SAFETY DATA SHEET
THIOFLEX 555 BASE

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

1.1. Product identifier

Product name THIOFLEX 555 BASE

Product number A249200UK9

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

Identified uses Base component of two-part polysulphide sealant

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 Not Classified

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 statements H412 Harmful to aquatic life with long lasting effects.

Precautionary statements P273 Avoid release to the environment.
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

THIOFLEX 555 BASE

LIQUID POLYSULFIDE POLYMER	60-100%
CAS number: 68611-50-7	

Classification	Classification (67/548/EEC or 1999/45/EC)
Aquatic Chronic 3 - H412	R52/53.

TITANIUM DIOXIDE		10-30%
CAS number: 13463-67-7	EC number: 236-675-5	

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

SOLVENT NAPHTHA		1-5%
CAS number: 64742-95-6	EC number: 265-199-0	REACH registration number: 01-2119455851-35

Classification
Flam. Liq. 3 - H226
STOT SE 3 - H335, H336
Asp. Tox. 1 - H304
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 Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Inhalation Move affected person to fresh air at once. 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.

Ingestion Do not induce vomiting. Never give anything by mouth to an unconscious person. 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. Get medical attention.

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. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist after washing.

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.

Skin contact Skin irritation.

Eye contact Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

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

THIOFLEX 555 BASE

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 foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media None.

5.2. Special hazards arising from the substance or mixture

Specific hazards The product is non-combustible. Irritating gases or vapours. No unusual fire or explosion hazards noted.

Hazardous combustion products When heated, vapours/gases hazardous to health may be formed. Heating may generate the following products: Carbon monoxide (CO). Carbon dioxide (CO2). Hydrogen sulphide (H2S). Sulphur dioxide. Formaldehyde

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 suitable protective clothing, gloves and eye/face protection.

6.2. Environmental precautions

Environmental precautions Prevent entry into drains, sewers and water courses.

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. Label the containers containing waste and contaminated materials and remove from the area as soon as possible.

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. 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 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

THIOFLEX 555 BASE

Occupational exposure limits

TITANIUM DIOXIDE

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³

SOLVENT NAPHTHA

Long-term exposure limit (8-hour TWA): WEL 19 ppm

WEL = Workplace Exposure Limit

TITANIUM DIOXIDE (CAS: 13463-67-7)

DNEL	Industry - Inhalation; Long term local effects: 10 mg/m³ Consumer - Oral; Long term systemic effects: 700 mg/kg/day
PNEC	- Fresh water; 0.127 mg/l - Sediment (Freshwater); >=1000 mg/kg - Marine water; 1 mg/l - Sediment (Marinewater); >= 100 mg/kg - Soil; 100 mg/kg - STP; 100 mg/l

SOLVENT NAPHTHA (CAS: 64742-95-6)

DNEL	Professional - Dermal; systemic effects: 25 mg/kg/day Professional - Inhalation; systemic effects: 150 mg/m³ Consumer - Oral; systemic effects: 11 mg/kg/day Consumer - Inhalation; systemic effects: 32 mg/m³ Consumer - Dermal; systemic effects: 11 mg/kg/day

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: Chemical splash goggles.
Hand protection	Use protective gloves. It is recommended that gloves are made of the following material: Neoprene. Nitrile rubber. Rubber (natural, latex).
Other skin and body protection	Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. Wear apron or protective clothing in case of contact.
Hygiene measures	Provide eyewash station. Do not smoke in work area. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.
Respiratory protection	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Organic vapour filter.
Environmental exposure controls	Refer to section 6 or 12.

SECTION 9: Physical and Chemical Properties

THIOFLEX 555 BASE

9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	White/off-white.
Odour	Mercaptan
Odour threshold	Not determined.
pH	Not applicable.
Melting point	Not applicable.
Initial boiling point and range	Not determined.
Flash point	67°C CC (Closed cup).
Evaporation rate	Not determined.
Flammability (solid, gas)	Not applicable.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	1.49 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not determined.
Viscosity	Highly viscous
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stability	Hazardous polymerisation will not occur.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No potentially hazardous reactions known.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Materials to avoid	Strong oxidising agents. Strong acids. Isocyanates. Epoxides. Amines. Strong alkalis.

10.6. Hazardous decomposition products

THIOFLEX 555 BASE

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects	This product has low toxicity.
Skin contact	Irritating to skin.
Eye contact	Irritating to eyes.
Acute and chronic health hazards	Irritating to skin. Irritating to eyes. Gas or vapour may irritate the respiratory system.
Route of entry	Ingestion. Inhalation
Target organs	Skin Eyes Respiratory system, lungs
Medical symptoms	Skin irritation.
Medical considerations	No information available.

