SAFETY DATA SHEET
NITOFLOR FC150 BASE

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

1.1. Product identifier

Product name NITOFLOR FC150 BASE

Product number A1845092 UK9, A1845184 UK9, A1845245 UK9, A1845263 UK9, A1845382 UK9, A1845482 UK9, A1845507 UK9, A1845902 UK9, A1845923 UK9

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
England
Tel: +44 (0) 1827 262222
Fax: +44 (0) 1827 262444
enquiryuk@fosroc.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1827 265 279 (Monday-Sunday 24 hours a day)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT RE 2 - H373

Environmental hazards Aquatic Chronic 2 - H411

Human health See Section 11 for additional information on health hazards.

Environmental The product contains a substance which is hazardous to aquatic organisms and which may cause long term adverse effects in the aquatic environment. See Section 12 for additional information on ecological hazards.

2.2. Label elements

Hazard pictograms

Signal word Warning

NITOFLOR FC150 BASE

Hazard statements	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H373 May cause damage to organs through prolonged or repeated exposure. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	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	SILICA FLOUR (4-50 Micron), EPOXY RESIN (Type A) (Number average MW <= 700), EPOXY RESIN (Type F) (Number average MW <= 700), ALKYL GLYCIDYL ETHER C12/C14
Supplementary precautionary statements	P260 Do not breathe vapour/ spray. P261 Avoid breathing vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P314 Get medical advice/ attention 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. P337+P313 If eye irritation persists: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P391 Collect spillage.

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

SILICA FLOUR (4-50 Micron) **30-60%**

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

Classification
STOT RE 2 - H373

EPOXY RESIN **10-30%**

CAS number: 25068-38-6 EC number: 500-033-5 REACH registration number: 01-2119456619-26-XXXX

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

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Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	**10-30%**
CAS number: 9003-36-5	EC number: 500-006-8
Classification Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	

ALKYL GLYCIDYL ETHER C12/C14		**5-10%**
CAS number: 68609-97-2	EC number: 271-846-8	REACH registration number: 01-2119485289-22-XXXX
Classification Skin Irrit. 2 - H315 Skin Sens. 1 - H317		

DI-ISO-DECYL PHTHALATE	**1-5%**
CAS number: 68515-49-1	EC number: 271-091-4
Classification Not Classified	

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. Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. 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. May cause sensitisation or allergic reactions in sensitive individuals.

Eye contact Irritation of eyes and mucous membranes.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

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

5.2. Special hazards arising from the substance or mixture

Specific hazards No unusual fire or explosion hazards noted.

Hazardous combustion products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting No specific firefighting precautions known. Control run-off water by containing and keeping it out of sewers and watercourses.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

Reference to other sections For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions For professional users only. Provide adequate ventilation. Avoid the formation of mists. Avoid inhalation of vapours/spray and contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep only in the original container.

Storage class Chemical storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

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8.1. Control parameters

Occupational exposure limits

SILICA FLOUR (4-50 Micron)

Long-term exposure limit (8-hour TWA): WEL 0.1 mg/m³ respirable dust

DI-ISO-DECYL PHTHALATE

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

EPOXY RESIN (CAS: 25068-38-6)

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

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (CAS: 9003-36-5)

DNEL	Workers - Inhalation; Long term systemic effects: 29.39 mg/m³ Workers - Dermal; Long term systemic effects: 104.15 mg/kg/day Workers - Dermal; Short term local effects: 8.3 µg/cm2
PNEC	- Fresh water; 0.003 mg/l - marine water; 0.0003 mg/l - STP; 10 mg/l

ALKYL GLYCIDYL ETHER C12/C14 (CAS: 68609-97-2)

DNEL	Workers - Inhalation; Long term systemic effects: 3.6 mg/m³ Workers - Dermal; Long term systemic effects: 1 mg/kg/day
PNEC	- Fresh water; 0.0072 mg/l - marine water; 0.00072 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. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact. Wear apron or protective clothing in case of contact.

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Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Do not eat, drink or smoke when using this product. Do not smoke in work area.
Respiratory protection	No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs. Organic vapour filter.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour	Various colours.
Odour	Almost odourless.
Odour threshold	Not determined.
pH	Not applicable.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	Not applicable.
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not determined.
Other flammability	Not applicable.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	1.62 @ at 23°C
Bulk density	Not applicable.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	1500 P @ at 23°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 determined.

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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The following materials may react with the product: Acids. Alkalis. Amines.

