

SAFETY DATA SHEET

LOKFIX E77 Part A

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

1.1. Product identifier

Product name LOKFIX E77 Part A

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

Identified uses Adhesive mortar for fastening elements. A-Component. For professional use.

1.3. Details of the supplier of the safety data sheet

Supplier Fosroc Chemical (India) Pvt. Ltd
 Embassy Point, No 150, 2nd Floor,
 Infantry Road,
 Bangalore - 560001
 +91 80 2355 1500/ 4252 1900
 +91 80 2355 1510

1.4. Emergency telephone number

Emergency telephone +91 80 2355 1500/ 4252 1900

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

Environmental hazards Aquatic Chronic 2 - H411

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

2.2. Label elements

Hazard pictograms



Signal word Warning

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

LOKFIX E77 Part A

Precautionary statements	P264 Wash contaminated skin thoroughly after handling. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P337+P313 If eye irritation persists: Get medical advice/ attention. P391 Collect spillage.
Contains	2,2'-[1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE, 1,6 HEXANEDIOL DIGLYCIDYL ETHER
Supplementary precautionary statements	P261 Avoid breathing dust. P272 Contaminated work clothing should not be allowed out of the workplace. 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. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

2,2'-[1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE CAS number: 1675-54-3 EC number: 216-823-5	30-60%
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	
1,6 HEXANEDIOL DIGLYCIDYL ETHER CAS number: 16096-31-4 EC number: 240-260-4	10-30%
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412	

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Promptly remove any clothing that becomes contaminated. Get medical advice/attention if you feel unwell.
Inhalation	Move affected person to fresh air at once. If in doubt, get medical attention promptly.
Ingestion	Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention.

LOKFIX E77 Part A

Skin contact After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Get medical attention. Wash contaminated clothing before reuse.

Eye contact Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention.

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

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

Eye contact Causes serious eye irritation.

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

Hazardous combustion products Toxic pyrolysis products Carbon monoxide (CO).

5.3. Advice for firefighters

Protective actions during firefighting In case of fire and/or explosion do not breathe fumes. Use water spray to reduce vapours. Avoid the spillage or runoff entering drains, sewers or 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 gloves, eye and face protection. Avoid contact with skin, eyes and clothing. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Avoid release to the environment. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage. Absorb in vermiculite, dry sand or earth and place into containers. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions For professional users only. Use only outdoors or in a well-ventilated area. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product.

LOKFIX E77 Part A

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Keep only in the original container in a cool, well-ventilated place. Container must be kept tightly closed when not in use. Avoid contact with oxidising agents. Keep away from food, drink and animal feeding stuffs.

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

Additional advice on limit values

This mixture contains quartz filler which is firmly bound in the pasty component, and thus not freely available during use, so that a risk of dust inhalation is excluded. Exposure limit values for respirable dusts are not relevant for this product.

2,2'-[1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE (CAS: 1675-54-3)

DNEL

Workers - Dermal; Short term systemic effects: 8.33 mg/kg/day
 Workers - Inhalation; Short term systemic effects: 12.25 mg/kg/day
 Workers - Dermal; Long term systemic effects: 8.33 mg/kg/day
 Workers - Inhalation; Long term systemic effects: 12.25 mg/kg/day
 Consumer - Dermal; Short term systemic effects: 3.571 mg/kg/day
 Consumer - Oral; Short term systemic effects: 0.75 mg/kg/day
 Consumer - Dermal; Long term systemic effects: 3.571 mg/kg/day
 Consumer - Oral; Long term systemic effects: 0.75 mg/kg/day

1,6 HEXANEDIOL DIGLYCIDYL ETHER (CAS: 16096-31-4)

DNEL

Workers - Inhalation; Long term systemic effects: 10.57 mg/m³
 Workers - Inhalation; Long term local effects: 0.44 mg/m³
 Workers - Dermal; Long term systemic effects: 6.0 mg/kg/day
 Workers - Dermal; Long term local effects: 0.0226 mg/cm²

PNEC

Fresh water; 0.0115 mg/l
 marine water; 0.00115 mg/l
 Sediment (Freshwater); 0.283 mg/kg
 Sediment (Marinewater); 0.283 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Mechanical ventilation or local exhaust ventilation may be required.

