# Safety Data Sheet

## STARCOAT PMMA
Liquid Waterproofing

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

**1.1 Product identifier**
**Trade name:** STARCOAT PMMA
**UFI:** U5RM-V8EH-200T-HP9S

**1.2 Relevant identified uses of the substance or mixture and uses advised against**
**Sector of Use**
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
SU19 Building and construction work
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
**Application of the substance / the mixture** Acrylic sealant

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

**Manufacturer/Supplier:**

Axter Ltd, Harbour Landing, Fox's Marina,
The Strand, Wherstead, Ipswich IP2 8NJ
Tel: +44 (0) 1473 724056
Email: info@axterltd.co.uk
Website: www.axter.co.uk

**1.4 Emergency telephone:**

Axter Ltd - +44 (0) 1473 724056
(this line is open from 8.00 am to 5.30 pm, Monday to Friday).
In the event of a medical enquiry involving this product, members of the public should contact:
NHS 111
a doctor or
a local hospital accident and emergency department.
The NPIS (National Poisons Information Service) helpline is available for enquiries from medical professionals only.
Tel: 0344 892 0111

## Section 2: Hazards identification

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**

| | |
|---|---|
| Flam. Liq. 2 | H225 Highly flammable liquid and vapour. |
| Skin Irrit. 2 | H315 Causes skin irritation. |
| Skin Sens. 1 | H317 May cause an allergic skin reaction. |
| STOT SE 3 | H335 May cause respiratory irritation. |

**2.2 Label elements**

**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

**Hazard pictograms**

GHS02 GHS07

**Signal word** Danger

**Hazard determining components of labelling:**

Methyl methacrylate
2-ethylhexyl acrylate
Triethylene glycol dimethacrylate

**Hazard statements**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H335 | May cause respiratory irritation. |

**Precautionary statements**

| | |
|---|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.<br>No smoking. |
| P240 | Ground and bond container and receiving equipment. |
| P241 | Use explosion-proof [electrical/ventilating/lighting] equipment. |
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves / eye protection / face protection. |
| 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. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |

### 2.3 Other hazards

**Results of PBT and vPvB assessment**

**PBT:**

This substance/mixture does not contain any components that can be considered persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Determination of endocrine-disrupting properties**

The mixture does not contain any substances included in the list established according to Article 59(1) of UK REACH for having endocrine-disrupting properties, or identified as having endocrine-disrupting properties according to the criteria set out in Delegated Regulation (EU) 2017/2100 or Delegated Regulation (EU) 2018/605 in a concentration equal to or greater than 0.1%.

## Section 3: Composition/information on ingredients

### 3.2 Mixtures

**Description:** Solution of an acrylic polymer in acrylates and methacrylates.

| Dangerous components: | | |
|---|---|---|
| CAS: 80-62-6<br>EINECS: 201-297-1<br>Reg.nr.: 01-2119452498-28 | methyl methacrylate | ≥25 - ≤40% |
| | Flam. Liq. 2, H225<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>STOT SE 3, H335<br>Note: D | |
| CAS: 103-11-7<br>EINECS: 203-080-7<br>Reg.nr.: 01-2119453158-37 | 2-ethylhexyl acrylate | ≥10 - <20% |
| | Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>STOT SE 3, H335<br>Aquatic Chronic 3, H412<br>Note: D | |
| CAS: 109-16-0<br>EINECS: 203-652-6<br>Reg.nr.: 01-2119969287-21 | Triethylene glycol dimethacrylate | ≥1 - ≤2.5% |
| | Skin Sens. 1B, H317 | |

**Additional information:**

For the wording of the listed hazard phrases refer to section 16.

## Section 4: First aid measures

### 4.1 Description of first aid measures

**General information:**

Take affected persons out of danger area and lay down.
Involve doctor immediately.

