

Safety Data Sheet

STARCOAT PMMA SELF-LEVELLING MORTAR (2016)

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

1.1 Product identifier

Trade name: STARCOAT PMMA SELF-LEVELLING MORTAR (2016)

UFI: SRM-E889-7009-52D7

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

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

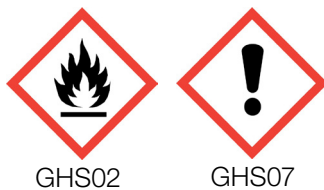
Flam. Liq. 3	H226 Flammable liquid and vapour.
Skin Irrit.2	H315 Causes skin irritation
Skin Sens.1	H317 May cause an allergic skin reaction
STOT SE 3	H335 May cause respiratory irritation

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



Signal word Danger

Hazard determining components of labelling:

Methyl methacrylate
2-Ethylhexyl acrylate
Diethanol-p-toluidine
2-hydroxyethyl acrylate

Hazard statements

H226	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. No smoking.
P261	Avoid breathing vapours.
P280	Wear protective gloves/ eye protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P312	Call a POISON CENTER/ doctor if you feel unwell.
P403+P235	Store in a well-ventilated place. Keep cool.

2.3 Other hazards

Results of PBT and vPvB assessment

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

vPvB: Does not meet the vPvB-criteria of Annex XIII of UK 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: 202-615-1 Reg.nr.: 01-2119452498-28	Methyl methacrylate	≥25-≤50%
	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335	
CAS: 103-11-7 EINECS: 203-080-7 Reg.nr.: 01-2119453158-37	2-Ethylhexyl acrylate	≥10-<25%
	Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335; Aquatic Chronic 3, H412	
Reg.nr.: 01-2119979579-10	Diethanol-p-toluidine	≥0.1-<1%
	Eye Dam. 1, H318 Acute Tox. 4, H302 Skin Irrit. 2, H315; Skin Sens. 1, H317 Aquatic Chronic 3, H412	

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:

Immediately remove any clothing soiled by the product.

Take affected persons out of danger area and lay 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.

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

On inhaling, also with missing illness signs, give inhalatives Corticoid (e. g. , Ventolair).

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

Carbon dioxide, 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 (NO_x)

Steams are more difficult than air.

Vapours may accumulate in low or confined areas and travel a considerable distance to a 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 when heated. Cool containers exposed to heat with water. Emergency cooling must be provided in the event of an ambient fire. Keep container tightly closed to prevent heat build up (pressure increase). Avoid heat.

Not giving remnants back into the storage vessels.

Providing good ventilating/suction at work. At least 7-fold air changes per hour

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.

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

Max. Storage temperature 30 ° C

Storage in a collecting room is required.

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

8.1 Control parameters

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

Ingredients with limit values that require monitoring in the workplace:

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

WEL	Short-term value: 416 mg/m ³ , 100 ppm Long-term value: 208 mg/m ³ , 50 ppm
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DNELs		
80-62-6 Methyl metacrylate		
Inhalative	DNEL (worker)	210 mg/m ³ (Long-term - local effects)
	DNEL (population)	210 mg/m ³ (Long-term - systemic effects) Long-term 74.3 mg/m ³ (Long-term - systemic effects) 105 mg/m ³ (Long-term - local effects)
103-11-7 2-Ethylhexyl acrylate		
Dermal	DNEL	242 µg/cm ² (Employee / Industrial / Commercial) Long-term and short-term
Inhalative	DNEL	37.5 mg/m ³ (Employee / Industrial / Commercial)
Diethanol-p-toluidine		
Dermal	DNEL (worker_	1.4 mg/kg bw/day (Long-term - systemic effects)
Inhalative	DNEL (worker)	9.8 mg/m ³ (Long-term - systemic effects)
PNECs		
80-62-6 Methyl metacrylate		
PNEC sediment	1.47 mg/kg dw (ground)	
	5.74 mg/kg dw (freshwater)	
PNEC	0.094 mg/l (seawater)	
	0.94 mg/l (freshwater)	
103-11-7 2-Ethylhexyl acrylate		
Boden	2.3 mg/l (Soil microorganisms)	
	1 mg/l (ground)	
PNEC	0.0023 mg/kg (oral intake)	
Water	0.126 mg/l (sediment)	
	0.002727 mg/l (freshwater)	
Diethanol-p-toluidine		
PNEC sediment	0.12 mg/kg dw (seawater)	
	1.2 mg/kg dw (water)	
PNEC	0.005 mg/l (seawater)	
	0.048 mg/l (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 feed.

Do not inhale gases / fumes / aerosols.

Respiratory protection

Ensure good ventilation.

In interiors and at transgression of the limiting values breath filtration device: Filter type A1 using an air recycling independent breathing apparatus at high concentrations A2 at an intensive or longer outline.

Hand protection

Protective gloves

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

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

Butyl rubber gloves - butyl e.g. KCL BUTOJET

Recommended thickness of the material: ≥ 0.7 mm

Breakthrough time: ≥ 480 min

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.

Protective gloves according EN 374.

Suitable material: nitrile.

Penetration time of glove material

Our Recommendation is mainly on a one-time use as a short-term protection Liquid splashes. For other applications, you should contact a glove manufacturer.

