

# ARBOFLEX<sup>®</sup> PU

## LIQUID WATERPROOFING

### SAFETY DATA SHEET

#### PART B of the two component product, ARBOFLEX 2C TOP COAT PART A / PART B

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

##### 1.1. Product identifier

**Product name** PART B of the two component product, ARBOFLEX 2C TOP COAT PART A / PART B

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

**Identified uses** Two-component, aliphatic polyurethane solvent based resin surface coating for industrial & commercial flooring 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** Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H335 STOT RE 2 - H373

**Environmental hazards** Not Classified

##### 2.2. Label elements

###### Hazard pictograms



**Signal word**

Warning

###### Hazard statements

H226 Flammable liquid and vapour.  
H332 Harmful if inhaled.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.  
H373 May cause damage to organs through prolonged or repeated exposure.

## PART B of the two component product, ARBOFLEX 2C TOP COAT PART A / PART B

<b>Precautionary statements</b>	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P260 Do not breathe vapour/ spray.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P312 Call a POISON CENTRE/doctor if you feel unwell.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P403+P235 Store in a well-ventilated place. Keep cool.</p>
<b>Supplemental label information</b>	As from 24 August 2023 adequate training is required before industrial or professional use.
<b>Contains</b>	HDI oligomers, iminooxadiazindione, Xylene, Hexamethylene diisocyanate

### 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>HDI oligomers, iminooxadiazindione</b>	<b>70 - 80%</b>
CAS number: 28182-81-2	REACH registration number: 01-2119488934-20-XXXX
<b>Classification</b>	
Acute Tox. 4 - H332	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
<b>Xylene</b>	<b>10 - &lt;20%</b>
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>2-Methoxy-1-methylethyl acetate</b>	<b>10 - &lt;20%</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	

## PART B of the two component product, ARBOFLEX 2C TOP COAT PART A / PART B

<b>Hexamethylene diisocyanate</b>		<b>&lt; 1%</b>
CAS number: 822-06-0	EC number: 212-485-8	REACH registration number: 01-2119457571-37-XXXX
<b>Classification</b>		
Acute Tox. 4 - H302		
Acute Tox. 1 - H330		
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
Resp. Sens. 1 - H334		
Skin Sens. 1 - H317		
STOT SE 3 - H335		

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>	Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.
<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention. Place unconscious person on their side in the recovery position and ensure breathing can take place.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Keep affected person under observation. Get medical attention if symptoms are severe or persist.
<b>Skin contact</b>	It is important to remove the substance from the skin immediately. In the event of any sensitisation symptoms developing, ensure further exposure is avoided. Remove contamination with soap and water or recognised skin cleansing agent. Get medical attention if symptoms are severe or persist after washing.
<b>Eye contact</b>	Rinse with water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Get medical attention if any discomfort continues.
<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>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	A single exposure may cause the following adverse effects: Coughing. Irritation of nose, throat and airway. Wheezing/breathing difficulties.
<b>Ingestion</b>	May cause sensitisation or allergic reactions in sensitive individuals. May cause irritation.
<b>Skin contact</b>	May cause skin sensitisation or allergic reactions in sensitive individuals. Redness. Irritating to skin.
<b>Eye contact</b>	Causes serious eye irritation.

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

## PART B of the two component product, ARBOFLEX 2C TOP COAT PART A / PART B

**Notes for the doctor** Treat symptomatically. May cause sensitisation or allergic reactions in sensitive individuals.

### 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 jet as an extinguisher, as this will spread the fire.

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

**Specific hazards** Containers can burst violently or explode when heated, due to excessive pressure build-up. Flammable liquid and vapour. Vapours may be ignited by a spark, a hot surface or an ember. Vapours may form explosive mixtures with air. Fire-water run-off in sewers may create fire or explosion hazard. This product is toxic.

