SAFETY DATA SHEET
NITOKIT LV Part A

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

1.1. Product identifier

Product name NITOKIT LV Part A

Product number 1904020 Part A UK9

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

Identified uses Low viscosity epoxy resin crack injection 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
enquiryuk@fosroc.com
Tel. +44 (0) 1827 262222
Fax. +44 (0) 1827 262444

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Muta. 2 - H341

Environmental hazards Aquatic Chronic 2 - H411

Human health Corrosive. Prolonged contact causes serious eye and tissue damage. The product contains a sensitising substance. May cause sensitisation or allergic reactions in sensitive individuals.

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

2.2. Label elements

Pictogram

Signal word Warning

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Hazard statements	H341 Suspected of causing genetic defects. H411 Toxic to aquatic life with long lasting effects. H319 Causes serious eye irritation. H317 May cause an allergic skin reaction. H315 Causes skin irritation.
Precautionary statements	P201 Obtain special instructions before use. 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. P308+P313 IF exposed or concerned: Get medical advice/attention.
Supplemental label information	EUH205 Contains epoxy constituents. May produce an allergic reaction.
Contains	EPOXY RESIN BASED ON BISPHENOL - A, 2,3-EPOXYPROPYL O-TOLYL ETHER
Supplementary precautionary statements	P202 Do not handle until all safety precautions have been read and understood. 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. 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

EPOXY RESIN BASED ON BISPHENOL - A **50-100%**

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

Classification

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

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2,3-EPOXYPROPYL O-TOLYL ETHER		10-30%
CAS number: 2210-79-9	EC number: 218-645-3	

Classification
Skin Irrit. 2 - H315
Skin Sens. 1 - H317
Muta. 2 - H341
Aquatic Chronic 2 - H411

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Get medical attention if any discomfort continues.

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

Ingestion Get medical attention. 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.

Skin contact Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

Eye contact Remove affected person from source of contamination. Remove any contact lenses and open eyelids wide apart. 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. Effects may be delayed. Keep affected person under observation.

Ingestion Nausea, vomiting. Diarrhoea. Congestion of the lungs may occur, producing severe shortness of breath.

Skin contact Skin irritation. May cause sensitisation or allergic reactions in sensitive individuals.

Eye contact Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. Eye contact may cause serious and potentially irreversible injuries.

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

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

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 Carbon monoxide (CO). Oxides of carbon. Oxides of nitrogen. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

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5.3. Advice for firefighters

Protective actions during firefighting Use water to keep fire exposed containers cool and disperse vapours. 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 personal protection, see Section 8. 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. Keep away from heat, sparks and open flame. Static electricity and formation of sparks must be prevented.

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

Ingredient comments No exposure limits known for ingredient(s).

EPOXY RESIN BASED ON BISPHENOL - A (CAS: 25068-38-6)

DNEL Industry - Inhalation; Short term, Long term systemic effects: 12.53 mg/m³
Industry - Dermal; Long term, Short term systemic effects: 8.33 mg/kg/day

PNEC
- Fresh water; 0.006 mg/l
- Marine water; 0.001 mg/l
- STP; 10 mg/l

2,3-EPOXYPROPYL O-TOLYL ETHER (CAS: 2210-79-9)

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DNEL	Industry - Inhalation; Short term local effects, systemic effects: 40 mg/m³ Industry - Inhalation; Long term local effects, systemic effects: 0.46 mg/m³ Industry - Dermal; Long term systemic effects: 0.139 mg/kg/day
PNEC	- Fresh water; 0.0028 mg/l - Marine water; 0.00028 mg/l - STP; 10 mg/l

8.2. Exposure controls

Protective equipment

Appropriate engineering controls	Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Butyl rubber. Nitrile rubber.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact. Wear apron or protective clothing in case of contact.
Hygiene measures	Wash 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. 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. Wear a respirator fitted with the following cartridge: Gas filter, type B.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless.
Odour	Mild.
Odour threshold	Not determined.
pH	Not determined.
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	138°C
Evaporation rate	Not available.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not applicable.

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Upper/lower flammability or explosive limits	Not determined.
Other flammability	Not applicable.
Vapour pressure	0.0075 mm Hg @ 20°C
Vapour density	Not determined.
Relative density	1.15 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Insoluble in water.
Auto-ignition temperature	Not determined.
Decomposition Temperature	> 200°C
Viscosity	500 - 650 mPa s @ °C
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Volatile organic compound	This product contains a maximum VOC content of 0 .

