

SAFETY DATA SHEET

ARBOFLEX®

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
Product description : Single component resin for treatment and protection against UV rays.
Other means of identification : Not available.

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	Reason
For professional users only.	-

1.3 Details of the supplier of the safety data sheet

Carlisle Construction Materials Ltd.
Lancaster House, Concorde Way,
Millennium Business Park,
Mansfield
Nottinghamshire,
NG19 7DW
United Kingdom

01623 627285

e-mail address of person responsible for this SDS : SDSQueries@carlisleccm.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : National Poisons Information Service (NPIS)
Tel: 0344 892 0111 (for healthcare professionals only)
Website: <http://www.npis.org/>
Members of Public in England, Scotland and Wales can contact NHS 111/NHS 24 by dialling 111. In Northern Ireland contact your local GP.

Supplier

Telephone number : +44 (0)1623 627285
(Office hours: 8.30 - 17.00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Flam. Liq. 3, H226
STOT SE 3, H335
STOT SE 3, H336
Aquatic Chronic 2, H411

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

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SECTION 2: Hazards identification

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.

Precautionary statements

Prevention : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 - Avoid breathing vapour or spray.
P273 - Avoid release to the environment.

Response : P312 - Call a POISON CENTER or doctor if you feel unwell.
P391 - Collect spillage.

Storage : P403 + P235 - Store in a well-ventilated place. Keep cool.

Disposal : Not applicable

Supplemental label elements : Contains n-butyl methacrylate, methyl methacrylate and Fatty acids, C14-18 and C16-18-unsatd., maleated. May produce an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
Hydrocarbons, C9, aromatics	REACH #: 01-2119455851-35 CAS: 128601-23-0	≥25 - <50	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	[1] [2]
mesitylene	REACH #: 01-2119463878-19 EC: 203-604-4 CAS: 108-67-8 Index: 601-025-00-5	<5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304	[1] [2]

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SECTION 3: Composition/information on ingredients

Naphtha (petroleum), hydrotreated light, <0.1% benzene	EC: 265-151-9 CAS: 64742-49-0	<1	Aquatic Chronic 2, H411 Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	[1]
n-butyl methacrylate	REACH #: 01-2119486394-28 EC: 202-615-1 CAS: 97-88-1 Index: 607-033-00-5	<1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335	[1]
methyl methacrylate	REACH #: 01-2119452498-28 EC: 201-297-1 CAS: 80-62-6 Index: 607-035-00-6	<1	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335	[1] [2]
Fatty acids, C14-18 and C16-18-unsatd., maleated	REACH #: 01-2119976378-19 EC: 288-306-2 CAS: 85711-46-2	<1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317	[1]
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	<1	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 (ears) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	[1] [2]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	<0.1	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	[1] [2]
2-methoxy-1-methylethyl acetate	REACH #: 01-2119475791-29 EC: 203-603-9 CAS: 108-65-6 Index: 607-195-00-7	<0.1	Flam. Liq. 3, H226 STOT SE 3, H336	[1] [2]
			See Section 16 for the full text of the H statements declared above.	

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : No specific data.
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

SECTION 5: Firefighting measures

Hazards from the substance or mixture : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.4 Reference to other sections

: See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Do not store above the following temperature: 20°C (68°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c E2	5000 tonne 200 tonne	50000 tonne 500 tonne

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Hydrocarbons, C9, aromatics	EU Biological limit values (Europe). TWA: 100 mg/m ³ 8 hours.
mesitylene	TWA: 19 ppm 8 hours. EH40/2005 WELs (United Kingdom (UK), 1/2020). [trimethylbenzenes, all isomers or mixtures] TWA: 25 ppm 8 hours.
methyl methacrylate	TWA: 125 mg/m ³ 8 hours. EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 416 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 208 mg/m ³ 8 hours.
xylene	TWA: 50 ppm 8 hours. EH40/2005 WELs (United Kingdom (UK), 1/2020). [xylene, o-,m-,

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ethylbenzene	<p>p- or mixed isomers] Absorbed through skin. STEL: 441 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 220 mg/m³ 8 hours. STEL: 100 ppm 15 minutes.</p> <p>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 552 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours. TWA: 441 mg/m³ 8 hours.</p>
2-methoxy-1-methylethyl acetate	<p>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 548 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 274 mg/m³ 8 hours. STEL: 100 ppm 15 minutes.</p>

