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

1.1. Product Identifier

Product name:
Artbrick Resin
Synonyms:
Not Available

Proper shipping name: XYLENES

Other means of identification: Not Available

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

Relevant identified uses:

Cemtitous Surface Topical Sealer

Uses advised against: No specific uses advised against are identified.

1.3. Details of the manufacturer or supplier of the safety data sheet

Registered company name	**Structherm**
Address	Bent Ley Road Meltham Holmfirth United Kingdom
Telephone	01484 850098
Website	www.structherm.co.uk
Email	info@structherm.co.uk

1.4. Emergency telephone number

Association / Organisation	**National Poisons Information Service**	
Emergency telephone number(s)	0844-892-0111 (UK ONLY)	
Other emergency telephone number(s)	01 8092166 (IRELAND ONLY)	01484 850098 (Office Hours Only)

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 [1]	H226 - Flammable Liquids Category 3, H312 - Acute Toxicity (Dermal) Category 4, H315 - Skin Corrosion/Irritation Category 2, H332 - Acute Toxicity (Inhalation) Category 4
Legend:	*1. Classified by Chemwatch; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567*

2.2. Label elements

Hazard pictogram(s)

Signal word: Warning

Hazard statement(s)

H226: Flammable liquid and vapour.
H312: Harmful in contact with skin.

H315: Causes skin irritation.
H332: Harmful if inhaled.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233: Keep container tightly closed.
P271: Use only a well-ventilated area.
P240: Ground and bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.
P242: Use non-sparking tools.
P243: Take action to prevent static discharges.
P261: Avoid breathing mist/vapours/spray.
P280: Wear protective gloves and protective clothing.
P264: Wash all exposed external body areas thoroughly after handling.

Precautionary statement(s) Response

P370+P378: In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.
P312: Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
P302+P352: IF ON SKIN: Wash with plenty of water and soap.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P362+P364: Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

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

Precautionary statement(s) Disposal

P501: Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

Material contains xylene.

2.3. Other hazards

Ingestion may produce health damage*. Cumulative effects may result following exposure*. May produce discomfort of the respiratory system*. May be harmful to the foetus/ embryo*.
HARMFUL: may cause lung damage if swallowed

xylene: Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)

SECTION 3 Composition / information on ingredients

3.1. Substances

See 'Composition on ingredients' in Section 3.2

3.2. Mixtures

1. **CAS No** 2. **EC No** 3. **Index No 4.REACH No**	**% [weight]**	**Name**	**Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567**	**SCL / M-Factor**	**Nanoform Particle Characteristics**
1. 1330-20-7 2.215-535-7 3.Not Available 4.Not Available	>70	xylene *	Flammable Liquids Category 3, Acute Toxicity (Dermal) Category 4, Skin Corrosion/Irritation Category 2, Acute Toxicity (Inhalation) Category 4; H226, H312, H315, H332 [2]	SCL: Not Available Acute M factor: Not Applicable Chronic M factor: Not Applicable	Not Available
1. 9065-11-6 2.Not Available 3.Not Available 4.Not Available	20-40	acrylic resin	Non hazardous [1]	SCL: Not Available Acute M factor: Not Applicable Chronic M factor: Not Applicable	Not Available

Legend: *1. Classified by Chemwatch; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567; 3. Classification drawn from C&L; * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties*

SECTION 4 First aid measures

4.1. Description of first aid measures

Eye Contact

If this product comes in contact with the eyes:

- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Seek medical attention without delay; if pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin Contact

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

Inhalation

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep

warm and rested.

– Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.

– Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. – Transport to hospital, or doctor.

Ingestion

– If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus. – If swallowed do **NOT** induce vomiting.

– If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

– Observe the patient carefully.

– Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. – Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.

– Seek medical advice.

– Avoid giving milk or oils. – Avoid giving alcohol.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

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

Treat symptomatically.

Any material aspirated during vomiting may produce lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

For acute or short-term repeated exposures to xylene:

– Gastro-intestinal absorption is significant with ingestions. For ingestions exceeding 1-2 ml (xylene)/kg, intubation and lavage with cuffed endotracheal tube is recommended.
The use of charcoal and cathartics is equivocal.

– Pulmonary absorption is rapid with about 60-65% retained at rest.

– Primary threat to life from ingestion and/or inhalation, is respiratory failure.

– Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO2 < 50 mm Hg or pCO2 > 50 mm Hg) should be intubated.

– Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.

– A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.

– Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselectivity bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.

