

# Safety Data Sheet

**STARCOAT PMMA THIX  
(2016)**

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

### 1.1 Product identifier

**Trade name:** STARCOAT PMMA THIX (2016)

### 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

**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](mailto:info@axterltd.co.uk)  
Website: [www.axter.co.uk](http://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



GHS02



GHS07

**Signal word** Warning.

#### Hazard determining components of labelling:

Methyl methacrylate

2-Ethylhexyl acrylate

Diethanol-p-toluidine

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

#### 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 non-hazardous additions.

| Dangerous components:                                           |                                                                                                                |              |
|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------|
| CAS: 80-62-6<br>EINECS: 202-615-1<br>Reg.nr.: 01-2119452498-28  | Methyl methacrylate                                                                                            | ≥10 - ≤25%   |
|                                                                 | Flam. Liq. 2, H225<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>STOT SE 3, H335                             |              |
| CAS: 103-11-7<br>EINECS: 203-080-7<br>Reg.nr.: 01-2119453158-37 | 2-Ethylhexyl acrylate                                                                                          | ≥10 - <25%   |
|                                                                 | Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>STOT SE 3, H335;<br>Aquatic Chronic 3, H412                       |              |
| EC number: 911-490-9<br>Reg.nr.: 01-2119979579-10               | Diethanol-p-toluidine                                                                                          | ≥0.1 - ≤0.5% |
|                                                                 | Eye Dam. 1, H318<br>Acute Tox. 4, H302<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Aquatic Chronic 3, H412 |              |
| CAS: 162627-17-0<br>Reg.nr.: 01-2119970640-38                   | Fatty acid, C 18 - unsaturated, dimers, reaction products with N,<br>N-dimethyl-1,3-propanediamine             | ≥0.1 - ≤0.5% |
|                                                                 | Skin Sens. 1, H317                                                                                             |              |

**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 dioxide (CO<sub>2</sub>)

Nitrogen oxides (NO<sub>x</sub>)

**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.

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.

Fumes can combine with air to form an explosive mixture.

### 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.

### 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 at the workplace: |                                                                          |                                                                                                |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 80-62-6 Methyl methacrylate (10-25%)                                    |                                                                          |                                                                                                |
| WEL                                                                     | Short-term value: 416 mg/m³, 100ppm<br>Long-term value: 208 mg/m³, 50ppm |                                                                                                |
| DNELs                                                                   |                                                                          |                                                                                                |
| 80-62-6 Methyl methacrylate                                             |                                                                          |                                                                                                |
| Inhalative                                                              | DNEL                                                                     | 208 mg/m³ (worker)                                                                             |
|                                                                         | DNEL (worker)                                                            | 210 mg/m³ (long term - local effects)<br>210 mg/m³ (long term - systemic effects)<br>Long-term |
|                                                                         | DNEL (population)                                                        | 74.3 mg/m³ (long term - systemic effects)<br>105 mg/m³ (long term - local effects)             |

| 103-11-7 2-Ethylhexyl acrylate |                                |                                                                                                 |
|--------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------|
| Dermal                         | DNEL                           | 242 µg/cm² (Employee / Industrial / Commercial)                                                 |
| Inhalative                     | DNEL                           | Long-term and short-term<br>37.5 mg/m³ (Employee / Industrial / Commercial)<br>38 mg/m³ (human) |
| Diethanol-p-toluidine          |                                |                                                                                                 |
| Dermal                         | DNEL (worker)                  | 1.4 mg/kg bw/day (Long-term - systemic effects)                                                 |
| Inhalative                     | DNEL (worker)                  | 9.8 mg/m³ (Long-term - systemic effects)                                                        |
| PNECs                          |                                |                                                                                                 |
| 80-62-6 Methyl methacrylate    |                                |                                                                                                 |
| PNEC                           | 1.48 mg/kg                     |                                                                                                 |
| PNEC sediment                  | 1.47 mg/kg dw (ground)         |                                                                                                 |
|                                | 5.74 mg/kg dw (freshwater)     |                                                                                                 |
| PNEC                           | 10 mg/l                        |                                                                                                 |
|                                | 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                           | 1 mg/kg                        |                                                                                                 |
|                                | 0.0023 mg/kg (oral intake)     |                                                                                                 |
| Water                          | 0.126 mg/l (sediment)          |                                                                                                 |
|                                | 0.002727 mg/l (freshwater)     |                                                                                                 |
| PNEC                           | 2.3 mg/l                       |                                                                                                 |
| 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 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.  
Indoors and where limit values are exceeded, use a filtering respirator: filter type A1; for high concentrations, use A2; for intense or prolonged exposure, use a self-contained breathing apparatus.

**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.

**General recommendation**

The usage time of the protective gloves is approx. 50% of the penetration time measured in the laboratory.

**Material of gloves**

Butyl rubber gloves - butyl e.g. KCL BUTOJET

Recommended thickness of the material:  $\geq 0.7$  mm

Breakthrough time:  $\geq 480$  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.