Eye/face protection

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

Hand protection

To protect hands from chemicals, gloves should comply with European Standard EN374. It is recommended that gloves are made of the following material: Nitrile rubber. Thickness: > 0.7 mm The selected gloves should have a breakthrough time of at least 8 hours.

Other skin and body protection

Wear protective clothing.

LOKFIX E77 Part A

Hygiene measures	Take off contaminated clothing and wash it before reuse. Wash contaminated skin thoroughly after handling. Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Solid. Paste.
Colour	Beige.
Odour	Characteristic.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	Not applicable.
Evaporation rate	Not determined.
Flammability (solid, gas)	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	Not determined.
Relative density	1.45 @ 20°C
Solubility(ies)	Insoluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Explosive properties	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	See Section 10.3 (Possibility of hazardous reactions) for further information.
-------------------	--

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 violently with the product: Strong oxidising agents.
---	--

10.4. Conditions to avoid

LOKFIX E77 Part A

Conditions to avoid Avoid heat. Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity

Summary Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Summary Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

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

Toxicological information on ingredients.

1,6 HEXANEDIOL DIGLYCIDYL ETHER

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,190.0

Species Rat

ATE oral (mg/kg) 2,190.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >2000 mg/kg, Dermal, Rat

LOKFIX E77 Part A

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 0.035

Species Rat

SECTION 12: Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Ecological information on ingredients.

2,2'-[1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE

Ecotoxicity Toxic to aquatic life with long lasting effects.

12.1. Toxicity

Ecological information on ingredients.

2,2'-[1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE

Toxicity Very toxic to aquatic life with long lasting effects.

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 2 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 1.8 mg/l, Daphnia magna

Acute toxicity - aquatic plants ErC₅₀, 72 hours: 11 mg/l, Scenedesmus capricornutum (fresh water algae)

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 0.3 mg/l, Daphnia magna

1,6 HEXANEDIOL DIGLYCIDYL ETHER

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 30 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 47 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability The product contains persistent (not readily degradable) substances. The other substances in the product are expected to be readily biodegradable.

Ecological information on ingredients.

2,2'-[1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE

Persistence and degradability The product is not readily biodegradable.

Biodegradation - Degradation 12%: 28 days
OECD 302B

1,6 HEXANEDIOL DIGLYCIDYL ETHER

LOKFIX E77 Part A

Biodegradation - 71%: 28 days
OECD 301D

12.3. Bioaccumulative potential

Bioaccumulative potential Not determined.

Partition coefficient Not determined.

Ecological information on ingredients.

2,2'-[1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE

Bioaccumulative potential Potentially bioaccumulating.

Partition coefficient log Pow: 3.24 Estimated value

1,6 HEXANEDIOL DIGLYCIDYL ETHER

Bioaccumulative potential BCF: 3.57,

Partition coefficient log Pow: 0.822

12.4. Mobility in soil

Mobility Insoluble in water.

Ecological information on ingredients.

2,2'-[1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE

Mobility Low mobility.

Adsorption/desorption coefficient - Koc: Estimated value. 1800 - 4400 @ 20°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.

2,2'-[1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXYMETHYLENE)]BISOXIRANE

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 Dispose of waste product or used containers in accordance with local regulations

Waste class 080409
150110

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 3077

LOKFIX E77 Part A

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

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



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	(-)

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

LOKFIX E77 Part A

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

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

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

Commission Regulation (EU) No 453/2010 of 20 May 2010.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

ATE: Acute Toxicity Estimate.

BCF: Bioconcentration Factor.

CAS: Chemical Abstracts Service.

DNEL: Derived No Effect Level.

