

# ARBOFLEX® PU

## LIQUID WATERPROOFING

### SAFETY DATA SHEET

#### ARBOFLEX® PU UV PROTECT

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

##### 1.1. Product identifier

Product name ARBOFLEX® PU UV PROTECT

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

Identified uses Single component resin for treatment and protection against UV rays.

Uses advised against Restricted to professional users.

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

Supplier Carlisle Construction Materials Ltd.  
Lancaster House, Concorde Way,  
Millennium Business Park,  
Mansfield, Nottinghamshire,  
NG19 7DW  
United Kingdom  
01623 627285  
sds.arbo@ccm-europe.com

##### 1.4. Emergency telephone number

Emergency telephone 01623 627285 (office hours only)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

Physical hazards Flam. Liq. 3 - H226

Health hazards STOT SE 3 - H335, H336

Environmental hazards Aquatic Chronic 2 - H411

##### 2.2. Label elements

###### Hazard pictograms



Signal word

Warning

###### Hazard statements

H226 Flammable liquid and vapour.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.  
H411 Toxic to aquatic life with long lasting effects.

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<b>Precautionary statements</b>	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P273 Avoid release to the environment.</p> <p>P312 Call a POISON CENTRE/doctor if you feel unwell.</p> <p>P391 Collect spillage.</p> <p>P403+P235 Store in a well-ventilated place. Keep cool.</p>
<b>Supplemental label information</b>	EUH208 Contains n-Butyl methacrylate, Methyl methacrylate, Fatty acids, C14-18 and C16-18-unsatd., maleated. May produce an allergic reaction.
<b>Contains</b>	Hydrocarbons, C9, aromatics, Mesitylene

### 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

<b>Hydrocarbons, C9, aromatics</b>	<b>25 - &lt; 50%</b>
CAS number: 64742-95-6	REACH registration number: 01-2119455851-35-XXXX

#### Classification

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

<b>Mesitylene</b>	<b>&lt; 5%</b>
CAS number: 108-67-8	EC number: 203-604-4
	REACH registration number: 01-2119463878-19-XXXX

#### Classification

Flam. Liq. 3 - H226  
 Skin Irrit. 2 - H315  
 Eye Irrit. 2 - H319  
 STOT SE 3 - H335  
 Asp. Tox. 1 - H304  
 Aquatic Chronic 2 - H411

<b>Solvent naphtha (petroleum), light arom.</b>	<b>&lt; 1%</b>
CAS number: 64742-95-6	EC number: 265-199-0

#### Classification

Flam. Liq. 3 - H226  
 Skin Irrit. 2 - H315  
 STOT SE 3 - H335  
 Asp. Tox. 1 - H304  
 Aquatic Chronic 2 - H411

**ARBOFLEX® PU UV PROTECT**

<b>n-Butyl methacrylate</b> <span style="float: right;"><b>&lt; 1%</b></span>		
CAS number: 97-88-1	EC number: 202-615-1	REACH registration number: 01-2119486394-28-XXXX
<b>Classification</b> Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1B - H317 STOT SE 3 - H335		
<b>Xylene</b> <span style="float: right;"><b>&lt; 1%</b></span>		
CAS number: 1330-20-7	EC number: 215-535-7	REACH registration number: 01-2119488216-32-XXXX
<b>Classification</b> Flam. Liq. 3 - H226 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335 STOT RE 2 - H373 Asp. Tox. 1 - H304 Aquatic Chronic 3 - H412		
<b>Methyl methacrylate</b> <span style="float: right;"><b>&lt; 1%</b></span>		
CAS number: 80-62-6	EC number: 201-297-1	REACH registration number: 01-2119452498-28-XXXX
<b>Classification</b> Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 STOT SE 3 - H335		
<b>Fatty acids, C14-18 and C16-18-unsatd., maleated</b> <span style="float: right;"><b>&lt; 1%</b></span>		
CAS number: 85711-46-2	EC number: 288-306-2	REACH registration number: 01-2119976378-19-0000
<b>Classification</b> Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1B - H317		

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<b>Ethylbenzene</b>	<b>&lt; 0.1%</b>
CAS number: 100-41-4	EC number: 202-849-4
<b>Classification</b>	
Flam. Liq. 2 - H225	
Acute Tox. 4 - H332	
STOT RE 2 - H373	
Asp. Tox. 1 - H304	
Aquatic Chronic 3 - H412	
<b>2-Methoxy-1-methylethyl acetate</b>	<b>&lt; 0.1%</b>
CAS number: 108-65-6	EC number: 203-603-9
	REACH registration number: 01-2119475791-29-XXXX
<b>Classification</b>	
Flam. Liq. 3 - H226	
STOT SE 3 - H336	

The full text for all hazard statements is displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>General information</b>	In all cases of doubt, or if symptoms persist, seek medical attention.
<b>Inhalation</b>	If inhalation causes adverse effects, remove to fresh air. Get medical advice/attention if you feel unwell.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention if any discomfort continues.
<b>Skin contact</b>	After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
<b>Eye contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists after washing.
<b>Protection of first aiders</b>	First aid personnel should wear appropriate protective equipment during any rescue.