**Gloves made of the following material are suitable for permanent contact in work areas without heightened risk of injury (e.g. Laboratory)**

Butyl rubber, BR

**Gloves made of the following materials are suitable for permanent contact**

Butyl rubber, BR

**Gloves made of the following materials are not suitable**

Leather gloves

**Eye 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 | Various colours. |
| Odour  | Ester-like.      |

|                                               |                                                                                                               |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Odour threshold                               | Not determined.                                                                                               |
| pH-value                                      | Mixture is non-polar/aprotic.                                                                                 |
| <b>Change in condition:</b>                   |                                                                                                               |
| Melting point/freezing point                  | Undetermined.                                                                                                 |
| Initial boiling point and boiling range       | 101°C (80-62-6 methyl methacrylate)                                                                           |
| Flash point                                   | 35°C (DIN EN ISO 3680)                                                                                        |
| Flammability                                  | Highly flammable.                                                                                             |
| Auto-ignition temperature                     | 252°C (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<br>Not determined. |
| <b>Explosion limits:</b>                      |                                                                                                               |
| Lower                                         | 1.7 Vol % (80-62-6 Methyl methacrylate)                                                                       |
| Upper                                         | 12.5 Vol % (80-62-6 Methyl methacrylate)                                                                      |
| Vapour pressure                               | Not determined.                                                                                               |
| Density at 20°C                               | 1.21 g/cm <sup>3</sup> (EN ISO 2811-1)                                                                        |
| Evaporation rate                              | No data available.                                                                                            |
| Solubility in / Miscibility with water        | Not miscible or difficult to mix.                                                                             |
| <b>Partition coefficient: n-octanol/water</b> |                                                                                                               |
| Log Pow                                       | 4.29 (2-EHA); (25 °C, OECD 107)                                                                               |
| Log Pow                                       | 1.38 (MMA)                                                                                                    |
| <b>Viscosity:</b>                             |                                                                                                               |
| Dynamic at 20°C                               | 5,000 mPas (EN ISO 2555)                                                                                      |
| Kinematic at 20°C                             | 4,132 mm <sup>2</sup> /s (EN ISO 2431)                                                                        |
| <b>Solvent content:</b>                       |                                                                                                               |
| Organic solvents                              | 0.1 %                                                                                                         |
| VOC (EC)                                      | ≥0.07 - <0.12 %                                                                                               |
| Solids content                                | 66.0 %                                                                                                        |
| <b>9.2 Other information</b>                  | 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 depend on the circumstances. The user must have an emergency response plan in place at the workplace.

**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: |                      |                                                                                                                |
|---------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------|
| 21645-51-2 Aluminium hydroxide              |                      |                                                                                                                |
| Oral                                        | LD50<br>NOAEL        | >2,000 mg/kg (rat)<br>30 mg/kg (rat)<br>chronisch                                                              |
| Inhalative                                  | LC50<br>NOAEC        | 7.6 mg/l (rat)<br>70 mg/m³ (rat)                                                                               |
| 80-62-6 Methyl methacrylate                 |                      |                                                                                                                |
| Oral                                        | LD50<br>NOAEL        | >5,000 mg/kg (rat) (OECD 401)<br>2,000 ppm (rat)<br>n drinking water, 6-2000 ppm<br>Findings: No toxic effects |
|                                             | LD50                 | >5,000 mg/kg (rat)                                                                                             |
| Dermal                                      | LD50<br>LC50<br>LD50 | >5,000 mg/kg (hare)<br>>5,000 mg/kg (rabbit)<br>>5,000 mg/kg (hare)                                            |
| Inhalative                                  | NOAEL                | 25 ppm (rat)<br>25 - 400 ppm<br>Findings: Damage to mucous membranes in the nose at 400 ppm                    |
|                                             | LC50 / 4h            | 29.8 mg/l (rat)                                                                                                |
| 103-11-7 2-Ethylhexyl acrylate              |                      |                                                                                                                |
| Oral                                        | LD50<br>LD50         | 4,435 mg/kg (rat) (BASF-Test)<br>4,435 mg/kg (rat)                                                             |
| Dermal                                      | LD50<br>LC50<br>LD50 | 7,522 mg/kg (hare)<br>7,520 mg/kg (hare)<br>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 is a harmful concentration in the air quickly been reached. At high concentrations can occur narcotic effect.

**Subacute to chronic toxicity**

Not tested.

