

SAFETY DATA SHEET

NITOSEAL PU12

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

1.1. Product identifier

Product name NITOSEAL PU12

Product number 1986000UK9

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

1.3. Details of the supplier of the safety data sheet

1.4. Emergency telephone number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Not Classified

Health hazards Elicitation - EUH208 Repr. 2 - H361fd

Environmental hazards Not Classified

2.2. Label elements

Pictogram



Signal word Warning

Hazard statements H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
EUH208 Contains ISOPHORONEDIAMINE, ORTHO TOLYL BIGUANIDE. May produce an allergic reaction.

Precautionary statements P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P501 Dispose of contents/container in accordance with national regulations.

Contains ISOCYANATE PREPOLYMER

Supplementary precautionary statements P405 Store locked up.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

CALCIUM CARBONATE (STEARATE COATED)

30-60%

CAS number: 471-34-1

EC number: 207-439-9

Classification

Not Classified

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

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ISOCYANATE PREPOLYMER			10-30%
CAS number: —			
Classification Repr. 2 - H361fd		Classification (67/548/EEC or 1999/45/EC) -	
TITANIUM DIOXIDE			1-5%
CAS number: 13463-67-7	EC number: 236-675-5	REACH registration number: 01-2119489379-17-0000	
Classification Not Classified		Classification (67/548/EEC or 1999/45/EC) -	
ISOPHORONEDIAMINE			<1%
CAS number: 2855-13-2	EC number: 220-666-8	REACH registration number: 01-2119514687-32-xxxx	
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412			
SILICA HYDROPHOBIC AMORPHOUS			<1%
CAS number: 7631-86-9	EC number: 231-545-4		
Classification Not Classified		Classification (67/548/EEC or 1999/45/EC) -	
ORTHO TOLYL BIGUANIDE			<1%
CAS number: 93-69-6	EC number: 202-268-6		
Classification Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412		Classification (67/548/EEC or 1999/45/EC) Xi;R41. R43.	

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	Unlikely route of exposure as the product does not contain volatile substances. Move affected person to fresh air at once.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention if any discomfort continues.

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Skin contact	Remove affected person from source of contamination. Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. 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.
Ingestion	May cause discomfort if swallowed.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	Vapour or spray in the eyes may cause irritation and smarting.

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

Notes for the doctor	No specific recommendations.
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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	During fire, gases hazardous to health may be formed.
Hazardous combustion products	Carbon monoxide (CO). Carbon dioxide (CO ₂). Cyanides. Nitrous gases (NO _x). Sulphurous gases (SO _x).

5.3. Advice for firefighters

Protective actions during firefighting	No specific firefighting precautions known.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release 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 discharge into drains or watercourses or onto the ground.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Collect and place in suitable waste disposal containers and seal securely.
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6.4. Reference to other sections

Reference to other sections	For waste disposal, see section 13.
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SECTION 7: Handling and storage

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7.1. Precautions for safe handling

Usage precautions Good personal hygiene procedures should be implemented. Avoid 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.

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

CALCIUM CARBONATE (STEARATE COATED)

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

TITANIUM DIOXIDE

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

SILICA HYDROPHOBIC AMORPHOUS

Long-term exposure limit (8-hour TWA): WEL

Short-term exposure limit (15-minute): WEL 2.4 mg/m³

WEL = Workplace Exposure Limit

TITANIUM DIOXIDE (CAS: 13463-67-7)

DNEL	Industry - Inhalation; Long term : 10 mg/m ³ Consumer - Oral; Long term : 700 mg/kg/day
PNEC	- Fresh water; >1 mg/l - Marine water; 0.127 mg/l - Soil; 100 mg/kg - STP; 100 mg/kg

BENZYL ALCOHOL (CAS: 100-51-6)

DNEL	Workers - Inhalation; Long term systemic effects: 90 mg/m ³ Workers - Dermal; Long term systemic effects: 9.5 mg/kg bw/day Workers - Dermal; systemic effects: 47 mg/kg bw/day
PNEC	- Fresh water; 1 mg/l - Marine water; 0.1 mg/l

ISOPHORONEDIAMINE (CAS: 2855-13-2)