Biological exposure indices

Product/ingredient name	Exposure indices
xylene	<p>EH40/2005 BMGVs (United Kingdom (UK), 8/2018) [Xylene, o-, m-, p- or mixed isomers] BGV: 650 mmol/mol creatinine, methyl hippuric acid [in urine]. Sampling time: post shift.</p>

Recommended monitoring procedures : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
mesitylene	DNEL	Long term Oral	11 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	11 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	25 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	32 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	150 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	15 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	29.4 mg/m ³	General population	Local
	DNEL	Long term Inhalation	29.4 mg/m ³	General population	Local
	DNEL	Short term Inhalation	29.4 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	29.4 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	100 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	100 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	100 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	100 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	9512 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	16171 mg/kg bw/day	Workers	Systemic

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SECTION 8: Exposure controls/personal protection

Naphtha (petroleum), hydrotreated light, <0.1% benzene	DNEL	Long term Oral	149 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Dermal	149 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic	
	DNEL	Long term Inhalation	0.41 mg/m ³	General population	Systemic	
	DNEL	Long term Inhalation	1.9 mg/m ³	Workers	Systemic	
	DNEL	Long term Inhalation	178.57 mg/m ³	General population	Local	
	DNEL	Short term Inhalation	640 mg/m ³	General population	Local	
	DNEL	Long term Inhalation	837.5 mg/m ³	Workers	Local	
	DNEL	Short term Inhalation	1066.67 mg/m ³	Workers	Local	
	DNEL	Short term Inhalation	1152 mg/m ³	General population	Systemic	
	DNEL	Short term Inhalation	1286.4 mg/m ³	Workers	Systemic	
	n-butyl methacrylate	DNEL	Long term Dermal	3 mg/kg bw/day	General population	Systemic
		DNEL	Long term Dermal	5 mg/kg bw/day	Workers	Systemic
		DNEL	Long term Inhalation	66.5 mg/m ³	General population	Systemic
DNEL		Long term Inhalation	366.4 mg/m ³	General population	Local	
DNEL		Long term Inhalation	409 mg/m ³	Workers	Local	
DNEL		Long term Inhalation	415.9 mg/m ³	Workers	Systemic	
methyl methacrylate	DNEL	Short term Dermal	1.5 mg/cm ²	General population	Local	
	DNEL	Long term Dermal	1.5 mg/cm ²	General population	Local	
	DNEL	Short term Dermal	1.5 mg/cm ²	Workers	Local	
	DNEL	Long term Dermal	1.5 mg/cm ²	Workers	Local	
	DNEL	Long term Oral	8.2 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Dermal	8.2 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Dermal	13.67 mg/kg bw/day	Workers	Systemic	
	DNEL	Long term Inhalation	74.3 mg/m ³	General population	Systemic	
	DNEL	Long term Inhalation	104 mg/m ³	General population	Local	
	DNEL	Short term Inhalation	208 mg/m ³	General population	Local	
	DNEL	Long term Inhalation	208 mg/m ³	Workers	Local	
	DNEL	Long term Inhalation	348.4 mg/m ³	Workers	Systemic	
	DNEL	Short term Inhalation	416 mg/m ³	Workers	Local	
	Fatty acids, C14-18 and C16-18-unsatd., maleated	DNEL	Long term Oral	1.67 mg/kg bw/day	General population	Systemic
DNEL		Long term Dermal	1.67 mg/kg bw/day	General population	Systemic	
DNEL		Long term Dermal	3.33 mg/kg bw/day	Workers	Systemic	

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xylene	DNEL	Long term Oral	kg bw/day 12.5 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	65.3 mg/m ³	General population	Local
	DNEL	Long term Inhalation	65.3 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	125 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	212 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	221 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	221 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	260 mg/m ³	General population	Local
	DNEL	Short term Inhalation	260 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	442 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	442 mg/m ³	Workers	Systemic
	ethylbenzene	DMEL	Long term Inhalation	442 mg/m ³	Workers
DMEL		Short term Inhalation	884 mg/m ³	Workers	Systemic
DNEL		Long term Oral	1.6 mg/kg bw/day	General population	Systemic
DNEL		Long term Inhalation	15 mg/m ³	General population	Systemic
DNEL		Long term Inhalation	77 mg/m ³	Workers	Systemic
DNEL		Long term Dermal	180 mg/kg bw/day	Workers	Systemic
DNEL		Short term Inhalation	293 mg/m ³	Workers	Local
2-methoxy-1-methylethyl acetate		DNEL	Long term Inhalation	33 mg/m ³	General population
	DNEL	Long term Inhalation	33 mg/m ³	General population	Systemic
	DNEL	Long term Oral	36 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	275 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	320 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	550 mg/m ³	Workers	Local
	DNEL	Long term Dermal	796 mg/kg bw/day	Workers	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
mesitylene	Fresh water	0.101 mg/l	-
	Fresh water	0.101 mg/l	-
	Marine water	0.101 mg/l	-
	Sewage Treatment Plant	2.02 mg/l	-
	Fresh water sediment	7.86 mg/kg dwt	-
	Marine water sediment	7.86 mg/kg dwt	-
	Soil	1.34 mg/kg dwt	-
methyl methacrylate	Fresh water	0.94 mg/l	-

