

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

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

### 1.1 Product identifier

**Product name:** ARIGI UV HD2 BLACK INK

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Identified uses:** Printing ink**Uses advised against:** Reserved for industrial and professional use.

### 1.3 Details of the supplier of the safety data sheet

**Manufacturer**Agfa NV  
Septestraat 27  
2640 Mortsel  
Belgium**Telephone:** +32 3 4442111  
**Fax:** +32 3 4447094  
**E-mail:** electronic.sds@agfa.com**National Supplier**Agfa NV - UK Branch  
Units 1 & 2 Ashbourne Court,  
Manners Industrial Estate  
DE7 8EF Ilkeston  
United Kingdom**Telephone:** +44 (0)20 8 231 4616  
**Fax:** +44 (0)20 8 231 4951  
**E-mail:** electronic.sds@agfa.com

### 1.4 Emergency telephone number:

Emergency telephone number (Belgium) : +32 3 4443333 (24h/24h)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

**Classification according to Regulation (EC) No 1272/2008 as amended.****Health Hazards**

Skin irritation	Category 2	H315: Causes skin irritation.
Serious eye damage	Category 1	H318: Causes serious eye damage.
Skin sensitizer	Category 1	H317: May cause an allergic skin reaction.
Toxic to reproduction	Category 1B	H360: May damage fertility or the unborn child.

**Environmental Hazards**

Chronic hazards to the aquatic environment	Category 3	H412: Harmful to aquatic life with long lasting effects.
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### 2.2 Label Elements

**Contains:** Oxybis(methyl-2,1-ethanediyl) diacrylate  
2-(2-Vinyloxyethoxy) ethyl acrylate  
Ethyl 4-dimethylaminobenzoate  
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide  
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

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**Signal Word:** Danger

**Hazard Statement(s):**  
 H315: Causes skin irritation.  
 H318: Causes serious eye damage.  
 H317: May cause an allergic skin reaction.  
 H360: May damage fertility or the unborn child.  
 H412: Harmful to aquatic life with long lasting effects.

## Precautionary Statements

**Prevention:**  
 P201: Obtain special instructions before use.  
 P273: Avoid release to the environment.  
 P280: Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**  
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308+P313: IF exposed or concerned: Get medical advice/attention.  
 P310: Immediately call a POISON CENTER or doctor/ physician.

## 2.3 Other hazards

Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria Not fulfilling vPvB (very persistent/very bioaccumulative) criteria

### Endocrine Disruption-Toxicity

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### Endocrine Disruption-ecotoxicity

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
Oxybis(methyl-2,1-ethanediyl) diacrylate	50 - <100%	57472-68-1	260-754-3	01-2119484629-21-XXXX;	No data available.	
2-(2-Vinyloxyethoxy) ethyl acrylate	5 - <10%	86273-46-3	451-690-9	01-2119441302-54-XXXX;	No data available.	

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2-Isopropyl-9H-thioxanthen-9-one	1 - <5%	5495-84-1	226-827-9	No data available.	No data available.	
2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol	1 - <5%	67906-98-3		No data available.	No data available.	
Ethyl 4-dimethylamino benzoate	2.5 - <5%	10287-53-3	233-634-3	No data available.	No data available.	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	1 - <3%	75980-60-8	278-355-8	01-2119972295-29-XXXX;	No data available.	
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	1 - <5%	162881-26-7	423-340-5	01-2119489401-38-0001;	No data available.	
hexamethylene diacrylate; hexane-1,6-diol diacrylate	0.1 - <1%	13048-33-4	235-921-9	01-2119484737-22-XXXX;	No data available.	
2,6-di-tert-Butyl-p-cresol	0.1 - <0.25%	128-37-0	204-881-4	01-2119555270-46-0000;	Aquatic Toxicity (Acute): 1; Aquatic Toxicity (Chronic): 1	#
Cetrimonium chloride	0.01 - <0.1%	112-02-7	203-928-6	No data available.	Aquatic Toxicity (Acute): 10; Aquatic Toxicity (Chronic): 1	

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

# This substance has workplace exposure limit(s).

## This substance is listed as SVHC.

## Classification

Chemical name	Classification	Notes
Oxybis(methyl-2,1-ethanediyl) diacrylate	Classification: Skin Sens.: 1: H317; Eye Dam.: 1: H318; Skin Irrit.: 2: H315;	No data available.