BIOLOGICAL EXPOSURE INDEX - BEI

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

Determinant Index Sampling Time
Comments Methylhippu-ric acids in urine1.5 gm/gm
creatinineEnd of shift
2 mg/min Last 4 hrs of shift

SECTION 5 Firefighting measures

5.1. Extinguishing media

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility

– Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

5.3. Advice for firefighters

Fire Fighting

Fire/Explosion Hazard

– Liquid and vapour are flammable.
– Moderate fire hazard when
exposed to heat or flame. – Vapour
forms an explosive mixture with air.
– Moderate explosion hazard when exposed to heat or flame.
– Vapour may travel a considerable distance to source of ignition.
– Heating may cause expansion or decomposition leading to
violent rupture of containers. – On combustion, may emit
toxic fumes of carbon monoxide (CO).
Combustion products include:
carbon monoxide
(CO) carbon
dioxide (CO2)
other pyrolysis products typical of burning organic material.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills

Remove all ignition
sources.
Clean up all spills
immediately.
Avoid breathing vapours and contact with skin and eyes.
Control personal contact with the substance, by using protective equipment.
– Contain and absorb small quantities with vermiculite
or other absorbent material. – Wipe up.
– Collect residues in a flammable waste container.

Major Spills

– Clear area of personnel and move upwind.
– Alert Fire Brigade and tell them location
and nature of hazard. – Wear breathing
apparatus plus protective gloves.
– Prevent, by any means available, spillage from
entering drains or water course. – Stop leak if safe to
do so.
– Contain spill with sand, earth or vermiculite.
– Collect recoverable product into labelled containers for recycling.
– Neutralise/decontaminate residue (see
Section 13 for specific agent). – Collect solid
residues and seal in labelled drums for disposal.
– Wash area and prevent runoff into drains.
– After clean up operations, decontaminate and launder all protective clothing and
equipment before storing and re-using. – If contamination of drains or waterways
occurs, advise emergency services.

6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Safe handling

– Containers, even those that have been emptied, may
contain explosive vapours. – Do NOT cut, drill, grind,
weld or perform similar operations on or near
containers.
· Electrostatic discharge may be generated during pumping - this may result in fire.
· Ensure electrical continuity by bonding and grounding (earthing) all equipment.
· Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<=1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec).
· Avoid splash filling.
· Do NOT use compressed air for filling discharging or handling operations.
· Wait 2 minutes after tank filling (for tanks such as those on
· road tanker vehicles) before opening hatches or manholes.
· Wait 30 minutes after tank filling (for large storage tanks)
· before opening hatches or manholes. Even with proper
· grounding and bonding, this material can still accumulate an
· electrostatic charge. If sufficient charge is allowed to
· accumulate, electrostatic discharge and ignition of flammable
· air-vapour mixtures can occur. Be aware of handling
· operations that may give rise to additional hazards that result
· from the accumulation of static charges. These include but are
· not limited to pumping (especially turbulent flow), mixing,
· filtering, splash filling, cleaning and filling of tanks and
· containers, sampling, switch loading, gauging, vacuum truck
· operations, and mechanical movements. These activities may
· lead to static discharge e.g. spark formation. Restrict line
· velocity during pumping in order to avoid generation of
· electrostatic discharge (= 1 m/s until fill pipe submerged to
· twice its diameter, then = 7 m/s). Avoid splash filling.
· Do NOT use compressed air for filling,
discharging, or handling operations – Avoid all
personal contact, including inhalation.
– Wear protective clothing when risk of
overexposure occurs. – Use in a well-
ventilated area.
– Prevent concentration in hollows and sumps.
– **DO NOT** enter confined spaces until
atmosphere has been checked. – Avoid
smoking, naked lights or ignition sources.
– Avoid generation of static electricity.
– **DO NOT** use plastic
buckets. – Earth all
lines and equipment.
– Use spark-free tools when handling.
– Avoid contact with incompatible materials.
– When handling, **DO NOT** eat, drink or smoke.
– Keep containers securely sealed
when not in use. – Avoid physical
damage to containers.
– Always wash hands with soap and
water after handling. – Work clothes

should be laundered separately.

- Use good occupational work practice.
- Observe manufacturer's storage and handling recommendations contained within this SDS.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.
- **DO NOT** allow clothing wet with material to stay in contact with skin

Fire and explosion protection

See section 5

Other information

- Store in original containers in approved flammable liquid storage area.
- Store away from incompatible materials in a cool, dry, well-ventilated area.
- **DO NOT** store in pits, depressions, basements or areas where vapours may be trapped.
- No smoking, naked lights, heat or ignition sources.
- Storage areas should be clearly identified, well illuminated, clear of obstruction and accessible only to trained and authorised personnel - adequate security must be provided so that unauthorised personnel do not have access.
- Store according to applicable regulations for flammable materials for storage tanks, containers, piping, buildings, rooms, cabinets, allowable quantities and minimum storage distances.
- Use non-sparking ventilation systems, approved explosion proof equipment and intrinsically safe electrical systems.
- Have appropriate extinguishing capability in storage area (e.g. portable fire extinguishers - dry chemical, foam or carbon dioxide) and flammable gas detectors.
- Keep adsorbents for leaks and spills readily available.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storage and handling recommendations contained within this SDS. In addition, for tank storages (where appropriate):
- Store in grounded, properly designed and approved vessels and away from incompatible materials.
- For bulk storages, consider use of floating roof or nitrogen blanketed vessels; where venting to atmosphere is possible, equip storage tank vents with flame arrestors; inspect tank vents during winter conditions for vapour/ ice build-up.
- Storage tanks should be above ground and diked to hold entire contents.