SECTION 8: Exposure controls/personal protection

Fatty acids, C14-18 and C16-18-unsatd., maleated xylene	Fresh water	0.69 mg/l	-
	Marine water	0.094 mg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Fresh water sediment	10.2 mg/kg dwt	-
	Marine water sediment	1.02 mg/kg dwt	-
	Soil	1.48 mg/kg dwt	-
	Sewage Treatment Plant	100 mg/l	-
	Fresh water	0.044 mg/l	-
	Fresh water	0.01 mg/l	-
	Marine water	0.004 mg/l	-
ethylbenzene	Marine water	0.001 mg/l	-
	Sewage Treatment Plant	1.6 mg/l	-
	Fresh water sediment	2.52 mg/kg	-
	Marine water sediment	0.252 mg/l	-
	Soil	0.852 mg/kg	-
	Fresh water	0.1 mg/l	-
	Fresh water	0.1 mg/l	-
	Marine water	0.01 mg/l	-
	Sewage Treatment Plant	9.6 mg/l	-
	Fresh water sediment	13.7 mg/l	-
2-methoxy-1-methylethyl acetate	Marine water sediment	1.37 mg/kg	-
	Soil	2.68 mg/kg	-
	Secondary Poisoning	20 mg/kg	-
	Fresh water	0.635 mg/l	-
	Fresh water	6.35 mg/l	-
	Marine water	0.064 mg/l	-
	Sewage Treatment Plant	100 mg/l	-
	Fresh water sediment	3.29 mg/kg dwt	-
	Marine water sediment	0.329 mg/kg dwt	-
	Soil	0.29 mg/kg dwt	-

8.2 Exposure controls

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

SECTION 8: Exposure controls/personal protection

Recommendations for gloves:

Polychloroprene - CR: thickness ≥ 0.5 mm; breakthrough time ≥ 480 min.

Nitrile rubber - NBR: thickness ≥ 0.35 mm; breakthrough time ≥ 480 min.

Butyl rubber - IIR: thickness ≥ 0.5 mm; breakthrough time ≥ 480 min.

Fluorinated rubber - FKM: thickness ≥ 0.4 mm; breakthrough time ≥ 480 min.

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use appropriate respiratory protection if there is a risk of exceeding any exposure limits. Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Filter type: organic vapour filter (Type A) Brown.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid. [Viscous]
- Colour** : Grey.
- Odour** : Acetic acid.
- Odour threshold** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : 145°C (293°F)
- Flammability (solid, gas)** : Not available.
- Upper/lower flammability or explosive limits** : Not available.
- Flash point** : Closed cup: 38°C (100.4°F)
- Auto-ignition temperature** :

Ingredient name	°C	°F	Method
Naphtha (petroleum), hydrotreated light, <0.1% benzene	280 to 470	536 to 878	DIN EN 14522
n-butyl methacrylate	290	554	
2-methoxy-1-methylethyl acetate	333	631.4	DIN 51794
Fatty acids, C14-18 and C16-18-unsatd., maleated	360	680	
methyl methacrylate	400	752	DIN 51794
xylene	432	809.6	
ethylbenzene	432.22	810	
mesitylene	559	1038.2	

- Decomposition temperature** : Not available.
- pH** : Not available.
- Viscosity** : Dynamic: 100000 mPa·s

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SECTION 9: Physical and chemical properties**Solubility in water** : Not available.**Partition coefficient: n-octanol/
water** : Not applicable.**Vapour pressure** :