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

<b>General information</b>	Treat symptomatically.
<b>Inhalation</b>	May cause drowsiness or dizziness. May cause respiratory irritation.
<b>Ingestion</b>	No specific symptoms known.
<b>Skin contact</b>	No specific symptoms known.
<b>Eye contact</b>	No specific symptoms known.

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

<b>Notes for the doctor</b>	Treat symptomatically.
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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

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<b>Suitable extinguishing media</b>	Extinguish with foam, carbon dioxide or dry powder.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

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

<b>Specific hazards</b>	Flammable liquid and vapour.
<b>Hazardous combustion products</b>	Oxides of carbon.

### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	Water spray should be used to cool containers. Control run-off water by containing and keeping it out of sewers and watercourses. Avoid breathing fire gases or vapours.
<b>Special protective equipment for firefighters</b>	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

<b>Personal precautions</b>	Avoid contact with eyes and skin. Wear personal protective equipment (See section 8). Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. In case of spills, beware of slippery floors and surfaces.
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### 6.2. Environmental precautions

<b>Environmental precautions</b>	Avoid release to the environment. Do not discharge into drains or watercourses or onto the ground.
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### 6.3. Methods and material for containment and cleaning up

<b>Methods for cleaning up</b>	Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely.
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### 6.4. Reference to other sections

<b>Reference to other sections</b>	For personal protection, see Section 8. For waste disposal, see Section 13. See Section 11 for additional information on health hazards.
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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

<b>Usage precautions</b>	For personal protection, see Section 8. Use only outdoors or in a well-ventilated area. Avoid breathing vapour/spray. Avoid contact with skin and eyes. Wash contaminated skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Ground/bond container and receiving equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use only non-sparking tools. Use explosion-proof electrical, ventilating and lighting equipment.
<b>Advice on general occupational hygiene</b>	Do not eat, drink or smoke when using this product.

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

<b>Storage precautions</b>	Store locked up. Store at below 20 °C. Keep container tightly closed, in a cool, well ventilated place. Protect from sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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### 7.3. Specific end use(s)

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

### SECTION 8: Exposure controls/Personal protection

#### 8.1. Control parameters

##### Occupational exposure limits

##### **Xylene**

Long-term exposure limit (8-hour TWA): WEL 50 ppm 220 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 100 ppm 441 mg/m<sup>3</sup>

Sk

##### **Methyl methacrylate**

Long-term exposure limit (8-hour TWA): WEL 50 ppm 208 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 100 ppm 416 mg/m<sup>3</sup>

##### **Ethylbenzene**

Long-term exposure limit (8-hour TWA): WEL 100 ppm 441 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 125 ppm 552 mg/m<sup>3</sup>

Sk

##### **2-Methoxy-1-methylethyl acetate**

Long-term exposure limit (8-hour TWA): WEL 50 ppm(Sk) 274 mg/m<sup>3</sup>(Sk)

Short-term exposure limit (15-minute): WEL 100 ppm(Sk) 548 mg/m<sup>3</sup>(Sk)

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

#### Hydrocarbons, C9, aromatics (CAS: 64742-95-6)

**DNEL** Workers - Inhalation; Long term systemic effects: 150 mg/m<sup>3</sup>  
Workers - Dermal; Long term systemic effects: 25 mg/kg/day

#### Mesitylene (CAS: 108-67-8)

**DNEL** Workers - Inhalation; Long term systemic effects: 100 mg/m<sup>3</sup>  
Workers - Inhalation; Long term local effects: 100 mg/m<sup>3</sup>  
Workers - Dermal; Long term systemic effects: 16171 mg/kg

**PNEC** Fresh water; 0.101 mg/l  
marine water; 0.101 mg/l  
STP; 2.02 mg/l  
Sediment (Freshwater); 7.86 mg/kg  
Sediment (Marinewater); 7.86 mg/kg  
Soil; 1.34 mg/kg

#### Solvent naphtha (petroleum), light arom. (CAS: 64742-95-6)

**DNEL** Workers - Inhalation; Long term systemic effects: 1286.4 mg/m<sup>3</sup>  
Workers - Inhalation; Long term local effects: 837.5 mg/m<sup>3</sup>

