Safety Data Sheet
according to Regulation (EC) No. 453/2010

1. Identification of the Substance/Mixture and the Company/Undertaking

1.1 Product Identifier 04N600B

Revision Date: 15/05/2015

Product Name: NUCEM PRIMER (Base)

Supercedes Date: 14/05/2015

1.2 Relevant identified uses of the substance or mixture and uses advised against Base component of 2 components coatings - Industrial use.

1.3 Details of the supplier of the safety data sheet

Manufacturer:

USL
Kingston House
3 Walton Road
Pattinson North
Washington
Tyne & Wear
NE38 8QA
Regulatory / Technical Information:
+44(0)191 416 1530
www.usluk.com

Datasheet Produced by: Norton, Catherine - info@usluk.com

1.4 Emergency telephone number: CHEMTREC +1 703 5273887 (Outside US)

2. Hazard Identification

2.1 Classification of the substance or mixture

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

HAZARD STATEMENTS

Hazardous to the aquatic environment, Chronic, category 2	H411
Serious Eye Damage, category 1	H318
Skin Irritation, category 2	H315
Skin Sensitizer, category 1	H317

2.2 Label elements

Symbol(s) of Product

Signal Word

Danger

Named Chemicals on Label

epoxy resin based on bisphenol f, reaction product: bisphenol-a-(epichlorhydrin) epoxy resin (number average molecularweight <= 700), cement, portland, chemicals, oxirane, mono [(c10-16-alkyloxy) methyl] derivs.

HAZARD STATEMENTS

Hazardous to the aquatic environment, Chronic, category 2	H411	Toxic to aquatic life with long lasting effects.
Serious Eye Damage, category 1	H318	Causes serious eye damage.
Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.

PRECAUTION PHRASES

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/ face protection.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P391	Collect spillage.

2.3 Other hazards

Not applicable

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

3. Composition/Information On Ingredients

3.2 Mixtures

Hazardous Ingredients

CAS-No.	EINEC No.	Name According to EEC	%
65997-15-1	266-043-4	cement, portland, chemicals	25-50
25068-38-6	500-033-5	reaction product: bisphenol-a-(epichlorhydrin) epoxy resin (number average molecularweight <= 700)	25-50
9003-36-5	500-006-8	epoxy resin based on bisphenol f	10-25
68081-84-5	268-358-2	oxirane, mono [(c10-16-alkyloxy) methyl] derivs.	2.5-10
112945-52-5	231-545-4	silicon dioxide, crystalline-free	0.1-1.0

CAS-No.	REACH Reg No.	CLP Symbols	CLP Hazard Statements	M-Factors
65997-15-1		GHS05-GHS07	H315-317-318	
25068-38-6	01-2119456619-26	GHS07-GHS09	H315-317-319-411	
9003-36-5	01-2119454392-40	GHS07-GHS09	H315-317-411	
68081-84-5		GHS07-GHS09	H315-317-319-411	
112945-52-5	01-2119379499-16			

Additional Information: The text for CLP Hazard Statements shown above (if any) is given in Section 16.

4. First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice.
AFTER INHALATION: Move to fresh air. Consult a physician after significant exposure.
AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
AFTER EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If eye irritation persists, consult a specialist.
AFTER INGESTION: Gently wipe or rinse the inside of the mouth with water. Give small amounts of water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

5. Fire-fighting Measures

5.1 Extinguishing Media:

Alcohol Foam, Carbon Dioxide, Dry Chemical, Water Fog

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above.

5.2 Special hazards arising from the substance or mixture

No Information

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. High volume water jet. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Contains epoxy constituents. See information supplied by the manufacturer.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains. May cause long-term adverse effects in the aquatic environment.

6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

FURTHER INSTRUCTIONS: Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

7. Handling and Storage

7.1 Precautions for safe handling

Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment.
Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: No Information
STORAGE CONDITIONS: Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

7.3 Specific end use(s)

No specific advice for end use available.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits
(UK WELS)

Name	%	LTEL ppm	STEL ppm	STEL mg/m3	LTEL mg/m3	OEL Note
cement, portland, chemicals	25-50				4 10	
reaction product: bisphenol-a-(epichlorhydrin) epoxy resin (number average molecularweight <= 700)	25-50					
epoxy resin based on bisphenol f	10-25					
oxirane, mono [(c10-16-alkyloxy) methyl] derivs.	2.5-10					
silicon dioxide, crystalline-free	0.1-1.0					

FURTHER ADVICE: Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified at the EU level under the dangerous substances and preparations regulation.

