

## SAFETY DATA SHEET

Revision: 30 Nov 2020

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

#### 1.1 Product identifier

- Product Name: TriRoof Polyurethane Roofing Basecoat

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

- Use of the substance/mixture: Professional One Component Liquid Waterproofing
- Use advised against: No specific uses advised against are identified

#### 1.3 Details of the supplier of the safety data sheet

- Name of Supplier: Tricel Composites (GB) Limited
- Address of Supplier: Unit A, Fox Way,  
Off Atkinson Street,  
Leeds, West Yorkshire  
LS10 1PS,  
United Kingdom.
- Telephone: +44 (0) 113 270 3133
- Responsible Person: sales@triroof.co.uk
- Email: sales@triroof.co.uk

#### 1.4 Emergency telephone number

- Emergency Telephone: +44 (0) 113 270 3133

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

- Classification according to 1272/2008/EC
- Physical hazards: H226 - Flammable liquid and vapour
- Health hazards: H332 - Harmful if inhaled., H315 - Causes skin irritation, H319 - Causes serious eye irritation, H317 - May cause an allergic skin reaction, H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled, H361d - Suspected of damaging the unborn child
- Environmental hazards: H412 - Harmful to aquatic life with long-lasting effects
- CLP: Flam. Liq. 3, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, Repr. 2, Aquatic Chronic 3

#### 2.2 Label elements



- Signal Word: Danger

## SECTION 2: Hazards identification (....)

- Hazard statements
  - Flammable liquid and vapour.
  - Harmful if inhaled.
  - Causes skin irritation.
  - Causes serious eye irritation.
  - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
  - May cause an allergic skin reaction.
  - Harmful to aquatic life with long lasting effects.
  - Suspected of damaging the unborn child.
  - Contains isocyanates. May produce an allergic reaction.
- Precautionary statements
  - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
  - Avoid breathing dust/fume/gas/mist/vapours/spray.
  - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - In case of inadequate ventilation wear respiratory protection.
  - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

### 2.3 Other hazards

- Contains: ISOCYANATES
  - Poly(oxy-1,4-butanediyl), .alpha.-hydro-.omega.-hydroxy-
  - Hydrocarbons, C9, aromatics
  - 2-methoxy-1-methylethyl acetate
  - Xylene
  - Phenol, isopropylated, phosphate (3:1)
- This substance is not classified as PBT or vPvB according to current EU criteria

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## SECTION 3: Composition/information on ingredients

### 3.1 Composition

- Prepolymer based on aromatic polyisocyanate
  - CAS Number: 37273-56-6
  - EC Number: -
  - REACH Registration Number: -
  - Concentration: 5 - 10%
  - Categories: Acut. Tox. 4, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1
  - H Statements: EUH204, H317, H319, H332, H334
  - Symbols: GHS07, GHS08
- isophorone di-isocyanate
  - CAS Number: 4098-71-9
  - EC Number: 223-861-6
  - REACH Registration Number: 01-2119490408-31-0000
  - Concentration: 5 - 10%

**SECTION 3: Composition/information on ingredients (....)**

- |               |  |
|---------------|--|
| Categories:   | Acute Tox. 1, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, Aquatic Chronic 2 |
| H Statements: | EUH204, H315, H317, H319, H330, H334, H335, H411   |
| Symbols:      | GHS06, GHS08, GHS09  |
- Poly(oxy-1,4-butanediyl), .alpha.-hydro-.omega.-hydroxy-
 

CAS Number:	25190-06-1
EC Number:	607-637-9
REACH Registration Number:	-
Concentration:	5 - 10%
Categories:	Eye Irrit. 2
H Statements:	H319
Symbols:	GHS07
  - Hydrocarbons, C9, aromatics
 

CAS Number:	64742-95-6
EC Number:	918-668-5
REACH Registration Number:	01-2119455851-35-0000
Concentration:	≤2%
Categories:	Flam. Liq. 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2
H Statements:	H226, H304, H335, H336, H411
Symbols:	GHS02, GHS07, GHS08, GHS09
  - 2-methoxy-1-methylethyl acetate
 

CAS Number:	108-65-6
EC Number:	203-603-9
REACH Registration Number:	01-2119475791-29-0000
Concentration:	≤2%
Categories:	Flam. Liq. 3
H Statements:	H226
Symbols:	GHS02
  - isophorondiisocyanate Homopolymer
 