7.2. Conditions for safe storage, including any incompatibilities

Suitable container

- Packing as supplied by manufacturer.
- Plastic containers may only be used if approved for flammable liquid.
- Check that containers are clearly labelled and free from leaks.
- For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure.
- For materials with a viscosity of at least 2680 cSt. (23 deg. C)
- For manufactured product having a viscosity of at least 250 cSt. (23 deg. C)
- Manufactured product that requires stirring before use and having a viscosity of at least 20 cSt (25 deg. C): (i) Removable head packaging; (ii) Cans with friction closures and (iii) low pressure tubes and cartridges may be used.
- Where combination packages are used, and the inner packages are of glass, there must be sufficient inert cushioning material in contact with inner and outer packages
- In addition, where inner packagings are glass and contain liquids of packing group I there must be sufficient inert absorbent to absorb any spillage, unless the outer packaging is a close fitting moulded plastic box and the substances are not incompatible with the plastic

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Storage incompatibility

Xylenes:

– may ignite or explode in contact with strong oxidisers, 1,3-dichloro-5,5-dimethylhydantoin, uranium fluoride – attack some plastics, rubber and coatings

– may generate electrostatic charges on flow or agitation due to low conductivity.

– Vigorous reactions, sometimes amounting to explosions, can result from the contact between aromatic rings and strong oxidising agents. – Aromatics can react exothermically with bases and with diazo compounds.

For alkyl aromatics:

The alkyl side chain of aromatic rings can undergo oxidation by several mechanisms. The most common and dominant one is the attack by oxidation at benzylic carbon as the intermediate formed is stabilised by resonance structure of the ring.

– Following reaction with oxygen and under the influence of sunlight, a hydroperoxide at the alpha-position to the aromatic ring, is the primary oxidation product formed (provided a hydrogen atom is initially available at this position) - this product is often short-lived but may be stable dependent on the nature of the aromatic substitution; a secondary C-H bond is more easily attacked than a primary C-H bond whilst a tertiary C-H bond is even more susceptible to attack by oxygen

– Monoalkylbenzenes may subsequently form monocarboxylic acids; alkyl naphthalenes mainly produce the corresponding naphthalene carboxylic acids. – Oxidation in the presence of transition metal salts not only accelerates but also selectively decomposes the hydroperoxides.

– Hock-rearrangement by the influence of strong acids converts the hydroperoxides to hemiacetals. Peresters formed from the hydroperoxides undergo Criegee rearrangement easily.

– Alkali metals accelerate the oxidation while CO2 as co-oxidant enhances the selectivity. – Microwave conditions give improved yields of the oxidation products.

– Photo-oxidation products may occur following reaction with hydroxyl radicals and NOx - these may be components of photochemical smogs. Oxidation of Alkylaromatics: T.S.S Rao and Shubhra Awasthi: E-Journal of Chemistry Vol 4, No. 1, pp 1-13 January 2007

Hazard categories in accordance with Regulation (EC) No 2012/18/EU (Seveso III)

P5a: Flammable Liquids, P5b: Flammable Liquids, P5c: Flammable Liquids

Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of

P5a Lower- / Upper-tier requirements: 10 / 50 P5b Lower- / Upper-tier requirements: 50 / 200

P5c Lower- / Upper-tier requirements: 5 000 / 50 000

7.3. Specific end use(s)

See section 1.2

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SECTION 8 Exposure controls / personal protection

8.1. Control parameters

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
xylene	Dermal 212 mg/kg bw/day (Systemic, Chronic) Inhalation 221 mg/m^3 (Systemic, Chronic) Inhalation 221 mg/m^3 (Local, Chronic) Inhalation 442 mg/m^3 (Systemic, Acute) Inhalation 442 mg/m^3 (Local, Acute) *Dermal 125 mg/kg bw/day (Systemic, Chronic) * Inhalation 0.0653 mg/m^3 (Systemic, Chronic) * Oral 5 mg/kg bw/day (Systemic, Chronic) * Inhalation 65.3 mg/m^3 (Local, Chronic) * Inhalation 260 mg/m^3 (Systemic, Acute) ** *Inhalation 260 mg/m^3 (Local, Acute) **	0.044 mg/L (Water (Fresh)) 0.01 mg/L (Water - Intermittent release) 0.004 mg/L (Water (Marine)) 2.52 mg/kg sediment dw (Sediment (Fresh Water)) 0.252 mg/kg sediment dw (Sediment (Marine)) 0.852 mg/kg soil dw (Soil) 1.6 mg/L (STP)

* Values for General Population

Occupational Exposure Limits (OEL) INGREDIENT DATA

Source	*Ingredient*	*Material name*	*TWA*	*STEL*	*Peak*	*Notes*
UK Workplace Exposure Limits (WELs).	*xylene*	*Xylene, o-,m-,p- or mixed isomers*	*50 ppm / 220 mg/m3*	*441 mg/m3 / 100 ppm*	*Not Available*	*Sk, BMGV*

8.2. Exposure controls

8.2.1. Appropriate engineering controls

CARE: Use of a quantity of this material in confined space or poorly ventilated area, where rapid build up of concentrated atmosphere may occur, could require increased ventilation and/or protective gear
Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.
The basic types of engineering controls are:
Process controls which involve changing the way a job activity or process is done to reduce the risk.
Enclosure and/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation that strategically 'adds' and 'removes' air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.
Employers may need to use multiple types of controls to prevent employee overexposure.
For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion- resistant.
Air contaminants generated in the workplace possess varying 'escape' velocities which, in turn, determine the 'capture velocities' of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min.)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200

	f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Adequate ventilation is typically taken to be that which limits the average concentration to no more than 25% of the LEL within the building, room or enclosure containing the dangerous substance.