**After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:**
If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.

**After eye contact**
Rinse opened eye for several minutes under running water.

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

**4.2 Most important symptoms and effects, both acute and delayed**
Headache
Dizziness
Allergic reactions

**4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

## Section 5: Firefighting measures

**5.1 Extinguishing media**
**Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**For safety reasons unsuitable extinguishing agents**
Water with full jet

**5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:
Carbon monoxide (CO)
Nitrogen oxides (NOx)

**5.3 Advice for firefighters**
**Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

**Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Cool endangered receptacles with water spray.

## Section 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Keep away from ignition sources.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.

**6.2 Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.

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

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.

### 6.4 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.

## Section 7: Handling and storage

### 7.1 Precautions for safe handling

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
Keep away from heat and direct sunlight.
Use only in well ventilated areas.
Do not refill residue into storage receptacles.

**Information about fire - and explosion protection:**
Fumes can combine with air to form an explosive mixture.
Highly volatile, flammable constituents are released during processing.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

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

**Storage:**
**Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Store in a cool location.

**Information about storage in one common storage facility:**
Store away from oxidising agents.
Store away from foodstuffs.

**Further information about storage conditions:**
Storage in a collecting room is required.
Store under lock and key and with access restricted to technical experts or their assistants only.
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.

## Section 8: Exposure controls/personal protection

### 8.1 Control parameters

| Ingredients with limit values that require monitoring at the workplace | |
|---|---|
| 103-11-7 2-ethylhexyl acrylate | Short term value : 38 mg/m³, 5 ppm<br>Long term value : 38 mg/m³, 5 ppm |
| **CAS: 80-62-6 methyl methacrylate** | |
| WEL | Short-term value: 416 mg/m³, 100 ppm<br>Long-term value: 208 mg/m³, 50 ppm |
| **DNELs** | |
| **80-62-6 methyl methacrylate** | |

| | |
|---|---|
| Inhalative DNEL (population) | 74.3 mg/m³ (long term - systemic effects)<br>105 mg/m³ (long term - local effects) |
| DNEL (worker) | 210 mg/m³ (long term - systemic effects)<br>210 mg/m³ (long term - local effects) |
| **103-11-7 2-ethylhexyl acrylate** | |
| Dermal DNEL | 242 µg/cm² (long term and short term) |
| Inhalative DNEL | 37.5 mg/m³ (long term) |

**Additional information:** The lists valid during the making were used as a basis.

## 8.2 Exposure controls

**Appropriate engineering controls** No further data; see section 7.

**Individual protection measures, such as 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 skin.
Avoid contact with the eyes and skin.

**Respiratory protection**

Respiratory protection at high concentrations when limits are exceeded.
When vapours and aerosols occur respiratory protection with organic vapour filter type A.
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**Hand protection**

Protective gloves.

**Material of gloves**

Butyl rubber, BR
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 must be observed.

**Gloves made of the following materials are suitable for permanent contact**

Butyl rubber, BR

**Gloves made of the following materials are not suitable**

Leather gloves.

**Eye/face protection**

Tightly sealed goggles.

**Body protection**
Use protective suit.

## Section 9: Physical and chemical properties

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

**Appearance**

| | |
|---|---|
| Form | Fluid |
| Colour | Beige |
| Odour | Ester-like |
| Odour threshold | Not determined. |
| Melting point/freezing point | Undetermined. |
| Boiling point or initial boiling point and boiling range | 101°C (CAS: 80-62-6 methyl methacrylate) |
| Flammability | Highly flammable. |

**Lower and upper explosion limit**

| | |
|---|---|
| Lower | 0.8 Vol % (CAS: 103-11-7 2-ethylhexyl acrylate) |
| Upper | 12.5 Vol % (CAS: 80-62-6 methyl methacrylate) |
| Flash point | 10°C. |
| Auto-ignition temperature | 245°C (CAS: 103-11-7 2-ethylhexyl acrylate). |
| Decomposition temperature | Not determined. |
| pH | Mixture is non-polar/aprotic. |

**Viscosity**

| | |
|---|---|
| Kinematic viscosity | Not determined. |
| Dynamic at 20°C | 6,600 mPas |