Toxicological information on ingredients.

LIQUID POLYSULFIDE POLYMER

Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} >3000 mg/kg, Oral, Rat

SOLVENT NAPHTHA

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	3,592.0
Species	Rat

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	3,160.0
Species	Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)	6.2
Species	Rat
ATE inhalation (vapours mg/l)	6.2

Skin corrosion/irritation

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

Serious eye damage/irritation

Serious eye damage/irritation	Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation	Not sensitising.

Skin sensitisation

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

Germ cell mutagenicity

Genotoxicity - in vitro	Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity	There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - development	Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure	Not determined.
Target organs	Respiratory system, lungs

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard	May be fatal if swallowed and enters airways.

SECTION 12: Ecological Information

Ecotoxicity The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Ecological information on ingredients.

LIQUID POLYSULFIDE POLYMER

Acute toxicity - fish	LC_{50}, 96 hours: 320 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 32 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hours: 17 mg/l, Selenastrum capricornutum

SOLVENT NAPHTHA

Acute toxicity - fish	LL50, 96 hours, 96 hours: 9.2 mg/l, Onchorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EL50, 48 hours, 48 hours: 3.2 mg/l, Daphnia magna

THIOFLEX 555 BASE

Acute toxicity - aquatic plants	NOELR, 72 hours, 72 hours: 1 mg/l, Selenastrum capricornutum Estimated value.

12.2. Persistence and degradability

Persistence and degradability The product is not expected to be biodegradable.

Ecological information on ingredients.

LIQUID POLYSULFIDE POLYMER

Persistence and degradability	The product is not readily biodegradable.

SOLVENT NAPHTHA

Biodegradation	water - Degradation (%) 78: 28 days The substance is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not applicable.

Ecological information on ingredients.

LIQUID POLYSULFIDE POLYMER

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

12.4. Mobility in soil

Mobility The product is insoluble in water.

Ecological information on ingredients.

LIQUID POLYSULFIDE POLYMER

Mobility	Soil mobility is poor.

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.

LIQUID POLYSULFIDE POLYMER

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

SOLVENT NAPHTHA

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 Not determined.

SECTION 13: Disposal considerations

THIOFLEX 555 BASE

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

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 The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).

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

Guidance Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

THIOFLEX 555 BASE

General information	Only trained personnel should use this material.
Revision comments	This is first issue.
Revision date	05/07/2015
Revision	1
SDS number	13078
Risk phrases in full	R10 Flammable. R37 Irritating to respiratory system. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R64 May cause harm to breastfed babies. R65 Harmful: may cause lung damage if swallowed. R66 Repeated exposure may cause skin dryness or cracking. R67 Vapours may cause drowsiness and dizziness.
Hazard statements in full	H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. 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.

SAFETY DATA SHEET
THIOFLEX 555 HARDENER

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

1.1. Product identifier

Product name THIOFLEX 555 HARDENER

Product number A2492001UK9

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

Identified uses Hardener component of two-part polysulphide sealant

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 Elicitation - EUH208 Lact. - H362

Environmental hazards Aquatic Chronic 1 - H410

2.2. Label elements

Pictogram

Signal word Warning

Hazard statements

EUH208 Contains THIRAM. May produce an allergic reaction.
H362 May cause harm to breast-fed children.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe vapour/spray.
P264 Wash contaminated skin thoroughly after handling.
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with national regulations.

THIOFLEX 555 HARDENER

Contains	CHLORINATED PARAFFIN (C14-17)
Supplementary precautionary statements	P201 Obtain special instructions before use. P263 Avoid contact during pregnancy/while nursing. P270 Do not eat, drink or smoke when using this product. P308+P313 IF exposed or concerned: Get medical advice/attention. P391 Collect spillage.

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

CHLORINATED PARAFFIN (C14-17) **30-60%**

CAS number: 85535-85-9 EC number: 287-477-0 REACH registration number: 01-2119519269-33-xxxx

M factor (Chronic) = 100

Classification	Classification (67/548/EEC or 1999/45/EC)
Lact. - H362 Aquatic Chronic 1 - H410	N;R50/53. R64,R66.