#### Fatty acids, C14-18 and C16-18-unsatd., maleated (CAS: 85711-46-2)

**DNEL** Workers - Dermal; Long term systemic effects: 3.33 mg/kg/day

**PNEC** STP; 100 mg/l

#### Methyl methacrylate (CAS: 80-62-6)

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**DNEL** Workers - Inhalation; Long term systemic effects: 348.4 mg/m<sup>3</sup>  
 Workers - Inhalation; Long term local effects: 208 mg/m<sup>3</sup>  
 Workers - Inhalation; Short term local effects: 416 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 13.67 mg/kg/day  
 Workers - Dermal; Long term local effects: 1.5 mg/cm<sup>2</sup>  
 Workers - Dermal; Short term local effects: 1.5 mg/cm<sup>2</sup>

**PNEC** Fresh water; 0.94 mg/l  
 marine water; 0.094 mg/l  
 STP; 10 mg/l  
 Sediment (Freshwater); 10.2 mg/kg  
 Sediment (Marinewater); 0.102 mg/kg  
 Soil; 1.48 mg/kg

**n-Butyl methacrylate (CAS: 97-88-1)**

**DNEL** Workers - Inhalation; Long term systemic effects: 415.9 mg/m<sup>3</sup>  
 Workers - Inhalation; Long term local effects: 409 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 5 mg/kg/day

**PNEC** Fresh water; 0.017 mg/l  
 Intermittent release; 0.056 mg/l  
 marine water; 0.002 mg/l  
 STP; 31.7 mg/l  
 Sediment (Freshwater); 4.73 mg/kg  
 Sediment (Marinewater); 0.473 mg/l  
 Soil; 0.935 mg/kg

**Xylene (CAS: 1330-20-7)**

**Biological limit values** Xylene, o-, m-, p- or mixed isomers: 650 mmol methyl hippuric acid/mol creatinine in urine. Post shift.

**DNEL** Workers - Inhalation; Long term systemic effects: 221 mg/m<sup>3</sup>  
 Workers - Inhalation; Short term systemic effects: 442 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 212 mg/kg/day

**PNEC** - Fresh water; 0.327 mg/l  
 - marine water; 0.327 mg/l  
 - Intermittent release; 0.327 mg/l  
 - STP; 6.58 mg/l  
 - Sediment (Freshwater); 12.46 mg/kg  
 - Sediment (Marinewater); 12.46 mg/kg  
 - Soil; 2.31 mg/kg

**Ethylbenzene (CAS: 100-41-4)**

**DNEL** Workers - Inhalation; Long term systemic effects: 77 mg/m<sup>3</sup>  
 Workers - Inhalation; Short term local effects: 293 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 180 mg/kg/day

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<b>PNEC</b>	<p>Fresh water; 0.1 mg/l          Intermittent release; 0.1 mg/l          marine water; 0.01 mg/l          STP; 9.6 mg/l          Sediment (Freshwater); 13.7 mg/kg          Sediment (Marinewater); 1.37 mg/kg          Soil; 2.68 mg/kg          Oral (food); 0.02 g/kg food</p>
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### 2-Methoxy-1-methylethyl acetate (CAS: 108-65-6)

<b>DNEL</b>	<p>Workers - Inhalation; Long term systemic effects: 275 mg/m<sup>3</sup>          Workers - Inhalation; Short term local effects: 550 mg/m<sup>3</sup>          Workers - Dermal; Long term systemic effects: 796 mg/kg/day</p>
<b>PNEC</b>	<p>Fresh water; 0.635 mg/l          Intermittent release; 6.35 mg/l          marine water; 0.064 mg/l          STP; 100 mg/l          Sediment (Freshwater); 3.29 mg/kg          Sediment (Marinewater); 0.329 mg/kg          Soil; 0.29 mg/kg</p>

## 8.2. Exposure controls

### Protective equipment



### Appropriate engineering controls

This product must not be handled in a confined space without adequate ventilation.

### Eye/face protection

Wear approved safety goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

### Hand protection

To protect hands from chemicals, gloves should comply with European Standard EN374. Recommendations for gloves:

Polychloroprene - CR: thickness  $\geq 0.5$  mm; breakthrough time  $\geq 480$  min.

Nitrile rubber - NBR: thickness  $\geq 0.35$  mm; breakthrough time  $\geq 480$  min.

Butyl rubber - IIR: thickness  $\geq 0.5$  mm; breakthrough time  $\geq 480$  min.

Fluorinated rubber - FKM: thickness  $\geq 0.4$  mm; breakthrough time  $\geq 480$  min.

### Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact.

### Hygiene measures

Do not eat, drink or smoke when using this product. Take off immediately all contaminated clothing and wash it before reuse. Wash contaminated skin thoroughly after handling.

### Respiratory protection

Use respiratory protection where ventilation is insufficient or exposure is prolonged.

Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Recommended Filter type: Organic gases and vapours filter Type A Brown conforming to EN14387.

## SECTION 9: Physical and chemical properties

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

<b>Appearance</b>	Viscous liquid.
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## ARBOFLEX® PU UV PROTECT

<b>Colour</b>	Grey.
<b>Odour</b>	Acetic acid.
<b>Odour threshold</b>	No data available.
<b>pH</b>	No data available.
<b>Melting point</b>	No data available.
<b>Initial boiling point and range</b>	145°C
<b>Flash point</b>	38°C / 100°F Method: Not specified.
<b>Evaporation rate</b>	No data available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	No data available.
<b>Vapour pressure</b>	No data available.
<b>Vapour density</b>	No data available.
<b>Relative density</b>	1.2 @ 23°C ISO 1675
<b>Solubility(ies)</b>	Insoluble in water.
<b>Partition coefficient</b>	No data available.
<b>Auto-ignition temperature</b>	No data available.
<b>Decomposition Temperature</b>	No data available.
<b>Viscosity</b>	100000 cP
<b>Explosive properties</b>	No data available.
<b>Oxidising properties</b>	No data available.

### 9.2. Other information

**Other information** Not available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity** This material react with certain agents under certain conditions - see Section 10.5.

### 10.2. Chemical stability

**Stability** Stable under the prescribed storage conditions.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Reactions with the following materials may generate heat: Oxidising agents.

### 10.4. Conditions to avoid

**Conditions to avoid** Avoid heat, flames and other sources of ignition. Avoid exposure to high temperatures or direct sunlight. Take precautionary measures against static discharge.

### 10.5. Incompatible materials

**Materials to avoid** Keep away from flammable and combustible materials. Oxidising agents.

### 10.6. Hazardous decomposition products

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**Hazardous decomposition products**      Oxides of carbon.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

**Toxicological effects**      There are no data available on this product.

#### Acute toxicity - oral

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

#### Acute toxicity - dermal

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

#### Acute toxicity - inhalation

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

#### Skin corrosion/irritation

**Skin corrosion/irritation**      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**      Based on available data the classification criteria are not met.

#### Skin sensitisation

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

#### 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**      May cause respiratory irritation. May cause drowsiness or dizziness.

#### 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.

#### **Inhalation**

May cause drowsiness or dizziness. May cause respiratory irritation.

#### **Ingestion**

No specific symptoms known.

#### **Skin contact**

No specific symptoms known.

#### **Eye contact**

No specific symptoms known.

#### **Acute and chronic health hazards**

May cause respiratory system irritation. May cause drowsiness or dizziness.

#### Toxicological information on ingredients.

**ARBOFLEX® PU UV PROTECT**Hydrocarbons, C9, aromaticsAcute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 3,592.0

Species Rat

ATE oral (mg/kg) 3,592.0

Acute toxicity - dermal

Acute toxicity dermal (LD<sub>50</sub> mg/kg) 3,160.0

Species Rabbit

ATE dermal (mg/kg) 3,160.0

Skin corrosion/irritation

Skin corrosion/irritation Conclusive data but not sufficient for classification.

Animal data OECD 404 Acute dermal irritation / corrosion: Mildly irritating (rabbit)

Serious eye damage/irritation

Summary Conclusive data but not sufficient for classification.

Serious eye damage/irritation OECD 405 Acute Eye Irritation / Corrosion: Non-irritant (rabbit).

Skin sensitisation

Summary Conclusive data but not sufficient for classification.

Skin sensitisation Not sensitising (OECD 406, Guinea Pig Maximisation Test)

Germ cell mutagenicity

Summary Conclusive data but not sufficient for classification.

Genotoxicity - in vitro Negative.

Genotoxicity - in vivo Negative (OECD 475, Mammalian Bone Marrow Chromosome Aberration Test)

Specific target organ toxicity - single exposure

Summary May cause respiratory irritation. May cause drowsiness or dizziness.