**Solubility**

| | |
|---|---|
| Water | Insoluble. |
| Partition coefficient n-octanol/water (log value) | Not determined. |
| Vapour pressure at 20°C: | 47 hPa (CAS: 80-62-6 methyl methacrylate). |

**Density and/or relative density**

| | |
|---|---|
| Density at 20°C | 1.22 g/cm$^3$ |
| Relative density | Not determined. |
| Vapour density | Not determined. |

**9.2 Other information** — No further information available.

**Appearance**

| | |
|---|---|
| Form | Fluid. |
| Ignition temperature | Product is not self-igniting. |
| Explosive properties | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |

**Solvent content**

| | |
|---|---|
| VOC (EC) | 0.0 g/l |
| Change in condition | |
| Softening point/ range | |
| Oxidising properties | Not determined. |
| Evaporation rate | Not determined. |

**Information with regard to physical hazard**

| | |
|---|---|
| Explosives | Void. |
| Flammable gases | Void. |
| Aerosols | Void. |
| Oxidising gases | Void. |
| Gases under pressure | Void. |
| Flammable liquids | Highly flammable liquid and vapour. |
| Flammable solids | Void. |
| Self-reactive substances and mixtures | Void. |
| Pyrophoric liquids | Void. |
| Pyrophoric solids | Void |
| Self-heating substances and mixtures | Void. |
| Substances and mixtures, which emit flammable gases in contact with water | Void. |
| Oxidising liquids | Void. |
| Oxidising solids | Void. |
| Organic peroxides | Void. |
| Corrosive to metals | Void. |
| Desensitised explosives | Void. |

## Section 10: Stability and reactivity

**10.1 Reactivity**
No further relevant information available.

**10.2 Chemical stability**
**Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions**
Reacts with peroxides and other radical forming substances.
Exothermic reaction.
Exothermic polymerisation.

**10.4 Conditions to avoid:**
Keep away from heat and direct sunlight.

**10.5 Incompatible materials:**
Reacts with peroxides.
Reacts with reducing agents

**10.6 Hazardous decomposition products:**
None at a proper use of the product.

## Section 11: Toxicological information

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
**Acute toxicity:** Based on available data, the classification criteria are not met.

| LD/LC50 values relevant for classification: | | |
|---|---|---|
| **ATE (Acute Toxicity Estimates)** | | |
| Oral | LC50 | >3,784-37,839 mg/kg (rat) |
| **CAS: 80-62-6 methyl methacrylate** | | |
| Oral<br>Dermal | LD50<br>LD50 | 7,872 mg/kg (rat)<br>>5,000 mg/kg (rabbit) |
| **CAS: 103-11-7 2-ethylhexyl acrylate** | | |
| Oral<br>Dermal | LD50<br>LD50 | 5,660 mg/kg (rat)<br>8,480 mg/kg (rabbit) |
| **CAS: 109-16-0 Triethylene glycol dimethacrylate** | | |
| Oral | LD50 | >5,000 mg/kg (rat) |
| **CAS: 38668-48-3 1,1'-(p-tolylimino)dipropan-2-ol** | | |
| Oral<br>Dermal | LD50<br>LD50 | 25 mg/kg (rat)<br>>2,000 mg/kg (rat) |

**Primary irritant effect**

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

**Serious eye damage/irritation**
Splashes in the eyes may cause irritation and reversible local damage.

**Respiratory or skin sensitisation**
May cause an allergic skin reaction.

**STOT-single exposure**

May cause respiratory irritation.

**11.2 Information on other hazards**
**Endocrine disrupting properties**
None of the ingredients is listed.

## Section 12: Ecological information

### 12.1 Toxicity

| Aquatic toxicity | |
|---|---|
| **80-62-6 methyl methacrylate** | |
| EC50 / 48h<br>EC50 / 72h<br>LC50 / 96h | 69 mg/l (daphnia magna) (OECD 202)<br>>110 mg/l (Selenastrum capricornutum) (OECD201)<br>>79mg/l (Rainbow trout) (OECD 203) |
| **2-Ethylhexyl acrylate** | |
| EC50 / 48h<br>LC50 / 48h | 17.45 mg/l (daphnia magna)<br>23 mg/l (Leuciscus idus) |