**Hazardous combustion products** Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours.

#### 5.3. Advice for firefighters

**Protective actions during firefighting** Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. 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** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

### 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. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Evacuate area. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated. Avoid inhalation of vapours and spray/mists. Use suitable respiratory protection if ventilation is inadequate. Avoid contact with skin and eyes.

#### 6.2. Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment.

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

**Methods for cleaning up** Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Do not allow material to enter confined spaces, due to the risk of explosion. Absorb spillage with sand or other inert absorbent. The contaminated absorbent may pose the same hazard as the spilled material. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dangerous for the environment. Do not empty into drains. For waste disposal, see Section 13.

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### 6.4. Reference to other sections

**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.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** 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. The product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Take precautionary measures against static discharge. Use only non-sparking tools. 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.

**Advice on general occupational hygiene** Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.

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

**Storage precautions** Store at below 20 °C. Avoid exposure to high temperatures or direct sunlight. Store away from incompatible materials (see Section 10). 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.

**Storage class** Flammable liquid 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

#### 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, BMGV

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

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

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

Sk

##### Hexamethylene diisocyanate

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

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

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through the skin.

BMGV = Biological monitoring guidance value.

#### HDI oligomers, iminoxadiazindione (CAS: 28182-81-2)

**DNEL**

Workers - Inhalation; Long term local effects: 0.5 mg/m<sup>3</sup>

Workers - Inhalation; Short term local effects: 1 mg/m<sup>3</sup>

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<b>PNEC</b>	Fresh water; 0.1 mg/l Intermittent release; 1 mg/l marine water; 0.01 mg/l STP; 100 mg/l Sediment (Freshwater); 2530 mg/kg Sediment (Marinewater); 253 mg/kg Soil; 505 mg/kg
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### Xylene (CAS: 1330-20-7)

<b>Biological limit values</b>	Xylene, o-, m-, p- or mixed isomers: 650 mmol methyl hippuric acid/mol creatinine in urine. Post shift.
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<b>DNEL</b>	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
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<b>PNEC</b>	- 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
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### 2-Methoxy-1-methylethyl acetate (CAS: 108-65-6)

<b>DNEL</b>	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
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<b>PNEC</b>	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
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### Hexamethylene diisocyanate (CAS: 822-06-0)

<b>DNEL</b>	Workers - Inhalation; Long term local effects: 0.035 mg/m <sup>3</sup> Workers - Inhalation; Short term local effects: 0.07 mg/m <sup>3</sup>
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<b>PNEC</b>	Fresh water; 0.049 mg/l marine water; 0.005 mg/l STP; 8.42 mg/l Sediment (Freshwater); 0.674 mg/kg Sediment (Marinewater); 0.067 mg/kg Soil; 0.523 mg/kg
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## 8.2. Exposure controls

### Protective equipment



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<b>Appropriate engineering controls</b>	This product must not be handled in a confined space without adequate ventilation. Use only outdoors or in a well-ventilated area. Observe any occupational exposure limits for the product or ingredients.
<b>Eye/face protection</b>	Wear approved safety goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.
<b>Hand protection</b>	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.
<b>Other skin and body protection</b>	May cause skin sensitisation or allergic reactions in sensitive individuals. Wear appropriate clothing to prevent repeated or prolonged skin contact.
<b>Hygiene measures</b>	Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.
<b>Respiratory protection</b>	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.
<b>Environmental exposure controls</b>	Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### SECTION 9: Physical and chemical properties

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

<b>Appearance</b>	Liquid.
<b>Colour</b>	Pale yellow
<b>Odour</b>	Characteristic.
<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/293°F
<b>Flash point</b>	38°C / 100°F Method:
<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>	1.07
<b>Solubility(ies)</b>	Insoluble in water.
<b>Partition coefficient</b>	No data available.

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<b>Auto-ignition temperature</b>	No data available.
<b>Decomposition Temperature</b>	No data available.
<b>Viscosity</b>	275 cP @ °C
<b>Explosive properties</b>	No data available.
<b>Oxidising properties</b>	No data available.