PNEC	The product of hydrolysis (methanol) is readily biodegradable. Silicone content is not biodegradable. - Fresh water; 0.06 mg/l - Marine water; 0.006 mg/l
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ORTHO TOLYL BIGUANIDE (CAS: 93-69-6)

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DNEL

Industry - Inhalation; Long term systemic effects: 5.88
 Industry - Inhalation; Short term systemic effects: 35.26 mg/m³
 Industry - Dermal; Long term systemic effects: no threshold derived
 Industry - Dermal; Short term systemic effects: 55.6

PNEC

- Fresh water, Marine water; 0.15 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. 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.

Hand protection

Gloves are recommended for prolonged use. Neoprene. Nitrile rubber. Polyethylene. Polyvinyl chloride (PVC). Rubber or plastic.

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

Do not smoke in work area. Wash hands 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. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	White.
Odour	Mild.
Odour threshold	Not determined.
pH	Not applicable.
Melting point	Not determined.
Initial boiling point and range	Not applicable.
Flash point	>150°C
Evaporation rate	Not applicable.
Evaporation factor	Not applicable.
Flammability (solid, gas)	No specific test data are available.
Upper/lower flammability or explosive limits	Not determined.
Other flammability	Not applicable.
Vapour pressure	<0.05 kPa @ 20°C

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Vapour density	Not determined.
Relative density	1.54 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not determined.
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.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.
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10.4. Conditions to avoid

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

Materials to avoid	Strong oxidising agents. Strong acids.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Heating may generate the following products: Oxides of carbon. Oxides of nitrogen. Sulphurous gases (SO _x). Cyanides.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Reproductive toxicity

Reproductive toxicity - fertility	Contains a substance/a group of substances which may damage fertility.
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Reproductive toxicity - development	Contains a substance/a group of substances which may damage the unborn child.
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General information	This product has low toxicity. Only large quantities are likely to have adverse effects on human health.
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Inhalation	Unlikely to be hazardous by inhalation because of the low vapour pressure of the product at ambient temperature.
Ingestion	May cause irritation of mouth, throat and digestive tract. Ingestion of significant amounts may result in severe systemic effects.
Skin contact	Unlikely to irritate on brief or occasional exposure. Prolonged contact may cause redness, irritation and dry skin.
Eye contact	May cause temporary eye irritation.
Acute and chronic health hazards	No specific health hazards known.
Target organs	Not relevant.
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.

TITANIUM DIOXIDE

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ >6.82 mg/l, Inhalation, Rat

Skin corrosion/irritation

Animal data Not irritating.

Skin sensitisation

Skin sensitisation - Guinea pig: Not sensitising.

Carcinogenicity

IARC carcinogenicity IARC Group 2B Possibly carcinogenic to humans.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Based on available data, the classification criteria are not met.

BENZYL ALCOHOL

Acute toxicity - oral

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

Species Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

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

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Species Rabbit

ISOPHORONEDIAMINE**Acute toxicity - oral**

Acute toxicity oral (LD₅₀ mg/kg) 1.03

Species Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 1,840.0

Species Rabbit

ATE dermal (mg/kg) 1,100.0

SILICA HYDROPHOBIC AMORPHOUS**Carcinogenicity**

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

SECTION 12: Ecological Information

Ecotoxicity No negative effects on the aquatic environment are known.

12.1. Toxicity

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

Ecological information on ingredients.**ISOCYANATE PREPOLYMER**

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

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 0.14 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: 1.3 mg/l, Algae

TITANIUM DIOXIDE

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

BENZYL ALCOHOL

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

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ISOPHORONEDIAMINE

Acute toxicity - fish	LC ₅₀ , 96 hours: 110 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 23 mg/l, Daphnia magna
Acute toxicity - aquatic plants	IC ₅₀ , 72 hours: 50 mg/l, Algae

ORTHO TOLYL BIGUANIDE

Acute toxicity - fish	LC ₅₀ , 96 hours, 96 hours: 150 mg/l, Onchorhynchus mykiss (Rainbow trout)
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12.2. Persistence and degradability

Persistence and degradability The product is not readily biodegradable.