8.2 Exposure controls

Personal Protection
RESPIRATORY PROTECTION: Respirator with a vapor filter.
EYE PROTECTION: Tightly fitting safety goggles.
HAND PROTECTION: Rubber or plastic gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Long sleeved clothing. Remove and wash contaminated clothing before re-use. Rubber or plastic apron.
OTHER PROTECTIVE EQUIPMENT: No Information
ENGINEERING CONTROLS: Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

Chemical Name:

EC No.: **CAS-No.:**

DNELs - Derived no effect level

	Workers				Consumers			
Route of Exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required							
Inhalation								
Dermal								

PNEC' s - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	
Fresh water sediments	
Marine water	
Marine sediments	
Food chain	
Microorganisms in sewage treatment	
soil (agricultural)	
Air	

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Grey paste
Physical State	Liquid
Odor	Mild
Odor threshold	Not determined
pH	Not determined
Melting point / freezing point (éC)	Not determined
Boiling point/range (éC)	200éC - 200éC
Flash Point, (éC)	N/A
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	10 - 20
Vapour Pressure	Not determined
Vapour density	Not determined
Relative density	Not determined
Solubility in / Miscibility with water	Insoluble
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature (éC)	Not determined
Decomposition temperature (éC)	Not determined
Viscosity	Not determined
Explosive properties	Not determined
Oxidising properties	Not determined

9.2 Other information

VOC Content g/l:	0
Specific Gravity (g/cm3)	1.300

10. Stability and Reactivity

10.1 Reactivity
No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability
No decomposition if stored and applied as directed. Stable under normal conditions.

10.3 Possibility of hazardous reactions
Hazardous polymerisation does not occur.

10.4 Conditions to avoid
No Information

10.5 Incompatible materials
Strong oxidizing agents. Acids and bases. Amines.

10.6 Hazardous decomposition products
Thermal decomposition can lead to release of irritating gases and vapours. Alcohols. Exothermic reaction. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.

11. Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:

Oral LD50:

Inhalation LC50:

Irritation: No information available.

Corrosivity: No information available.

Sensitization: No information available.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Name According to EEC	Oral LD50	Dermal LD50	Vapor LC50
25068-38-6	reaction product: bisphenol-a-(epichlorhydrin) epoxy resin (number average molecularweight <= 700)	5000 mg/kg rat, oral	5000	
68081-84-5	oxirane, mono [(c10-16-alkyloxy) methyl] derivs.	>2000 mg/kg - oral, rat	>2000 mg/kg - dermal, rabbit	
112945-52-5	silicon dioxide, crystalline-free	10000 mg/kg, oral, rat		

Additional Information:

No Information

12. Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia): No information

IC50 72hr (Algae): No information

LC50 96hr (fish): No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil: No information

12.5 Results of PBT and vPvB assessment: The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

12.6 Other adverse effects: No information

CAS-No.	Name According to EEC	EC50 48hr	IC50 72hr	LC50 96hr
65997-15-1	cement, portland, chemicals	No information	No information	

25068-38-6	reaction product: bisphenol-a-(epichlorhydrin) epoxy resin (number average molecularweight <= 700)	No information	No information
9003-36-5	epoxy resin based on bisphenol f	No information	No information
68081-84-5	oxirane, mono [(c10-16-alkyloxy) methyl] derivs.	No information	No information
112945-52-5	silicon dioxide, crystalline-free	No information	No information

Further Ecological Information

Contains the following ingredients which are classified as water dangerous according to EEC directive No. 76/464/EEC in percentages > 1%.

CAS-No.	Name According to EEC
25068-38-6	reaction product: bisphenol-a-(epichlorhydrin) epoxy resin (number average molecularweight <= 700)
9003-36-5	epoxy resin based on bisphenol f
68081-84-5	oxirane, mono [(c10-16-alkyloxy) methyl] derivs.