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2-(2-Vinyloxyethoxy) ethyl acrylate	Classification: Skin Sens.: 1: H317; Acute Tox.: 4: H302; Aquatic Chronic: 3: H412;  Acute toxicity, oral: LD 50: 1,790 mg/kg Acute toxicity, inhalation: LC 50: > 5.04 mg/l Acute toxicity, dermal: LD 50: > 2,000 mg/kg	No data available.
2-Isopropyl-9H-thioxanthen-9-one	Classification: STOT RE: 2: H373;	No data available.
2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol	Classification: Skin Irrit.: 2: H315; Eye Irrit.: 2: H319;	No data available.
Ethyl 4-dimethylaminobenzoate	Classification: Repr.: 1B: H360; Aquatic Chronic: 2: H411;	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Classification: Repr.: 2: H361f; Skin Sens.: 1: H317; Aquatic Chronic: 2: H411;	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Classification: Skin Sens.: 1A: H317; Aquatic Chronic: 4: H413;	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	Classification: Skin Irrit.: 2: H315; Eye Irrit.: 2: H319; Skin Sens.: 1: H317; Aquatic Acute: 1: H400; Aquatic Chronic: 2: H411;	No data available.
2,6-di-tert-Butyl-p-cresol	Classification: Aquatic Acute: 1: H400; Aquatic Chronic: 1: H410;	No data available.
Cetrimonium chloride	Classification: Acute Tox.: 4: H302; Acute Tox.: 3: H311; Skin Corr.: 1C: H314; Eye Dam.: 1: H318; Aquatic Acute: 1: H400; Aquatic Chronic: 1: H410;  Acute toxicity, oral: LD 50: 861 mg/kg Acute toxicity, dermal: LD 50: 528 mg/kg	No data available.

CLP: Regulation No. 1272/2008.

The full text for all H-statements is displayed in section 16.

## SECTION 4: First aid measures

**General:** Get medical attention if symptoms occur.

### 4.1 Description of first aid measures

**Inhalation:** Move to fresh air.

**Skin Contact:** Get medical attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.

**Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

**Ingestion:** Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

**Personal Protection for First-aid Responders:** CAUTION! First aid personnel must be aware of own risk during rescue! See Section 8 of the SDS for Personal Protective Equipment.

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**4.2 Most important symptoms and effects, both acute and delayed:** See section 11 of the SDS for additional information on health hazards.

**4.3 Indication of any immediate medical attention and special treatment needed**

**Hazards:** See section 11 of the SDS for additional information on health hazards.

**Treatment:** Treat symptomatically.

## SECTION 5: Firefighting measures

**General Fire Hazards:** No unusual fire or explosion hazards noted.

**5.1 Extinguishing media**

**Suitable extinguishing media:** Extinguish with foam, carbon dioxide, dry powder or water fog.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**5.2 Special hazards arising from the substance or mixture:**

During fire, gases hazardous to health may be formed.

**5.3 Advice for firefighters**

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures:** See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

**6.1.1 For non-emergency personnel:** Use personal protective equipment.

**6.1.2 For emergency responders:** Warn everybody of potential hazards and evacuate if necessary. Use personal protective equipment.

**6.2 Environmental Precautions:** Avoid release to the environment. Prevent entry into waterways, sewer, basements or confined areas. Contact local authorities in case of spillage to drain/aquatic environment. Do not contaminate water sources or sewer.

**6.3 Methods and material for containment and cleaning up:** Prevent further leakage or spillage if safe to do so. Stop the flow of material, if this is without risk. Small Spillages: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Clean surface thoroughly to remove residual contamination. Large Spillages: Dike far ahead of larger spill for later recovery and disposal.