Phototransformation Not available.

Ecological information on ingredients.

ISOCYANATE PREPOLYMER

Persistence and degradability	The product is not readily biodegradable.
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12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

Ecological information on ingredients.

TITANIUM DIOXIDE

Bioaccumulative potential The product is not bioaccumulating.

12.4. Mobility in soil

Mobility The product is insoluble in water. Not considered mobile.

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. Do not empty into drains, sewers or water courses. 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

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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.

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 MARPOL73/78 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****15.2. Chemical safety assessment****SECTION 16: Other information**

Revision date 18/07/2015

Revision 3

SDS number 22566

Hazard statements in full

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H412 Harmful to aquatic life with long lasting effects.
EUH208 Contains ISOPHORONEDIAMINE, ORTHO TOLYL BIGUANIDE. May produce an allergic reaction.



SAFETY DATA SHEET NITOSEAL PU12 BASE

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

1.1. Product identifier

Product name NITOSEAL PU12 BASE

Product number 1986001UK9

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

Identified uses Base component for two-part isocyanate-based sealant.

1.3. Details of the supplier of the safety data sheet

Supplier FOSROC Limited DO NOT USE

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 Repr. 2 - H361fd

Environmental hazards Not Classified

Human health The product is considered to be a low hazard under normal conditions of use. Prolonged skin contact may cause redness and irritation. Contains a substance/a group of substances which may damage fertility and the unborn child.

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

Hazard statements H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

Precautionary statements

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P308+P313 IF exposed or concerned: Get medical advice/ attention.
- P405 Store locked up.
- P501 Dispose of contents/ container in accordance with national regulations.

NITOSEAL PU12 BASE

Contains

ISOCYANATE PREPOLYMER

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

CALCIUM CARBONATE (STEARATE COATED)		30-60%
CAS number: 471-34-1	EC number: 207-439-9	
Classification Not Classified	Classification (67/548/EEC or 1999/45/EC) -	
Branched polymer with ether and urethane groups and crosslinkable, blocked isocyanate groups		10-30%
CAS number: —	EC number: 919-663-0	
Classification Repr. 2 - H361	Classification (67/548/EEC or 1999/45/EC) -	
TITANIUM DIOXIDE		1-5%
CAS number: 13463-67-7	EC number: 236-675-5	REACH registration number: 01-2119489379-17-0000
Classification Not Classified		
SILICON DIOXIDE		<1%
CAS number: 7631-86-9	EC number: 231-545-4	
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

General information	No specific recommendations. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
Inhalation	Unlikely route of exposure as the product does not contain volatile substances. Move affected person to fresh air at once.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting. 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. Get medical attention if irritation persists after washing.

NITOSEAL PU12 BASE

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. 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.

Ingestion May cause discomfort if swallowed.

Skin contact Prolonged skin contact may cause redness and irritation.

Eye contact Vapour or spray in the eyes may cause irritation and smarting.

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

Notes for the doctor No specific recommendations.

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 During fire, gases hazardous to health may be formed.

Hazardous combustion products Carbon monoxide (CO). Carbon dioxide (CO₂). Cyanides. Nitrous gases (NO_x). Sulphurous gases (SO_x).

5.3. Advice for firefighters

Protective actions during firefighting No specific firefighting precautions known.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Collect and place in suitable waste disposal containers and seal securely.

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 Good personal hygiene procedures should be implemented. Avoid contact with skin and eyes.

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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

Occupational exposure limits

CALCIUM CARBONATE (STEARATE COATED)

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

TITANIUM DIOXIDE

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

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

SILICON DIOXIDE

Long-term exposure limit (8-hour TWA): WEL

Short-term exposure limit (15-minute): WEL 2.4 mg/m³

WEL = Workplace Exposure Limit

TITANIUM DIOXIDE (CAS: 13463-67-7)

DNEL

Industry - Inhalation; Long term : 10 mg/m³

Consumer - Oral; Long term : 700 mg/kg/day

PNEC

- Fresh water; >1 mg/l

- marine water; 0.127 mg/l

- Soil; 100 mg/kg

- STP; 100 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. 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.

