SAFETY DATA SHEET

NITOMORTAR UA Base

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

1.1. Product identifier

Product name NITOMORTAR UA Base

Product number 1474100UK9 A, 1929090UK9 A

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

Identified uses Base component of two part epoxy 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
Tel. +44 (0) 1827 262222
Fax. +44 (0) 1827 262444
enquiryuk@fosroc.com

1.4. Emergency telephone number

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

Environmental hazards
Aquatic Chronic 3 - H412

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

2.2. Label elements

Pictogram

Signal word Warning

Hazard statements

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P501 Dispose of contents/container in accordance with national regulations.

Supplemental label information

EUH205 Contains epoxy constituents. May produce an allergic reaction.

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

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 **30-60%**
CAS number: 1317-65-3 **EC number:** –

Classification	Classification (67/548/EEC or 1999/45/EC)
Not Classified	-

EPOXY RESIN (Type A) (Number average MW <= 700) **10-30%**
CAS number: 25068-38-6 **EC number:** 500-033-5

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	

EPOXY RESIN (Type F) (Number average MW <= 700) **10-30%**
CAS number: 9003-36-5 **EC number:** –

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	R43 Xi;R36/38 N;R51/53

TITANIUM DIOXIDE **1-5%**
CAS number: 13463-67-7 **EC number:** 236-675-5 **REACH registration number:** 01-2119489379-17-0000

Classification	Classification (67/548/EEC or 1999/45/EC)
Not Classified	-

SILICA FUME **1-5%**
CAS number: 112945-52-5 **EC number:** –

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H312	-

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
Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Give plenty of water to drink. Keep affected person under observation. Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.

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

Eye contact
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.

Inhalation
May cause respiratory system irritation.

Ingestion
May cause discomfort if swallowed.

Skin contact
Skin irritation.

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 information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards
No unusual fire or explosion hazards noted.

Hazardous combustion products
Carbon monoxide (CO). 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
No specific firefighting precautions known. Control run-off water by containing and keeping it out of sewers and watercourses.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions
Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions
Avoid discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections

For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Provide adequate ventilation. 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. Keep only in the original container.

Storage class

Chemical storage.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

CALCIUM CARBONATE

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

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 FUME

Long-term exposure limit (8-hour TWA): TLV - Threshold Limit Value 2.4 mg/m3 Resp. Dust

WEL = Workplace Exposure Limit

Ingredient comments

WEL = Workplace Exposure Limits

EPOXY RESIN (Type A) (Number average MW <= 700) (CAS: 25068-38-6)

DNEL	Workers - Inhalation; Short term systemic effects: 12.25 mg/m³ Workers - Inhalation; Long term systemic effects: 12.25 mg/m³
PNEC	- Fresh water; 0.006 mg/l

EPOXY RESIN (Type F) (Number average MW <= 700) (CAS: 9003-36-5)

DNEL	Workers - Inhalation; Long term systemic effects: 29.39 mg/m³ Workers - Dermal; Long term systemic effects: 104.15 mg/kg/day
PNEC	- Fresh water; 0.003 mg/l - Marine water; 0.0003 mg/l

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 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.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance
Paste.

Colour
White/off-white.

Odour
Mild.

Odour threshold
Not determined.

pH
Not determined.

Melting point
Not determined.

Flash point
> 150°C CC (Closed cup).

Evaporation rate
Not determined.

Vapour pressure
<0.01 kPa @ 20°C

Relative density
1.96 @ 20°C

Solubility(ies)
Insoluble in water.

Auto-ignition temperature
>200°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

Other information
Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability
Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Not relevant. Will not polymerise.

10.4. Conditions to avoid

Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to avoid
No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. 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 - dermal

ATE dermal (mg/kg)
185185.18518519

Inhalation
Gas or vapour may irritate the respiratory system.

Ingestion
May cause discomfort if swallowed.

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

Eye contact
Irritating to eyes.

Route of entry
Skin and/or eye contact

Toxicological information on ingredients.

EPOXY RESIN (Type A) (Number average MW <= 700)

Acute toxicity - oral

Acute toxicity oral (LD50 mg/kg)
5,000.0

Species
Rat

Based on available data the classification criteria are not met.

Acute toxicity - dermal

Acute toxicity dermal (LD50 mg/kg)
20000.0

Species
Rabbit

ATE dermal (mg/kg)
20000.0

SECTION 12: Ecological Information

Ecotoxicity

NITOMORTAR UA Base

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

12.1. Toxicity

Toxic to aquatic organisms.