CALCIUM CARBONATE **30-60%**

CAS number: 1317-65-3

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

MANGANESE DIOXIDE **1-5%**

CAS number: 1313-13-9 EC number: 215-202-6

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H332
STOT RE 2 - H373

SOLVENT NAPHTHA **1-5%**

CAS number: 64742-95-6 EC number: 265-199-0 REACH registration number: 01-2119455851-35

Classification
Flam. Liq. 3 - H226
STOT SE 3 - H335, H336
Asp. Tox. 1 - H304
Aquatic Chronic 2 - H411

THIOFLEX 555 HARDENER

THIRAM		**<1%**
CAS number: 137-26-8	EC number: 205-286-2	
M factor (Acute) = 10	M factor (Chronic) = 10	

Classification	**Classification (67/548/EEC or 1999/45/EC)**
Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT RE 2 - H373 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Xn;R20/22,R48/22 R43 Xi;R36/38 N;R50/53

POTASSIUM HYDROXIDE		**<1%**
CAS number: 1310-58-3	EC number: 215-181-3	

Classification	**Classification (67/548/EEC or 1999/45/EC)**
Acute Tox. 4 - H302 Skin Corr. 1A - H314 Eye Dam. 1 - H318	C;R35 Xn;R22

SODIUM HYDROXIDE		**<1%**
CAS number: 1310-73-2	EC number: 215-185-5	

Classification	**Classification (67/548/EEC or 1999/45/EC)**
Skin Corr. 1A - H314 Eye Dam. 1 - H318	C;R35

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 Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Inhalation Remove affected person from source of contamination.

Ingestion Rinse mouth thoroughly with water. Do Not induce vomiting. Get medical attention immediately.

Skin contact Wash immediately with copious quantities of water. Remove contaminated clothing immediately. Obtain medical advice if skin orders develop.

Eye contact Rinse immediately with plenty of water. Continue to rinse for at least 10 minutes. Get medical attention if irritation persists after washing.

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 Irritation of nose, throat and airway.

THIOFLEX 555 HARDENER

Skin contact 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 foam, carbon dioxide, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

Specific hazards The product is non-combustible. Irritating gases or vapours. Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours.

Hazardous combustion products Oxides of carbon. Hydrogen chloride (HCl). 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.

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 the spillage or runoff entering drains, sewers or watercourses.

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

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 Avoid contact with skin and eyes. Do not eat, drink or smoke when using the product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in closed original container at temperatures between 5°C and 30°C. Protect from light.

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

THIOFLEX 555 HARDENER

8.1. Control parameters

Occupational exposure limits

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

MANGANESE DIOXIDE

Long-term exposure limit (8-hour TWA): WEL 0,5 mg/m³
Short-term exposure limit (15-minute): WEL 2 mg/m³

SOLVENT NAPHTHA

Long-term exposure limit (8-hour TWA): WEL 19 ppm

POTASSIUM HYDROXIDE

Short-term exposure limit (15-minute): WEL 2 mg/m³

SODIUM HYDROXIDE

Short-term exposure limit (15-minute): WEL 2 mg/m³

WEL = Workplace Exposure Limit

CHLORINATED PARAFFIN (C14-17) (CAS: 85535-85-9)

DNEL	Industry - Inhalation; Long term systemic effects: 1.6 mg/m³ Industry - Dermal; Long term systemic effects: 47.9 mg/kg/day Consumer - Oral; Long term systemic effects: 0.58 mg/kg/day Consumer - Inhalation; Long term systemic effects: 2 mg/m³ Consumer - Dermal; Long term systemic effects: 28.75 mg/kg/day
PNEC	- Fresh water; 1000 mg/l - Marine water; 200 mg/l - STP; 80 mg/l

SOLVENT NAPHTHA (CAS: 64742-95-6)

DNEL	Professional - Dermal; systemic effects: 25 mg/kg/day Professional - Inhalation; systemic effects: 150 mg/m³ Consumer - Oral; systemic effects: 11 mg/kg/day Consumer - Inhalation; systemic effects: 32 mg/m³ Consumer - Dermal; systemic effects: 11 mg/kg/day

SODIUM HYDROXIDE (CAS: 1310-73-2)

DNEL	Workers - Inhalation; Long term local effects: 1 mg/m³

8.2. Exposure controls

Protective equipment

Appropriate engineering controls	All handling should only take place in well-ventilated areas.
Eye/face protection	The following protection should be worn: Chemical splash goggles. (conform EN 166)

Hand protection	It is recommended that gloves are made of the following material: Neoprene.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. Wear impervious overalls in circumstances where significant skin contact can occur.
Hygiene measures	Provide eyewash station. Do not smoke in work area. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.
Respiratory protection	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.
Environmental exposure controls	Refer to section 6 or 12.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Black.
Odour threshold	Not determined.
pH	Not applicable.
Melting point	Not applicable.
Initial boiling point and range	Not determined.
Flash point	100°C CC (Closed cup).
Evaporation rate	Not determined.
Flammability (solid, gas)	Not applicable.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	1.74 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not applicable.
Auto-ignition 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	Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stability Stable under the prescribed storage conditions.

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 oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Hydrogen chloride (HCl).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 11,334.01

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l) 34.46

Inhalation Irritating to respiratory system.