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

MesityleneAcute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 6,000.0

Species Rat

ATE oral (mg/kg) 6,000.0

Acute toxicity - dermal

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**Acute toxicity dermal (LD<sub>50</sub> 3,440.0 mg/kg)**

**Species** Rat

**Acute toxicity - inhalation**

**Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l)** 10.2

**Species** Rat

**Skin corrosion/irritation**

**Summary** Causes skin irritation.

**Serious eye damage/irritation**

**Summary** Causes serious eye irritation.

**Germ cell mutagenicity**

**Summary** Conclusive data but not sufficient for classification.

**Genotoxicity - in vitro** Bacterial reverse mutation test: Negative.

**Genotoxicity - in vivo** Mammalian erythrocyte micronucleus test: Negative.

**Specific target organ toxicity - single exposure**

**Summary** May cause respiratory irritation.

**Aspiration hazard**

**Summary** May be fatal if swallowed and enters airways.

**Solvent naphtha (petroleum), light arom.****Acute toxicity - oral**

**Acute toxicity oral (LD<sub>50</sub> 5,000.0 mg/kg)**

**Species** Rat

**ATE oral (mg/kg)** 5,000.0

**Acute toxicity - inhalation**

**Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l)** 5.61

**Species** Rat

**ATE inhalation (dusts/mists mg/l)** 5.61

**Skin corrosion/irritation**

**Summary** Causes skin irritation.

**Animal data** Skin irritant (rabbit, OECD Guideline 404 (Acute Dermal Irritation / Corrosion))

**Serious eye damage/irritation**

**Summary** Conclusive data but not sufficient for classification.

**Serious eye damage/irritation** OECD 405 Acute Eye Irritation / Corrosion: Non-irritant (rabbit).

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### Skin sensitisation

**Summary** Conclusive data but not sufficient for classification.

**Skin sensitisation** Not sensitising (OECD 406, Guinea Pig Buehler test)

### Germ cell mutagenicity

**Summary** Conclusive data but not sufficient for classification.

**Genotoxicity - in vitro** Bacterial reverse mutation test: Negative. Gene mutation: Negative.

**Genotoxicity - in vivo** Mammalian erythrocyte micronucleus test: Negative.

### Specific target organ toxicity - single exposure

**STOT - single exposure** May cause drowsiness or dizziness.

### Aspiration hazard

**Summary** May be fatal if swallowed and enters airways.

### n-Butyl methacrylate

### Acute toxicity - inhalation

**Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l)** 29.0

**Species** Rat

**ATE inhalation (dusts/mists mg/l)** 29.0

### Skin corrosion/irritation

**Summary** Causes skin irritation.

### Serious eye damage/irritation

**Summary** Causes serious eye irritation.

### Respiratory sensitisation

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

### Skin sensitisation

**Summary** May cause an allergic skin reaction.

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

### Germ cell mutagenicity

**Summary** Conclusive data but not sufficient for classification.

**Genotoxicity - in vitro** Bacterial reverse mutation test: Negative. Mammalian erythrocyte micronucleus test: Negative.

### Specific target organ toxicity - single exposure

**Summary** May cause respiratory irritation.

### Xylene

### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 3,523.0

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**Species** Rat  
**ATE oral (mg/kg)** 3,523.0

**Acute toxicity - dermal**

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 12,126.0

**Species** Rabbit  
**ATE dermal (mg/kg)** 1,100.0

**Acute toxicity - inhalation**

**Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l)** 27.124

**Species** Rat  
**ATE inhalation (vapours mg/l)** 11.0

**Skin corrosion/irritation**

**Animal data** Primary dermal irritation index: 3.0 Moderately irritating.

**Serious eye damage/irritation**

**Serious eye damage/irritation** Moderately irritating.

**Respiratory sensitisation**

**Respiratory sensitisation** No specific test data are available.

**Specific target organ toxicity - single exposure**

**STOT - single exposure** Respiratory irritation.

**Specific target organ toxicity - repeated exposure**

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard**

**Aspiration hazard** May be fatal if swallowed and enters airways.

**Methyl methacrylate****Acute toxicity - oral**

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 7,900.0

**Species** Rat  
**ATE oral (mg/kg)** 7,900.0

**Acute toxicity - dermal**

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 5,000.0

**Species** Rabbit  
**ATE dermal (mg/kg)** 5,000.0

**Acute toxicity - inhalation**

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**Acute toxicity inhalation** 29.8  
(LC<sub>50</sub> vapours mg/l)