### 12.2 Persistence and degradability
Easily biodegradable.

### 12.3 Bioaccumulative potential
Potential to bioaccumulate.

### 12.4 Mobility in soil
Groundwater can be contaminated.

### 12.5 Results of PBT and vPvB assessment
**PBT:** Not applicable.
**vPvB:** Not applicable.

### 12.6 Endocrine disrupting properties
The product does not contain substances with endocrine disrupting properties.

### 12.7 Other adverse effects
**Additional ecological information:**
**General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## Section 13: Disposal considerations

### 13.1 Waste treatment methods
**Recommendation**
Must not be disposed together with household waste. Do not allow product to reach sewage system.
**Uncleaned packaging:**
**Recommendation:**
Packaging may be reused or recycled after cleaning.
Dispose of packaging according to regulations on the disposal of packagings.

## Section 14: Transport information

### 14.1 UN number or ID number

| | |
|---|---|
| **ADR** | UN1263 |
| **IMDG** | UN1263 |

### 14.2 UN proper shipping name

| | |
|---|---|
| **ADR** | UN1263, Paint related material, 3, II, D/E |
| **IMDG** | UN1263, Paint related material, 3, II, ($10^0$C cc) |
| **IATA** | PAINT RELATED MATERIAL. |

**14.3 Transport hazard class(es)**
**ADR, IMDG, IATA**

| | |
|---|---|
| Class | 3 Flammable liquids. |
| Label | 3 |

**14.4 Packing group**

| | |
|---|---|
| **ADR** | II |
| **IMDG** | II |
| **IATA** | II |

**14.5 Environmental hazards**

| | |
|---|---|
| **Marine pollutant** | No. |

**14.6 Special precautions for user**

| | |
|---|---|
| | Warning: Flammable liquids. |
| **Hazard identification number (Kemler code)** | 33 |
| **EMS Number** | F-E, S-E |
| **Stowage Category** | A |

**14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

**Transport/Additional information**

| | |
|---|---|
| **ADR** | Special provision 640D |
| **Limited quantities (LQ)** | 5L |
| **Excepted quantities (EQ)** | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| **Transport category** | 2 |
| **Tunnel restriction code** | D/E |
| **IMDG** | |
| **Limited quantities (LQ)** | 5L |
| **Excepted quantities (EQ)** | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| **UN "Model Regulation"** | UN1263 PAINT RELATED MATERIAL, 3, II |

## Section 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
**Poisons Act**
**Regulated explosives precursors**
None of the ingredients are listed.

**Regulated poisons**
None of the ingredients are listed.

**Reportable explosives precursors**
None of the ingredients are listed.

**Reportable poisons**
None of the ingredients are listed.

**Directive 2012/18/EU**
**Named dangerous substances - ANNEX I**
None of the ingredients is listed.

**Seveso category P5c FLAMMABLE LIQUIDS**
Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t

**National regulations:**
**Other regulations, limitations and prohibitive regulations**
**Substances of very high concern (SVHC) according to REACH, Article 57**
This product does not contain any SVHC's.

**15.2 Chemical safety assessment**
A Chemical Safety Assessment has not been carried out.

## Section 16: Other information

The information given in this Safety Data Sheet is given in good faith and based on our current knowledge. We reserve the right to update and modify this document as necessary. The information in this sheet does not constitute a risk assessment for the workplace. While every effort is made to ensure that the information is accurate and up to date, it is not intended to form part of a contract or to imply any additional liability, which is expressly excluded.
This Safety Data Sheet (SDS) is calculated with a Calculation method based on GB CLP Annex I, parts 2 to 5.

**Relevant phrases**

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

**Contact**
www.axter.co.uk

**Abbreviations and acronyms:**

RID: Regulations Concerning the International Transport of Dangerous Goods by Rail)
ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (UK REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Flam. Liq. 2: Flammable liquids – Category 2
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1B: Skin sensitisation – Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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