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

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

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

Inhalation Gas or vapour may irritate the respiratory system.

Ingestion May cause discomfort if swallowed.

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

Eye contact Irritating to eyes.

Route of exposure Skin and/or eye contact

Toxicological information on ingredients.

SILICA FLOUR (4-50 Micron)

Carcinogenicity

IARC carcinogenicity IARC Group 1 Carcinogenic to humans.

EPOXY RESIN

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg) 5,000.0

Species Rat

Notes (oral LD_{50}) Based on available data the classification criteria are not met.

ATE oral (mg/kg) 5,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg) 20,000.0

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Species	Rabbit
ATE dermal (mg/kg)	20,000.0

Skin corrosion/irritation

Animal data	Rabbit Moderately irritating.

Skin sensitisation

Skin sensitisation	May cause sensitisation by skin contact.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Acute toxicity - oral

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

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 3.6 mg/l, Leuciscus idus (Golden orfe) LC_{50}, 96 hours: 2 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 1.8 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC50, 72 hours: 11 mg/l, Scenedesmus capricornutum (fresh water algae)

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: >1000 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: >1000 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

Persistence and degradability	The product is not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not applicable.

NITOFLOR FC150 BASE

Ecological information on ingredients.

EPOXY RESIN

Partition coefficient log Pow: 3.242

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Partition coefficient : log Pow = Approximately 3.8 at 25 C

12.4. Mobility in soil

Mobility Not applicable.

Ecological information on ingredients.

EPOXY RESIN

Mobility The product has poor water-solubility.

Adsorption/desorption coefficient Water - Koc: 445 @ °C

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.

EPOXY RESIN

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

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

UN No. (ADN) 3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BISPHENOL A & F BLEND)

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Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BISPHENOL A & F BLEND)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BISPHENOL A & F BLEND)
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BISPHENOL A & F BLEND)

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

14.4. Packing group

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

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

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

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

SECTION 15: Regulatory information

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

National regulations	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 2015/830 of 28 May 2015.
Guidance	Workplace Exposure Limits EH40. Respiratory protective equipment at work (HSG53).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information	For professional users only. 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	25/06/2018
Revision	2a
Supersedes date	08/12/2015
SDS number	12434
Hazard statements in full	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H373 May cause damage to organs through prolonged or repeated exposure. H373 May cause damage to organs (Lungs) through prolonged or repeated exposure if inhaled. 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
NITOFLOR FC150 HARDENER

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

1.1. Product identifier

Product name NITOFLOR FC150 HARDENER

Product number A1845205 UK9

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
England
Tel: +44 (0) 1827 262222
Fax: +44 (0) 1827 262444
enquiryuk@fosroc.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1827 265 279 (Monday-Sunday 24 hours a day)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 3 - H412

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

2.2. Label elements

Hazard pictograms

Signal word Danger

NITOFLOR FC150 HARDENER

Hazard statements
H302+H332 Harmful if swallowed or if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements
P261 Avoid breathing vapour/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 Dispose of contents/ container in accordance with national regulations.

Contains
BENZYL ALCOHOL, ISOPHORONEDIAMINE, m-PHENYLENEBIS(METHYLAMINE), 1,3-BENZENEDIMETHANAMINE POLYMER WITH BISPHENOL-A-EPICHLORHYDRIN MW<700

Supplementary precautionary statements
P260 Do not breathe vapour/ spray.
P264 Wash contaminated skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTRE/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.
P405 Store locked up.

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

BENZYL ALCOHOL **25 - 50%**

CAS number: 100-51-6 EC number: 202-859-9 REACH registration number: 01-2119492630-38-xxxx

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H332
Eye Irrit. 2 - H319
Aquatic Chronic 2 - H411

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ISOPHORONEDIAMINE		10 - 25%
CAS number: 2855-13-2	EC number: 220-666-8	REACH registration number: 01-2119514687-32-xxxx

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H312
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Aquatic Chronic 3 - H412

m-PHENYLENEBIS(METHYLAMINE)		10 - 25%
CAS number: 1477-55-0	EC number: 216-032-5	REACH registration number: 01-2119480150-50-XXXX

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H332
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Aquatic Chronic 3 - H412

SALICYLIC ACID		2.5 - 10%
CAS number: 69-72-7	EC number: 200-712-3	REACH registration number: 01-2119486984-17-XXXX

Classification
Acute Tox. 4 - H302
Eye Dam. 1 - H318

Liquid Epoxy Resin - MXDA Adduct		2.5 - 10%
CAS number: 113930-69-1	EC number: 500-302-7	

Classification
Skin Corr. 1A - H314
Eye Dam. 1 - H318
Skin Sens. 1 - H317
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 Immediately remove contaminated clothing.