**Species** Rat

**ATE inhalation (vapours** 29.8  
**mg/l)**

**Skin corrosion/irritation**

**Summary** Causes skin irritation.

**Serious eye damage/irritation**

**Summary** Conclusive data but not sufficient for classification.

**Serious eye** Not irritating (Draize Test, rabbit).  
**damage/irritation**

**Skin sensitisation**

**Summary** May cause an allergic skin reaction.

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

**Specific target organ toxicity - single exposure**

**Summary** May cause respiratory irritation.

**Fatty acids, C14-18 and C16-18-unsatd., maleated****Acute toxicity - oral**

**Summary** Conclusive data but not sufficient for classification. LD50 Oral: > 2000 mg/kg Rat

**Acute toxicity - dermal**

**Summary** Conclusive data but not sufficient for classification. LD50 Dermal: > 2000 mg/kg Rat

**Acute toxicity - inhalation**

**Summary** Data lacking.

**Skin corrosion/irritation**

**Summary** Causes skin irritation.

**Skin corrosion/irritation** Skin irritant (rabbit, OECD Guideline 404 (Acute Dermal Irritation / Corrosion))

**Serious eye damage/irritation**

**Summary** Causes serious eye irritation.

**Serious eye** OECD 405 Acute eye irritation / corrosion: Irritating (rabbit)  
**damage/irritation**

**Respiratory sensitisation**

**Summary** Data lacking.

**Skin sensitisation**

**Summary** May cause an allergic skin reaction.

**Germ cell mutagenicity**

**Summary** Conclusive data but not sufficient for classification.

**Genotoxicity - in vitro** Ames test: Negative.

**ARBOFLEX® PU UV PROTECT**

**Genotoxicity - in vivo** Mammalian erythrocyte micronucleus test: Negative.

**Carcinogenicity**

**Summary** Data lacking.

**Ethylbenzene****Acute toxicity - oral**

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 3,500.0

**Species** Rat

**Notes (oral LD<sub>50</sub>)** LD<sub>50</sub> 3500 mg/kg, Oral, Rat

**ATE oral (mg/kg)** 3,500.0

**Acute toxicity - dermal**

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 15,400.0

**Species** Rabbit

**Notes (dermal LD<sub>50</sub>)** LD<sub>50</sub> 15354 mg/kg, Dermal, Rabbit

**ATE dermal (mg/kg)** 15,400.0

**Acute toxicity - inhalation**

**Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l)** 17.6

**Species** Rat

**Notes (inhalation LC<sub>50</sub>)** LC50 17.2 mg/l, Inhalation, Rat

**ATE inhalation (vapours mg/l)** 17.6

**Serious eye damage/irritation**

**Summary** Conclusive data but not sufficient for classification.

**Serious eye damage/irritation** OECD 405 Acute eye irritation / corrosion: Mildly irritating (rabbit)

**Germ cell mutagenicity**

**Summary** Conclusive data but not sufficient for classification.

**Genotoxicity - in vitro** Bacterial reverse mutation test: Negative.

**Genotoxicity - in vivo** Mammalian erythrocyte micronucleus test: Negative.

**Specific target organ toxicity - repeated exposure**

**Summary** May cause damage to organs through prolonged or repeated exposure.

**Target organs** Hearing organs

**Aspiration hazard**

**Summary** May be fatal if swallowed and enters airways.

**2-Methoxy-1-methylethyl acetate**



**ARBOFLEX® PU UV PROTECT****Acute toxicity - oral**

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 6,190.0

**Species** Rat

**ATE oral (mg/kg)** 6,190.0

**Acute toxicity - dermal**

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 5,000.0

**Species** Rabbit

**ATE dermal (mg/kg)** 5,000.0

**Skin corrosion/irritation**

**Summary** Conclusive data but not sufficient for classification.

**Skin corrosion/irritation** OECD 404 Acute dermal irritation / corrosion: Not irritating (rabbit)

**Serious eye damage/irritation**

**Summary** Conclusive data but not sufficient for classification.

**Serious eye damage/irritation** OECD 405 Acute Eye Irritation / Corrosion: Non-irritant (rabbit).

**Skin sensitisation**

**Summary** Conclusive data but not sufficient for classification.

**Skin sensitisation** Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising.

**Germ cell mutagenicity**

**Summary** Conclusive data but not sufficient for classification.

**Genotoxicity - in vitro** Bacterial reverse mutation test: Negative.

**Specific target organ toxicity - single exposure**

**Summary** May cause drowsiness or dizziness.

**SECTION 12: Ecological information**

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

**12.1. Toxicity**

**Toxicity** There are no data for the product.

**Acute aquatic toxicity**

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

**Chronic aquatic toxicity**

**Summary** Aquatic Chronic 2 Toxic to aquatic life with long lasting effects.

**Ecological information on ingredients.****Hydrocarbons, C9, aromatics****Acute aquatic toxicity**

**Acute toxicity - fish** LL<sub>50</sub>, 96 hours: 9.2 mg/l, Oncorhynchus mykiss (Rainbow trout)

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**Acute toxicity - aquatic invertebrates** EL50, 48 hours: 3.2 mg/l, Daphnia magna

### Chronic aquatic toxicity

**Chronic toxicity - fish early life stage** Estimated freshwater fish 28-day NOELR value is 1.228 mg/l based on growth.

**Chronic toxicity - aquatic invertebrates** Estimated freshwater invertebrate 21-day NOELR value is 2.14mg/l based on reproduction.

