





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

1.1 Product identifier

Trade name: STARCOAT PMMA MORTAR

1.2 Relevant identified uses of the substance or mixture and uses advised against See Section 16
Application of the substance / the mixture Binder

1.3 Details of the supplier of the safety data sheet

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



GHS02 flame

Flam. Liq. 3

H226 Flammable liquid and vapour.



GHS07

Skin Irrit.2 H315 Causes skin irritation

Eye Irrit.2 H319 Causes serious eye 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 CLP regulation.

Hazard pictograms



GHS02



GHS07

Signal word Warning

Hazard determining components of labelling:

Methyl methacrylate Benzyl methacrylate 2-ethylhexyl acrylate

Hazard statements

H226	Flammable liquid and vapour
H315	Causes skin irritation
H319	Causes serious eye 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 surfaces. - No smoking.

P261 Avoid breathing in fumes.

P280 Wear protective gloves/ eye protection.

P303+P361+P353 IF ON SKIN (or HAIR): Remove all contaminated clothing

immediately. Rinse skin with water/shower.

P312 Call a POISON CENTRE/ doctor if you feel unwell.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Does not meet the PBT-criteria of Annex XIII of REACH (self assessment). **vPvB:** Does not meet the vPvB-criteria of Annex XIII of REACH (self assessment).

Section 3: Composition/information on ingredients

3.2 Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:				
CAS: 80-62-6 EINECS: 201-297-1 Reg No. 01-2119452498-28-0000 01-2119452498-28-0025 01-2119452498-28-0028	methyl methacrylate Flam. Liq. 2, H225; Skin Irrit.2, H315; Skin Sens.1, H317; STOT SE 3, H335	25-50%		
CAS: 2495-37-6 EINECS: 219-674-4 Reg No. 01-2119960155-39-0000	Benzyl methacrylate Skin Irrit.2, H315; Eye Irrit.2, H319, Skin Sens.1, H317; STOT SE 3, H335	25-50%		
CAS: 103-11-7 EINECS: 203-080-7 Reg No. 01-2119453158-37	2-ethylhexyl acrylate Skin Irrit.2, H315; Skin Sens.1, H317; STOT SE 3, H335, Aquatic Chronic 3, H412	≥10->20%		

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

Section 4: First aid measures

4.1 Description of first aid measures

General information:

Immediately remove any clothing soiled by the product. Take affected persons out of danger area and lay them down. Involve a doctor immediately.

After inhalation:

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

Take affected persons into fresh air and keep them quiet.

Seek medical treatment.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

Headache

Dizziness

Skin sensitization

Irritant to skin, eyes and respiratory system

4.3 Indication of any immediate medical attention and special treatment needed

After inhalation, even in the absence of signs of illness, give inhaled Corticoid (e.g. Ventolair).

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents: CO₂, sand, extinguishing powder, foam.

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture

Can form explosive gas-air mixtures.

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)

Vapours are heavier than air. Crawling vapours can travel some distance from the source of ignition.

5.3 Advice for firefighters

Protective equipment:

Wear fully protective suit.

Wear self-contained respiratory protective device.

Additional information

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

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.

Inform respective authorities in case of seepage into water course or sewage system.

6.3 Methods and material for containment and cleaning up:

Do not flush with water or aqueous cleansing agents

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

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

Cool down container if it heats up. Containers exposed to heat should be cooled with water. Near heat, keep containers of water available. Emergency cooling must be available in the case of a fire nearby. Keep containers closed to protect against heat build up (pressure rise). Avoid heat.

Do not refill residue into storage receptacles.

Ensure good ventilation/exhaustion at the workplace, (at least 7 air changes), especially at floor level. (Fumes are heavier than air).

Prevent formation of aerosols.

Information about fire - and explosion protection:

Highly volatile, flammable constituents are released during processing.

Keep ignition sources away - Do not smoke.

Fumes can combine with air to form an explosive mixture.

Only explosion-proof equipment.

Protect against electrostatic charges.

Protect from heat.

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:

Store in cool, dry conditions in well sealed receptacles.

Storage in a collecting room is required.

Store under lock and key and with access restricted to technical experts or their assistants only.

Max storage temperature 30°C.

Keep container tightly sealed.

Protect from heat and direct sunlight.