CAS Number:	53880-05-0
EC Number:	500-125-5
REACH Registration Number:	01-2119488734-24-0000
Concentration:	≤2%
Categories:	Skin Sens. 1B, STOT SE 3
H Statements:	EUH204, H317, H335
  - xylene
 

CAS Number:	1330-20-7
EC Number:	215-535-7
REACH Registration Number:	01-2119488216-32-0000
Concentration:	10 - 20%

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**SECTION 3: Composition/information on ingredients (....)**

- |               |   |
|---------------|---|
| Categories:   | Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1, Aquatic Chronic 3 |
| H Statements: | H226, H304, H312, H315, H319, H332, H335, H373, H412  |
| Symbols:      | GHS02, GHS07, GHS08   |
- Phenol, isopropylated, phosphate (3:1) [Triphenyl phosphate > 5%]
 

CAS Number:	68937-41-7
EC Number:	273-066-3
REACH Registration Number:	01-2119535109-41-0000
Concentration:	≤5%
Categories:	Repr. 2, STOT RE 2, Aquatic Chronic 2
H Statements:	EUH208, H361, H373, H411
Symbols:	GHS08, GHS09
  - Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate
 

CAS Number:	41556-26-7
EC Number:	255-437-1
REACH Registration Number:	-
Concentration:	≤0.5%
Categories:	Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1
H Statements:	H317, H400, H410
Symbols:	GHS07, GHS09
  - METHYL(1,2,2,6,6-PENTAMETHYL-4-PIPERIDINYL)SEBACATE
 

CAS Number:	82919-37-7
EC Number:	280-060-4
REACH Registration Number:	-
Concentration:	≤0.5%
Categories:	Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1
H Statements:	H317, H400, H410
Symbols:	GHS07, GHS09
  - 1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl)ethyl)carbamate
 

CAS Number:	140921-24-0
EC Number:	411-700-4
REACH Registration Number:	01-0000015906-63-0000
Concentration:	≤1%
Categories:	Skin Sens. 1
H Statements:	H317
Symbols:	GHS07
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**SECTION 4: First aid measures****4.1 Description of first aid measures**

- Contact with eyes  
Hold the eyes open and rinse with water for a sufficiently long period of time (at least 10
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## **SECTION 4: First aid measures (....)**

minutes).

Remove any contact lenses and open eyelids wide apart.

Get medical attention immediately.

- Contact with skin

In the event of contact with the skin, preferably wash with a cleanser based on polyethylene glycol or with plenty of warm water and soap.

Consult a doctor in the event of a skin reaction.

Wash any contaminated clothing before reuse.

Clean shoes thoroughly before reuse.

Get medical attention if symptoms persist

- Ingestion

Rinse mouth thoroughly with water, removing any dentures.

Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous.

Do not induce vomiting unless under the direction of medical professionals.

If vomiting does occur the head should be kept low so that vomit does not enter the lungs.

Never give anything by mouth to an unconscious person.

Get medical attention if symptoms persist

- Inhalation

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.

When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.

Get medical attention if symptoms persist

### **4.2 Most important symptoms and effects, both acute and delayed**

- Symptoms: Headache

Nausea

Shortness of breath

Sore throat

Redness on the skin

- Risks:

Repeated or prolonged contact may cause skin sensitization

Repeated or prolonged inhalation exposure may cause asthma

Suspected of causing damage to the unborn child

### **4.3 Indication of any immediate medical attention and special treatment needed**

- Treat symptomatically

- Give oxygen or artificial respiration if needed

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## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

- Suitable extinguishing media: The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.  
Use fire-extinguishing media suitable for the surrounding fire

- Unsuitable extinguishing media: Do not use water jets as an extinguisher

### **5.2 Special hazards arising from the substance or mixture**

## **SECTION 5: Firefighting measures (....)**

- Flashpoint: >40°C Closed Cup
- Specific hazards arising from the chemical combustion products: Carbon oxides (CO, CO<sub>2</sub>) nitrogen oxides (NO, NO<sub>2</sub> etc.) hydrocarbons, isocyanate vapours and hydrogen cyanide can be released in case of fire.
- Specific hazards during firefighting: Containers can burst violently or explode when heated, due to excessive pressure build-up