### Mesitylene

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 12.52 mg/l, Carassius auratus (Goldfish)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 6 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 48 hours: 53 mg/l, Scenedesmus subspicatus

### Solvent naphtha (petroleum), light arom.

#### Acute aquatic toxicity

**Acute toxicity - fish** LL<sub>50</sub>, 96 hours: 10 mg/l, Oncorhynchus mykiss (Rainbow trout)

**Acute toxicity - aquatic invertebrates** EL50, 48 hours: 4.5 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EL50, 72 hours: 3.1 mg/l, Pseudokirchneriella subcapitata

#### Chronic aquatic toxicity

**Chronic toxicity - aquatic invertebrates** NOELR, 21 days: 2.6 mg/l, Daphnia magna

### n-Butyl methacrylate

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 5.6 mg/l, Oncorhynchus mykiss (Rainbow trout)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 25 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 31.2 mg/l, Pseudokirchneriella subcapitata

#### Chronic aquatic toxicity

**Chronic toxicity - aquatic invertebrates** NOEC, 21 days: 1.69 mg/l, Daphnia magna

### Xylene

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>80</sub>, 96 hours: 2.6 - 11.23 mg/l, Fish

**Acute toxicity - aquatic invertebrates** IC<sub>50</sub>, 24 hours: 1 mg/l, Daphnia magna  
EC<sub>50</sub>, 48 hours: 3.82 mg/l, Daphnia magna

## ARBOFLEX® PU UV PROTECT

**Acute toxicity - aquatic plants** EC<sub>80</sub>, 72 hours: 2.2 mg/l, Selenastrum capricornutum

### Chronic aquatic toxicity

**Chronic toxicity - fish early life stage** NOEC, 56 days: > 1.3 mg/l, Oncorhynchus mykiss (Rainbow trout)

**Chronic toxicity - aquatic invertebrates** NOEC, 7 days: 0.96 mg/l, Ceriodaphnia sp.

### Methyl methacrylate

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: >100 mg/l, Oncorhynchus mykiss (Rainbow trout)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 69 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** ErC50, 72 hours: >110 mg/l, Selenastrum capricornutum

#### Chronic aquatic toxicity

**Chronic toxicity - fish early life stage** NOEC, 35 days: 9.4 mg/l, Brachydanio rerio (Zebra Fish)

**Chronic toxicity - aquatic invertebrates** NOEC, 21 days: 37 mg/l, Daphnia magna

### Fatty acids, C14-18 and C16-18-unsatd., maleated

#### Acute aquatic toxicity

**Acute toxicity - fish** LL<sub>50</sub>, 96 hours: >=100 mg/l, Brachydanio rerio (Zebra Fish)

**Acute toxicity - aquatic invertebrates** EL50, 48 hours: >100 mg/l, Daphnia magna

### Ethylbenzene

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>80</sub>, 96 hours: 4.2 mg/l, Oncorhynchus mykiss (Rainbow trout)  
LC<sub>80</sub>, 96 hours: 5.1 mg/l, Menidia menidia

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 1.8 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 3.6 mg/l, Selenastrum capricornutum

#### Chronic aquatic toxicity

**Chronic toxicity - aquatic invertebrates** NOEC, 7 days: 0.96 mg/l, Ceriodaphnia sp.

### 2-Methoxy-1-methylethyl acetate

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 134 mg/l, Oncorhynchus mykiss (Rainbow trout)

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<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: >500 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	ErC <sub>50</sub> , 96 hours: >1000 mg/l, Pseudokirchneriella subcapitata
<b><u>Chronic aquatic toxicity</u></b>	
<b>Chronic toxicity - fish early life stage</b>	NOEC, 14 days: 47.5 mg/l, Oryzias latipes (Red killifish)
<b>Chronic toxicity - aquatic invertebrates</b>	NOEC, 21 days: >=100 mg/l, Daphnia magna

### 12.2. Persistence and degradability

**Persistence and degradability** No data available.

### Ecological information on ingredients.

#### Mesitylene

**Biodegradation** Readily biodegradable but failing the 10-day window.  
- Degradation 61%: 28 days

#### n-Butyl methacrylate

**Biodegradation** The substance is readily biodegradable.  
- Degradation 88%: 28 days

#### Xylene

**Biodegradation** The substance is readily biodegradable.

#### Methyl methacrylate

**Biodegradation** The substance is readily biodegradable.  
- Degradation 94.3%: 14 days

#### Fatty acids, C14-18 and C16-18-unsatd., maleated

**Biodegradation** Not readily biodegradable.

#### Ethylbenzene

**Biodegradation** The substance is readily biodegradable.  
- Degradation 70 - 80%: 28 days

#### 2-Methoxy-1-methylethyl acetate

**Biodegradation** The substance is readily biodegradable.  
- Degradation 83%: 28 days

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** No data available.