**6.4 Reference to other sections:** See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see section 13 of the SDS.

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## SECTION 7: Handling and storage:

- 7.1 Precautions for safe handling:** Do not get in eyes. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with skin. Avoid contact with eyes, skin, and clothing.
- 7.2 Conditions for safe storage, including any incompatibilities:** Store locked up.
- 7.3 Specific end use(s):** Reserved for industrial and professional use.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control Parameters Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
2,6-di-tert-Butyl-p-cresol	TWA	10 mg/m3	UK. EH40 Workplace Exposure Limits (WELs), as amended (12 2011)

### Biological Limit Values

None of the components have assigned exposure limits.

### DNEL-Values

Critical component	Type	Route of Exposure	Health Warnings	Remarks
Oxybis(methyl-2,1-ethanediyl) diacrylate	Workers	Inhalation	Systemic, long-term; 24.48 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 7.24 mg/m3	Repeated dose toxicity
	Workers	Eyes	Local effect;	No data available
	General population	Eyes	Local effect;	No data available
	Workers	Dermal	Systemic, long-term; 2.77 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 2.08 mg/kg	Repeated dose toxicity
2-(2-Vinyloxyethoxy) ethyl acrylate	Workers	Inhalation	Systemic, long-term; 1.97 mg/m3	Repeated dose toxicity
	General population	Dermal	Systemic, long-term; 0.2 mg/kg	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 0.56 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 0.2 mg/kg	Repeated dose toxicity
	General population	Eyes	Local effect;	No hazard identified
	Workers	Eyes	Local effect;	No hazard identified
2-Isopropyl-9H-thioxanthen-9-one	General population	Inhalation	Systemic, long-term; 0.35 mg/m3	Repeated dose toxicity
	Workers	Eyes	Local effect;	No hazard identified
	Workers	Inhalation	Systemic, long-term; 0.73 mg/m3	developmental toxicity / teratogenicity
	Workers	Dermal	Systemic, long-term; 0.42 mg/kg	developmental toxicity / teratogenicity
	General population	Eyes	Local effect;	No hazard identified
	Ethyl 4-dimethylaminobenzoate	Workers	Inhalation	Systemic, long-term; 1.2 mg/m3
General population		Eyes	Local effect;	No hazard identified
Workers		Eyes	Local effect;	No hazard identified

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	Workers	Dermal	Systemic, long-term; 0.3 mg/kg	Effect on fertility
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Workers	Eyes	Local effect;	No hazard identified
	General population	Eyes	Local effect;	No data available
	Workers	Dermal	Systemic, long-term; 0.233 mg/kg	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 0.822 mg/m3	Repeated dose toxicity
	General population	Eyes	Local effect;	No hazard identified
	General population	Dermal	Systemic, long-term; 83.3 µg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 83.3 µg/kg	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 0.145 mg/m3	Repeated dose toxicity
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	General population	Inhalation	Systemic, long-term; 1.93 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 2.9 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 11.75 mg/m3	Repeated dose toxicity
	Workers	Eyes	Local effect;	No hazard identified
	General population	Eyes	Local effect;	No hazard identified
	Workers	Inhalation	Systemic, long-term; 21 mg/m3	Repeated dose toxicity
	General population	Dermal	Systemic, long-term; 1.67 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 1.67 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, short-term; 1.67 ng/kg	
	General population	Inhalation	Systemic, long-term; 2.61 mg/m3	Repeated dose toxicity
	Workers	Dermal	Systemic, short-term; 4.67 mg/kg	
	Workers	Dermal	Systemic, long-term; 3.33 mg/kg	Repeated dose toxicity
	General population	Inhalation	Systemic, short-term; 2.92 mg/m3	
	General population	Inhalation	Systemic, long-term; 3.92 mg/m3	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 4.67 mg/kg	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 4.2 mg/kg	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 7.84 mg/m3	Repeated dose toxicity
	General population	Dermal	Systemic, short-term; 1.67 mg/kg	
	Workers	Inhalation	Systemic, short-term; 16.46 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 2.92 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, short-term; 7.84 mg/m3	
	Workers	Inhalation	Systemic, long-term; 16.46 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, short-term; 1.93 mg/m3	
	Workers	Dermal	Systemic, short-term; 3.33 mg/kg	
	Workers	Inhalation	Systemic, long-term; 14.8 mg/m3	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 1.5 mg/kg	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 3 mg/kg	Repeated dose toxicity