### 9.2. Other information

<b>Other information</b>	Not available.
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

<b>Reactivity</b>	This material react with certain agents under certain conditions - see Section 10.5.
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### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
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### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	The following materials may react strongly with the product: Oxidising agents.
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### 10.4. Conditions to avoid

<b>Conditions to avoid</b>	Avoid heat, flames and other sources of ignition. Containers can burst violently or explode when heated, due to excessive pressure build-up. Static electricity and formation of sparks must be prevented.
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### 10.5. Incompatible materials

<b>Materials to avoid</b>	Oxidising materials. Acids - oxidising.
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### 10.6. Hazardous decomposition products

<b>Hazardous decomposition products</b>	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

<b>Toxicological effects</b>	There are no data available on this product.
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#### Acute toxicity - oral

<b>Notes (oral LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
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#### Acute toxicity - dermal

<b>Notes (dermal LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
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<b>ATE dermal (mg/kg)</b>	9,166.67
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#### Acute toxicity - inhalation

<b>Notes (inhalation LC<sub>50</sub>)</b>	Acute Tox. 4 - H332 Harmful if inhaled.
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<b>ATE inhalation (vapours mg/l)</b>	23.17
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<b>ATE inhalation (dusts/mists mg/l)</b>	1.97
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#### Skin corrosion/irritation



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<b>Skin corrosion/irritation</b>	Skin Irrit. 2 Causes skin irritation.
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Eye Irrit. 2 Causes serious eye irritation.
<b><u>Respiratory sensitisation</u></b>	
<b>Respiratory sensitisation</b>	Based on available data the classification criteria are not met.
<b><u>Skin sensitisation</u></b>	
<b>Skin sensitisation</b>	Skin Sens. 1 May cause skin sensitisation or allergic reactions in sensitive individuals.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Based on available data the classification criteria are not met.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Based on available data the classification criteria are not met.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.
<b>Reproductive toxicity - development</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	STOT SE 3 - H335 May cause respiratory irritation.
<b>Target organs</b>	Respiratory system, lungs
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	STOT RE 2 - H373 May cause damage to organs through prolonged or repeated exposure.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Based on available data the classification criteria are not met.
<b><u>General information</u></b>	
<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	A single exposure may cause the following adverse effects: Headache. Exhaustion and weakness.
<b>Ingestion</b>	May cause sensitisation or allergic reactions in sensitive individuals. May cause irritation.
<b>Skin contact</b>	May cause skin sensitisation or allergic reactions in sensitive individuals. Redness. Irritating to skin.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Acute and chronic health hazards</b>	Causes skin and eye irritation. May cause skin sensitisation or allergic reactions in sensitive individuals. May cause respiratory irritation.
<b>Route of exposure</b>	Ingestion Inhalation Skin and/or eye contact
<b>Target organs</b>	Respiratory system, lungs
<b>Medical considerations</b>	Skin disorders and allergies.

### Toxicological information on ingredients.

#### HDI oligomers, iminoxadiazindione

#### Acute toxicity - inhalation

**PART B of the two component product, ARBOFLEX 2C TOP COAT PART A / PART B**

<b>Summary</b>	Harmful if inhaled.
<b>Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l)</b>	1.5
<b>Species</b>	Rat
<b>ATE inhalation (dusts/mists mg/l)</b>	1.5
<b><u>Skin sensitisation</u></b>	
<b>Summary</b>	May cause an allergic skin reaction.
<b>Skin sensitisation</b>	Local Lymph Node Assay (LLNA) - Mouse: Sensitising.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	May cause respiratory irritation.
<b>Target organs</b>	Lungs