### **5.3 Advice for firefighters**

- Protective actions during firefighting: Avoid breathing fire gases or vapours, evacuate area and keep upwind to avoid inhalation of gases, vapours, fumes and smoke.  
Fire in vicinity poses risk of pressure build-up and rupture. Containers at risk from fire should be cooled with water and, if possible, removed from the danger area. Due to reaction with water producing CO<sub>2</sub> gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Containers may burst if overheated. Reaction between water and hot isocyanate may be vigorous. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs notify appropriate authorities.
- Special protective equipment for firefighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Safety boots, gloves, safety helmet and protective clothing should be worn. Firefighters clothing conforming to European Standard EN469 will provide a basic level of protection for chemical incidents

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## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Avoid inhalation of dust and vapours. Use suitable respiratory protection if ventilation is inadequate. Avoid contact with skin and eyes.

### **6.2 Environmental precautions**

Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

### **6.3 Methods and material for containment and cleaning up**

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Provide adequate ventilation. Approach the spillage from upwind. For small spillages absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. For large spillages, if leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labelled, sealed containers.

## **SECTION 6: Accidental release measures (....)**

Clean contaminated objects and areas thoroughly, observing environmental regulations. The contaminated absorbent may pose the same hazard as the spilled material. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. 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**

For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

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## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists. This product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. In use may form flammable/explosive vapour-air mixture. Vapours may accumulate on the floor and in low-lying areas. Use explosion-proof electrical, ventilating, and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharges. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

### **7.2 Conditions for safe storage, including any incompatibilities**

Store in accordance with local regulations. Eliminate all sources of ignition. Take precautionary measures against static discharges. Earth container and transfer equipment to eliminate sparks from static electricity. Keep away from oxidising materials, heat and flames. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

This product will react with moisture to form a polyurethane. If an open container becomes contaminated with moisture do not reseal as this can lead to pressure increase within the container.

Storage class: Flammable liquid storage

### **7.3 Specific end use(s)**

- The identified uses for this product are detailed in Section 1.2
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## **SECTION 8: Exposure controls/personal protection**

### **8.1 Occupational exposure controls**

Occupational exposure limits of the components:

3-isocyanatomethyl-3,5,5-trimethylcyclohexylisocyanate - CAS 4098-71-9:

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## **SECTION 8: Exposure controls/personal protection (....)**

Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m<sup>3</sup> (NCO)

Short-term exposure limit (15-minute): WEL 0.07 mg/m<sup>3</sup> (NCO)

Sen

WEL = Workplace Exposure Limit

Sen = Substance has the capacity to cause occupational asthma

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Worker - Inhalation Acute local effects: 0.0453 mg/m<sup>3</sup>

Worker - Inhalation Long-term local effects: 0.0453 mg/m<sup>3</sup>

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Fresh water: 0.06 mg/l

Marine water: 0.006 mg/l

Sediment (freshwater): 218.92 mg/kg

Sediment (marinewater): 21.89 mg/kg

Sewage treatment plant: 10.6 mg/l

Soil: 44.01 mg/kg dw

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Isophorondiisocyanate Homopolymer - CAS 53880-05-0:

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Worker - Inhalation Acute local effects: 0.58 mg/m<sup>3</sup>

Worker - Inhalation Long-term local effects: 0.29 mg/m<sup>3</sup>

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Fresh water: 0.0015 mg/l

Marine water: 0.00015 mg/l

Sewage treatment plant: 100 mg/l

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Phenol, isopropylated, phosphate (3:1) - 68937-41-7:

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Worker - Inhalation Acute systematic effects: 700 mg/m<sup>3</sup>

Worker - Inhalation Long-term systematic effects: 0.145 mg/m<sup>3</sup>

Worker - Skin Contact Acute local effects: 16 mg/kg bw/day

Worker - Skin Contact Long-term systematic effects: 0.417 mg/kg

Worker - Skin Contact Acute systematic effects: 2000 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Fresh water: 0.00031 mg/l

Marine water: 0.000031 mg/l

Sediment (freshwater): 0.185 mg/kg

Sediment (marinewater): 0.0185 mg/kg

Sewage treatment plant: 2.5 mg/l

Soil: 100 mg/kg

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Xylene - CAS 1330-20-7:

Long-term exposure limit (8-hour TWA): WEL 220 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 441 mg/m<sup>3</sup>

Sk

WEL = Workplace Exposure Limit

Sk = Substance has the capacity to penetrate the skin and be absorbed into the body

## **SECTION 8: Exposure controls/personal protection (....)**

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Worker - Inhalation Acute local effects: 289 mg/m<sup>3</sup>

Worker - Inhalation Acute systematic effects: 289 mg/m<sup>3</sup>

Worker - Inhalation Long-term systematic effects: 77 mg/m<sup>3</sup>

Worker - Dermal Long-term systematic effects: 180 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Fresh water: 0.327 mg/l

Marine water: 0.327 mg/l

Intermittent release: 0.327 mg/l

Sediment (freshwater): 12.46 mg/kg

Sediment (marinewater): 12.46 mg/kg

Sewage treatment plant: 6.58 mg/l

Soil: 2.31 mg/kg

Hydrocarbons, C9, aromatics - CAS 64742-95-6:

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Worker - Inhalation Long-term systematic effects: 150 mg/m<sup>3</sup>

Worker - Dermal Long-term systematic effects: 25 mg/kg bw/day

Consumer - Inhalation Long-term systematic effects: 11 mg/m<sup>3</sup>

Consumer - Oral Long-term systematic effects: 11 mg/m<sup>3</sup>

Consumer - Dermal Long-term systematic effects: 32 mg/kg

2-methoxy-1-methylethyl acetate - CAS 108-65-6:

Long-term exposure limit (8-hour TWA): WEL 274 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 548 mg/m<sup>3</sup>

Sk

WEL = Workplace Exposure Limit

Sk = Substance has the capacity to penetrate the skin and be absorbed into the body

EH40/2005 Workplace Exposure Limits: Medical supervision of all employees who come in contact with respiratory sensitisers is recommended. Personnel with a history of asthma-type conditions, bronchitis or skin sensitisation conditions should not work with MDI based products. The OELs listed do not apply to previously sensitised individuals. Sensitised individuals should be removed from any further exposure

### **8.2 Precautionary measures**

Appropriate Engineering Controls:

Provide adequate ventilation. Personnel, workplace or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure.

Personal Protective Equipment:

Eye/Face Protection:

Eyewear complying with EN 166 should be worn if a risk assessment indicates eye contact is possible. If an inhalation hazard also exists, a full-face respirator may be required instead.

Hand Protection:

## **SECTION 8: Exposure controls/personal protection (....)**

Chemical-resistant, impervious gloves complying to European Standard EN 374 should be worn if a risk assessment indicates skin contamination is possible. Examples of gloves materials that might provide suitable protection include: Butyl rubber (BR), Nitrile rubber (NR), Chloroprene rubber (Neoprene). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN374) is recommended. Check during use that gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes of gloves are recommended.

### **Other Skin and Body Protection:**

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

### **Respiratory Protection:**

Under normal use of the product respiratory protection should not be required. If a risk assessment indicates inhalation of contaminants is possible respiratory protection should comply with the approved standard. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and that the filter is changed regularly. Gas and combined filter cartridges should comply with European Standard EN 14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN 136. Half mask or quarter mask respirators with replaceable filter cartridges should comply with European Standard EN 140.

### **Hygiene Measures:**

Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and work areas every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventative industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.

### **8.3 Environmental exposure controls**

Keep containers tightly sealed when not in use. Avoid spillage or runoff entering drains, sewers or watercourses. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

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## **SECTION 9: Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

- Appearance: Liquid
- Flashpoint: >40°C Closed Cup
- pH - not applicable
- Solubility in water: Insoluble in water
- Solubility in other solvents: miscible in most organic solvents

### **9.2 Other information**

- This safety datasheet only contains information relating to safety and does not replace any product information or product specification

## **SECTION 10: Stability and reactivity**

### **10.1 Reactivity**

Reacts with moist air and water

### **10.2 Chemical stability**

The main removal mechanism of IPDI and TDI based products in the environment is hydrolysis. IPDI and TDI based products react quickly with water to form predominantly solid, insoluble polyurethanes or polyureas. Under conditions typical of many types of environmental contact, i. e. with relatively poor dispersion of the denser isocyanate, the interfacial reaction leads to the formation of a solid crust encasing partially or unreacted material. This crust restricts ingress of water and hence slows and modifies hydrolysis.