EC₅₀: 50% of maximal Effective Concentration.

ErC50: the concentration of test substance which results in a 50% reduction in growth rate relative to the control.

ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.

IMDG: International Maritime Dangerous Goods.

LC₅₀: Lethal Concentration to 50 % of a test population.

LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).

NOEC: No Observed Effect Concentration.

PBT: Persistent, Bioaccumulative and Toxic substance.

PNEC: Predicted No Effect Concentration.

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.

RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.

STP: Sewage treatment plant

vPvB: Very Persistent and Very Bioaccumulative.

Revision comments This is the first issue.

Revision date 25/08/2021

Revision 0

SDS number 29984

LOKFIX E77 Part A

Hazard statements in full

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.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET

LOKFIX E77 Part B

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

1.1. Product identifier

Product name LOKFIX E77 Part B

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

Identified uses Adhesive mortar for fastening elements. B-Component. For professional use.

1.3. Details of the supplier of the safety data sheet

Supplier Fosroc Chemical (India) Pvt. Ltd
 Embassy Point, No 150, 2nd Floor,
 Infantry Road,
 Bangalore - 560001
 +91 80 2355 1500/ 4252 1900
 +91 80 2355 1510

1.4. Emergency telephone number

Emergency telephone +91 80 2355 1500/ 4252 1900

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 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 3 - H412

Human health May cause sensitisation or allergic reactions in sensitive individuals.

2.2. Label elements

Hazard pictograms



Signal word Danger

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

LOKFIX E77 Part B

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. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P501 Dispose of contents/ container in accordance with national regulations.
Contains	2,2,4(or 2,4,4)-TRIMETHYLHEXANE-1,6-DIAMINE, 2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL, m-PHENYLENEBIS(METHYLAMINE)
Supplementary precautionary statements	P260 Do not breathe dust. P261 Avoid breathing dust. P264 Wash contaminated skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing should not be allowed out of the workplace. P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell. P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/ doctor. P321 Specific treatment (see medical advice on this label). 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

2,2,4(or 2,4,4)-TRIMETHYLHEXANE-1,6-DIAMINE			30-60%
CAS number: 25620-58-0	EC number: 247-134-8	REACH registration number: 01-2119560598-25-XXXX	
Classification Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412			

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL			5-10%
CAS number: 90-72-2	EC number: 202-013-9	REACH registration number: 01-2119560597-27-XXXX	
Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319			

LOKFIX E77 Part B

m-PHENYLENEBIS(METHYLAMINE)			5-10%
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 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412			
p-TOLUENESULPHONIC ACID			1-5%
CAS number: 104-15-4	EC number: 203-180-0	REACH registration number: 01-2119538811-39-XXXX	
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335			

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	Promptly remove any clothing that becomes contaminated. Get medical advice/attention if you feel unwell.
Inhalation	Move affected person to fresh air at once. If in doubt, get medical attention promptly.
Ingestion	Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention.
Skin contact	After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Get medical attention. Wash contaminated clothing before reuse.
Eye contact	Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention.

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

Ingestion	Harmful if swallowed.
Skin contact	Causes severe burns. May cause skin sensitisation or allergic reactions in sensitive individuals.
Eye contact	Causes serious eye 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.

LOKFIX E77 Part B

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products Toxic pyrolysis products Carbon monoxide (CO).

5.3. Advice for firefighters

Protective actions during firefighting In case of fire and/or explosion do not breathe fumes. Use water spray to reduce vapours. Avoid the spillage or runoff entering drains, sewers or 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 gloves, eye and face protection. Avoid contact with skin, eyes and clothing. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Avoid release to the environment. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage. Absorb in vermiculite, dry sand or earth and place into containers. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions For professional users only. Use only outdoors or in a well-ventilated area. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep only in the original container in a cool, well-ventilated place. Container must be kept tightly closed when not in use. Avoid contact with oxidising agents. Keep away from food, drink and animal feeding stuffs. Store at temperatures between 5°C and 35°C.