**Xylene**

<b><u>Acute toxicity - oral</u></b>	
<b>Acute toxicity oral (LD<sub>50</sub> mg/kg)</b>	3,523.0
<b>Species</b>	Rat
<b>ATE oral (mg/kg)</b>	3,523.0
<b><u>Acute toxicity - dermal</u></b>	
<b>Acute toxicity dermal (LD<sub>50</sub> mg/kg)</b>	12,126.0
<b>Species</b>	Rabbit
<b>ATE dermal (mg/kg)</b>	1,100.0
<b><u>Acute toxicity - inhalation</u></b>	
<b>Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l)</b>	27.124
<b>Species</b>	Rat
<b>ATE inhalation (vapours mg/l)</b>	11.0
<b><u>Skin corrosion/irritation</u></b>	
<b>Animal data</b>	Primary dermal irritation index: 3.0 Moderately irritating.
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Moderately irritating.
<b><u>Respiratory sensitisation</u></b>	
<b>Respiratory sensitisation</b>	No specific test data are available.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Respiratory irritation.

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### 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.

### 2-Methoxy-1-methylethyl acetate

#### 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.

### Hexamethylene diisocyanate

#### Acute toxicity - oral

**Summary** Harmful if swallowed.

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 746.0

**Species** Rat

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

## PART B of the two component product, ARBOFLEX 2C TOP COAT PART A / PART B

### Acute toxicity - inhalation

**Summary** Fatal if inhaled.

**Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l)** 0.124

**Species** Rat

**ATE inhalation (vapours mg/l)** 0.124

### Skin corrosion/irritation

**Skin corrosion/irritation** Causes skin irritation.

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

### Serious eye damage/irritation

**Summary** Causes serious eye irritation.

### Respiratory sensitisation

**Summary** May cause allergy or asthma symptoms or breathing difficulties if inhaled.

### Skin sensitisation

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

**Skin sensitisation** Guinea pig maximization test (GPMT) - Guinea pig: Sensitising.

### Specific target organ toxicity - single exposure

**STOT - single exposure** May cause respiratory irritation.

**Target organs** Lungs

## SECTION 12: Ecological information

**Ecotoxicity** Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

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

### Ecological information on ingredients.

#### HDI oligomers, iminoxadiazindione

### Acute aquatic toxicity

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

**Acute toxicity - aquatic invertebrates** EL0, 48 hours: =>100 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** ErL, 72 hours: 199 mg/l, Desmodesmus subspicatus

## PART B of the two component product, ARBOFLEX 2C TOP COAT PART A / PART B

### Xylene

#### Acute aquatic toxicity

<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: 2.6 - 11.23 mg/l, Fish
<b>Acute toxicity - aquatic invertebrates</b>	IC <sub>50</sub> , 24 hours: 1 mg/l, Daphnia magna EC <sub>50</sub> , 48 hours: 3.82 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	EC <sub>50</sub> , 72 hours: 2.2 mg/l, Selenastrum capricornutum

#### Chronic aquatic toxicity

<b>Chronic toxicity - fish early life stage</b>	NOEC, 56 days: > 1.3 mg/l, Oncorhynchus mykiss (Rainbow trout)
<b>Chronic toxicity - aquatic invertebrates</b>	NOEC, 7 days: 0.96 mg/l, Ceriodaphnia sp.

### 2-Methoxy-1-methylethyl acetate

#### Acute aquatic toxicity

<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: 134 mg/l, Oncorhynchus mykiss (Rainbow trout)
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: >500 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	ErC50, 96 hours: >1000 mg/l, Pseudokirchneriella subcapitata

#### Chronic aquatic toxicity

<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

### Hexamethylene diisocyanate

#### Acute aquatic toxicity

<b>Acute toxicity - fish</b>	EC <sub>50</sub> , 96 hours: 82.8 mg/l, Brachydanio rerio (Zebra Fish)
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: =>89.1 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	EC <sub>50</sub> , 72 hours: >77.4 mg/l, Desmodemus subspicatus

### 12.2. Persistence and degradability

**Persistence and degradability** The degradability of the product is not known.

### Ecological information on ingredients.

#### HDI oligomers, iminooxadiazindione

<b>Persistence and degradability</b>	Not readily biodegradable.
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### Xylene