7.3 Specific end use(s) Building coating or sealing.

Section 8: Exposure controls/personal protection

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

8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:				
80-62-6- methyl methacrylate (25-50%)				
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 (worker)	210 mg/m³ (Long-term - local effects) 210 mg/m³ (Long-term - systemic effects) Long-term		
	DNEL (population)	74.3 mg/kg (Long-term - systemic effects) 105 mg/m³ (Long-term - local effects)		
2495-37-6 benzyl methacrylate				
Dermal Inhalative	DNEL (worker) DNEL (worker)	6.94 mg/cm3 (Long-term – systemic effects) 24.2 mg/cm3 (Long-term – systemic effects)		
103-11-7 2-ethylhexyl acrylate				
Dermal	DNEL	242 μg/cm3 (Employee / Industrial / Commercial) Long term and short term		
Inhalative	DNEL	37.5 mg/kg (Employee / Industrial / Commercial) (long term)		
PNECs				
80-62-6 methyl methacrylate				
PNEC (sediment) PNEC	1.47 mg/kg dw (ground) 5.74 mg/kg dw (freshwater) 0.094 mg/l (seawater) 0.94 mg/l (freshwater)			
2495-37-6 benzyl methacrylate				
PNEC	0.00216 mg/l (seawater)			
103-11-7 2-ethylhexyl acrylate				
Ground PNEC Water	2.3 mg/l (Soil microorganisms) 1 mg/l (ground) 0.0023 mg/kg (oral intake) 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 Personal protective equipment:







General protective and hygienic measures

Avoid contact with the eyes and skin.

Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Keep away from foodstuffs, beverages and food. Do not inhale gases / fumes / aerosols.

Respiratory protection

Ensure good ventilation.

Inside buildings and when limits are exceeded, use respiratory filter device: Filter type A1; at higher concentrations and prolonged exposure use air recycling independent breathing apparatus type A2.

Protection of hands

Protective gloves

Glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Select glove material on consideration of the penetration times, rates of diffusion and degradation.

Preventive skin protection by use of skin-protecting agents is recommended. After use of gloves apply skin-cleaning agents and skin cosmetics.

Check protective gloves prior to each use for their proper condition. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Material of gloves

The selection of 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 cannot be calculated in advance and has therefore to be checked prior

to the application.

Protective gloves according to EN 374.

Suitable material: nitrile.

Penetration time of glove material

Our recommendation is mainly for a once-only use as a short-term protection against liquid splashes. For other applications,

you should contact a glove manufacturer.

The exact break through time must be found out from the manufacturer of the protective gloves and must be observed.

For permanent contact in work areas without heightened risk of injury (e.g. Laboratory), gloves made of the following material are suitable

Butyl rubber, BR

For permanent contact, gloves made of the following materials are suitable

Butyl rubber, BR

Not suitable are gloves made

of the following material Leather

Eye protection Tightly sealed goggles, EN-Standard: EN 166

Body protection Protective work clothing

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form: Fluid

Colour:UnpigmentedOdour:Ester-likeOdour threshold:Not determinedpH-value:Not determined

Change in condition

Melting point/Melting range: Undetermined Boiling point/Boiling range: 101 °C (MMA)

Flash point: 23 °C (EN ISO 3680)

Flammability (solid, gas): Not applicable

Ignition temperature: 252°C (2-EHA)

Decomposition temperature: Not determined

Self-igniting temperature: Product is not self-igniting.

Danger of explosion: Product is not explosive. However, formation of explosive air/ vapour

mixtures is possible.

Explosion limits:

Lower: 1.65 Vol %(MMA) **Upper:** 12.5 Vol % (MMA)

Vapour pressure at 20 °C 38.7hPa (MMA)

Density at 20 °C: 1 g/cm³ (EN ISO 2811-1)

Relative densityNot determinedVapour densityNot determinedEvaporation rateNot determined

Solubility in / Miscibility with water: Not miscible or difficult to mix.

Partition coefficient

(n-octanol/water): log Pow: 4.29 (2-EHA); (25°C, OECD 107)

log Pow: 1.38 (MMA)

Viscosity:

DynamicNot determined. **Kinematic at 20 °C**25s (ISO 6mm)

Solvent content:

 VOC (EC)
 0.00%

 Solids content:
 33.1%

9.2 Other information No further relevant information available.

Section 10: Stability and reactivity

10.1 Reactivity see Section 10.2

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions

Exothermic reaction.

Reacts with peroxides and other radical forming substances.

A hazardous polymerization may occur after the exhaustion of the inhibitor.

- **10.4** Conditions to avoid: Heat and direct sunlight.
- **10.5** Incompatible materials: Reacts with peroxides and other free-radical generators.

10.6 Hazardous decomposition products:

No dangerous decomposition when product used according to specifications.

Additional information:

Emergency procedures will vary depending on individual circumstances. The customer should have a contingency plan at the workplace where the product is present.