Inhalation Get medical attention. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.

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Ingestion Do not induce vomiting. Never give anything by mouth to an unconscious person. Do not induce vomiting. Remove affected person from source of contamination. Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. Get medical attention immediately. 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 promptly if symptoms occur after washing.

Eye contact Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. 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 damage to mucous membranes in nose, throat, lungs and bronchial system.

Ingestion May cause chemical burns in mouth and throat. May cause chemical burns in mouth and throat.

Skin contact Chemical burns.

Eye contact Corneal damage.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with 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 Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO2). Nitrous gases (NOx).

Hazardous combustion products Heating may generate the following products: Toxic and corrosive gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting No specific firefighting precautions known.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions

Environmental precautions Avoid or minimise the creation of any environmental contamination.

6.3. Methods and material for containment and cleaning up

NITOFLOR FC150 HARDENER

Methods for cleaning up Provide adequate ventilation. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Stop leak if possible without risk. DO NOT touch spilled material! Absorb in vermiculite, dry sand or earth and place into containers. 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. Collect and dispose of spillage as indicated in Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid inhalation of vapours. Use approved respirator if air contamination is above an acceptable level.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep only in the original container.

Storage class Corrosive storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

BENZYL ALCOHOL (CAS: 100-51-6)

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

ISOPHORONEDIAMINE (CAS: 2855-13-2)

PNEC
- marine water; 0.006 mg/l
- Fresh water; 0.06 mg/l
- Soil; 1.121 mg/kg

SALICYLIC ACID (CAS: 69-72-7)

DNEL
Workers - Inhalation; Long term systemic effects: 5 mg/m³
Workers - Dermal; Long term systemic effects: 2.3 mg/kg bw/day
Workers - Inhalation; Long term local effects: 5 mg/m³
General population - Inhalation; Long term systemic effects: 4 mg/m³

PNEC
- Fresh water; 0.20 mg/l
- marine water; 0.020 mg/l
- Sediment (Freshwater); 1.42 mg/kg dw
- Soil; 0.17 mg/kg dw
- STP; 16.2 mg/l

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8.2. Exposure controls

Protective equipment

Appropriate engineering controls	Provide adequate general and local exhaust ventilation.
Eye/face protection	The following protection should be worn: Wear tight-fitting, chemical splash goggles or face shield.
Hand protection	It is recommended that gloves are made of the following material: Viton rubber (fluoro rubber). Nitrile rubber. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. Immediately remove contaminated clothing.
Hygiene measures	Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap and water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.
Respiratory protection	It is recommended to use respiratory equipment with combination filter, type A2/P2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Yellow.
Odour	Amine.
Odour threshold	Not determined.
Melting point	Not determined.
Initial boiling point and range	>200°C @ 101 kPa
Flash point	>100°C
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 1.2 % Upper flammable/explosive limit: 13 %
Vapour pressure	0.01 kPa @ 20°C
Vapour density	Not determined.
Relative density	1.06 @ 23°C
Bulk density	Not applicable.
Solubility(ies)	Immiscible with water.
Partition coefficient	Not determined.

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Auto-ignition temperature	380°C
Decomposition Temperature	Not determined.
Viscosity	200 mPa s @ 25°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

Reactivity The following materials may react with the product: Acids. Alkalis. Oxidising materials.

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions The following materials may react with the product: Acids. Alkalis. Oxidising materials. Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid Not known.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Heating may generate the following products: Toxic and corrosive gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 521.03

Acute toxicity - dermal

ATE dermal (mg/kg) 4,782.61

Acute toxicity - inhalation

ATE inhalation (gases ppm)	9,000.0
ATE inhalation (vapours mg/l)	15.49
ATE inhalation (dusts/mists mg/l)	3.0

Inhalation Harmful by inhalation. May cause damage to mucous membranes in nose, throat, lungs and bronchial system.

Ingestion Harmful if swallowed. May cause chemical burns in mouth, oesophagus and stomach.

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Skin contact	Causes burns. Harmful in contact with skin. May cause sensitisation by skin contact.
Eye contact	Causes burns.
Target organs	Skin Eyes Respiratory system, lungs

Toxicological information on ingredients.