Ventilation for plant and machinery is normally considered adequate if it limits the average concentration of any dangerous substance that might potentially be present to no more than 25% of the LEL. However, an increase up to a maximum 50% LEL can be acceptable where additional safeguards are provided to prevent the formation of a hazardous explosive atmosphere. For example, gas detectors linked to emergency shutdown of the process might be used together with maintaining or increasing the exhaust ventilation on solvent evaporating ovens and gas turbine enclosures.

Temporary exhaust ventilation systems may be provided for non-routine higher-risk activities, such as cleaning, repair or maintenance in tanks or other confined spaces or in an emergency after a release. The work procedures for such activities should be carefully considered.. The atmosphere should be continuously monitored to ensure that ventilation is adequate and the area remains safe. Where workers will enter the space, the ventilation should ensure that the concentration of the dangerous substance does not exceed 10% of the LEL (irrespective of the provision of suitable breathing apparatus)

8.2.2. Individual protection measures, such as personal protective equipment

Eye and face protection

- Safety glasses with side shields.
- Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

Skin protection

See Hand protection below

Hands/feet protection

- Wear chemical protective gloves, e.g. PVC.
- Wear safety footwear or safety gumboots, e.g. Rubber

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.
Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).

- When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
- When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
- Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.
- Contaminated gloves should be replaced.

As defined in ASTM F-739-96 in any application, gloves are rated as:

- Excellent when breakthrough time > 480 min
- Good when breakthrough time > 20 min
- Fair when breakthrough time < 20 min
- Poor when glove material degrades

For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.
It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.
Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task.
Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

- Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
- Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential

Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

Body protection

See Other protection below

Other protection

Overalls.
PVC
Apron.
PVC protective suit may be required if
exposure severe. Eyewash unit.

- Ensure there is ready access to a safety shower.
- Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity. For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets).
- Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot an shall dissipate static electricity from the body to reduce the possibility of ignition of

volatile compounds. Electrical resistance must range between 0 to 500,000 ohms. Conductive shoes should be stored in lockers close to the room in which they are worn. Personnel who have been issued conductive footwear should not wear them from their place of work to their homes and return.

8.2.3. Environmental exposure controls

See section 12

SECTION 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Colourless

Physical state	Liquid	**Relative density (Water = 1)**	1
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	463
pH (as supplied)	Not Available	**Decomposition temperature (°C)**	Not Available
Melting point / freezing point (°C)	-34	**Viscosity (cSt)**	Not Available
Initial boiling point and boiling range (°C)	136-140	**Molecular weight (g/mol)**	106.17
Flash point (°C)	23	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Flammable.	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	7	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	1	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	8	**Gas group**	Not Available
Solubility in water	Immiscible	**pH as a solution (1%)**	Not Available
Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available
Heat of Combustion (kJ/g)	Not Available	**Ignition Distance (cm)**	Not Available
Flame Height (cm)	Not Available	**Flame Duration (s)**	Not Available
Enclosed Space Ignition Time Equivalent (s/m3)	Not Available	**Enclosed Space Ignition Deflagration Density (g/m3)**	Not Available
Nanoform Solubility	Not Available	**Nanoform Particle Characteristics**	Not Available
Particle Size	Not Available		

9.2. Other information

Not Available

SECTION 10 Stability and reactivity

10.1. **Reactivity:**

See section 7.2

10.2. **Chemical stability:**

- Unstable in the presence of incompatible materials. – Product is considered stable.
- Hazardous polymerisation will not occur.

10.3. **Possibility of hazardous reactions:**

See section 7.2

10.4. **Conditions to avoid:**

See section 7.2

10.5. **Incompatible materials:**

See section 7.2

10.6. **Hazardous decomposition products:**

See section 5.3

SECTION 11 Toxicological information

11.1. Information on toxicological effects

a) **Acute Toxicity**

There is sufficient evidence to classify this material as acutely toxic.

b) **Skin Irritation/Corrosion**

There is sufficient evidence to classify this material as skin corrosive or irritating.

