

# Safety Data Sheet

According to 1907/2006/EC Article 31

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## STARCOAT PMMA FILLER

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

- 1.1 Product identifier**  
**Trade name:** STARCOAT PMMA FILLER
- 1.2 Relevant identified uses of the substance or mixture and uses advised against** See Section 16  
**Application of the substance / the mixture** Putty
- 1.3. Details of the supplier of the safety data sheet**  
**Manufacturer/Supplier** AXTER LTD, West Road, Ransomes Europark, Ipswich IP3 9SX UK  
**Tel: +44 (0) 1473 724056, 8.00 am to 5.30 pm, Monday to Friday**  
Email: info@axterltd.co.uk
- 1.4 Emergency telephone** + 44 1473 724056 (NOT 24HRS - 8am - 5.30pm, Monday to Friday)  
In the event of a medical enquiry involving 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



GHS02 flame

Flam. Liq. 3

H226 Flammable liquid and vapour.



GHS07

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** Warning

#### Hazard-determining components of labelling:

Methyl methacrylate

2-ethylhexyl 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 surfaces. - 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/shower.

P312

Call a POISON CENTRE/ doctor if you feel unwell.

P403+P233

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 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	methyl methacrylate Flam. Liq. 2, H225; Skin Irrit.2, H315; Skin Sens.1, H317; STOT SE 3, H335	10-25%
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-<25%

**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 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 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:** CO<sub>2</sub>, 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 result in inflammation at a distance.

**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 a fire nearby; keep container tightly closed to prevent heat build up (pressure increase). Avoid heat.  
Do not refill residue into storage receptacles.  
Ensure good ventilation/exhaustion at the workplace. at least 7 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.  
 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:		
<b>80-62-6- methyl methacrylate (10-25%)</b>		
WEL	Short-term value: 416 mg/m <sup>3</sup> , 100 ppm Long-term value: 208 mg/m <sup>3</sup> , 50 ppm	
<b>112945-52-5 Synthetic, amorphous, pyrogen silica (2.5-10%)</b>		
TWA	Short-term value: 6 mg/m <sup>3</sup> Long-term value: 2.4 mg/m <sup>3</sup>	
DNELs		
<b>80-62-6 methyl methacrylate</b>		
Inhalative	DNEL (worker)	2.10 mg/m <sup>3</sup> (Long-term - local effects) 2.10 mg/m <sup>3</sup> (Long-term - systemic effects) Long-term
	DNEL (population)	74.3 mg/kg (Long-term - systemic effects) 105 mg/m <sup>3</sup> (Long-term - local effects)

103-11-7 2-ethylhexyl acrylate		
Dermal	DNEL	242 µg/cm <sup>3</sup> (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)		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		
Ground		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 (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.

### Respiratory protection

Ensure good ventilation.  
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.

### 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:**

Pasty

**Colour:**

Varies according to colouring

**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

**Flash point:**

28°C

**Flammability (solid, gaseous):**

Not applicable

**Ignition temperature:**

252°C

**Decomposition temperature:**

Not determined

**Self-igniting:**

Product is not self-igniting

**Explosive properties:**

Product is not explosive. However, formation of explosive air/vapour mixtures are possible. Not determined.

<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined
<b>Upper:</b>	Not determined
<b>Vapour pressure:</b>	Not determined
<b>Density at 20 °C:</b>	1.34 g/cm <sup>3</sup> (EN ISO 2811-1)
<b>Relative density</b>	Not determined
<b>Vapour density</b>	Not determined
<b>Evaporation rate</b>	Not determined
<b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
<b>Partition coefficient</b>	
<b>(n-octanol/water):</b>	log Pow: 4.29 (2-EHA); (25°C, OECD 107) log Pow: 1.38 (MMA)
<b>Viscosity:</b>	
<b>Dynamic at 20 °C:</b>	4500 mPas (EN ISO 2555)
<b>Kinematic</b>	Not determined
<b>Solvent content:</b>	
<b>Organic solvents</b>	0.1%
<b>VOC (EC)</b>	0.07%
<b>Solids content:</b>	72.0%

**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:** Reactions 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:		
ATE (Acute Toxicity Estimates)		
Inhalative	LC50/4h	> 563 mg/l (rat)
80-62-6 methyl methacrylate		
Oral	LD50 NOAEL	>5000 mg/kg (rat) (OECD 401) 2000 ppm (rat) Drinking water, 6-2000 ppm Findings: no toxic effects
Dermal	LC50	>5000 mg/kg (rabbit)
Inhalative	NOAEL	25 ppm (rat) 24 – 400 ppm Findings: damage to mucous membranes in the nose at 400 ppm
	LC50/4h	29.8 mg/l (rat)
21645-51-2 aluminium hydroxide		
Oral	LD50 NOAEL	>2000 mg/kg (rat) 30 mg/kg (rat) chronic
Inhalative	LC50 NOAEC	> 7.6 mg/l (rat) 70 mg/m <sup>3</sup> (rat)
103-11-7 2-ethylhexyl acrylate xide		
Oral	LD50	4435 mg/kg (rat) (BASF Test)
Dermal	LC50	7520 mg/kg (hare)

### Primary irritant effect:

#### Skin corrosion/irritation

Causes skin irritation and irritability.

#### 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.

#### Toxiokinetics, metabolism and distribution

The drug is metabolized rapidly (MMA).

#### Acute effects (acute toxicity, irritation and corrosivity)

Not tested.

#### 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.

<b>STOT-single exposure</b>	May cause respiratory irritation.
<b>STOT-repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	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)
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)
ECr50/72h	>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)
NOEL	9.4 mg/l (Danio rerio) (OECD 210) Fish early life stage test, 35 days 37 mg/l (daphnia magna) (OECD 211) 21 days
21645-51-2 aluminium hydroxide	
EC50	> 100 mg/l (daphnia magna)
LC50	> 100 mg/l (Selenastrum capricornutum) > 100 mg/l (Salmo trutta)
103-11-7 2-ethylhexyl acrylate	
Other (28d)	>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.
EC50/48h (static)	1.3 mg/l (daphnia magna) (OECD 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) 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; 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: 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:

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

**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, ADN, IMDG**

Void

**IATA**

UN1263

**14.2 UN proper shipping name**

**ADR, AND, IMDG**

Void

**IATA**

PAINT

**14.3 Transport hazard class(es)**

**ADR, IMDG, IATA**

**Class**

Void

**IATA**

	<b>Class</b>	3 flammable liquids
	<b>Label</b>	3
<b>14.4</b>	<b>Packing Group</b>	
	<b>ADR, IMDG</b>	Void
	<b>IATA</b>	III
<b>14.5</b>	<b>Environmental Hazards:</b>	
	<b>Marine pollutant</b>	No
<b>14.6</b>	<b>Special precautions for user</b>	Not applicable
<b>14.7</b>	<b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable
	<b>Transport / Additional information:</b>	
	<b>ADR</b>	
	<b>Remarks</b>	Classification according to viscosity clause (2.2.3.1.5) > 450 l:3 F1, III
	<b>IMDG</b>	
	<b>Remarks</b>	Classification according to viscosity clause (2.3.2.5) > 450 l:3, III
	<b>UN "Model Regulation"</b>	Void

**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
H335	May cause respiratory irritation
H412	Harmful to aquatic life with long lasting effects

**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.

**Department issuing MSDS:** Division product safety

**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)

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

LD50: 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

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](http://www.gestis.de)

[www.echa.eu](http://www.echa.eu)

[logkow.cisti.nrc.ca](http://logkow.cisti.nrc.ca)

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