Ecological information on ingredients.

EPOXY RESIN (Type A) (Number average MW <= 700)

Acute toxicity - fish

LC , 96 hours: 3.6 mg/l, Leuciscus idus (Golden orfe)

Acute toxicity - aquatic invertebrates

EC , 48 hours: 2.8 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability

The product is not expected to be biodegradable.

Ecological information on ingredients.

EPOXY RESIN (Type A) (Number average MW <= 700)

Persistence and degradability

The product is not readily biodegradable.

12.3. Bioaccumulative potential

No data available on bioaccumulation.

Ecological information on ingredients.

EPOXY RESIN (Type F) (Number average MW <= 700)

Partition coefficient

: log Pow = Approximately 3.8 at 25 C

12.4. Mobility in soil

Mobility

Not applicable.

Ecological information on ingredients.

EPOXY RESIN (Type A) (Number average MW <= 700)

Adsorption/desorption coefficient

Soil - Koc: 445 @ °C

12.5. Results of PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

EPOXY RESIN (Type A) (Number average MW <= 700)

This product does not contain any substances classified as PBT or vPvB.

12.6. 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)	3077
UN No. (IMDG)	3077
UN No. (ICAO)	3077
UN No. (ADN)	3077

NITOMORTAR UA Base

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. EPOXY RESIN
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. EPOXY RESIN
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. EPOXY RESIN
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. EPOXY RESIN

14.3. Transport hazard class(es)

ADR/RID class	9
ADR/RID classification code	M7
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
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

Yes.

14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	2Z
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

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). The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

EU legislation

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 453/2010 of 20 May 2010.

Guidance

NITOMORTAR UA Base

Workplace Exposure Limits EH40. Approved Classification and Labelling Guide (Sixth edition) L131. Safety Data Sheets for Substances and Preparations.

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	06/05/2015
Revision	3
SDS number	21845

Hazard statements in full

H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

SAFETY DATA SHEET
NITOMORTAR UA Hardener

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

1.1. Product identifier

Product name NITOMORTAR UA Hardener

Product number 1474100UK9 B,1929090UK9 B

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

Identified uses Hardener component of two part epoxy 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; 08.30 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 Dam. 1 - H318 Skin Sens. 1 - H317

Environmental hazards Not Classified

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

Hazard statements

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

NITOMORTAR UA Hardener

Precautionary statements P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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.
P405 Store locked up.
P501 Dispose of contents/container in accordance with national regulations.

Contains m-XYLYLENEDIAMINE

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

SILICA SAND **30-60%**

CAS number: 14808-60-7 EC number: 238-878-4

Classification	Classification (67/548/EEC or 1999/45/EC)
Not Classified	-

CALCIUM CARBONATE **30-60%**

CAS number: 1317-65-3

Classification	Classification (67/548/EEC or 1999/45/EC)
Not Classified	-

m-XYLYLENEDIAMINE **1-5%**

CAS number: 1477-55-0 REACH registration number: 01-2119480150-50-xxxx

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Corr. 1A - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412	Xn;R20/22. C;R35. R52/53,R43.

N-(TALLOW ALKYL)-1,3-PROPANDIAMINE OLEATES **1-5%**

CAS number: 61791-53-5 EC number: 263-186-4

M factor (Acute) = 1

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT RE 2 - H373 Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411	C;R34. N;R50.

NITOMORTAR UA Hardener

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 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

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.

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.

5.3. Advice for firefighters

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.

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.

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

Occupational exposure limits

SILICA SAND

Long-term exposure limit (8-hour TWA): WEL 0,1 mg/m³

CALCIUM CARBONATE

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

m-XYLYLENEDIAMINE

Short-term exposure limit (15-minute): WEL

WEL = Workplace Exposure Limit

N-(TALLOW ALKYL)-1,3-PROPANDIAMINE OLEATES (CAS: 61791-53-5)

DNEL
Workers - Inhalation; Long term systemic effects: 0.29 mg/m³
Workers - Dermal; Long term systemic effects: 0.04 mg/kg/day

PNEC
- Fresh water; 6.38 µg/l
- Marine water; 0.638 µg/l
- STP; 98.6 mg/l

2-PIPERAZIN-1-YLETHYLAMINE (CAS: 140-31-8)