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	General population	Inhalation	Systemic, long-term; 5.2 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, short-term; 3.92 mg/m3	Repeated dose toxicity
	General population	Dermal	Systemic, long-term; 1.5 mg/kg	Repeated dose toxicity
hexamethylene diacrylate; hexane-1,6-diol diacrylate	General population	Eyes	Local effect;	Low hazard (no threshold derived)
	General population	Inhalation	Systemic, long-term; 7.2 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 24.5 mg/m3	Repeated dose toxicity
	Workers	Eyes	Local effect;	Low hazard (no threshold derived)
	General population	Dermal	Systemic, long-term; 1.66 mg/kg	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 2.77 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 2.1 mg/kg	Repeated dose toxicity
2,6-di-tert-Butyl-p-cresol	Workers	Eyes	Local effect;	No hazard identified
	General population	Inhalation	Systemic, long-term; 0.86 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 3.5 mg/m3	Repeated dose toxicity
	General population	Eyes	Local effect;	No hazard identified
	Workers	Dermal	Systemic, long-term; 0.5 mg/kg	Repeated dose toxicity
	General population	Dermal	Systemic, long-term; 0.25 mg/kg	Repeated dose toxicity
Cetrimonium chloride	General population	Inhalation	Systemic, long-term; 0.98 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 3.32 mg/m3	Repeated dose toxicity
	General population	Eyes	Local effect;	Medium hazard (no threshold derived)
	Workers	Eyes	Local effect;	Medium hazard (no threshold derived)
	General population	Dermal	Systemic, long-term; 2.83 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 2.83 mg/kg	Repeated dose toxicity
	Workers	Dermal	Systemic, long-term; 4.7 mg/kg	Repeated dose toxicity

## PNEC-Values

Critical component	Environmental compartment	PNEC-Values	Remarks
Oxybis(methyl-2,1-ethanediyl) diacrylate	soil	0.001 mg/kg	
	Aquatic (freshwater)	0.003 mg/l	
	Sewage treatment plant	100 mg/l	
	Aquatic (marine water)	0 mg/l	
	freshwater sediment	0.009 mg/kg	
2-(2-Vinyloxyethoxy) ethyl acrylate		0.013 mg/kg	
	Marine sediments	0.001 mg/kg	
	Sewage treatment plant	7.41 mg/l	
	Aquatic (marine water)	0 mg/l	
	Aquatic (freshwater)	0.003 mg/l	
2-Isopropyl-9H-thioxanthen-9-one	soil	0.001 mg/kg	
	Predator	0.333 mg/kg	Oral
	soil	0.003 mg/kg	
	Aquatic (marine water)	0 mg/l	
	Aquatic (freshwater)	0 mg/l	
	Marine sediments	0.001 mg/kg	
	Sewage treatment plant	100 mg/l	
Ethyl 4-dimethylaminobenzoate	freshwater sediment	0.013 mg/kg	
	Predator	740 mg/kg	Oral



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	Aquatic (marine water)	0 mg/l	
	Aquatic (freshwater)	0.002 mg/l	
	soil	0.021 mg/kg	
	Marine sediments	0.011 mg/kg	
	Sewage treatment plant	100 mg/l	
	freshwater sediment	0.113 mg/kg	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	soil	22.2 µg/kg	
	Fresh water	0.00353 mg/l	
	Marine sediments	11.5 µg/kg	
	Marine water	0.00353 mg/l	
	Aquatic (freshwater)	1.4 µg/l	
	Intermittent release	0.0353 mg/l	
	Aquatic (marine water)	0.14 µg/l	
	Sediment-fresh water	0.29 mg/kg	
	freshwater sediment	0.115 mg/kg	
	Soil	0.0557 mg/kg	
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Sewage treatment plant	1 mg/l	
	Aquatic (freshwater)	0.8 µg/l	
	soil	20 mg/kg	
	Aquatic (marine water)	0.8 µg/l	
		1 µg/l	
	freshwater sediment	0.712 mg/kg	
		64 µg/kg	
	Aquatic (marine water)	9 ng/l	
	Marine sediments	0.712 mg/kg	
	soil	12.8 µg/kg	
	Aquatic (freshwater)	90 ng/l	
	Marine sediments	6.4 µg/kg	
	Aquatic (freshwater)	1 µg/l	
hexamethylene diacrylate; hexane-1,6-diol diacrylate	soil	0.094 mg/kg	
	Marine sediments	0.049 mg/kg	
	Aquatic (marine water)	0.001 mg/l	
	Sewage treatment plant	2.7 mg/l	
	freshwater sediment	0.493 mg/kg	
	Aquatic (freshwater)	0.007 mg/l	
2,6-di-tert-Butyl-p-cresol	Predator	8.33 mg/kg	Oral
	freshwater sediment	99.6 µg/kg	
	soil	47.69 µg/kg	
	Aquatic (freshwater)	0.199 µg/l	
	Sewage treatment plant	0.17 mg/l	
	Aquatic (marine water)	0.02 µg/l	
	Marine sediments	9.96 µg/kg	
Cetrimonium chloride	soil	7 mg/kg	
	Aquatic (freshwater)	0.001 mg/l	
	Aquatic (marine water)	0 mg/l	
	Sewage treatment plant	0.4 mg/l	
	Marine sediments	0.927 mg/kg	
	freshwater sediment	9.27 mg/kg	