c) **Serious Eye Damage/Irritation**

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

d) **Respiratory or Skin sensitisation**

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

e) **Mutagenicity**

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

f) **Carcinogenicity**

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

g) **Reproductivity**

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

h) **STOT - Single Exposure**

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

i) **STOT - Repeated Exposure**

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

j) **Aspiration Hazard**

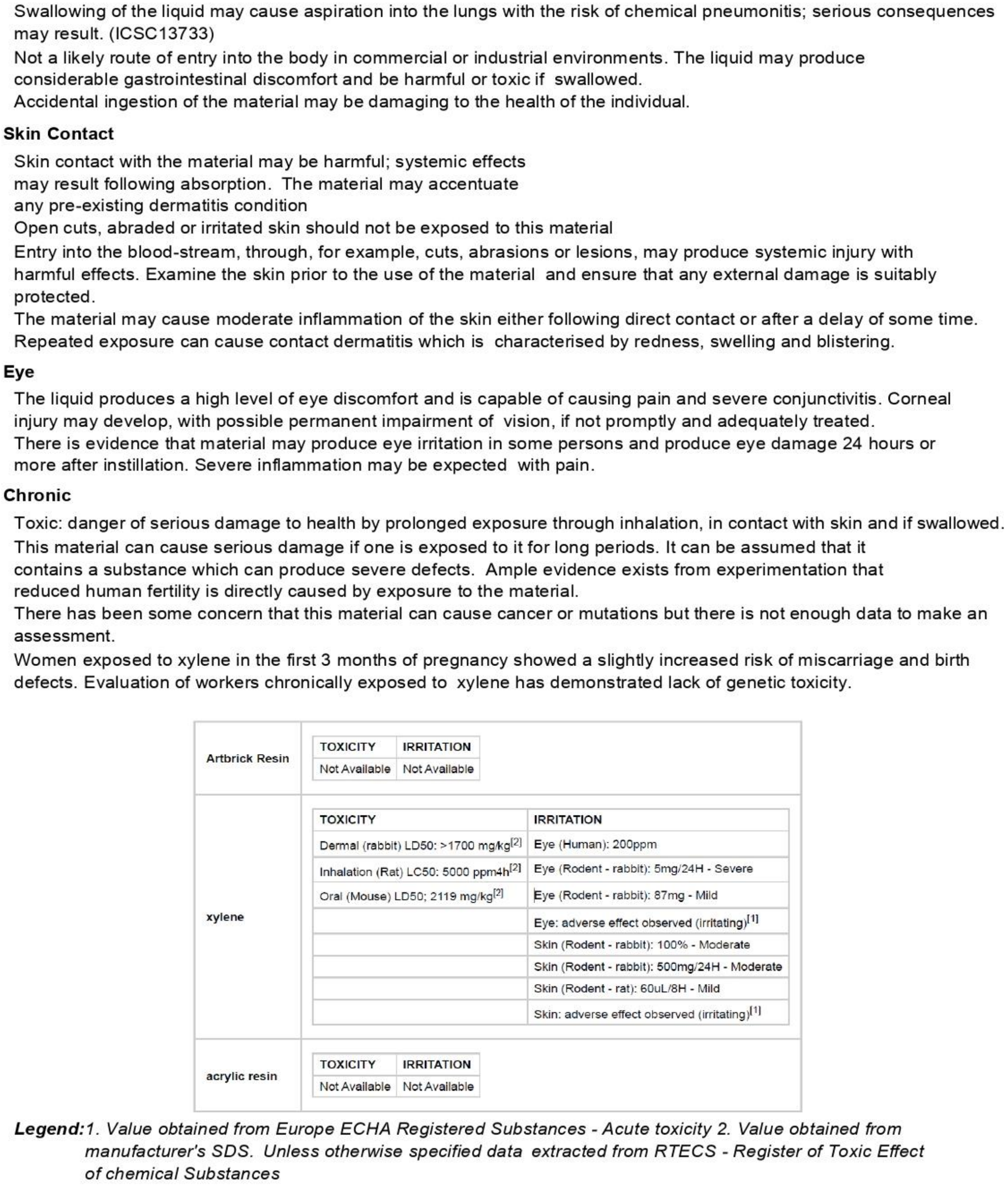
Based on available data, the classification criteria are not met.

Inhaled

The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of vapours, fumes or aerosols, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress.
Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo. Inhalation hazard is increased at higher temperatures.
Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.
Headache, fatigue, tiredness, irritability and digestive disturbances (nausea, loss of appetite and bloating) are the most common symptoms of xylene overexposure. Injury to the heart, liver, kidneys and nervous system has also been noted amongst workers.
Xylene is a central nervous system depressant
Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful.

Ingestion

The material is not thought to produce adverse health effects following ingestion (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum.



Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733)

Not a likely route of entry into the body in commercial or industrial environments. The liquid may produce considerable gastrointestinal discomfort and be harmful or toxic if swallowed.

Accidental ingestion of the material may be damaging to the health of the individual.

Skin Contact

Skin contact with the material may be harmful; systemic effects may result following absorption. The material may accentuate any pre-existing dermatitis condition

Open cuts, abraded or irritated skin should not be exposed to this material

Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

The material may cause moderate inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.

Eye

The liquid produces a high level of eye discomfort and is capable of causing pain and severe conjunctivitis. Corneal injury may develop, with possible permanent impairment of vision, if not promptly and adequately treated.