Section 11: Toxicological information

11.1 Information on toxicological effects There were no toxicological findings to the mixture. **Acute toxicity** Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:				
80-62-6 methyl methacrylate				
Oral Dermal Inhalative	LD50 NOAEL LC50 NOAEL LC50/4h	>5000 mg/kg (rat) (OECD 401) 2000 ppm (rat) Drinking water, 6-2000 ppm Findings: no toxic effects >5000 mg/kg (rabbit) 25 ppm (rat) 24 – 400 ppm Findings: damage to mucous membranes in the nose at 400 ppm 29.8 mg/l (rat)		
2495-37-6 benzyl methacrylate				
Oral Dermal	LD50 LD50	3980 mg/kg (rat) (OECD 401) >2000 mg/kg (rat) (Acute dermal toxicity)		
103-11-7 2-ethylhexyl acrylate xide				
Oral Dermal	LD50 LC50	4435 mg/kg (rat) (BASF Test) 7520 mg/kg (hare)		

Primary irritant effect:

Skin corrosion/irritationCauses skin irritation and irritability.

Serious eye damage/irritation Causes serious eye irritation.

Respiratory or skin sensitization May cause an allergic skin reaction.

Other information (about experimental toxicology):

Due to the high vapour pressure a harmful concentration in the air is quickly reached. At high concentrations a narcotic effect can occur.

Subacute to chronic toxicity: Not tested.

Toxiokinetics, metabolism

and distribution The drug is metabolized rapidly (MMA).

Repeated dose toxicity No data available.

CMR effects (carcinogenicity, mutagenicity and toxicity

for reproduction)Not tested.

Germ cell mutagenicityBased on available data, the classification criteria are not met. **Carcinogenicity**Based on available data, the classification criteria are not met.

Reproductive toxicityBased on available data, the classification criteria are not met.

STOT-single exposure May cause respiratory irritation.

STOT-repeated exposure Based on available data, the classification criteria are not met.

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

Section 12: Ecological information

12.1 Toxicity

80-62-6 methyl methacrylate				
EC3/16h	100 mg/l (Pseudomonas putida) (Cell proliferation inhibition test Bringmann-Kuehn)			
2495-37-6 benzyl methacrylate	2495-37-6 benzyl methacrylate			
EC10/21d	3.34mg/l (daphnia magna) (OECD 211)			
Aquatic toxicity				
80-62-6 methyl methacrylate				
EC50/48h LC50/96h EC50/72h NOEC/72h EC50/72h NOEC	69 mg/l (daphnia magna) (OECD 202) >79 mg/l (Rainbow trout) (OECD 203) >110 mg/l (Pseudokirchneriella subcapitata) (OECD 201) >110 mg/l (Selenastrum capricornutum) (OECD 201) >110 mg/l (Selenastrum capricornutum) (OECD 201) 9.4 mg/l (Danio rerio) (OECD 210) Fish early life stage test, 35 days 37 mg/l (daphnia magna) (OECD 211) 21 days			
2495-37-6 benzyl methacrylate				
LC50/48h EC50/72h	4.67 mg/l (fish) 2.28mg/l (Desmodesmus subspicatus) (OECD 201)			
103-11-7 2-ethylhexyl acrylate				
Other (28d) EC50/48h (static) LC50/96h (static) NOEC/21d	>1000 mg/kg (Soil microorganisms) (OECD 217) The product has not been tested. The statement has been derived from products of a similar structure or composition. 1.3 mg/l (daphnia magna) (OECD 202, Part 1) 1.81 mg/l (Rainbow trout) (OECD 203) 0.19 mg/l (daphnia magna) The details of the toxic effect relates to the analytically determined concentration. The product has not been tested. The statement has been derived from products of a similar structure or composition.			
EC50/72h (static)	1.71 mg/l (scenedesmus subspicatus) (OECD 201) The details of the toxic effect relates to the analytically determined concentration.			

12.2 Persistence and degradability No further information available.

Other information: The product is easily biodegradable.

12.3 Bioaccumulative potential

2-EHA: can be accumulated in organisms; biocaccumulation potential: Bioconcentration Factor 282.4 (Calculated).

12.4 Mobility in soil

MMA: A binding to the solid phase of soil, sediment and sewage sludge is not expected. From the water surface the substance is slowly evaporated into the atmosphere. 2-EHALL: the product floats on water and does not dissolve. Absorption in soil is not likely.

Additional ecological information:

COD-value: 2-EHA: Theoretical oxygen demand (TOD) = 5.6 g / g

BOD5-alue: 0.14 g/g (MMA)

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water Do not allow product to reach ground water, water course or sewage system..