## 8.2 Exposure controls

### Appropriate Engineering Controls:

Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Individual protection measures, such as personal protective equipment

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<b>General information:</b>	Follow training instructions when handling this material. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
<b>Eye/face protection:</b>	Safety goggles. EN 166.
<b>Hand Protection:</b>	Protective gloves should be used if there is a risk of direct contact or splash.(EN374), Chemical resistant gloves required for prolonged or repeated contact., Butyl rubber (EN374), Glove thickness: > 0.70 mm, Break-through time: > 480 min, Glove thickness: > 0.35 mm, Break-through time: > 60 min, Risk of splashes:, Nitrile rubber., Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable., The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.
<b>Skin and Body Protection:</b>	Safety clothes : long sleeved clothing EN13688
<b>Respiratory Protection:</b>	In case of inadequate ventilation use suitable respirator (EN14387). Seek advice from local supervisor.
<b>Hygiene measures:</b>	Do not get in eyes. Observe good industrial hygiene practices. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Avoid contact with skin. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace.
<b>Environmental Controls:</b>	Do not empty into drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Color:</b>	Black
<b>Odor:</b>	acrylic odor
<b>Odor Threshold:</b>	No data available.
<b>Freezing point:</b>	< 32 °F/< 0 °C
<b>Boiling Point:</b>	> 212 °F/> 100 °C
<b>Flammability:</b>	Not flammable.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Explosive limit - upper:</b>	not applicable
<b>Explosive limit - lower:</b>	not applicable
<b>Flash Point:</b>	> 212 °F/> 100 °C
<b>Self Ignition Temperature:</b>	Not determined.
<b>Decomposition Temperature:</b>	No data available.
<b>pH:</b>	substance/mixture is non-soluble (in water) Not applicable
<b>Viscosity</b>	
<b>Dynamic viscosity:</b>	7 - 9 mPa.s (113 °F/ 45 °C)

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<b>Kinematic viscosity:</b>	6.5 - 8.3 mm <sup>2</sup> /s (113 °F/ 45 °C)
<b>Flow Time:</b>	not applicable
<b>Solubility(ies)</b>	
<b>Solubility in Water:</b>	Insoluble in water
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	Not applicable Mixture
<b>Vapor pressure:</b>	<= 0.04 hPa (77 °F/25 °C)
<b>Relative density:</b>	1.0787
<b>Density:</b>	not applicable
<b>Bulk density:</b>	not applicable
<b>Relative vapor density:</b>	No data available.
<b>Particle characteristics</b>	
<b>Particle Size</b>	not applicable
<b>Distribution:</b>	
<b>Specific surface area:</b>	not applicable
<b>Surface charge/Zeta potential:</b>	not applicable
<b>Assessment:</b>	not applicable
<b>Shape:</b>	not applicable
<b>Crystallinity:</b>	not applicable
<b>Surface treatment:</b>	not applicable
<b>9.2 Other information</b>	
<b>Minimum ignition temperature:</b>	>= 347 °F/>= 175 °C
<b>VOC Content:</b>	EC Directive 1999/13: 0.03 g/l ~0 % (calculated)

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity:</b>	Material is stable under normal conditions.
<b>10.2 Chemical Stability:</b>	Material is stable under normal conditions.
<b>10.3 Possibility of hazardous reactions:</b>	Not known.
<b>10.4 Conditions to avoid:</b>	Avoid heat or contamination.
<b>10.5 Incompatible Materials:</b>	None known.
<b>10.6 Hazardous Decomposition Products:</b>	By heating and fire, harmful vapors/gases may be formed.