There is evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Severe inflammation may be expected with pain.

Chronic

Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.

This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects. Ample evidence exists from experimentation that reduced human fertility is directly caused by exposure to the material.

There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.

Women exposed to xylene in the first 3 months of pregnancy showed a slightly increased risk of miscarriage and birth defects. Evaluation of workers chronically exposed to xylene has demonstrated lack of genetic toxicity.

	TOXICITY	IRRITATION
Artbrick Resin	Not Available	Not Available
xylene	Dermal (rabbit) LD50: >1700 mg/kg[2]	Eye (Human): 200ppm
	Inhalation (Rat) LC50: 5000 ppm4h[2]	Eye (Rodent - rabbit): 5mg/24H - Severe
	Oral (Mouse) LD50; 2119 mg/kg[2]	Eye (Rodent - rabbit): 87mg - Mild
		Eye: adverse effect observed (irritating)[1]
		Skin (Rodent - rabbit): 100% - Moderate
		Skin (Rodent - rabbit): 500mg/24H - Moderate
		Skin (Rodent - rat): 60uL/8H - Mild
		Skin: adverse effect observed (irritating)[1]
acrylic resin	Not Available	Not Available

Legend:*1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances*

XYLENE

Reproductive effector in rats

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

The substance is classified by IARC as Group 3:

NOT classifiable as to its carcinogenicity to humans.

Evidence of carcinogenicity may be inadequate or limited in animal testing.

ACRYLIC RESIN

No significant acute toxicological data identified in literature search. **CAUTION:** The chronic health effects of acrylic monomers are under review. Use good occupational work practices to avoid personal contact.

Acute Toxicity	✓	Carcinogenicity	✗
Skin Irritation/Corrosion	✓	Reproductivity	✗
Serious Eye Damage/Irritation	✗	STOT - Single Exposure	✗
Respiratory or Skin sensitisation	✗	STOT - Repeated Exposure	✗
Mutagenicity	✗	Aspiration Hazard	✗

Legend: ✗ *– Data either not available or does not fill the criteria for classification*
✓ *– Data available to make classification*

11.2 Information on other hazards

11.2.1. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

11.2.2. Other information

See Section 11.1

SECTION 12 Ecological information

12.1. Toxicity

	Endpoint	Test Duration (hr)	Species	Value	Source
Artbrick Resin	Not Available	Not Available	Not Available	Not Available	Not Available
xylene	EC50	72h	Algae or other aquatic plants	4.6mg/l	2
	NOEC(ECx)	73h	Algae or other aquatic plants	0.44mg/l	2
	EC50	48h	Crustacea	1.8mg/l	2
	LC50	96h	Fish	2.6mg/l	2
acrylic resin	Not Available	Not Available	Not Available	Not Available	Not Available

Legend:*Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark.
Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.
Wastes resulting from use of the product must be disposed of on
site or at approved waste sites. For Aromatic Substances Series:
Environmental Fate: Large, molecularly complex polycyclic aromatic hydrocarbons, or PAHs, are persistent in the environment longer than smaller PAHs.
Atmospheric Fate: PAHs are 'semi-volatile substances' which can move between the atmosphere and the Earth's surface in repeated, temperature-driven cycles of deposition and volatilization. Terrestrial Fate: BTEX compounds have the potential to move through soil and contaminate ground water, and their vapors are highly flammable and explosive. Ecotoxicity - Within an aromatic series, acute toxicity increases with increasing alkyl substitution on the aromatic nucleus. The order of most toxic to least in a study using grass shrimp and brown shrimp was dimethylnaphthalenes > methylnaphthalenes >naphthalenes. Anthrcene is a phototoxic PAH. UV light greatly increases the toxicity of anthracene to bluegill sunfish. Biological resources in strong sunlight are at more risk than those that are not. PAHs in general are more frequently associated with chronic risks.
For Xylenes:
log Koc : 2.05-3.08; Koc : 25.4-204; Half-life (hr) air : 0.24-42; Half-life (hr) H2O surface water : 24-672; Half-life (hr) H2O ground : 336-8640; Half-life (hr) soil : 52-672; Henry's Pa m3 /mol : 637-879; Henry's atm m3 /mol - 7.68E-03; BOD 5 if unstated - 1.4,1%; COD - 2.56,13% ThOD - 3.125 : BCF : 23; log BCF : 1.17-2.41.
Environmental Fate: Most xylenes released to the environment will occur in the atmosphere and volatilisation is the dominant environmental fate process. Soil - Xylenes are expected to have moderate mobility in soil evaporating rapidly from soil surfaces. The extent of the degradation is expected to depend on its concentration, residence time in the soil, the nature of the soil, and whether resident microbial populations have been acclimated. Xylene can remain below the soil surface for several days and may travel through the soil profile and enter groundwater. Soil and water microbes may transform it into other, less harmful compounds, although this happens slowly. It is not clear how long xylene remains trapped deep underground in soil or groundwater, but it may be months or years.
Atmospheric Fate: Xylene evaporates quickly into the air from surface soil and water and can remain in the air for several days until it is broken down by sunlight into other less harmful chemicals. In the ambient atmosphere, xylenes are expected to exist solely in the vapour phase. Xylenes are degraded in the atmosphere with an estimated atmospheric lifetime of about 0.5 to 2 days. Xylene may contribute to photochemical smog formation. p-Xylene has a moderately high photochemical reactivity under smog conditions, higher than the other xylene isomers. The photooxidation of p-xylene results in the production of carbon monoxide, formaldehyde, glyoxal, methylglyoxal, 3-methylbenzylnitrate, m- tolualdehyde, 4-nitro-3-xylene, 5-nitro-3-xylene, 2,6-dimethyl-p-benzoquinone, 2,4-dimethylphenol, 6-nitro-2,4-dimethylphenol, 2,6-dimethylphenol, and 4-nitro-2,6- dimethylphenol.
Aquatic Fate: p-xylene may adsorb to suspended solids and sediment in water and is expected to volatilise from water surfaces. Estimated volatilisation half-lives for a model river and model lake are 3 hours and 4 days, respectively. Measurements taken from goldfish, eels and clams indicate that bioconcentration in aquatic organisms is low. Photo-oxidation in the presence of humic acids may play an important role in the abiotic degradation of p-xylene. p-Xylene is biodegradable and has been observed to degrade in pond water however; it is unclear if it degrades in surface waters. p-Xylene has been observed to degrade in anaerobic and aerobic groundwater; however, it is known to persist for many years in groundwater, at least at sites where the concentration might have been quite high.
Ecotoxicity: Xylenes are slightly toxic to fathead minnow, rainbow trout and bluegill and not acutely toxic to water fleas. For Photobacterium phosphoreum EC50 (24 h): 0.0084 mg/L. and Gammarus lacustris LC50 (48 h): 0.6 mg/L.
DO NOT discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
xylene	HIGH (Half-life = 360 days)	LOW (Half-life = 1.83 days)