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Naphtha (petroleum), hydrotreated light, <0.1% benzene	42.15358	5.6	OECD 104	357.48039	47.7	OECD 104
methyl methacrylate	27.75236	3.7				
ethylbenzene	9.30076	1.2				
xylene	6.7	0.89				
2-methoxy-1-methylethyl acetate	2.7	0.36	OECD 104			
mesitylene	2.4002	0.32				
n-butyl methacrylate	1.59014	0.21	OECD 104			
Fatty acids, C14-18 and C16-18-unsatd., maleated	0.30003	0.04		1.50013	0.2	

Relative density : 1.2**Vapour density** : Not available.**Explosive properties** : Not available.**Oxidising properties** : Not available.**Particle characteristics****Median particle size** : Not applicable.**SECTION 10: Stability and reactivity****10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.**10.2 Chemical stability** : The product is stable.**10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.**10.4 Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.**10.5 Incompatible materials** : Reactive or incompatible with the following materials:
oxidising materials
combustible materials**10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Decomposition products may include the following materials:
carbon oxides (CO, CO₂)**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

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SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Hydrocarbons, C9, aromatics	LD50 Dermal	Rabbit	3160 mg/kg	-
mesitylene	LD50 Oral	Rat	3492 mg/kg	-
	LC50 Inhalation Vapour	Rat	24000 mg/m ³	4 hours
n-butyl methacrylate	LD50 Oral	Rat	5000 mg/kg	-
	LC50 Inhalation Gas.	Rat	4910 ppm	4 hours
methyl methacrylate	LD50 Oral	Rat	16 g/kg	-
	LC50 Inhalation Vapour	Rat	78000 mg/m ³	4 hours
xylene	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	7872 mg/kg	-
ethylbenzene	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-
2-methoxy-1-methylethyl acetate	LD50 Oral	Rat	3500 mg/kg	-
	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	8532 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Hydrocarbons, C9, aromatics	3492	3160	N/A	N/A	N/A
mesitylene	5000	N/A	N/A	24	N/A
n-butyl methacrylate	16000	N/A	N/A	N/A	N/A
methyl methacrylate	7872	N/A	N/A	78	N/A
xylene	4300	1100	N/A	11	N/A
ethylbenzene	3500	N/A	N/A	11	N/A
2-methoxy-1-methylethyl acetate	8532	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
mesitylene	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
n-butyl methacrylate	Skin - Mild irritant	Rabbit	-	500 uL	-
	Eyes - Mild irritant	Rabbit	-	87 mg	-
xylene	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 uL	-
ethylbenzene	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-

Conclusion/Summary

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

Eyes : Based on available data, the classification criteria are not met.

Respiratory : STOT SE 3 respiratory tract irritation

Sensitisation

Conclusion/Summary

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

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

Mutagenicity

SECTION 11: Toxicological information

Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Reproductive toxicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Hydrocarbons, C9, aromatics	Category 3	-	Respiratory tract irritation
mesitylene	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation
Naphtha (petroleum), hydrotreated light, <0.1% benzene	Category 3	-	Narcotic effects
n-butyl methacrylate	Category 3	-	Respiratory tract irritation
methyl methacrylate	Category 3	-	Respiratory tract irritation
xylene	Category 3	-	Respiratory tract irritation
2-methoxy-1-methylethyl acetate	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
xylene	Category 2	-	ears
ethylbenzene	Category 2	-	hearing organs

Aspiration hazard

Product/ingredient name	Result
Hydrocarbons, C9, aromatics	ASPIRATION HAZARD - Category 1
mesitylene	ASPIRATION HAZARD - Category 1
Naphtha (petroleum), hydrotreated light, <0.1% benzene	ASPIRATION HAZARD - Category 1
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : No known significant effects or critical hazards.

Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo

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SECTION 11: Toxicological information

unconsciousness
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : respiratory tract irritation
drowsiness/fatigue
dizziness/vertigo