## SECTION 11: Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Causes skin irritation. May cause an allergic skin reaction.
<b>Eye contact:</b>	Causes serious eye damage.
<b>Ingestion:</b>	May be ingested by accident. Ingestion may cause irritation and malaise.

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

## 11.1 Information on toxicological effects

### Acute toxicity

#### Oral

<b>Product:</b>	ATEmix: 22,375 mg/kg
<b>Components:</b>	
Oxybis(methyl-2,1-ethanediyl) diacrylate	LD 50 (Rat): 4,626 mg/kg Experimental result, Supporting study
2-(2-Vinyloxyethoxy) ethyl acrylate	LD 50 (Rat): 1,790 mg/kg Experimental result, Supporting study
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	LD 50 (Rat): > 5,000 mg/kg Experimental result, Key study
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	LD 50 (Rat): > 5,000 mg/kg Experimental result, Key study
2,6-di-tert-Butyl-p-cresol	LD 50 (Rat): > 6,000 mg/kg Experimental result, Key study
Cetrimonium chloride	LD 50 (Rat): 861 mg/kg Experimental result, Key study

#### Dermal

<b>Product:</b>	Not classified for acute toxicity based on available data.
<b>Components:</b>	
Oxybis(methyl-2,1-ethanediyl) diacrylate	LD 50 (Rabbit): > 2,000 mg/kg Experimental result, Key study
2-(2-Vinyloxyethoxy) ethyl acrylate	LD 50 (Rat): > 2,000 mg/kg Experimental result, Key study
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-	LD 50 (Rabbit): 3,650 mg/kg Experimental result, Key study

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

diol diacrylate 2,6-di-tert-Butyl-p-cresol	LD 50 (Rat): > 2,000 mg/kg Experimental result, Key study
Cetrimonium chloride	LD 50 (Rabbit): 528 mg/kg Read-across from supporting substance (structural analogue or surrogate), Key study

## Inhalation

**Product:** Not classified for acute toxicity based on available data.

### Components:

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	LC 50 (Rat, 4 h) > 5.04 mg/l Dust, Experimental result, Key study
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	LC 0 (Rat, 7 h) 0.41 mg/l Vapor, Experimental result, Key study
2,6-di-tert-Butyl-p-cresol	RD 50 (Mouse, 30 min) 60 ppm Vapor, Experimental result, Supporting study
Cetrimonium chloride	No data available.

## Repeated dose toxicity

**Product:** No data available.

### Components:

Oxybis(methyl-2,1-ethanediyl) diacrylate	NOAEL (Rat(Female, Male), Oral, 28 - 52 d): 250 mg/kg
2-(2-Vinyloxyethoxy) ethyl acrylate	NOAEL (Rat(Female, Male), Oral, 28 d): 160 mg/kg
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	NOAEL (Rat(Female, Male), Oral, 28 d): 50 mg/kg
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-	No data available.

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

diol diacrylate  
 2,6-di-tert-Butyl-p-cresol NOAEL (Rat(Male), Oral, 76 - 110 Weeks): 70 mg/kg  
 Cetrimonium chloride NOAEL (Rabbit(Female, Male), Dermal, 6.5 - 7 h): 10 mg/kg

**Skin Corrosion/Irritation:**

**Product:** Causes skin irritation.

**Components:**

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	in vivo (Rabbit): Not irritant Experimental result, Key study
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	in vivo (Rabbit): Not irritant Experimental result, Key study
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	in vivo (Rabbit, 24 - 72 h): Category 2 Experimental result, Key study
2,6-di-tert-Butyl-p-cresol	in vivo (Rabbit, 24 - 72 h): Not irritant Experimental result, Key study
Cetrimonium chloride	Irritating