Hand protection

Gloves are recommended for prolonged use. Neoprene. Nitrile rubber. Polyethylene. Polyvinyl chloride (PVC). Rubber or plastic.

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

Do not smoke in work area.

Respiratory protection

No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Gas filter, type A2.

SECTION 9: Physical and chemical properties

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9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	White.
Odour	Mild.
Odour threshold	Not determined.
pH	Not applicable.
Melting point	Not determined.
Initial boiling point and range	Not applicable.
Flash point	>150°C
Evaporation rate	Not applicable.
Evaporation factor	Not applicable.
Flammability (solid, gas)	No.
Upper/lower flammability or explosive limits	The product is not flammable.
Other flammability	Not applicable.
Vapour pressure	<0.05 kPa @ 20°C
Vapour density	Not determined.
Relative density	1.54 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not determined.
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	No data available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures.
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10.3. Possibility of hazardous reactions

NITOSEAL PU12 BASE

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 Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Hazardous decomposition products Heating may generate the following products: Oxides of carbon. Oxides of nitrogen. Sulphurous gases (SO_x). Cyanides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Reproductive toxicity

Reproductive toxicity - fertility Contains a substance/a group of substances which may damage fertility.

Reproductive toxicity - development Contains a substance/a group of substances which may damage the unborn child.

General information This product has low toxicity. Only large quantities are likely to have adverse effects on human health.

Inhalation Unlikely to be hazardous by inhalation because of the low vapour pressure of the product at ambient temperature.

Ingestion May cause irritation of mouth, throat and digestive tract. Ingestion of significant amounts may result in severe systemic effects.

Skin contact Unlikely to irritate on brief or occasional exposure. Prolonged contact may cause redness, irritation and dry skin.

Eye contact May cause temporary eye irritation.

Acute and chronic health hazards 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.

TITANIUM DIOXIDE

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ >6.82 mg/l, Inhalation, Rat

Skin corrosion/irritation

Animal data Not irritating.

Skin sensitisation

Skin sensitisation - Guinea pig: Not sensitising.

Carcinogenicity

IARC carcinogenicity IARC Group 2B Possibly carcinogenic to humans.

Specific target organ toxicity - single exposure

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STOT - single exposure Not classified as a specific target organ toxicant after a single exposure

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Based on available data, the classification criteria are not met.

SILICON DIOXIDE

Carcinogenicity

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

SECTION 12: Ecological information

Ecotoxicity No negative effects on the aquatic environment are known.

12.1. Toxicity

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

Ecological information on ingredients.

Branched polymer with ether and urethane groups and crosslinkable, blocked isocyanate groups

Acute aquatic toxicity

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

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 0.14 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: 1.3 mg/l, Algae

TITANIUM DIOXIDE

Acute aquatic toxicity

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

12.2. Persistence and degradability

Persistence and degradability The product is not readily biodegradable.

Phototransformation Not available.

Ecological information on ingredients.

Branched polymer with ether and urethane groups and crosslinkable, blocked isocyanate groups

Persistence and degradability The product is not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

Ecological information on ingredients.

TITANIUM DIOXIDE

NITOSEAL PU12 BASE

Bioaccumulative potential The product is not bioaccumulating.

12.4. Mobility in soil

Mobility The product is insoluble in water. Not considered mobile.

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. Do not empty into drains, sewers or water courses. 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).

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 The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).

NITOSEAL PU12 BASE

EU legislation	Commission Regulation (EU) No 453/2010 of 20 May 2010. 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).
Guidance	Workplace Exposure Limits EH40. Approved Classification and Labelling Guide (Sixth edition) L131.
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	For professional users only.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	29/10/2019
Revision	3b
Supersedes date	13/11/2017
SDS number	12782
Hazard statements in full	H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

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 NITOSEAL PU12 CURING AGENT

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

1.1. Product identifier

Product name NITOSEAL PU12 CURING AGENT

Product number A1986002UK9

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

Identified uses Hardener component for two-part isocyanate-based sealant. Professional use.