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
mesitylene	Acute LC50 13000 µg/l Marine water	Crustaceans - Dungeness or edible crab - <i>Cancer magister</i> - Zoea	48 hours
	Acute LC50 12520 µg/l Fresh water	Fish - Goldfish - <i>Carassius auratus</i>	96 hours
	Chronic NOEC 0.4 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i>	21 days
n-butyl methacrylate	Chronic NOEC 2.6 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate	21 days
methyl methacrylate	Acute LC50 130000 µg/l Fresh water	Fish - Fathead minnow - <i>Pimephales promelas</i> - Adult	96 hours
xylene	Acute LC50 8500 µg/l Marine water	Crustaceans - Daggerblade grass shrimp - <i>Palaemonetes pugio</i>	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Fathead minnow - <i>Pimephales promelas</i>	96 hours
ethylbenzene	Acute EC50 4900 µg/l Marine water	Algae - Diatom - <i>Skeletonema costatum</i>	72 hours
	Acute EC50 7700 µg/l Marine water	Algae - Diatom - <i>Skeletonema costatum</i>	96 hours
	Acute EC50 6.53 mg/l Marine water	Crustaceans - Brine shrimp - <i>Artemia sp.</i> - Nauplii	48 hours
	Acute EC50 2.93 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i>	96 hours
	Chronic NOEC 1 mg/l	Crustaceans - <i>Ceriodaphnia dubia</i>	-
2-methoxy-1-methylethyl	Acute EC50 >1000 mg/l Fresh water	Algae - <i>Pseudokirchneriella</i>	72 hours

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SECTION 12: Ecological information

acetate	Acute EC50 >500 mg/l Fresh water Acute LC50 134 mg/l Fresh water Chronic NOEC >100 mg/l Fresh water Chronic NOEC 47.5 mg/l Fresh water	<i>subcapitata</i> Daphnia - <i>Daphnia magna</i> Fish - <i>Oncorhynchus mykiss</i> Daphnia - <i>Daphnia magna</i> Fish - <i>Oryzias latipes</i>	48 hours 96 hours 21 days 14 days
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Conclusion/Summary : Aquatic Chronic 2**12.2 Persistence and degradability**

Product/ingredient name	Test	Result	Dose	Inoculum
2-methoxy-1-methylethyl acetate	-	>90 % - Readily - 28 days	-	-

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene	-	-	Readily
2-methoxy-1-methylethyl acetate	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
mesitylene	3.42	161	Low
Naphtha (petroleum), hydrotreated light, <0.1% benzene	2.2 to 5.2	10 to 2500	High
n-butyl methacrylate	2.99	-	Low
methyl methacrylate	1.38	-	Low
xylene	3.12	8.1 to 25.9	Low
ethylbenzene	3.6	-	Low
2-methoxy-1-methylethyl acetate	1.2	-	Low

12.4 Mobility in soil**Soil/water partition coefficient (K_{oc})** : Not available.**Mobility** : Not available.**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects : No known significant effects or critical hazards.**SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods**Product**

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.








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SECTION 13: Disposal considerations

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1139	UN1139	UN1139	UN1139
14.2 UN proper shipping name	COATING SOLUTION	COATING SOLUTION	COATING SOLUTION	Coating solution
14.3 Transport hazard class(es)	3  	3  	3  	3 
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.

Additional information

- ADR/RID** : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Hazard identification number 30
Limited quantity 5 L
Tunnel code (D/E)
- ADN** : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Emergency schedules F-E, _S-E_
Special provisions 955
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.
Quantity limitation Passenger and Cargo Aircraft: 60 L. Packaging instructions: 355. Cargo Aircraft Only: 220 L. Packaging instructions: 366. Limited Quantities - Passenger Aircraft: 10 L. Packaging instructions: Y344.
Special provisions A3
- 14.6 Special precautions for user** : **Transport within user's premises:** 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.
- 14.7 Transport in bulk according to IMO instruments** : Not available.

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SECTION 15: Regulatory information

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

UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
ARBOFLEX® PU UV PROTECT	≥90	3

Labelling : Not applicable.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c E2

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : Not determined.

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SECTION 15: Regulatory information

Canada	: Not determined.
China	: Not determined.
Eurasian Economic Union	: Russian Federation inventory : All components are listed or exempted.
Japan	: Japan inventory (CSCL) : Not determined. Japan inventory (ISHL) : Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: All components are listed or exempted.
15.2 Chemical safety assessment	: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

🔍 Indicates information that has changed from previously issued version.

Abbreviations and acronyms	: ATE = Acute Toxicity Estimate GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = GB CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number SGG = Segregation Group vPvB = Very Persistent and Very Bioaccumulative
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Procedure used to derive the classification

Classification	Justification
Flam. Liq. 3, H226	On basis of test data
STOT SE 3, H335	Calculation method
STOT SE 3, H336	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements

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.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications

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SECTION 16: Other information

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Date of printing : 2 May 2024
Date of issue/ Date of revision : 2 May 2024
Date of previous issue : No previous validation
Version : 1

Notice to reader

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