### **10.3 Possibility of hazardous reactions**

Reaction is slow with cold or warm water (< 50 °C), with hot water or steam the reaction is faster, producing carbon-dioxide which may cause a pressure increase in sealed containers.

### **10.4 Conditions to avoid**

Moisture will lead to the product curing as a solid polyurethane

High Temperatures will increase the rate of the above to reactions

### **10.5 Incompatible materials**

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

Moisture will lead to the product curing as a solid polyurethane

### **10.6 Hazardous decomposition products**

Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include toxic gases or vapours.

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## **SECTION 11: Toxicological information**

### **11.1 Information on toxicological effects**

Acute toxicity:

Acute Tox. 4 - Harmful if inhaled

Skin corrosion/irritation:

Skin Irrit. 2 - Causes skin irritation

Serious eye damage/eye irritation:

Eye Irrit. 2 - Causes serious eye irritation

Respiratory sensitisation:

Resp. Sens. 1 - May cause sensitisation or allergic reactions in sensitive individuals

Skin sensitisation:

Skin Sens. 1 - May cause sensitisation or allergic reactions in sensitive individuals

Germ cell mutagenicity:

Not classified based on available information

**SECTION 11: Toxicological information (....)**

## Carcinogenicity:

Not classified based on available information

## Reproductive toxicity:

Repr. 2, STOT SE 2, STOT RE 2 - Mat cause damage to the unborn child

## Aspiration hazard:

Not classified based on available information

## Further Information:

The severity of the symptoms described will vary dependent on the concentration and the length of exposure. Symptoms of over-exposure may include headache, nausea, shortness of breath, sore throat, or redness on the skin.

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## Toxicological data for the components:

3-isocyanatomethyl-3,5,5-trimethylcyclohexylisocyanate - CAS 4098-71-9:

Acute inhalation toxicity : LC50/4h: 0.03 mg/L  
 Species: Rat  
 Method: OECD Test 403  
 Test atmosphere: Mist

Acute oral toxicity : LD50: 4814 mg/kg  
 Species: Rat  
 Method: OECD Test 401

Acute dermal toxicity : LD50: ≥7000 mg/kg bw (24 h)  
 Species: Rat  
 Method: OECD Test 402

Skin corrosion/irritation : Species: Rabbit  
 Result: Corrosive  
 Method: OECD Test 404

Skin sensitisation : Species: Rabbit  
 Result: Positive  
 May cause sensitisation  
 Method: OECD Test 406

Respiratory sensitisation : Species: Rabbit  
 Result: Positive  
 May cause sensitisation

STOT - single exposure : Route of exposure: Inhalation  
 Target organs: Upper respiratory tract  
 May cause respiratory irritation

Prepolymer based on aromatic polyisocyanate - CAS 37273-56-6:

Acute inhalation toxicity : LC50/4h: >3.82 mg/L  
 Species: Rat  
 Test atmosphere: Mist

Acute oral toxicity : LD50: >5000 mg/kg

**SECTION 11: Toxicological information (....)**

	Species: Rat
Eye damage/ eye irritation	: Species: Rabbit Result: Positive Causes serious eye irritation
Skin sensitisation	: Species: Guinea pig Result: Positive May cause sensitisation
Isophorondiisocyanate Homopolymer - 53880-05-0:	
Acute inhalation toxicity	: LC50/4h: >5 mg/L Species: Rat Method: OECD Test 403 Test atmosphere: Mist
Acute oral toxicity	: LD50: >14000 mg/kg Species: Rat Method: OECD Test 401
Acute dermal toxicity	: LD50: ≥2000 mg/kg Species: Rat Method: OECD Test 402
Skin sensitisation	: Species: Mouse Result: Positive May cause sensitisation Method: OECD Test 429
STOT - single exposure	: Route of exposure: Inhalation Target organs: Respiratory tract May cause respiratory irritation
Phenol, isopropylated, phosphate (3:1) - 68937-41-7:	
Acute inhalation toxicity	: LC50: >200 mg/L Species: Rat Method: OECD Test 403 Test atmosphere: Vapour
Acute oral toxicity	: LD50: >5000 mg/kg Species: Rat Method: OECD Test 401
Acute dermal toxicity	: LD50: ≥10000 mg/kg Species: Rabbit Method: OECD Test 402
Reproductive toxicity	: Suspected of damaging the unborn child
STOT - repeated exposure	: Route of exposure: Oral Target organs: Adrenal gland, liver, reproductive organs May cause damage to organs through