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

Additional advice on limit values This mixture contains quartz filler which is firmly bound in the pasty component, and thus not freely available during use, so that a risk of dust inhalation is excluded. Exposure limit values for respirable dusts are not relevant for this product.

2,2,4(or 2,4,4)-TRIMETHYLHEXANE-1,6-DIAMINE (CAS: 25620-58-0)

LOKFIX E77 Part B

PNEC	Fresh water; 0.102 mg/l
	marine water; 0.01 mg/l
	Sediment (Freshwater); 0.662 mg/kg
	Sediment (Marinewater); 0.062 mg/kg
	STP; 72 mg/l

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL (CAS: 90-72-2)

PNEC	Fresh water; 0.084 mg/l
	marine water; 0.0084 mg/l
	STP; 0.2 mg/l

m-PHENYLENEBIS(METHYLAMINE) (CAS: 1477-55-0)

DNEL	Workers - Inhalation; Long term systemic effects: 1.2 mg/m ³
	Workers - Inhalation; Long term local effects: 0.2 mg/m ³
	Workers - Dermal; Long term systemic effects: 0.33 mg/kg/day

PNEC	Fresh water; 0.094 mg/l
	marine water; 0.009 mg/l
	Sediment (Freshwater); 0.43 mg/kg
	Sediment (Marinewater); 0.043 mg/kg
	STP; 10 mg/l
	Soil; 0.045 mg/kg

p-TOLUENESULPHONIC ACID (CAS: 104-15-4)

DNEL	Workers - Dermal; Long term systemic effects: 7.6 mg/kg/day
	Workers - Inhalation; Long term systemic effects: 53.6 mg/m ³

PNEC	Fresh water; 0.073 mg/l
	marine water; 0.0073 mg/l
	Sediment (Freshwater); 0.0577 mg/kg
	Sediment (Marinewater); 0.00577 mg/kg
	Soil; 0.016 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Mechanical ventilation or local exhaust ventilation may be required.

Eye/face protection

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

Hand protection

To protect hands from chemicals, gloves should comply with European Standard EN374. It is recommended that gloves are made of the following material: Nitrile rubber. Thickness: > 0.7 mm The selected gloves should have a breakthrough time of at least 8 hours.

Other skin and body protection

Wear protective clothing.

Hygiene measures

Take off contaminated clothing and wash it before reuse. Wash contaminated skin thoroughly after handling. Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

LOKFIX E77 Part B

Respiratory protection If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Solid. Paste.
Colour	Grey. Red.
Odour	Characteristic.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	Not applicable.
Evaporation rate	Not determined.
Flammability (solid, gas)	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	Not determined.
Relative density	1.42 @ 20°C
Solubility(ies)	Insoluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Explosive properties	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.
Volatile organic compound	This product contains a maximum VOC content of 21.7 %.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	See Section 10.3 (Possibility of hazardous reactions) for further information.
------------	--

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 violently with the product: Oxidising agents.
------------------------------------	---

10.4. Conditions to avoid

Conditions to avoid	Avoid heat.
---------------------	-------------

10.5. Incompatible materials

LOKFIX E77 Part B

Materials to avoid Strong oxidising agents. Organic peroxides/hydroperoxides.

10.6. Hazardous decomposition products

Hazardous decomposition products No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Based on available data the classification criteria are not met.

Acute toxicity - oral

ATE oral (mg/kg) 914.08

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 111.11

Skin corrosion/irritation

Skin corrosion/irritation Causes severe burns.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity

Summary Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Summary Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

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

Toxicological information on ingredients.