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Reactions with the following materials may generate heat: Strong oxidising agents. Strong reducing agents. Strong acids. Strong bases

10.2. Chemical stability

Stability	Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	None under normal conditions of use.

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 bases Strong oxidising agents. Strong reducing agents.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - inhalation

ATE inhalation (gases ppm)	112,500.0
ATE inhalation (vapours mg/l)	275.0

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ATE inhalation (dusts/mists mg/l) 37.5

Ingestion May cause internal injury. Nausea, vomiting. Diarrhoea.

Skin contact Irritating to skin. May cause sensitisation by skin contact.

Eye contact Risk of serious damage to eyes. A single exposure may cause the following adverse effects: Corneal damage. May cause chemical eye burns.

Toxicological information on ingredients.

EPOXY RESIN BASED ON BISPHENOL - A

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg) 15,000.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg) 23,000.0

Species Rabbit

2,3-EPOXYPROPYL O-TOLYL ETHER

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg) 2,150.0

Species Rat

SECTION 12: Ecological Information

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

12.1. Toxicity

Toxicity The product contains a substance which is harmful to aquatic organisms.

Ecological information on ingredients.

EPOXY RESIN BASED ON BISPHENOL - A

Acute toxicity - fish LC_{50}, 96 hours: 3.6 mg/l, Salmo gairdneri

Acute toxicity - aquatic invertebrates EC_{50}, 48 hours: 1.7 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC_{50}, 72 hours: 9.4 mg/l, Selenastrum capricornutum

2,3-EPOXYPROPYL O-TOLYL ETHER

Acute toxicity - fish LC_{50}, 96 hours: > 2.8 mg/l, Salmo gairdneri

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Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 3.3 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hours: 5.1 mg/l, Pseudokirchneriella subcapitata

12.2. Persistence and degradability

Persistence and degradability The product contains substances which are not expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Ecological information on ingredients.

EPOXY RESIN BASED ON BISPHENOL - A

Bioaccumulative potential	BCF: 31,
Partition coefficient	: log Pow = Approximately 3.8 at 25 C

12.4. Mobility in soil

Mobility Mobile liquid. The product is 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.

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. 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

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 BASED ON BISPHENOL - A, 2,3-EPOXYPROPYL O-TOLYL ETHER)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN BASED ON BISPHENOL - A, 2,3-EPOXYPROPYL O-TOLYL ETHER)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN BASED ON BISPHENOL - A, 2,3-EPOXYPROPYL O-TOLYL ETHER)

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Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN BASED ON BISPHENOL - A, 2,3-EPOXYPROPYL O-TOLYL ETHER)

14.3. Transport hazard class(es)

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

Transport labels

14.4. Packing group

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

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	•3Z
Hazard Identification Number (ADR/RID)	90
Tunnel restriction code	(E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 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).

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EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 453/2010 of 20 May 2010.
Guidance	Workplace Exposure Limits EH40. Respiratory protective equipment at work (HSG53).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information	The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	08/08/2016
Revision	4
Supersedes date	20/07/2015
SDS number	13076
Hazard statements in full	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H341 Suspected of causing genetic defects. 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
NITOKIT LV part B

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

1.1. Product identifier

Product name NITOKIT LV part B

Product number 1904020 Part B

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

Identified uses Low viscosity epoxy resin crack injection 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
enquiryuk@fosroc.com
Tel. +44 (0) 1827 262222
Fax. +44 (0) 1827 262444

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

Human health Corrosive. Prolonged contact causes serious eye and tissue damage. The product contains a sensitising substance. May cause sensitisation or allergic reactions in sensitive individuals.

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

2.2. Label elements

Pictogram

Signal word Danger

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Hazard statements	H302+H312 Harmful if swallowed or in contact with skin. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements	P264 Wash contaminated skin thoroughly after handling. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. P302+P352 IF ON SKIN: Wash with plenty of water. 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	PENTAETHYLENEHEXAMINE, BENZYL ALCOHOL
Supplementary precautionary statements	P260 Do not breathe vapour/spray. P261 Avoid breathing vapour/spray. P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing should not be allowed out of the workplace. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P312 Call a POISON CENTER/doctor if you feel unwell. 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. P391 Collect spillage. 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

PENTAETHYLENEHEXAMINE **50-80%**

CAS number: 4067-16-7	EC number: 223-775-9	REACH registration number: 01-2119485826-22-0000
M factor (Acute) = 1	M factor (Chronic) = 1	

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H312
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

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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 - H312
Acute Tox. 4 - H332
Eye Irrit. 2 - H319

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Move affected person to fresh air at once. Get medical attention.