**SECTION 11: Toxicological information (....)**

	prolonged or repeated exposure
Xylene - CAS 1330-20-7:	
Acute inhalation toxicity	: LC50/4h: 29 mg/L Species: Rat Method: OECD Test 403 Test atmosphere: Vapour
Acute oral toxicity	: LD50: 3523 mg/kg Species: Rat Method: OECD Test 401
Acute dermal toxicity	: LD50: 12126 mg/kg Species: Rabbit Method: OECD Test 402
Skin corrosion/irritation	: Species: Rabbit Result: Moderate skin irritation Long term exposure results in dermatitis, with rough and chapped skin
Eye corrosion/irritation	: Species: Rabbit Result: Serious eye damage
STOT - single exposure	: Route of exposure: Inhalation Target organs: Respiratory tract, lungs May cause respiratory irritation, may lead to the formation of oedemas in the respiratory tract.
STOT - single exposure	: Route of exposure: Oral Target organs: Gastrointestinal tract May cause Gastrointestinal disturbance
STOT - repeated exposure	: Route of exposure: Inhalation Target organs: Central nervous system, Liver, Kidney May cause damage to organs through prolonged or repeated exposure
Aspiration hazard	: May be fatal if swallowed and enters airways. Aspiration may cause pulmonary oedema and pneumonitis.
2-methoxy-1-methylethyl acetate - CAS 108-65-6:	
Acute inhalation toxicity	: LC50/6h: 23.8 mg/L Species: Rat Method: OECD Test 403 Test atmosphere: Vapour
Acute oral toxicity	: LD50: 8532 mg/kg

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**SECTION 11: Toxicological information (....)**

	Species: Rat Method: OECD Test 401
Acute dermal toxicity	: LD50: >5000 mg/kg Species: Rat Method: OECD Test 402
Hydrocarbons, C9, aromatics - CAS 64742-95-6: Acute inhalation toxicity	: LC50: >6.19 mg/L Species: Rat Method: OECD Test 403 Test atmosphere: Vapour
Acute oral toxicity	: LD50: 3492 mg/kg Species: Rat Method: OECD Test 401
Acute dermal toxicity	: LD50: 3160 mg/kg Species: Rabbit Method: OECD Test 402
Skin corrosion/irritation	: Species: Rabbit Result: Mild skin irritation Long term exposure results in dermatitis, with rough and chapped skin
STOT - single exposure	: Route of exposure: Inhalation Target organs: Respiratory tract, lungs, central nervous system May cause respiratory irritation. May cause drowsiness or dizziness.
Aspiration hazard	: May be fatal if swallowed and enters airways. Aspiration may cause pulmonary oedema and pneumonitis.

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**SECTION 12: Ecological information**
**12.1 Toxicity**

- H412 - Harmful to aquatic life with long-lasting effects
- Poly(oxy-1,4-butanediyl), .alpha.-hydro-.omega.-hydroxy-  
EC50 (daphnia): >100 mg/l (48 hr)  
LC50 (fish): 7,8 mg/l (96 hr)
- Phenol, isopropylated, phosphate (3:1) [Triphenyl phosphate > 5%]  
EC50 (daphnia): 2.44 mg/l (48 hr)  
LC50 (fish): 1.6 mg/l (96 hr)

**12.2 Persistence and degradability**

## **SECTION 12: Ecological information (....)**

- The degradability of the product is not known

### **12.3 Bioaccumulative potential**

- No information available

### **12.4 Mobility in soil**

- This product is not miscible with water and reacts to form a solid long chain polyurethane. Based on this it is unlikely to present a risk for mobility

### **12.5 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**

- None known
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## **SECTION 13: Disposal considerations**

### **13.1 Waste treatment methods**

The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Dispose of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to the handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Do not empty into drains, sewers or watercourses. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible

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## **SECTION 14: Transport information**



### **14.1 UN number**

- UN No.: 1139

### **14.2 Proper Shipping Name**

- Proper Shipping Name: COATING SOLUTION

### **14.3 Transport hazard class(es)**

- Hazard Class: 3

### **14.4 Packing group**

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## SECTION 14: Transport information (....)