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
xylene	MEDIUM (BCF = 740)

12.4. Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

12.5. Results of PBT and vPvB assessment

	P	B	T
Relevant available data	Not Available	Not Available	Not Available
PBT	✗	✗	✗
vPvB	✗	✗	✗

PBT Criteria fulfilled?	No
vPvB	No

12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

12.7. Other adverse effects

No evidence of ozone depleting properties were found in the current literature.

SECTION 13 Disposal considerations

13.1. Waste treatment methods

Product / Packaging disposal

– Containers may still present a chemical hazard/ danger when empty. – Return to supplier for reuse/ recycling if possible.

Otherwise:

- If container cannot be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
- Where possible retain label warnings and SDS and observe all notices pertaining to the product.

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- Reuse
- Recycling
- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

– **DO NOT** allow wash water from cleaning or process equipment to enter drains. – It may be necessary to collect all wash water for treatment before disposal.

– In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. – Where in doubt contact the responsible authority.

- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material).
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

Waste treatment options

Not Available

Sewage disposal options

Not Available

SECTION 14 Transport information

Labels Required

Marine Pollutant

NO

HAZCHEM

3Y

Land transport (ADR-RID)

14.1. UN number or ID number: **1307**
14.2. UN proper shipping name: **XYLENES**
14.3. Transport hazard class(es): Class: **3**
Subsidiary Hazard: **Not Applicable**
14.4. Packing group: **III**
14.5. Environmental hazard: **Not Applicable**
14.6. Special precautions for user: Hazard identification (Kemler): **30** Classification code: **F1**
Hazard Label: **3**
Special provisions: **Not Applicable**
Limited quantity: **5 L**
Tunnel Restriction Code: **D/E**

Air transport (ICAO-IATA / DGR)

14.1. UN number: **1307**
14.2. UN proper shipping name: **Xylenes**
14.3. Transport hazard class(es): ICAO/IATA Class: **3**
ICAO / IATA Subsidiary Hazard: **Not Applicable**
ERG Code: **3L**
14.4. Packing group: **III**
14.5. Environmental hazard: **Not Applicable**
14.6. Special precautions for user: Special provisions: **A3**
Cargo Only Packing Instructions: **366**
Cargo Only Maximum Qty / Pack: **220 L** Passenger and Cargo Packing Instructions: **355**
Passenger and Cargo Maximum Qty / Pack: **60 L**
Passenger and Cargo Limited Quantity Packing Instructions: **Y344**
Passenger and Cargo Limited Maximum Qty / Pack: **10 L**

Sea transport (IMDG-Code / GGVSee)

14.1. UN number: **1307**

14.2. UN proper shipping name: **XYLENES**

14.3. Transport
hazard class(es):
IMDG Class: **3**
IMDG Subsidiary Hazard: **Not Applicable**

14.4. Packing group: **III**

14.5 Environmental hazard: **Not Applicable**

14.6. Special precautions
for user: EMS
Number: **F-E , S-D**
Special provisions: **223**
Limited Quantities: **5 L**

Inland waterways transport (ADN)