13. Disposal Considerations

13.1 **WASTE TREATMENT METHODS:** If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

European Waste Code: No Information
Packaging Waste Code: 150110

14. Transport Information

14.1	**UN number**	3082
14.2	**UN proper shipping name**	Environmentally hazardous substance, liquid N.O.S. (contains epoxy resin)
	Technical name	
14.3	**Transport hazard class(es)**	9
	Subsidiary shipping hazard	
14.4	**Packing group**	III
14.5	**Environmental hazards**	
14.6	**Special precautions for user**	Not applicable
	EmS-No.:	
14.7	**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code**	Not applicable

15. Regulatory Information

15.1 **Safety, health and environmental regulations/legislation for the substance or mixture:**

National Regulations:

Denmark Product Registration Number:

Danish MAL Code:

Sweden Product Registration Number:

Norway Product Registration Number:

WGK Class:

Chemical Safety Assessment:

15.2 No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

16. Other Information

Text for CLP Hazard Statements shown in Section 3 describing each ingredient:

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

Reasons for revision

This is a new Safety Data Sheet (SDS).

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark
ESIS (The European Chemical Substances Information System), provided by the European Commission Joint Research Centre in Ispra, Italy
Annex VI of the EU Council Directive 67/548/EEC
Council Directive 67/548/EEC - Annex I or EU Council Directive 1999/45/EC
European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation)
EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes"

Acronym & Abbreviation Key:

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m3	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%
EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978

IBC International Bulk Container

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.

Safety Data Sheet
according to Regulation (EC) No. 453/2010

1. Identification of the Substance/Mixture and the Company/Undertaking

1.1 Product Identifier

Product Name: NUCEM PRIMER (Hardener)

Revision Date: 24/04/2015

Supercedes Date: 26/03/2015

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

Hardener for 2 components coatings - Industrial use.

1.3 Details of the supplier of the safety data sheet

Manufacturer:

USL
Kingston House
3 Walton Road
Pattinson North
Washington
Tyne & Wear
NE38 8QA
Regulatory / Technical Information:
+44(0)191 416 1530
www.usluk.com

Datasheet Produced by: Norton, Catherine - info@usluk.com

1.4 Emergency telephone number: CHEMTREC +1 703 5273887 (Outside US)

2. Hazard Identification

2.1 Classification of the substance or mixture

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

HAZARD STATEMENTS

Skin Sensitizer, category 1	H317
Serious Eye Damage, category 1	H318
Hazardous to the aquatic environment, Chronic, category 3	H412

2.2 Label elements

Symbol(s) of Product

Signal Word

Danger

Named Chemicals on Label

pentaethylenehexamine, nonylphenol ethoxylates

HAZARD STATEMENTS

Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Serious Eye Damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, Chronic, category 3	H412	Harmful to aquatic life with long lasting effects.

PRECAUTION PHRASES

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/ face protection.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.

2.3 Other hazards

Not applicable

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

3. Composition/Information On Ingredients

3.2 Mixtures

Hazardous Ingredients

CAS-No.	EINEC No.	Name According to EEC	%
127087-87-0	500-315-8	nonylphenol ethoxylates	2.5-10
4067-16-7	223-775-9	pentaethylenehexamine	1.0-2.5

CAS-No.	REACH Reg No.	CLP Symbols	CLP Hazard Statements	M-Factors
127087-87-0		GHS05	H318	
4067-16-7		GHS05-GHS07-GHS09	H314-317-400-410	

Additional Information: The text for CLP Hazard Statements shown above (if any) is given in Section 16.

4. First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice.
AFTER INHALATION: Move to fresh air. Consult a physician after significant exposure.
AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
AFTER EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove

contact lenses. If eye irritation persists, consult a specialist.
AFTER INGESTION: Gently wipe or rinse the inside of the mouth with water. Give small amounts of water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

No Information

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

5. Fire-fighting Measures

5.1 Extinguishing Media:

Alcohol Foam, Carbon Dioxide, Dry Chemical, Water Fog

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above.

5.2 Special hazards arising from the substance or mixture

No Information

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. High volume water jet. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains.

6.3 Methods and material for containment and cleaning up

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). After cleaning, flush away traces with water.

6.4 Reference to other sections

FURTHER INSTRUCTIONS: Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

7. Handling and Storage

7.1 Precautions for safe handling

Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment.
Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Direct sources of heat.
STORAGE CONDITIONS: Do not freeze. Keep tightly closed in a dry, cool and well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.