DNEL
Workers - Inhalation; Long term systemic effects: 3.6 mg/m³
Workers - Inhalation; Short term systemic effects: 21.4 mg/m³
Workers - Dermal; Long term systemic effects: 3.3 mg/kg/day
Workers - Dermal; Short term systemic effects: 20 mg/kg/day

PNEC
- Fresh water; 0.0058 mg/l
- Marine water; 0.58 mg/l

8.2. Exposure controls

NITOMORTAR UA Hardener

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.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Organic vapour filter.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour	Black.
Odour	Amine.
Odour threshold	Not determined.
pH	pH (concentrated solution): 10 - 11
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	> 200°C CC (Closed cup).
Evaporation rate	Not applicable.
Evaporation factor	Not applicable.
Flammability (solid, gas)	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Other flammability	Not applicable.
Vapour pressure	0.02 kPa @ 20°C
Vapour density	Not determined.
Relative density	1.78 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Partially soluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	>325°C
Decomposition Temperature	Not determined.

Viscosity	Not determined.
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

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 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)	20,796.06

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l)	29.96

Inhalation	Harmful by inhalation.
Ingestion	Harmful if swallowed. Causes burns.
Skin contact	May cause sensitisation by skin contact. Causes burns.
Eye contact	May cause serious eye damage. Causes burns.

Toxicological information on ingredients.

m-XYLYLENEDIAMINE

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	930.0
Species	Rat
ATE oral (mg/kg)	930.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	3,100.0
Species	Rat

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} dust/mist mg/l)	1.34
Species	Rat
ATE inhalation (dusts/mists mg/l)	1.34

Skin sensitisation

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

Germ cell mutagenicity

Genotoxicity - in vitro	Gene mutation:: Negative.

Carcinogenicity

Carcinogenicity	NOAEL 150 mg/kg, Oral, Rat

N-(TALLOW ALKYL)-1,3-PROPANDIAMINE OLEATES

Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} > 5000 mg/kg, Oral, Rat

SECTION 12: Ecological Information

Ecotoxicity The product contains a substance which is very toxic to aquatic organisms and which 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.

m-XYLYLENEDIAMINE

Acute toxicity - fish	LC_{50}, 96 hours: 87.6 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 15.2 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hours, 72 hours: 20.3 mg/l, Freshwater algae

NITOMORTAR UA Hardener

Acute toxicity - microorganisms	EC_{50}, 30 min, 30 minutes: > 1000 mg/l, Activated sludge

N-(TALLOW ALKYL)-1,3-PROPANDIAMINE OLEATES

Acute aquatic toxicity	
LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC_{50}, 96 hours: 0.1-1 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 0.1 - 1.0 mg/l, Daphnia magna
Acute toxicity - aquatic plants	IC_{50}, 72 hours: 0.01-0.1 mg/l, Algae

REACTION PRODUCT WITH FATTY ACID AND AMINOETHYLPIPERAZINE

Acute toxicity - fish	LC_{50}, 96 hours: <1 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: <1 mg/l, Daphnia magna

12.2. Persistence and degradability

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

Ecological information on ingredients.

m-XYLYLENEDIAMINE

Biodegradation	- 49%: 28 days

N-(TALLOW ALKYL)-1,3-PROPANDIAMINE OLEATES

Persistence and degradability	The product is readily biodegradable.

REACTION PRODUCT WITH FATTY ACID AND AMINOETHYLPIPERAZINE

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.

m-XYLYLENEDIAMINE

Bioaccumulative potential	BCF: < 0.3,
Partition coefficient	log Pow: 0.18

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N-(TALLOW ALKYL)-1,3-PROPANDIAMINE OLEATES

Bioaccumulative potential Bioaccumulation is unlikely.

REACTION PRODUCT WITH FATTY ACID AND AMINOETHYLPIPERAZINE

Partition coefficient log Pow: -1.48

12.4. Mobility in soil

Mobility The product contains substances which are water-soluble and may spread in water systems.

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.

N-(TALLOW ALKYL)-1,3-PROPANDIAMINE OLEATES

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

12.6. Other adverse effects

Other adverse effects None known.

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

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

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Not applicable.

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	Control of Substances Hazardous to Health Regulations 2002 (as amended).
EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 453/2010 of 20 May 2010.
Guidance	Workplace Exposure Limits EH40.
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	07/09/2015
Revision	3
SDS number	21852
Hazard statements in full	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H373 May cause damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.