



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

1.1 Product identifier

Trade name: STARCOAT PMMA HP SEALER

- 1.2 Relevant identified uses of the substance or mixture and uses advised against See Section 16
 Application of the substance / the mixture: Sealing
- 1.3 Details of the supplier of the safety data sheet

Supplier:

Axter Ltd

West Road

Ransomes Europark

Ipswich IP3 9SX

Tel: +44 1473 724056 (8.00 am to 5.30 pm Monday to Friday – not 24 hours)

Email: info@axterltd.co.uk

www.axter.co.uk

Emergency telephone number:

Tel: +44 1473 724056 (8.00 am to 5.30 pm Monday to Friday - not 24 hours)

In the event of a medical enquiry regarding this product, please contact your doctor or local hospital accident and emergency department.

*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 CLP regulation.

Hazard pictograms



GHS02



GHS07

Signal word Danger

Hazard determining components of labelling:

Methyl methacrylate

2-ethylhexyl acrylate

Fatty acid, C 18 - unsaturated, dimers, reaction products with N, N-dimethyl-1, 3-propanediamine

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 surfaces. - No smoking.

P261 Avoid breathing in vapours.

P280 Wear protective gloves/ eye protection.

P303+P361+P353 IF ON SKIN (or hair): Immediately remove all contaminated clothing.

Rinse skin with water/shower.

P312 Call a doctor if you feel unwell.

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

Additional information:

EUH204 contains isocyanates. May produce an allergic reaction.

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 non-hazardous 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: 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	≥2.5-<10%	
CAS: 63225-53-6 EINECS: 264-036-0	2-[[(butylamino)carbonyl]oxy]ethyl acrylate Skin Irrit. 2, H315; Eye Irrit. 2, H319	≥2.5-<10%	
CAS: 162627-17-0 EC number: 605-296-0	Fatty acid, C 18 - unsaturated, dimers, reaction products with N, N-dimethyl-1,3-propanediamine Skin Sens. 1, H317	≥0.1-≤0.5%	

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 and lie them down.

Involve doctor immediately.

After inhalation:

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

Take affected persons into fresh air and keep quiet.

Seek medical treatment.

Supply fresh air or oxygen; call for doctor.

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 Corticold inhalatives (e.g. Ventolair).

*Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.

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. Note that vapour can travel and cause inflammation some distance away.

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

Ensure good ventilation of fumes in the workplace; at least 7-fold air changes 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.

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, 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

80-62-6- methyl methacrylate (25-50%)

Ingredients with limit values that require monitoring in the workplace:

WEL Short-term value: 416 mg/m³, 100 ppm

Long-term value: 208 mg/m³, 50 ppm

112945-52-5 Synthetic, amorphous, pyrogenic silica (≤2.5%)

TWA Short-term value: 6 mg/m³

Long-term value: 2.4 mg/m³

DNELs				
80-62-6 methyl methacrylate				
Inhalative	DNEL (worker) DNEL (population)	210 mg/m³ (Long-term - local effects) 210 mg/m³ (Long-term – systemic effects) Long-term 74.3 mg/ m³ (Long-term - systemic effects) 105 mg/m³ (Long-term - local effects)		
103-11-72 ethylhexyl acrylate				
Dermal	DNEL	242 μg/cm² (Employee / Industrial / Commercial) Long-term and short-term		
Dermal	DNEL	37.5 mg/m³ (Employee / Industrial / Commercial)		
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)			
103-11-72 ethylhexyl acrylate				
Ground	2.3 mg/l (Soil microorganisms) 1 mg/l (ground)			
PNEC Water	0.0023 mg/kg (oral intake) 0.126 mg/l (sediment) 0.002727 mg/l (freshwater)			

Additional information: The lists valid at the time were used as the 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 end of work.

Keep away from foodstuffs, beverages and food.

Respiratory protection:

Ensure good ventilation.

In case of brief exposure or low pollution or inside a building use respiratory filter device filter type A1. In case of intensive or longer exposure use air recycling, self-contained respiratory protective device A2.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Select glove material taking into consideration 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 to ensure they are in good condition.

