-B
ADR transport category	3
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

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

NITOBOND EP HARDENER

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).
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.

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	07/10/2019
Revision	5b
Supersedes date	13/12/2018
SDS number	12021
Hazard statements in full	H302 Harmful if swallowed. H318 Causes serious eye damage. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled.

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.