12.5 Results of PBT and vPvB assessment

PBT: Does not meet the PBT-criteria of Annex XIII of REACH (self assessment). **vPvB:** Does not meet the vPvB-criteria of Annex XIII of REACH (self assessment).

12.6 Other adverse effects No further relevant information available.

Section 13: Disposal considerations

13.1 Waste treatment methods

Hazardous waste according to Waste Catalogue (EWC). If recycling is not possible, waste must be removed in compliance with local regulations.

Recommendation

Uncured product residues are special waste. Cured product residues are not hazardous waste.



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

Waste disposal key:

The following Waste Codes of the European Waste Catalogue (EWC), are considered a recommendation. The disposal must be coordinated with the local waste disposal company.

Liquid product:

080409* adhesive and sealants containing organic solvents or other dangerous substances 080410 adhesives and sealants containing wastes other than those mentioned in 080409

Cured product:

170 203 plastic

Uncleaned packaging:

Recommendation:

This material and its container must be disposed of as hazardous waste. Disposal must be made according to official regulations.

Section 14: Transport information

14.1 UN-Number Void **ADR, IMDG, IATA** UN1263

14.2 UN proper shipping name

ADR 1263 PAINT IMDG IATA PAINT

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



Class 3 Flammable liquids.

Label 3

14.4 Packing group

ADR, IMDG, IATA

14.5 Environmental hazards:

Marine pollutant: No

14.6 Special precautions for user Warning: Flammable liquids

Danger code (Kemler)30EMS Number:F-E,S-EStowage CategoryA

14.7 Transport in bulk according to Annex II of

MARPOL and the IBC Code Not applicable.

Transport/Additional information:

ADR

Limited Quantities (LQ) 5L Excepted Quantities (EQ) Code: E1

> Maximum net quantity per inner packaging: 30ml Maximum net quantity per inner packaging:1000ml

Transport category 3 **Tunnel restriction code** D/E

IMDG

Limited Quantities (LQ)

Excepted Quantities (EQ) 5L **UN "Model Regulation"** Code: E1

Maximum net quantity per inner packaging: 30ml Maximum net quantity per inner packaging:1000ml

UN "Model Regulation" UN 1263 PAINT, 3, III

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture 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 lower-tier requirements 50,000 t REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

National regulations:

Information about limitation of use:

Employment restrictions under the Maternity Protection Directive (94/33/EC). Employment restrictions for maternity Directive (92/85/EEC) for expectant and nursing mothers.

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

Section 16: Other information

These figures relate to the product as delivered.

Sector of Use

Relevant identified uses of the mixture

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)

Uses advised against

SU21 Consumer uses: Private households / general public / consumers

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

H225	Highly flammable liquid and vapour
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H412	Harmful to aquatic life with long lasting effects

Training hints

Training on hazards and precautions must be given prior to use and should be repeated at least annually thereafter.

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)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport 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 (REACH)

DNEL: Derived No-effect level (REACH)

PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation - Category 2

Skins Sens 1: Skin sensitization - Category 1

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

Sources:

www.gestis.de www.echa.eu logkow.cisti.nrc.ca

The information provided in this document is accurate to the best of our knowledge. The document does not constitute a specification and Axter takes no responsibility for the suitability of the product in a particular use. It is the user's responsibility to ensure that the product is suitable for the intended application and use and to take the necessary precautions to ensure that during handling, storage and installation of the product, all regulations to guarantee safety of people and the environment are observed. For further information or technical design assistance, contact Axter Ltd.

The data contained in this SDS has been supplied as required by the EC REACH Regulation No. 1907/2006 and the EC Regulation No. 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) for the purpose of protecting the health and safety of industrial and commercial users who are deemed capable of understanding and acting on the information provided. Please ensure that it is passed to the appropriate person(s) in your company who are capable of acting on the information.

Disclaimer:

Axter Ltd reserves the right to modify and update this data at any time without prior notice. Only the latest version of this document is valid, available for download at www.axter.co.uk/downloads. Once downloaded, documents are uncontrolled. Users should always confirm they are referring to the latest version prior to use. Further assistance is available from Axter Ltd's Technical Support Team, email: technical@axterttd.co.uk, telephone: 01473 935008.

The intended use of this product should be verified with Axter Ltd prior to adoption to ensure its suitability and compliance with specifications, project requirements, industry regulations, legislation, good practice, installation techniques and all other relevant guidance. The user should ensure all necessary precautions are taken during handling, storage, installation and disposal of the product, and all regulations to guarantee safety of people and the environment are observed. Axter Ltd accepts no liability for non-compliant use of this product.