14.1. UN number: **1307**

14.2. UN proper shipping name: **XYLENES**

14.3. Transport
hazard class(es):
3: **Not
Applicable**

14.4. Packing group: **III**

14.5. Environmental hazard: **Not Applicable**

14.6. Special
precautions for
user:
Classification
code: **F1**
Special provisions: **Not Applicable**
Limited quantity: **5 L**
Equipment required:
PP, EX, A Fire
cones number: **0**

14.7. Maritime transport in bulk according to IMO instruments

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
xylene	Not Available
acrylic resin	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
xylene	Not Available
acrylic resin	Not Available

SECTION 15 Regulatory information

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

xylene is found on the following regulatory lists

- Great Britain GB mandatory classification and labelling list (GB MCL)
- International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic – UK Workplace Exposure Limits (WELs).

acrylic resin is found on the following regulatory lists

- Not Applicable

Additional Regulatory Information

Not Applicable

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC,
- 2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

Information according to 2012/18/EU (Seveso III):

Seveso Category: P5a, P5b, P5c

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (acrylic resin)
Canada - DSL	No (acrylic resin)
Canada - NDSL	No (xylene; acrylic resin)
China - IECSC	No (acrylic resin)
Europe - EINEC / ELINCS / NLP	No (acrylic resin)
Japan - ENCS	No (acrylic resin)
Korea - KECI	No (acrylic resin)
New Zealand - NZIoC	No (acrylic resin)
Philippines - PICCS	No (acrylic resin)
USA - TSCA	TSCA Inventory 'Active' substance(s) (xylene); No (acrylic resin)
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - FBEPH	No (acrylic resin)
Legend:	*Yes = All CAS declared ingredients are on the inventory* *No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.*

SECTION 16 Other information

Revision Date: 05/02/2025

Initial Date: 05/02/2025

Full text Risk and Hazard codes Other information

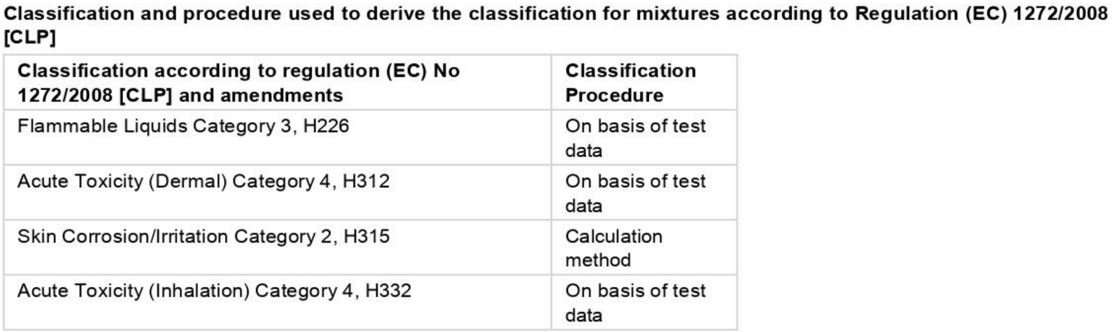
Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.
The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.
For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards: EN 166 Personal eye-protection
EN 340 Protective clothing

EN 374 Protective gloves against chemicals
and micro-organisms EN 13832 Footwear
protecting against chemicals
EN 133 Respiratory protective devices

Definitions and abbreviations

- PC - TWA: Permissible Concentration-Time Weighted Average
- PC - STEL: Permissible Concentration-Short Term Exposure Limit
- IARC: International Agency for Research on Cancer
- ACGIH: American Conference of Governmental Industrial Hygienists – STEL: Short Term Exposure Limit
- TEEL: Temporary Emergency Exposure Limit。
- IDLH: Immediately Dangerous to Life or Health Concentrations
- ES: Exposure Standard
- OSF: Odour Safety Factor
- NOAEL: No Observed Adverse Effect Level
- LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index DNEL: Derived No-Effect Level PNEC: Predicted no-effect concentration MARPOL: International Convention for the Prevention of Pollution from Ships IMSBC: International Maritime Solid Bulk Cargoes Code IGC: International Gas Carrier Code IBC: International Bulk Chemical Code

AIIC: Australian Inventory of Industrial Chemicals DSL: Domestic Substances List
NDSL: Non-Domestic Substances List
IECSC: Inventory of Existing Chemical Substance in China
EINECS: European INventory of Existing Commercial chemical Substances ELINCS: European List of Notified Chemical Substances
NLP: No-Longer Polymers
ENCS: Existing and New Chemical Substances Inventory KECI: Korea Existing Chemicals Inventory
NZIoC: New Zealand Inventory of Chemicals
PICCS: Philippine Inventory of Chemicals and Chemical Substances TSCA: Toxic Substances Control Act
- TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas NCI: National Chemical Inventory
- FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances



Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	Classification Procedure
Flammable Liquids Category 3, H226	On basis of test data
Acute Toxicity (Dermal) Category 4, H312	On basis of test data
Skin Corrosion/Irritation Category 2, H315	Calculation method
Acute Toxicity (Inhalation) Category 4, H332	On basis of test data