

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

For professional use only

- **Product identifier**
- **Trade name:** Flexithane
- **Article number:** 4207
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation**  
Coating compound/ Surface coating/ paint  
Elastomeric Coating

### Manufacturer/Supplier:

POLYMARINE LTD  
Chester House,  
The Dingle,  
Colwyn Bay,  
LL29 7SN,  
United Kingdom

Tel: 01492 583322  
Fax: 01492 531666

Email: [info@polymarine.com](mailto:info@polymarine.com)  
Website: [www.polymarine.com](http://www.polymarine.com)

## 2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

 **Xn; Harmful**

R48/20-63-65: Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of harm to the unborn child. Harmful: may cause lung damage if swallowed.

 **Xi; Irritant**

R36/38: Irritating to eyes and skin.

 **Xi; Sensitising**

R43: May cause sensitisation by skin contact.

 **F; Highly flammable**

R11: Highly flammable.

R67: Vapours may cause drowsiness and dizziness.

- **Information concerning particular hazards for human and environment:**  
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.  
Has a narcotizing effect.
- **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

108-88-3	toluene
67-63-0	propan-2-ol

- **Label elements**

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

- **Code letter and hazard designation of product:**

Xn Harmful

F Highly flammable

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- **Hazard-determining components of labelling:**

toluene

Non-reactive linear polyurethane based on isophorone diisocyanate

- **Risk phrases:**

11 Highly flammable.

36/38 Irritating to eyes and skin.

43 May cause sensitisation by skin contact.

48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

63 Possible risk of harm to the unborn child.

65 Harmful: may cause lung damage if swallowed.

67 Vapours may cause drowsiness and dizziness.

- **Safety phrases:**

7/9 Keep container tightly closed and in a well-ventilated place.

16 Keep away from sources of ignition - No smoking.

23 Do not breathe fumes/vapour/spray

24/25 Avoid contact with skin and eyes.

37 Wear suitable gloves.

60 This material and its container must be disposed of as hazardous waste.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 108-88-3 EINECS: 203-625-9	toluene ☒ Xn R48/20-63-65; ☒ Xi R38; 🔥 F R11 R67 Repr. Cat. 3	25-50%
CAS: 67-63-0 EINECS: 200-661-7	propan-2-ol ☒ Xi R36; 🔥 F R11 R67	10-25%
CAS: 123-42-2 EINECS: 204-626-7	4-hydroxy-4-methylpentan-2-one ☒ Xi R36	10-25%
	Non-reactive linear polyurethane based on isophorone diisocyanate ☒ Xi R43	2.5-10%
CAS: 108-65-6 EINECS: 203-603-9	2-methoxy-1-methylethyl acetate ☒ Xi R36 R10	≤ 2.5%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

- **Description of first aid measures**

- **After inhalation:**

Supply fresh air and call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:** If symptoms persist consult doctor.

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- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Put on breathing apparatus

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Prevent seepage into sewage system, workpits and cellars.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Keep receptacles tightly sealed.  
Ensure good ventilation/extraction at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

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· **Control parameters**· **Ingredients with limit values that require monitoring at the workplace:**

<b>108-88-3 toluene</b>	
WEL	Short-term value: 384 mg/m <sup>3</sup> , 100 ppm Long-term value: 191 mg/m <sup>3</sup> , 50 ppm Sk
<b>67-63-0 propan-2-ol</b>	
WEL	Short-term value: 1250 mg/m <sup>3</sup> , 500 ppm Long-term value: 999 mg/m <sup>3</sup> , 400 ppm
<b>123-42-2 4-hydroxy-4-methylpentan-2-one</b>	
WEL	Short-term value: 362 mg/m <sup>3</sup> , 75 ppm Long-term value: 241 mg/m <sup>3</sup> , 50 ppm
<b>108-65-6 2-methoxy-1-methylethyl acetate</b>	
WEL	Short-term value: 548 mg/m <sup>3</sup> , 100 ppm Long-term value: 274 mg/m <sup>3</sup> , 50 ppm Sk

· **Additional information:** The lists valid during the making were used as basis.· **Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:***Keep away from foodstuffs, beverages and feed.**Immediately remove all soiled and contaminated clothing**Wash hands before breaks and at the end of work.**Avoid contact with the eyes and skin.*· **Respiratory protection:** When spraying the product, use a respiratory protective device.· **Protection of hands:***When skin exposure may occur, advice should be sought from the glove supplier on appropriate types and usage times for this product.*

Protective gloves

*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.**Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation*· **Material of gloves***The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product 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.*· **Penetration time of glove material***The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*· **Eye protection:**

Tightly sealed goggles

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### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· <b>Form:</b>	Fluid
· <b>Colour:</b>	According to product specification
· <b>Odour:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	82°C

· **Flash point:** 4°C

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 425°C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

· <b>Lower:</b>	1.2 Vol %
· <b>Upper:</b>	12.0 Vol %

· **Vapour pressure at 20°C:** 43 hPa

· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.

· **Solubility in / Miscibility with water:** NOT MISCIBLE

· **Segregation coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined.

· **Solvent content:**

· <b>Organic solvents:</b>	56.0 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

· **Reactivity**

· **Chemical stability**

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** No further relevant information available.

· **Incompatible materials:** No further relevant information available.

· **Hazardous decomposition products:** No dangerous decomposition products known.

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### 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

**108-88-3 toluene**

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rab)
Inhalative	LC50/4 h	5320 mg/l (mus)

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritating effect.

- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

### 12 Ecological information

- **Toxicity**

- **Acquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- **Behaviour in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packaging:**

- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **UN-Number**

- **ADR, IMDG, IATA** UN1263

- **UN proper shipping name**

- **ADR** 1263 PAINT (vapour pressure at 50°C not more than 110 kPa)

- **IMDG, IATA** PAINT

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· **Transport hazard class(es)**· **ADR**· **Class** 3 Flammable liquids.· **Label** 3· **IMDG, IATA**· **Class** 3 Flammable liquids.· **Label** 3· **Packing group**· **ADR, IMDG, IATA** II· **Environmental hazards:**· **Marine pollutant:** No· **Special precautions for user** Warning: Flammable liquids.· **Danger code (Kemler):** 33· **EMS Number:** F-E,S-E· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.· **Transport/Additional information:**· **ADR**· **Tunnel restriction code** D/E

### 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**· **National regulations:**· **Technical instructions (air):**

Class	Share in %
NK	72.2

· **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

R10 Flammable.

R11 Highly flammable.

R36 Irritating to eyes.

R38 Irritating to skin.

R43 May cause sensitisation by skin contact.

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*R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.*

*R63 Possible risk of harm to the unborn child.*

*R65 Harmful: may cause lung damage if swallowed.*

*R67 Vapours may cause drowsiness and dizziness.*

· **Department issuing MSDS:** Product safety department: LABORATORY

· **Contact:** Health & Safety Officer

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