Due to lack of test data 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 gloves to be used once only 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: Grey
Odour: Ester-like

Odour threshold: Not determined.

pH-value: Not determined.

Change in condition

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

Flash point: 12 °C (DIN EN ISO 3680)

Flammability (solid, gas) Not determined.

Decomposition temperature: Not determined. **Igniting temperature:** 252 °C (MMA)

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

Explosive properties: Product is not explosive. However, formation of explosive air/

vapour mixtures are possible.

Explosion limits:

Lower: 1.7 Vol % (MMA) **Upper:** 12.5 Vol % (MMA)

Vapour pressure at 20°C: 38.7 hPa (MMA)

Density at 20 °C: 1.06 g/cm³ (EN ISO 2811-1)

Relative densityNot determined.Vapour densityNot determined.Evaporation 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:

Dynamic at 20°C 1200 mas (EN ISO 2555)

Solvent content:

Organic solvents: 0.2% VOC (EC) 0.16% Solids content: 46.5 %

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: avoid direct sunlight

10.3 Possibility of hazardous reactions

Exothermic reaction.

Reacts with peroxides and other radical forming substances.

10.4 Conditions to avoid: No further relevant information available.

10.5 Incompatible materials:

Reactions with peroxides and other free-radical generators. No further information available.

10.6 Hazardous decomposition products:

No decomposition if used according to specifications.

No dangerous composition products used according to specification.

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) n Drinking water, 6-2000 ppm Findings: no toxic effects >5000 mg/kg (rabbit) 25 ppm (rat) 25 – 400 ppm Findings: damage to mucous membranes in the nose at 400 ppm 29.8 mg/l (rat)		
103-11-7 2-ethylhexyl acrylate				
Oral Dermal	LD50 LC50	4,435 mg/kg (rat) BASF-Test) 7,520 mg/kg (hare)		
63225-53-6 2-[[(butylamino)carbonyl]oxy]ethyl acrylate				
Oral	LD50	>2,000 mg/kg (rat) (literature)		

Primary irritant effect:

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation Based on available data, the classification criteria are not met.

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.

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

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

Reproductive toxicity Based 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-Kühn)	
Aquatic toxicity		
80-62-6 methyl methacrylate		
EC50/48h LC50/96h ErC50/72h 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	
103-11-7-2-ethylhexyl acrylate		
Other (28d)	>1,000 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.	
EC50/48h (static)	1.3 mg/l (daphnia magna) (OECD-Richtline 202) Part 1	
LC50/96h (static)	1.81 mg/l (Rainbow trout) (OECD 203)	
NOEC/21d	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). Toxic effect results relate to the analytically determined concentration.	

12.2 Persistence and degradability No further relevant information available.

Other information: the product is easily biodegradable.

12.3 Bioaccumulative potential. 2-EHA.

Can be accumulated in organisms. Bioaccumulation 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. Where the substance gets into the environment it should remain in the compartment into which it has leaked.

Additional ecological information:

BOD5-value: 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 (EW C). 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 waste. Do not allow product to reach sewage system.

Waste disposal key:

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

Liquid product:

080111 * paint and varnish containing organic solvents or other dangerous substances

080199 waste nec

Cured product residues:

080112 paint and varnish wastes other than those mentioned in 080111

080410 adhesive waste adhesives and sealants other than those mentioned in 080409

European waste catalogue 080111 * (recommended)

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

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):

EMS Number: F-E,S-E **Stowage Category** A

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

Transport category 3 **Tunnel restriction code** E

Remarks: Classification according to viscosity clause (2.2.3.1.4)

>450 litres Packing group II

IMDG

Limited quantities (LQ) 5L

Excepted quantities (EQ) Code: E1

Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml Classification according to viscosity clause (2.3.2.3)

Remarks: >30 litres packing group II

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 $5000\ t$ 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 handling and precautions must take place before use and 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)

 $IMDG: International\ Maritime\ Code\ for\ Dangerous\ Goods\ IATA:\ International\ Air\ Transport\ Association$

IATA: International Air Transport Association

 $\hbox{GHS: Globally Harmonised System of Classification and Labelling of Chemicals}$

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)

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

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, Hazard 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.

^{*} Data compared to the previous version altered.