1.3. Details of the supplier of the safety data sheet

Supplier FOSROC Limited DO NOT USE

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 Dam. 1 - H318 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 3 - H412

Human health Corrosive to skin and eyes. The product contains a sensitising substance. May cause sensitisation or allergic reactions in sensitive individuals. Contains a substance/a group of substances which may impair fertility. Contains a substance/a group of substances which may damage the unborn child.

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 Danger

Hazard statements
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

NITOSEAL PU12 CURING AGENT

Precautionary statements

P260 Do not breathe vapour/ spray.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.
 Rinse skin with water or shower.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Contains ISOPHORONEDIAMINE, ORTHO TOLYL BIGUANIDE

Supplementary precautionary statements

P261 Avoid breathing vapour/ spray.
 P264 Wash contaminated skin thoroughly after handling.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P273 Avoid release to the environment.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P310 Immediately call a POISON CENTER/ doctor.
 P321 Specific treatment (see medical advice on this label).
 P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P363 Wash contaminated clothing before reuse.
 P405 Store locked up.
 P501 Dispose of contents/ container in accordance with national regulations.

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

CALCIUM CARBONATE (STEARATE COATED)		30-60%
CAS number: 471-34-1	EC number: 207-439-9	
Classification	Classification (67/548/EEC or 1999/45/EC)	
Not Classified	-	
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		

NITOSEAL PU12 CURING AGENT

ISOPHORONEDIAMINE		10-30%
CAS number: 2855-13-2	EC number: 220-666-8	REACH registration number: 01-2119514687-32-xxxx
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412		
1-o-TOLYLBIGUANIDE		5-10%
CAS number: 93-69-6	EC number: 202-268-6	
Classification Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412		
NONYLPHENOL		<1%
CAS number: 84852-15-3	EC number: 284-325-5	
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Repr. 2 - H361 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		

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

Composition comments This product contains a substance that is a SVHC.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air at once. Get medical attention.
Ingestion	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. Get medical attention.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

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

NITOSEAL PU12 CURING AGENT

Inhalation	Coughing, chest tightness, feeling of chest pressure.
Ingestion	May cause chemical burns in mouth and throat.
Skin contact	Prolonged contact may cause redness, irritation and dry skin. May cause sensitisation by skin contact.
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 specific recommendations. If in doubt, get medical attention promptly.
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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	Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Oxides of nitrogen.
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5.3. Advice for firefighters

Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
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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. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation.
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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. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.
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6.4. Reference to other sections

Reference to other sections	For personal protection, see Section 8.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapours. Provide adequate ventilation.
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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	Corrosive storage.

NITOSEAL PU12 CURING AGENT

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

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

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
PNEC	- Fresh water; 1 mg/l - marine water; 0.1 mg/l - STP; 39 mg/l

ISOPHORONEDIAMINE (CAS: 2855-13-2)

PNEC	- marine water; 0.006 mg/l - Fresh water; 0.06 mg/l - Soil; 1.121 mg/kg
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1-o-TOLYLBIGUANIDE (CAS: 93-69-6)

DNEL	Industry - Inhalation; Long term systemic effects: 5.88 Industry - Inhalation; Short term systemic effects: 35.26 mg/m ³ Industry - Dermal; Long term systemic effects: no threshold derived Industry - Dermal; Short term systemic effects: 55.6
PNEC	- Fresh water, marine water; 0.15 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

Hand protection

Wear protective gloves. Butyl rubber. Nitrile rubber. Rubber (natural, latex). Polyvinyl chloride (PVC).

Other skin and body protection

Wear appropriate clothing to prevent skin contamination.

Hygiene measures

Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Wash at the end of each work shift and before eating, smoking and using the toilet.

NITOSEAL PU12 CURING AGENT

Respiratory protection No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	Grey.
Odour	Amine. Musty (mouldy).
Odour threshold	Not determined.
pH	pH (concentrated solution): approx. 12
Melting point	Not determined.
Initial boiling point and range	>200°C @ 1 atm
Flash point	131°C
Evaporation rate	Not applicable.
Evaporation factor	Not applicable.
Flammability (solid, gas)	No.
Upper/lower flammability or explosive limits	The product is not flammable.
Other flammability	Not applicable.
Vapour pressure	0.04 kPa @ 20°C
Vapour density	Not determined.
Relative density	1.46 @ at 20°C
Bulk density	Not applicable.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	>400°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

NITOSEAL PU12 CURING AGENT

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions The following materials may react violently with the product: Strong oxidising agents.