## PART B of the two component product, ARBOFLEX 2C TOP COAT PART A / PART B

**Biodegradation** The substance is readily biodegradable.

### 2-Methoxy-1-methylethyl acetate

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

### Hexamethylene diisocyanate

**Persistence and degradability** Not readily biodegradable.

### 12.3. Bioaccumulative potential

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

**Partition coefficient** No data available.

### Ecological information on ingredients.

#### HDI oligomers, iminooxadiazindione

**Bioaccumulative potential** Bioaccumulation is unlikely.

#### Xylene

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

**Partition coefficient** log Pow: 3.2

#### Hexamethylene diisocyanate

**Bioaccumulative potential** BCF: 58, QSAR

### 12.4. Mobility in soil

**Mobility** No data available.

### Ecological information on ingredients.

#### Hexamethylene diisocyanate

**Adsorption/desorption coefficient** - Koc: 598 @ 20°C

### 12.5. Results of PBT and vPvB assessment

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

### 12.6. Other adverse effects

**Other adverse effects** None known.

## **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

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

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Do not reuse empty containers. Do not empty into drains.

## PART B of the two component product, ARBOFLEX 2C TOP COAT PART A / PART B

**Waste class** HP3 Flammable HP4 Irritant HP5 STOT / Aspiration toxicity HP6 Acute toxicity HP13 Sensitising 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
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

#### 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  
No.

#### 14.6. Special precautions for user

EmS	F-E, S-E
ADR transport category	3
Emergency Action Code	•3Y

## PART B of the two component product, ARBOFLEX 2C TOP COAT PART A / PART B

Hazard Identification Number 30  
(ADR/RID)

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>	The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. 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).
<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>	Entry number: 74
<b>Seveso Directive - Control of major accident hazards</b>	P5c Lower-tier 5000 tonnes Upper-tier 50000 tonnes.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.



## PART B of the two component product, ARBOFLEX 2C TOP COAT PART A / PART B

### SECTION 16: Other information

<b>Abbreviations and acronyms used in the safety data sheet</b>	<p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</p> <p>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</p> <p>IATA: International Air Transport Association.</p> <p>ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>CAS: Chemical Abstracts Service.</p> <p>ATE: Acute Toxicity Estimate.</p> <p>LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.</p> <p>LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>EC<sub>50</sub>: 50% of maximal Effective Concentration.</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p>
<b>Classification abbreviations and acronyms</b>	<p>Flam. Liq. = Flammable liquid</p> <p>Acute Tox. = Acute toxicity</p> <p>Eye Irrit. = Eye irritation</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>	Raw material suppliers SDS. 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>	Acute Tox. 4 - H332: STOT RE 2 - H373: STOT SE 3 - H335: Skin Irrit. 2 - H315: Eye Irrit. 2 - H319: Skin Sens. 1 - H317: : Calculation method. Flam. Liq. 3 - H226: On basis of test data.
<b>Training advice</b>	Only trained personnel should use this material.
<b>Revision date</b>	19/11/2021
<b>Revision</b>	1
<b>SDS number</b>	20444
<b>SDS status</b>	Approved.
<b>Hazard statements in full</b>	<p>H226 Flammable liquid and vapour.</p> <p>H302 Harmful if swallowed.</p> <p>H304 May be fatal if swallowed and enters airways.</p> <p>H312 Harmful in contact with skin.</p> <p>H315 Causes skin irritation.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H319 Causes serious eye irritation.</p> <p>H330 Fatal if inhaled.</p> <p>H332 Harmful if inhaled.</p> <p>H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p> <p>H335 May cause respiratory irritation.</p> <p>H336 May cause drowsiness or dizziness.</p> <p>H373 May cause damage to organs through prolonged or repeated exposure.</p> <p>H412 Harmful to aquatic life with long lasting effects.</p>

## **PART B of the two component product, ARBOFLEX 2C TOP COAT PART A / PART B**

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.