### Ecological information on ingredients.

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## Xylene

**Bioaccumulative potential** BCF: 25.9, Oncorhynchus mykiss (Rainbow trout)

**Partition coefficient** log Pow: 3.2

### 12.4. Mobility in soil

**Mobility** No data available.

### 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** Not known.

## **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

**General information** When handling waste, the safety precautions applying to handling of the product should be considered.

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

**Waste class** HP3 Flammable HP5 STOT / Aspiration toxicity HP14 Ecotoxic Recommended EWC Code 08 01 11\*

## **SECTION 14: Transport information**

### 14.1. UN number

**UN No. (ADR/RID)** 1139

**UN No. (IMDG)** 1139

**UN No. (ICAO)** 1139

**UN No. (ADN)** 1139

### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** COATING SOLUTION

**Proper shipping name (IMDG)** COATING SOLUTION (hydrocarbons, C9, aromatics)

**Proper shipping name (ICAO)** COATING SOLUTION

**Proper shipping name (ADN)** COATING SOLUTION

### 14.3. Transport hazard class(es)

**ADR/RID class** 3

**ADR/RID classification code** F1

**ADR/RID label** 3

**IMDG class** 3

**ICAO class/division** 3

**ADN class** 3

## ARBOFLEX® PU UV PROTECT

### 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-E, S-E
ADR transport category	3
Emergency Action Code	•3Y
Hazard Identification Number (ADR/RID)	30
Tunnel restriction code	(D/E)

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

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

### SECTION 15: Regulatory information

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

<b>National regulations</b>	Control of Substances Hazardous to Health Regulations 2002 (as amended). EH40/2005 Workplace exposure limits. Health and Safety at Work etc. Act 1974 (as amended). The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, UK SI 2019/720. The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020, UK SI 2020/1567. The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, UK SI 2019/758, UK SI 2019/858 and UK SI 2019/1144. The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, UK SI 2020/1577.
<b>EU legislation</b>	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).

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<b>Authorisations (Annex XIV Regulation 1907/2006)</b>	None of the substances in the product are listed.
<b>Restrictions (Annex XVII Regulation 1907/2006)</b>	No relevant restrictions.
<b>Seveso Directive - Control of major accident hazards</b>	P5c Lower-tier 5000 tonnes Upper-tier 50000 tonnes. E2 Lower-tier 200 tonnes Upper-tier 500 tonnes.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the mixture.

### SECTION 16: Other information

<b>Abbreviations and acronyms used in the safety data sheet</b>	<p>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</p> <p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>ATE: Acute Toxicity Estimate.</p> <p>DNEL: Derived No Effect Level.</p> <p>EC<sub>50</sub>: 50% of maximal Effective Concentration.</p> <p>IATA: International Air Transport Association.</p> <p>ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>PNEC: Predicted No Effect Concentration.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p>
<b>Classification abbreviations and acronyms</b>	<p>Acute Tox. = Acute toxicity</p> <p>Aquatic Chronic = Hazardous to the aquatic environment (chronic)</p> <p>Asp. Tox. = Aspiration hazard</p> <p>Eye Irrit. = Eye irritation</p> <p>Flam. Liq. = Flammable liquid</p> <p>Skin Irrit. = Skin irritation</p> <p>Skin Sens. = Skin sensitisation</p> <p>STOT RE = Specific target organ toxicity-repeated exposure</p> <p>STOT SE = Specific target organ toxicity-single exposure</p>
<b>Key literature references and sources for data</b>	SDS from supplier. Source: European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a>
<b>Classification procedures according to Regulation (EC) 1272/2008</b>	Flam. Liq. 3 - H226: On basis of test data. STOT SE 3 - H335, H336, Aquatic Chronic 2 - H411: Calculation method.
<b>Revision date</b>	22/07/2021
<b>Revision</b>	1
<b>SDS number</b>	20384
<b>SDS status</b>	Approved.

## ARBOFLEX® PU UV PROTECT

### Hazard statements in full

H225 Highly flammable liquid and vapour.  
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.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H373 May cause damage to organs (Hearing organs) through prolonged or repeated exposure.  
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.