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

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

Butyl rubber, BR.

Not suitable are gloves made of the following materials:

Leather gloves.

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****Appearance:**

Form: Fluid

Colour Various colours.

Odour After MMA.

Odour threshold Not determined.

pH value Not determined. Mixture is non-polar/aprotic.

Change in condition	
Melting point/freezing point	Undetermined.
Initial boiling point and boiling range	101°C (CAS: 80-62-6 methyl methacrylate)
Flash point	23 °C (DIN EN ISO 3680)
Flammability	Flammable.
Auto-ignition temperature	252 °C (CAS: 103-11-7 2-ethylhexyl acrylate)
Ignition 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 g/cm ³ (EN ISO 2811-1)
Evaporation rate	Not 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	600-900 mPas (EN ISO 2555)
Kinematic at 20 °C	600-900 mm ² /s (EN ISO 2431)
Solvent content	
Organic solvents	0 %
VOC (EC)	≥0.03-<0.04 %
Solids content	No further relevant information available.

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:

Avoid heat. Avoid direct sunlight.

10.5 Incompatible materials:

Reactions with peroxides and other free-radical generators.

10.6 Hazardous decomposition products:

No dangerous decomposition products used according to specifications.

Additional information:

Emergency procedures will vary depending on individual circumstances. The customer should have a contingency plan to the workplace may be 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:		
CAS: 80-62-6 Methyl methacrylate		
Oral	LD50	>5,000 mg/kg (rat) (OECD 401) 2,000 ppm (rat) n drinking water, 6-2000 ppm Findings: No toxic effects
	NOEAL	
Dermal	LD50	>5,000 mg/kg (rat)
	LD50	>5,000 mg/kg (hare)
	LC50	>5,000 mg/kg (rabbit)
Inhalative	LD50	>5,000 mg/kg (hare)
	NOAEL	25 ppm (rat) 25 - 400 ppm Findings: Damage to mucous membranes in the nose at 400 ppm
	LC50/4	29.8 mg/l (rat)
103-11-7 2-Ethylhexyl acrylate		
Oral	LD50	4,435 mg/kg (rat) (BASF-Test)
Dermal	LD50	4,435 mg/kg (rat)
	LD50	7,522 mg/kg (hare)
	LC50	7,520 mg/kg (hare)
	LD50	7,522 mg/kg (hare)
Diethanol-p-toluidine		
Oral	LD50	500 mg/kg (ATE)

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.

Additional toxicological information:**Toxiokinetics, metabolism and distribution**

The drug is metabolized rapidly (MMA)

Acute effects (acute toxicity, irritation and corrosivity)**80-62-6 Methyl methacrylate**

Oral	LD50	>5,000 mg/kg (rat)
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103-11-7 2-Ethylhexyl acrylate

Oral	LD50	4,435 mg/kg (rat)
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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)
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103-11-7 2-Ethylhexyl acrylate

EC50/21d	0.5 mg/l (daphnia)
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Aquatic toxicity**80-62-6 Methyl methacrylate**

EC50/48h	69 mg/l (daphnia magna) (OECD 202)
LC50/96h	>79 mg/l (Rainbow trout) (OECD 203)
ErC50/72h	>110 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
NOEC/72h	>110 mg/l (Selenastrum capricornutum) (OECD 201)
EC50/72h	>110 mg/l (Selenastrum capricornutum) (OECD 201)
NOEC	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	1.3 mg/l (daphnia) 1.3 mg/l (daphnia magna) (OECD-Richtline 202)
LC50/96h	Part 1 1.81 mg/l (fish) 1.81 mg/l (Rainbow trout) (OECD 203)
ErC50/72h	1.71 mg/l (alga)
NOEC/21d	0.19 mg/l (daphnia) 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

Easily biodegradable.

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.

2-EHA: The product floats on water and does not dissolve. Absorption in soil is not likely.

Additional ecological information:

COD-value: 2-EHA

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

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

Recommendation

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

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

Uncured product residues are special waste.

Cured product residues are not hazardous waste.

Uncleaned packaging:

Recommendation:

This product (liquid) 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 or ID number

ADR, ADN, IMDG

VOID

IATA

UN1263

14.2 UN proper shipping name

ADR, ADN, IMDG

VOID

IATA

PAINT

14.3 Transport hazard class(es)

ADR, ADN, IMDG

Class

VOID

IATA



Class

3 (Flammable liquids)

Label

3

14.4 Packing group

ADR, IMDG

VOID

IATA

III

14.5 Environmental hazards:

Marine pollutant

No

14.6 Special precautions for user

Not applicable.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

Transport/Additional information:

ADR

Remarks

> 450 l: 3 F1, III (2.2.3.1.5)

IMDG

Remarks

> 450 l: 3, III (2.3.2.5)

UN "Model Regulation":

VOID

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 is listed.

Regulated poisons

None of the ingredients is listed.

Reportable explosives precursors

None of the ingredients is listed.

Reportable poisons

None of the ingredients is 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:

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.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

Contact

www.axter.co.uk

Training hints

Teaching about hazards and precautions to hand the operating instructions (Technical Rule 555).
Instruction must take place before the start of employment 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 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
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitisation – 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

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