Safety Data Sheet

STARCOAT PMMA SEALER
Liquid Waterproofing

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

1.1 Product identifier
Trade name: STARCOAT PMMA SEALER
UFI: P1SM-X8AG-400S-434E

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.
Aquatic Chronic 3	H412 Harmful to aquatic life with long lasting effects.

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:

2-ethylhexyl acrylate
Methyl methacrylate
Tetramethylene dimethacrylate
2-(2-hydroxy-5-methylfenyl)benzotriazool
Triphenylphosphine

Hazard statements

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.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P241	Use explosion-proof [electrical/ventilating/lighting] equipment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

Avoid release to the environment.

Call a POISON CENTER/doctor if you feel unwell.

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: 103-11-7 EINECS: 203-080-7 Reg.nr.: 01-2119453158-37	2-Ethylhexyl acrylate Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 3, H412 Note: D	≥25 - ≤50%
CAS: 80-62-6 EINECS: 201-297-1 Reg.nr.: 01-2119452498-28	Methyl methacrylate Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335 Note: D	≥10 - ≤50%
CAS: 2082-81-7 EINECS: 218-218-1	Tetramethylene dimethacrylate Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	≥0.5 - <10%
CAS: 2440-22-4 EINECS: 219-470-5	2-(2-hydroxy-5-methylfenyl)benzotriazool Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) Skin Sens. 1B, H317	≥0.25 - <1%
CAS: 603-35-0 EINECS: 210-036-0	Triphenylphosphine Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) Acute Tox. 4, H302 Skin Sens. 1, H317	≥0.25 - <1%
CAS: 38668-48-3 EINECS: 254-075-1	1,1'-(p-tolylimino)dipropan-2-ol Acute Tox. 2, H300 Eye Irrit. 2, H319 Aquatic Chronic 3, H412	≥0 - ≤1%

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.
When in doubt or if symptoms are observed, seek medical advice.

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:
Immediately remove any clothing soiled by the product.
If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.

After eye contact
Rinse immediately with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Hold eye wide open during flushing. Seek medical attention if symptoms persist.

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
Keep patient warm and quiet. Treat the symptoms.

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
Vapour is heavier than air and can form an explosive mixture with air.
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.
Protect against electrostatic charges.
Keep ignition sources away - Do not smoke.
Fumes can combine with air to form an explosive mixture.

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.
Can form explosive gas-air mixtures.
Protect against electrostatic charges.
Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:
Inform respective authorities in case of seepage into water course or sewage system.
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 at temperatures between 0 °C and 35 °C.
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 Long term value : 38 mg/m³, 5 ppm
CAS: 80-62-6 Methyl methacrylate	
WEL	Short-term value: 416 mg/m³, 100 ppm 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) 105 mg/m³ (long term - local effects)
DNEL (worker)	210 mg/m³ (long term - systemic effects) 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)
PNECs	
80-62-6 Methyl methacrylate	
PNEC sediment	1.47 mg/kg dw (ground) 5.74 mg/kg dw (fresh water)
PNEC	0.094 mg/l (saltwater) 0.94 mg/l (fresh water)
103-11-7 2-ethylhexylacrylate	
Soil	2.3 mg/l (soil bacteria) 1 mg/l (soil)
PNEC	0.0023 mg/kg (oral)
Water	0.126 mg/l (sediment) 0.002727 mg/l (fresh water)

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
Recommended thickness of the material: ≥ 0.3 mm
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

>60min.
The exact break through time has to be found out by the manufacturer of the protective gloves and has to 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

Physical state	Fluid
Colour	Different according to colouring
Odour	Ester-like

Odour threshold	<1ppm
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-soluble (in water).
Viscosity	
Kinematic viscosity	Not determined.
Dynamic at 20°C	5,000 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).
Vapour pressure at 50 °C	1.3 hPa
Density and/or relative density	
Density at 20°C	1.02 g/cm^3
Relative density	Not determined.
Vapour density	Not determined.
9.2 Other information	No further information available.
Appearance	
Form	Viscous.
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)	VOC limit value (cat A/i) 500 g/L 2010 Product contains 0 g/L
Change in condition	
Softening point/ range	
Oxidising properties	Not determined.
Evaporation rate	Not determined.

Information with regard to physical hazard classes

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
Can be ignited by sparks.

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
Reacts with heavy metals.
Oxidants.

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	LD50	>2,791-27,908 mg/kg (rat)
CAS: 103-11-7 2-Ethylhexyl acrylate		
Oral Dermal	LD50 LD50	5,660 mg/kg (rat) 8,480 mg/kg (rabbit)
CAS: 80-62-6 Methyl methacrylate		
Oral Dermal	LD50 LD50	7,872 mg/kg (rat) >5,000 mg/kg (rabbit)
CAS: 2440-22-4 2-(2-hydroxy-5-methylfenyl)benzotriazool		
Oral Dermal	LD50 LD50	>10,000 mg/kg (rat) >2,000 mg/kg (kon)
CAS: 603-35-0 Triphenylphosphine		
Oral Dermal	LD50 LD50	700 mg/kg (rat) >4,000 mg/kg (kon)
CAS: 38668-48-3 1,1'-(p-tolylimino)dipropan-2-ol		
Oral Dermal	LD50 LD50	25 mg/kg (rat) >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 EC50 / 72h LC50 / 96h	69 mg/l (daphnia magna) (OECD 202) >110 mg/l (Selenastrum capricornutum) (OECD201) >79mg/l (Rainbow trout) (OECD 203)
2-Ethylhexyl acrylate	
EC50 / 48h LC50 / 48h	17.45 mg/l (daphnia magna) 23 mg/l (Leuciscus idus)

12.2 Persistence and degradability

Easily biodegradable.

Other information

The product is easily biodegradable.

12.3 Bioaccumulative potential

Potential to bioaccumulate.

Log Kow: 0.7 (methylmetacrylate)

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

Remark

Harmful to fish.

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.

Harmful to aquatic organisms.

Section 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Disposal should be in accordance with applicable regional, national and local laws and regulations.

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
	Special provisions 640D
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	B

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 Maximum net quantity per inner packaging: 30 ml 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 Maximum net quantity per inner packaging: 30 ml 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.

H300 Fatal if swallowed.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

Contact
www.axter.co.uk

Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ADR: Accord relatif au transport international des marchandises dangereuses par route (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)
PNEC: Predicted No-Effect Concentration (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
Acute Tox. 2: Acute toxicity – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye 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 Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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