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 oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 3,164.68

Acute toxicity - dermal

ATE dermal (mg/kg) 9,970.7

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l) 27.05

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

Ingestion Harmful if swallowed. Causes burns.

Skin contact May cause allergic contact eczema. 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 Severe irritation, burning and tearing. Causes burns.

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

NITOSEAL PU12 CURING AGENT

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

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.

ISOPHORONEDIAMINE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,030.0

Species Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 1,840.0

Species Rabbit

ATE dermal (mg/kg) 1,100.0

NONYLPHENOL

Acute toxicity - oral

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

Species Rat

ATE oral (mg/kg) 1,620.0

NITOSEAL PU12 CURING AGENT

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 2,031.0
mg/kg)

Species 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

ISOPHORONEDIAMINE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 110 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 23 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: 50 mg/l, Algae

1-o-TOLYLBIGUANIDE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 150 mg/l, Oncorhynchus mykiss (Rainbow trout)

NONYLPHENOL

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC₅₀, 96 hours: 0.128 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 0.0848 mg/l, Daphnia magna

Chronic aquatic toxicity

M factor (Chronic) 1

12.2. Persistence and degradability

NITOSEAL PU12 CURING AGENT

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

Ecological information on ingredients.

BENZYL ALCOHOL

Persistence and degradability The product is readily biodegradable.

ISOPHORONEDIAMINE

Persistence and degradability The product is not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

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

ISOPHORONEDIAMINE

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

Partition coefficient log Kow: 0.99

12.4. Mobility in soil

Mobility The product is insoluble in 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.

12.6. Other adverse effects

Other adverse effects None known.

Ecological information on ingredients.

BENZYL ALCOHOL

NITOSEAL PU12 CURING AGENT

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)	2735
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. (CONTAINS ISOPHORONEDIAMINE)
Proper shipping name (IMDG)	AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS ISOPHORONEDIAMINE)
Proper shipping name (ICAO)	AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS ISOPHORONEDIAMINE)
Proper shipping name (ADN)	AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS ISOPHORONEDIAMINE)

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	II
IMDG packing group	II
ICAO packing group	II
ADN packing group	II

14.5. Environmental hazards

NITOSEAL PU12 CURING AGENT

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-A, S-B
ADR transport category	2
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

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	Commission Regulation (EU) No 453/2010 of 20 May 2010. 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).
Guidance	Workplace Exposure Limits EH40. Respiratory protective equipment at work (HSG53).
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.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	29/10/2019
Revision	4a
Supersedes date	13/11/2017
SDS number	12961

NITOSEAL PU12 CURING AGENT

Hazard statements in full

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H361 Suspected of damaging fertility or the unborn child.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

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 NITOSEAL PU12 ACCELERATOR

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

1.1. Product identifier

Product name NITOSEAL PU12 ACCELERATOR
Product number 1986020UK9

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

Identified uses Accelerator for two-part isocyanate based system.

1.3. Details of the supplier of the safety data sheet

Supplier FOSROC Limited DO NOT USE

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 Eye Dam. 1 - H318 Skin Sens. 1 - H317
Environmental hazards Not Classified

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

Environmental The product contains a substance which may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Hazard pictograms



Signal word Danger

Hazard statements H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

Precautionary statements P261 Avoid breathing vapour/ spray.
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.

NITOSEAL PU12 ACCELERATOR

Contains	ORTHO TOLYL BIGUANIDE
Supplementary precautionary statements	<p>P272 Contaminated work clothing should not be allowed out of the workplace.</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>P362+P364 Take off contaminated clothing and wash it before reuse.</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

1-o-TOLYLBIGUANIDE	10-30%
CAS number: 93-69-6	EC number: 202-268-6
Classification Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412	

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	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. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.
Ingestion	Do not induce vomiting. Get medical attention.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if symptoms are severe or persist after washing.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes.