Ingestion Get medical attention. 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.

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

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure. Effects may be delayed. Keep affected person under observation.

Inhalation Upper respiratory irritation.

Ingestion Nausea, vomiting. Diarrhoea.

Skin contact Prolonged contact may cause redness, irritation and dry skin. May cause sensitisation by skin contact.

Eye contact Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. Eye contact may cause serious and potentially irreversible injuries.

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.

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 Closed containers can burst violently when heated, due to excess pressure build-up.

Hazardous combustion products Carbon monoxide (CO). Oxides of carbon. Oxides of nitrogen. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

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Protective actions during firefighting Use water to keep fire exposed containers cool and disperse vapours. 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. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation.

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.

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.

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 For professional users only. Provide adequate ventilation. Avoid the formation of mists.

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.

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

Ingredient comments No exposure limits known for ingredient(s).

PENTAETHYLENEHEXAMINE (CAS: 4067-16-7)

DNEL
Industry - Inhalation; Short term systemic effects: 8550 mg/m³
Industry - Inhalation; Long term systemic effects: 1.59 mg/m³
Industry - Dermal; Long term systemic effects: 0.4 mg/kg/day
Industry - Dermal; Long term local effects: 0.044 mg/cm²
Industry - Dermal; Long term systemic effects: 0.91 mg/kg/day

PNEC
- Fresh water, Marine water; 0.0025 mg/l
- STP; 0.025 mg/l

BENZYL ALCOHOL (CAS: 100-51-6)

NITOKIT LV part B

DNEL	Workers - Inhalation; Short term systemic effects: 110 mg/m³ Workers - Inhalation; Long term systemic effects: 22 mg/m³ 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

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	Wear tight-fitting, chemical splash goggles or face shield.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Butyl rubber. Nitrile rubber.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
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.
Respiratory protection	No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs. Wear a respirator fitted with the following cartridge: Gas filter, type A2.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Black.
Odour	Amine.
Odour threshold	Not determined.
pH	pH (concentrated solution): >13
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	>60°C
Evaporation rate	Not available.
Evaporation factor	Not applicable.
Flammability (solid, gas)	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Other flammability	Not applicable.

NITOKIT LV part B

Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	1.05 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	110 - 120 mPa s @ °C
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Volatile organic compound	This product contains a maximum VOC content of 0 .

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stability	Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	In use may form flammable/explosive vapour-air mixture.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Materials to avoid	None known.

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)	974.52

Acute toxicity - dermal

ATE dermal (mg/kg)	1,792.79

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l)	14.41

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General information	Effects may be delayed.
Inhalation	Upper respiratory irritation. Lung oedema.
Ingestion	May cause internal injury. Nausea, vomiting. Diarrhoea.
Skin contact	Causes burns. May cause sensitisation by skin contact. Prolonged skin contact may cause redness and irritation.
Eye contact	Risk of serious damage to eyes. A single exposure may cause the following adverse effects: Corneal damage. May cause chemical eye burns.

SECTION 12: Ecological Information

Ecotoxicity Dangerous for the environment. Very toxic to aquatic life with long lasting effects.

12.1. Toxicity

Toxicity The product contains a substance which is toxic to aquatic organisms.

12.2. Persistence and degradability

Persistence and degradability The product contains substances which are not expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

12.4. Mobility in soil

Mobility Mobile. The product is soluble 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.

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. 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

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) POLYAMINES, LIQUID, CORROSIVE, N.O.S (CONTAINS PENTAETHYLENEHEXAMINE, BENZYL ALCOHOL)

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Proper shipping name (IMDG)	POLYAMINES, LIQUID, CORROSIVE, N.O.S (CONTAINS PENTAETHYLENEHEXAMINE, BENZYL ALCOHOL)
Proper shipping name (ICAO)	POLYAMINES, LIQUID, CORROSIVE, N.O.S (CONTAINS PENTAETHYLENEHEXAMINE, BENZYL ALCOHOL)
Proper shipping name (ADN)	POLYAMINES, LIQUID, CORROSIVE, N.O.S (CONTAINS PENTAETHYLENEHEXAMINE, BENZYL ALCOHOL)

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
ADN packing group	II
ICAO packing group	II

14.5. Environmental hazards

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 MARPOL73/78 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

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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 (Title VIII 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	08/08/2016
Revision	4
Supersedes date	20/07/2015
SDS number	24159
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. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.