BENZYL ALCOHOL

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	1,620.0
Species	Rat
ATE oral (mg/kg)	1,620.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	2,000.0
Species	Rabbit
ATE dermal (mg/kg)	2,001.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} dust/mist mg/l)	4.178
Species	Rat
ATE inhalation (dusts/mists mg/l)	4.178

Skin sensitisation

Skin sensitisation	Not sensitising.

Carcinogenicity

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

Specific target organ toxicity - repeated exposure

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

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

ISOPHORONEDIAMINE

Acute toxicity - oral

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Acute toxicity oral (LD_{50} mg/kg)	1,030.0
Species	Rat
ATE oral (mg/kg)	500.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	1,840.0
Species	Rabbit
ATE dermal (mg/kg)	1,100.0

m-PHENYLENEBIS(METHYLAMINE)

Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} 930 mg/kg, Oral, Rat
ATE oral (mg/kg)	500.0

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} >3100 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Notes (inhalation LC_{50})	LC50 1.34 mg/l, Inhalative, (Mist), Rat (OECD 403)
ATE inhalation (vapours mg/l)	11.0

SALICYLIC ACID

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	891.0
Species	Rat
ATE oral (mg/kg)	891.0

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} >2000 mg/kg, Dermal, Rat

Acute toxicity - inhalation

Notes (inhalation LC_{50})	LC50 >0.9 mg/l, Inhalation, Rat

SECTION 12: Ecological information

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

12.1. Toxicity

Toxicity Ecotoxic to fish/daphnia/algae

Ecological information on ingredients.

BENZYL ALCOHOL

Acute aquatic toxicity

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Acute toxicity - fish	LC_{50}, 96 hours: 460 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC_{80}, 48 hours: 230 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hours: 770 mg/l, Pseudokirchneriella subcapitata

ISOPHORONEDIAMINE

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 110 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 23 mg/l, Daphnia magna
Acute toxicity - aquatic plants	IC_{50}, 72 hours: 50 mg/l, Algae

SALICYLIC ACID

Acute aquatic toxicity

Acute toxicity - fish	LC_{80}, : 90 mg/l, Leuciscus idus (Golden orfe) LC_{50}, 96 hours: 1.3 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC_{80}, 24 hours: 105 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.

BENZYL ALCOHOL

Persistence and degradability	The product is readily biodegradable.

ISOPHORONEDIAMINE

Persistence and degradability	The product is not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

Ecological information on ingredients.

BENZYL ALCOHOL

Bioaccumulative potential	The product does not contain any substances expected to be bioaccumulating.
Partition coefficient	log Kow: 1.10

ISOPHORONEDIAMINE

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

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Partition coefficient log Kow: 0.99

12.4. Mobility in soil

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

Ecological information on ingredients.

BENZYL ALCOHOL

Mobility Insoluble in water.

12.5. Results of PBT and vPvB assessment

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

Ecological information on ingredients.

BENZYL ALCOHOL

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

12.6. Other adverse effects

Other adverse effects None known.

Ecological information on ingredients.

BENZYL ALCOHOL

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered. 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. Waste material and any included combustible absorbent and containers should be suitable for incineration at an approved facility.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 2735

UN No. (IMDG) 2735

UN No. (ICAO) 2735

UN No. (ADN) 2735

14.2. UN proper shipping name

Proper shipping name (ADR/RID) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS ISOPHORONEDIAMINE, m-PHENYLENEBIS(METHYLAMINE))

Proper shipping name (IMDG) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS ISOPHORONEDIAMINE, m-PHENYLENEBIS(METHYLAMINE))

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Proper shipping name (ICAO)	AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS ISOPHORONEDIAMINE, m-PHENYLENEBIS(METHYLAMINE))
Proper shipping name (ADN)	AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS ISOPHORONEDIAMINE, m-PHENYLENEBIS(METHYLAMINE))

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

14.4. Packing group

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

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

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

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

SECTION 15: Regulatory information

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

National regulations	Control of Substances Hazardous to Health Regulations 2002 (as amended).
EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015.

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Guidance	Workplace Exposure Limits EH40. Approved Classification and Labelling Guide (Sixth edition) L131. 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	Only trained personnel should use this material. For professional users only.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	30/08/2019
Revision	2b
Supersedes date	25/06/2018
SDS number	12435
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. H411 Toxic to aquatic life with long lasting effects. H412 Harmful 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.