Ingestion Harmful if swallowed. May cause nausea, headache, dizziness and intoxication.

Skin contact May cause sensitisation by skin contact.

Eye contact Irritating to eyes.

Acute and chronic health hazards May cause sensitisation by skin contact. Irritating to eyes. Gas or vapour may irritate the respiratory system.

Route of entry Inhalation Ingestion.

Target organs Eyes Skin Respiratory system, lungs

Medical symptoms Skin irritation. Diarrhoea. Upper respiratory irritation. Nausea, vomiting.

Medical considerations No information available.

Toxicological information on ingredients.

CHLORINATED PARAFFIN (C14-17)

Acute toxicity - oral

Notes (oral LD_{50}) LD_{50} >2000 mg/kg, Oral, Rat

MANGANESE DIOXIDE

Acute toxicity - oral

ATE oral (mg/kg) 500.0

Acute toxicity - inhalation

THIOFLEX 555 HARDENER

ATE inhalation (dusts/mists mg/l)	1.5

SOLVENT NAPHTHA

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	3,592.0
Species	Rat

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	3,160.0
Species	Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)	6.2
Species	Rat
ATE inhalation (vapours mg/l)	6.2

Skin corrosion/irritation

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

Serious eye damage/irritation

Serious eye damage/irritation	Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation	Not sensitising.

Skin sensitisation

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

Germ cell mutagenicity

Genotoxicity - in vitro	Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity	There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - development	Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure	Not determined.
Target organs	Respiratory system, lungs

Specific target organ toxicity - repeated exposure

THIOFLEX 555 HARDENER

STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard	May be fatal if swallowed and enters airways.

THIRAM

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	1,800.0
Species	Rat
ATE oral (mg/kg)	500.0

Carcinogenicity

IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.

SECTION 12: Ecological Information

Ecotoxicity	The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Toxicity	Very toxic to aquatic organisms.

Ecological information on ingredients.

CHLORINATED PARAFFIN (C14-17)

Acute toxicity - fish	LC_{50}, 96 hours: >5000 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 0.006 mg/l, Daphnia magna

Chronic aquatic toxicity

M factor (Chronic)	100

SOLVENT NAPHTHA

Acute toxicity - fish	LL50, 96 hours, 96 hours: 9.2 mg/l, Onchorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EL50, 48 hours, 48 hours: 3.2 mg/l, Daphnia magna
Acute toxicity - aquatic plants	NOELR, 72 hours, 72 hours: 1 mg/l, Selenastrum capricornutum Estimated value.

THIRAM

Acute aquatic toxicity

$LE(C)_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	10

Chronic aquatic toxicity

M factor (Chronic) 10

12.2. Persistence and degradability

Persistence and degradability The product is not expected to be biodegradable.

Ecological information on ingredients.

SOLVENT NAPHTHA

Biodegradation water - Degradation (%) 78: 28 days
The substance is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not applicable.

Ecological information on ingredients.

CHLORINATED PARAFFIN (C14-17)

Bioaccumulative potential BCF: < 2000 L/kg,

12.4. Mobility in soil

Mobility The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

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

Ecological information on ingredients.

CHLORINATED PARAFFIN (C14-17)

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

MANGANESE DIOXIDE

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

SOLVENT NAPHTHA

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

Disposal methods Dispose of waste via a licensed waste disposal contractor.

THIOFLEX 555 HARDENER

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS THIRAM, CHLORINATED PARAFFIN (C14-17))
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS THIRAM, CHLORINATED PARAFFIN (C14-17))
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS THIRAM, CHLORINATED PARAFFIN (C14-17))
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS THIRAM, CHLORINATED PARAFFIN (C14-17))

14.3. Transport hazard class(es)

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

Transport labels

14.4. Packing group

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

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

EmS	F-A, S-F

THIOFLEX 555 HARDENER

ADR transport category	3
Emergency Action Code	•3Z
Hazard Identification Number (ADR/RID)	90
Tunnel restriction code	(E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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

SECTION 15: Regulatory information

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

National regulations	The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).
EU legislation	Commission Regulation (EU) No 453/2010 of 20 May 2010. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Guidance	Workplace Exposure Limits EH40.

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	This is first issue.
Revision date	05/07/2015
Revision	1
SDS number	13079

THIOFLEX 555 HARDENER

Hazard statements in full

EUH208 Contains THIRAM. May produce an allergic reaction.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
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.
H336 May cause drowsiness or dizziness.
H362 May cause harm to breast-fed children.
H373 May cause damage to organs through prolonged or repeated exposure.
H373 May cause damage to organs (Liver) through prolonged or repeated exposure if swallowed.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
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.