7.3 Specific end use(s)

No specific advice for end use available.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (UK WELS)

Name	%	LTEL ppm	STEL ppm	STEL mg/m3	LTEL mg/m3	OEL Note
nonylphenol ethoxylates	2.5-10					
pentaethylenehexamine	1.0-2.5					

FURTHER ADVICE: Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified at the EU level under the dangerous substances and preparations regulation.

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: In case of insufficient ventilation wear suitable respiratory equipment.

EYE PROTECTION: Tightly fitting safety goggles.

HAND PROTECTION: Rubber or plastic gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Long sleeved clothing. Remove and wash contaminated clothing before re-use.

OTHER PROTECTIVE EQUIPMENT: No Information

ENGINEERING CONTROLS: Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

Chemical Name:

EC No.: **CAS-No.:**

DNELs - Derived no effect level

	Workers				Consumers			
Route of Exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required							
Inhalation								
Dermal								

PNEC' s - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	
Fresh water sediments	
Marine water	
Marine sediments	
Food chain	
Microorganisms in sewage treatment	
soil (agricultural)	
Air	

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Clear amber
Physical State	Liquid
Odor	Ammoniacal
Odor threshold	Not determined
pH	Alkaline
Melting point / freezing point (éC)	Not determined
Boiling point/range (éC)	100éC - 100éC
Flash Point, (éC)	100

Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	10 - 20
Vapour Pressure	As water
Vapour density	As water
Relative density	Not determined
Solubility in / Miscibility with water	Soluble
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature (éC)	>150éC
Decomposition temperature (éC)	Not determined
Viscosity	Not determined
Explosive properties	Not determined
Oxidising properties	Not determined

9.2 Other information

VOC Content g/l:	0
Specific Gravity (g/cm3)	1.000

10. Stability and Reactivity

10.1 Reactivity
No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
Hazardous polymerisation does not occur.

10.4 Conditions to avoid
Direct sources of heat.

10.5 Incompatible materials
Strong oxidizing agents.

10.6 Hazardous decomposition products
Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.

11. Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:

Oral LD50:

Inhalation LC50:

Irritation:	No information available.
Corrosivity:	No information available.
Sensitization:	No information available.
Repeated dose toxicity:	No information available.
Carcinogenicity:	No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

Additional Information:
No Information

12. Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia): No information
IC50 72hr (Algae): No information
LC50 96hr (fish): No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil: No information

12.5 Results of PBT and vPvB assessment: The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

12.6 Other adverse effects: No information

CAS-No.	Name According to EEC	EC50 48hr	IC50 72hr	LC50 96hr
127087-87-0	nonylphenol ethoxylates	No information	No information	
4067-16-7	pentaethylenehexamine	No information	No information	No information

Further Ecological Information

Contains the following ingredients which are classified as water dangerous according to EEC directive No. 76/464/EEC in percentages > 1%.

CAS-No.	Name According to EEC
4067-16-7	pentaethylenehexamine

13. Disposal Considerations

13.1 WASTE TREATMENT METHODS: If recycling is not practicable, dispose of in compliance with local regulations. Waste codes should be assigned by the user based on the application for which the product was used. Empty containers should be taken to an approved waste handling site for recycling or disposal.

European Waste Code: No Information
Packaging Waste Code: 150110

14. Transport Information

14.1	UN number	
14.2	UN proper shipping name	Not regulated for transport according to ADR/RID, IMDG, and IATA regulations.
	Technical name	
14.3	Transport hazard class(es)	
	Subsidiary shipping hazard	
14.4	Packing group	
14.5	Environmental hazards	
14.6	Special precautions for user	Not applicable
	EmS-No.:	
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Not applicable

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation for the substance or mixture:

National Regulations:

Denmark Product Registration Number:

Danish MAL Code:

Sweden Product Registration Number:

Norway Product Registration Number:

WGK Class:

Chemical Safety Assessment:

15.2 No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

16. Other Information

Text for CLP Hazard Statements shown in Section 3 describing each ingredient:

H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Reasons for revision

This is a new Safety Data Sheet (SDS).

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark
ESIS (The European Chemical Substances Information System), provided by the European Commission Joint Research Centre in Ispra, Italy
Annex VI of the EU Council Directive 67/548/EEC
Council Directive 67/548/EEC - Annex I or EU Council Directive 1999/45/EC
European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation)

EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes"

Acronym & Abbreviation Key:

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m3	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%
EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC	International Bulk Container

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.