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.
Skin contact	May cause sensitization by skin contact.
Eye contact	Causes serious eye damage.

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

Notes for the doctor	No specific recommendations.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with foam, carbon dioxide, dry powder or water fog. Dry chemicals, sand, dolomite etc.
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NITOSEAL PU12 ACCELERATOR

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.

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 Keep up-wind to avoid fumes. Containers close to fire should be removed or cooled with water. 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 Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Use suitable respiratory protection if ventilation is inadequate.

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 Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Stop leak if possible without risk. DO NOT touch spilled material! Contain and absorb spillage with sand, earth or other non-combustible material. 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. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid inhalation of vapours/spray and contact with skin and eyes. 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 the 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. Store away from the following materials: Alkalies. Acids. Oxidising materials.

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

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8.1. Control parameters

1-o-TOLYLBIGUANIDE (CAS: 93-69-6)

DNEL

Industry - Inhalation; Long term systemic effects: 5.88
 Industry - Inhalation; Short term systemic effects: 35.26 mg/m³
 Industry - Dermal; Long term systemic effects: no threshold derived
 Industry - Dermal; Short term systemic effects: 55.6

PNEC

- Fresh water, marine water; 0.15 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: Full face visor or shield.

Hand protection

Wear protective gloves made of the following material: Neoprene. Butyl rubber. Nitrile rubber. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Other skin and body protection

Wear apron or protective clothing in case of contact.

Hygiene measures

The product of hydrolysis (methanol) is readily biodegradable. Silicone content is not biodegradable.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a full facepiece respirator fitted with the following cartridge: Organic vapour filter.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	White.
Odour	Slight.
Odour threshold	Not determined.
pH	Not applicable.
Melting point	Not applicable.
Initial boiling point and range	>200°C @ 1 atm
Flash point	210°C
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	No.

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Upper/lower flammability or explosive limits	Not determined.
Other flammability	Not applicable.
Vapour pressure	0.005 kPa @ 20°C
Vapour density	Not determined.
Relative density	1.08 @ at 20°C
Bulk density	Not determined.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	425°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	Not determined.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not available. Will not polymerise.
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10.4. Conditions to avoid

Conditions to avoid	Temperatures below 5°C
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10.5. Incompatible materials

Materials to avoid	Strong acids. Strong alkalis. Strong oxidising agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Carbon monoxide (CO). Carbon dioxide (CO ₂). Nitrous gases (NO _x). Sulphurous gases (SO _x).
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Ingestion	Low order of acute toxicity. May cause irritation of mouth, throat and digestive tract.
Skin contact	Irritating to skin. May cause sensitisation by skin contact.

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Eye contact	Risk of serious damage to eyes.
Acute and chronic health hazards	Repeated and prolonged skin contact may lead to skin disorders.
Route of exposure	Inhalation Ingestion. Skin and/or eye contact

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.
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12.1. Toxicity

Toxicity	Not expected to be ecotoxic to fish/daphnia/algae
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Ecological information on ingredients.

1-o-TOLYLBIGUANIDE

Acute aquatic toxicity

Acute toxicity - fish	LC50, 96 hours: 150 mg/l, Oncorhynchus mykiss (Rainbow trout)
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12.2. Persistence and degradability

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

Bioaccumulative potential	No data available on bioaccumulation.
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Partition coefficient	Not determined.
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12.4. Mobility in soil

Mobility	The product is insoluble in water.
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12.5. Results of PBT and vPvB assessment

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

Other adverse effects	None known.
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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.
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Disposal methods	Dispose of contents/container in accordance with national regulations.
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SECTION 14: Transport information

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

Not applicable.

14.2. UN proper shipping name

Not applicable.

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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	Health and Safety at Work etc. Act 1974 (as amended). Control of Substances Hazardous to Health Regulations 2002 (as amended).
EU legislation	Commission Regulation (EU) No 453/2010 of 20 May 2010. 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).
Guidance	Workplace Exposure Limits EH40.

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. For professional users only.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	29/10/2019
Revision	5b
Supersedes date	12/06/2017
SDS number	12964
Hazard statements in full	H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H412 Harmful to aquatic life with long lasting effects.

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.