**Additional toxicological information****Toxicokinetics, 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) |
|------|------|--------------------|

**103-11-7 2-Ethylhexyl acrylate**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 4,435 mg/kg (rat) |
|------|------|-------------------|

**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<br>EC50 / 21d                                                                                  | 100 mg/l (Pseudomonas putida) (Cell proliferation inhibition test, Bringmann-Kühn)<br>49 mg/l (daphnia)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 103-11-7 2-Ethylhexyl acrylate                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| EC50 / 21d                                                                                               | 0.5 mg/l (daphnia)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Aquatic toxicity                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 21645-51-2 Aluminium hydroxide                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| EC50<br>LC50                                                                                             | >100 mg/l (daphnia magna)<br>>100 mg/l (Selenastrum capricornutum)<br>>100 mg/l (Salmon)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 80-62-6 Methyl methacrylate                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| EC50<br>EC50 / 48h<br>LC50 / 96h<br>ErC50 / 72h<br>NOEC / 72h<br>NOEC / 21d<br>EC50 / 72h<br>EC0<br>NOEC | 170 mg/l (aquatic algae and cyanobacteria)<br>69 mg/l (daphnia)<br>69 mg/l (daphnia magna) (OECD 202)<br>>79 mg/l (aquatic vertebrates - in vivo)<br>>79 mg/l (Rainbow trout) (OECD 203)<br>>110 mg/l (alga)<br>>110 mg/l (Pseudokirchneriella subcapitata) (OECD 201)<br>49 mg/l (alga)<br>>110 mg/l (Selenastrum capricornutum) (OECD 201)<br>37 mg/l (daphnia)<br>>110 mg/l (Selenastrum capricornutum) (OECD 201)<br>100 mg/l (escherichia coli)<br>9.4 mg/l (Danio rerio) (OECD 210)<br>fish early life stage test, 35 days<br>37 mg/l (daphnia magna) (OECD 211)<br>21 days                                                                                                                                                                                                                       |
| 103-11-7 2-Ethylhexyl acrylate                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Other (28d)<br>EC50 / 48h<br>LC50 / 96h<br>ErC50 / 72h<br>NOEC / 21d<br><br>EC50 / 72h (static)          | >1,000 mg/kg (Soil microorganisms) (OECD 217)<br>The product has not been tested. The statement has been derived from products of a similar structure or composition.<br>1.3 mg/l (daphnia)<br>1.3 mg/l (daphnia magna) (OECD-Richtline 202)<br>Part 1<br>1.81 mg/l (aquatic vertebrates - in vivo)<br>1.81 mg/l (fish)<br>1.81 mg/l (Rainbow trout) (OECD 203)<br>1.71 mg/l (alga)<br>0.19 mg/l (daphnia)<br>0.19 mg/l (daphnia magna)<br>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.<br>1.71 mg/l (scenedesmus subspicatus) (OECD 201)<br>The information regarding toxic effects refers 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: Binding to the solid phase (soil, sediment or sewage sludge) is not expected. The substance evaporates slowly from the water's surface into the atmosphere. If the substance is released into the environment, it tends to remain in the compartment into which it has been released.

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

**Additional ecological information:****COD-value:**

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.

**12.5 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).

**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.

**Recommendation**

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 | <b>UN number or ID number</b>                                                       |                      |
|      | ADR                                                                                 | Void                 |
|      | ADN                                                                                 | Void                 |
|      | IMDG                                                                                | Void                 |
|      | IATA                                                                                | UN1263               |
| 14.2 | <b>UN proper shipping name</b>                                                      |                      |
|      | ADR                                                                                 | Void                 |
|      | ADN                                                                                 | Void                 |
|      | IMDG                                                                                | Void                 |
|      | IATA                                                                                | PAINT                |
| 14.3 | <b>Transport hazard class(es)</b>                                                   |                      |
|      | ADR                                                                                 | Void                 |
|      | ADN                                                                                 | Void                 |
|      | IMDG                                                                                | Void                 |
|      | IATA                                                                                |                      |
|      |  |                      |
|      | Class                                                                               | 3 Flammable liquids. |
|      | Label                                                                               | 3                    |
| 14.4 | <b>Packing group</b>                                                                |                      |
|      | ADR                                                                                 | Void                 |
|      | IMDG                                                                                | Void                 |
|      | IATA                                                                                | III                  |
| 14.5 | <b>Environmental hazards</b>                                                        |                      |
|      | Marine pollutant                                                                    | No                   |
| 14.6 | <b>Special precautions for user</b>                                                 | Not applicable.      |
| 14.7 | <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>           |                      |
|      |                                                                                     | Not applicable.      |
|      | <b>Transport/Additional information</b>                                             |                      |
|      | ADR                                                                                 |                      |
|      | Remarks                                                                             | > 450 l: 3 F1, III   |
|      | IMDG                                                                                |                      |
|      | Remarks                                                                             | > 450 l: 3, III      |
|      | 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 precursors

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

The information given in this Safety Data Sheet is given in good faith and based on our current knowledge. We reserve the right to update and modify this document as necessary. The information in this sheet does not constitute a risk assessment for the workplace. While every effort is made to ensure that the information is accurate and up to date, it is not intended to form part of a contract or to imply any additional liability, which is expressly excluded.

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. |

## 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:

ICAO: International Civil Aviation Organisation

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (UK REACH)

PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

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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