- Packing Group: III

### 14.5 Environmental hazards

- Not classified as an environmentally hazardous substance
- Not classified as a marine pollutant

### 14.6 Special precautions for user

- Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage
- IMDG EmS: F-E, S-E
- ADR transport category: 3
- Emergency action code: 3Y
- Hazard identification number: 30
- Tunnel Code: (D/E)

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not applicable

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## SECTION 15: Regulatory information

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

- United Kingdom - Health and Safety at Work etc Act 1974 (as amended)
- United Kingdom - The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulation 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]
- United Kingdom - EH40/2005 Workplace Exposure Limits
- EU - 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)
- EU - Commission Regulation (EU) No 2015/830 of 28 May 2015
- 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)

### 15.2 Chemical safety assessment

- This Safety Data Sheet does not constitute a workplace risk assessment
- A chemical safety assessment has not been carried out for this product

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## SECTION 16: Other information

Text not given with phrase codes where they are used elsewhere in this safety data sheet:- EUH204: Contains isocyanates. May produce an allergic reaction. EUH208: Contains #. May produce an allergic reaction. H226: Flammable liquid and vapour. H304: May be fatal if swallowed and enters airways. H312: Harmful in contact with skin. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H330: Fatal if inhaled. H332: Harmful if inhaled. H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335: May cause respiratory irritation. H336: May cause drowsiness or dizziness. H361: Suspected of damaging fertility or the unborn child. H373: May cause damage to organs through prolonged or repeated exposure. 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. H412: Harmful to aquatic life with long lasting effects.

Full text of GHS H-Statements referred to under sections 2 and 3:

## **SECTION 16: Other information (....)**

H226: Flammable liquid and vapour  
H304: May be fatal if swallowed and enters airways  
H312: Harmful in contact with skin  
H315: Causes skin irritation  
H317: May cause an allergic skin reaction  
H319: Causes serious eye irritation  
H331: Toxic if inhaled  
H332: Harmful if inhaled  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H335: May cause respiratory irritation  
H336: May cause drowsiness or dizziness  
H361: Suspected of damaging fertility or the unborn child  
H361d: Suspected of damaging the unborn child  
H373: May cause damage to organs through prolonged or repeated exposure  
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  
H412: Harmful to aquatic life with long-lasting effects

Full test of EU H-Statements referred to under section 2 and 3:

EUH204: Contains isocyanates. May produce an allergic reaction

EUH208: Contains Phenol, isopropylated, phosphate (3:1). May produce an allergic reaction

Full list of GHS P-statements

Prevention:

P201: Obtain special instructions before use.  
P202: Do not handle until all safety precautions have been read and understood.  
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233: Keep container tightly closed.  
P240: Ground/bond container and receiving equipment.  
P241: Use explosion-proof electrical/ventilating/lighting equipment  
P242: Use only non-sparking tools.  
P243: Take precautionary measures against static discharge.  
P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.  
P264: Wash hands thoroughly after handling.  
P272: Contaminated work clothing should not be allowed out of the workplace.  
P273: Avoid release to the environment.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P281: Use personal protective equipment as required.  
P285: In case of inadequate ventilation wear respiratory protection

Response:

P302+352: IF ON SKIN: Wash with plenty of water.

P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

P304+341: IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

P308+313: If exposed: Call a POISON CENTER or doctor/physician

P321: Specific treatment (see medical advice on this label).

P332+313: If skin irritation occurs: Get medical advice/attention.

P333+313: If skin irritation or a rash occurs: Get medical advice/attention.

P337+313: If eye irritation persists get medical advice/attention.

## **SECTION 16: Other information (....)**

P342+311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

P362+364: Take off contaminated clothing and wash it before reuse

P363: Wash contaminated clothing before reuse.

P370+378: In case of fire: Use alcohol-resistant foam, carbon dioxide, dry powder or water fog to extinguish.

Storage:

P403+235: Store in a well ventilated place. Keep cool.

Disposal:

P501: Dispose of contents/containers in accordance with national regulations.

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**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.**

--- end of safety datasheet ---

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