2,2,4(or 2,4,4)-TRIMETHYLHEXANE-1,6-DIAMINE

Acute toxicity - oral

ATE oral (mg/kg) 500.0

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 2169 mg/kg, Oral, Rat

LOKFIX E77 Part B

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ 1280 mg/kg, Dermal, Rat

m-PHENYLENEBIS(METHYLAMINE)

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 930 mg/kg, Oral, Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >3100 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ 1.34 mg/l, Inhalative, (Mist), Rat (OECD 403)

ATE inhalation (vapours mg/l) 11.0

SECTION 12: Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

12.1. Toxicity

Ecological information on ingredients.

2,2,4(or 2,4,4)-TRIMETHYLHEXANE-1,6-DIAMINE

Acute aquatic toxicity

Acute toxicity - fish NOEC, 30 days: 10.9 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic invertebrates NOEC, 21 days: 1.02 mg/l, Daphnia magna

Acute toxicity - aquatic plants ErC₅₀, 72 hours: 43.5 mg/l, Selenastrum capricornutum

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 175 mg/l, Cyprinus carpio (Common carp)

Acute toxicity - aquatic plants ErC₅₀, 72 hours: 84 mg/l, Desmodesmus subspicatus

m-PHENYLENEBIS(METHYLAMINE)

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 87.6 mg/l, Oryzias latipes (Red killifish)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 15.2 mg/l, Daphnia magna
NOEC, 21 days: 4.7 mg/l, Daphnia magna

Acute toxicity - aquatic plants ErC₅₀, 72 hours: 32.1 mg/l, Selenastrum capricornutum

12.2. Persistence and degradability

LOKFIX E77 Part B

Persistence and degradability No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential Not determined.

Partition coefficient Not determined.

Ecological information on ingredients.

2,2,4(or 2,4,4)-TRIMETHYLHEXANE-1,6-DIAMINE

Partition coefficient log Pow: -0.3

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

Partition coefficient log Pow: 0.219

m-PHENYLENEBIS(METHYLAMINE)

Bioaccumulative potential BCF: 2.69,

Partition coefficient log Pow: 0.18

p-TOLUENESULPHONIC ACID

Partition coefficient log Pow: 0.93

12.4. Mobility in soil

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.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations

Waste class 080409
150110

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 3259

UN No. (IMDG) 3259

UN No. (ICAO) 3259

UN No. (ADN) 3259

14.2. UN proper shipping name

Proper shipping name (ADR/RID) AMINES, SOLID, CORROSIVE, N.O.S. (2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine, m-Phenylenebis(methylamine))

LOKFIX E77 Part B

Proper shipping name (IMDG) AMINES, SOLID, CORROSIVE, N.O.S. (2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine, m-Phenylenebis(methylamine))

Proper shipping name (ICAO) AMINES, SOLID, CORROSIVE, N.O.S. (2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine, m-Phenylenebis(methylamine))

Proper shipping name (ADN) AMINES, SOLID, CORROSIVE, N.O.S. (2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine, m-Phenylenebis(methylamine))

14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID classification code	C8
ADR/RID label	8
IMDG class	8
ICAO class/division	8
ADN class	8

Transport labels



14.4. Packing group

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

14.5. Environmental hazards

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

LOKFIX E77 Part B

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

National regulations	The Manufacture, storage and import of hazardous chemicals rules 1989.
EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 453/2010 of 20 May 2010.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. ATE: Acute Toxicity Estimate. BCF: Bioconcentration Factor. CAS: Chemical Abstracts Service. DNEL: Derived No Effect Level. EC₅₀: 50% of maximal Effective Concentration. ErC50: the concentration of test substance which results in a 50% reduction in growth rate relative to the control. ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods. LC₅₀: Lethal Concentration to 50 % of a test population. LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose). NOEC: No Observed Effect Concentration. PBT: Persistent, Bioaccumulative and Toxic substance. PNEC: Predicted No Effect Concentration. REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. STP: Sewage treatment plant vPvB: Very Persistent and Very Bioaccumulative.
---	--

Revision comments	This is the first issue.
Revision date	25/08/2021
Revision	0
SDS number	29985

LOKFIX E77 Part B

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.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.