**Serious Eye Damage/Eye Irritation:**

**Product:** Causes serious eye damage.

**Components:**

Oxybis(methyl-2,1-ethanediyl) diacrylate	in vivo (Rabbit, 24 - 72 hrs): Category 1 OECD GHS
2-(2-Vinyloxyethoxy) ethyl acrylate	in vivo (Rabbit): Not irritating EU
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	Irritating

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

2,6-di-tert-Butyl-p-cresol in vivo (Rabbit, 24 - 72 hrs): Not irritating EU  
 Cetrimonium chloride Irritating

## Respiratory or Skin

### Sensitization:

**Product:** May cause an allergic skin reaction.

### Components:

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	Skin sensitization:, in vivo (Guinea pig): Sensitising
2,6-di-tert-Butyl-p-cresol	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Cetrimonium chloride	No data available.

## Germ Cell Mutagenicity

**Product:** Based on available data, the classification criteria are not met.

### In vitro

#### Components:

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

**In vivo****Components:**

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

**Carcinogenicity****Product:**

Not classified The carbon black in this product is embedded in a matrix which minimizes the likelihood of exposure to the pigment.

**Components:**

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.



# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

**Reproductive toxicity****Product:** May damage fertility or the unborn child.**Components:**

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

**Specific Target Organ Toxicity - Single Exposure****Product:** Based on available data, the classification criteria are not met.**Components:**

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

**Specific Target Organ Toxicity - Repeated Exposure****Product:** Based on available data, the classification criteria are not met.

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

**Components:**

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

**Aspiration Hazard****Product:** Based on available data, the classification criteria are not met.**Components:**

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

**11.2 Information on health hazards****Endocrine Disruption**

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

**Product:** The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.;

**Components:**

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

## SECTION 12: Ecological information

**General information:** Contains a substance which causes risk of hazardous effects to the environment.

### 12.1 Toxicity

#### Acute toxicity

#### Remarks:

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

#### Fish

**Product:** No data available.

#### Components

Oxybis(methyl-2,1-ethanediyl) diacrylate	NOAEL (Leuciscus idus, 96 h): 1 mg/l (Static) Experimental result, Key study
2-(2-Vinyloxyethoxy) ethyl acrylate	LC 50 (Leuciscus idus, 96 h): 2.2 mg/l (Static)
	LC 50 (Danio rerio, 96 h): 6.8 mg/l (semi-static) Experimental result, Key study
	LOAEL (Danio rerio, 96 h): 4.6 mg/l (semi-static) Experimental result, Key study
	NOAEL (Danio rerio, 96 h): 2.2 mg/l (semi-static) Experimental result, Key study
2-Isopropyl-9H-	No data available.

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

thioxanthen-9-one	
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	LC 50 (Oryzias latipes, 48 h): +/- 6.53 mg/l (semi-static) Experimental result, Key study
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	LC 50 (96 h): 0.199 mg/l QSAR QSAR, Key study
Cetrimonium chloride	LC 50 (Danio rerio, 96 h): 0.19 - 0.29 mg/l (Static) Experimental result, Key study

## Aquatic Invertebrates

**Product:** No data available.

### Components

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	NOAEL (Daphnia magna, 48 h): 25 mg/l (Static) Experimental result, Key study EC 50 (Daphnia magna, 48 h): 55 mg/l (Static) Experimental result, Key study
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	EC 50 (Daphnia magna, 48 h): 3.53 mg/l (Static) Experimental result, Key study
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	EC 50 (Daphnia magna, 48 h): 0.48 mg/l (Static) Experimental result, Key study
Cetrimonium chloride	EC 50 (Daphnia magna, 48 h): +/- 0.09 mg/l (Static) Read-across from supporting substance (structural analogue or surrogate), Key study

## Toxicity to Aquatic Plants

**Product:** No data available.

### Components

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

## Toxicity to microorganisms

**Product:** No data available.

### Components

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	EC50 (Bacteria, 3 h): > 100 mg/l (OECD-Guideline No.209; 88/302/EEC C.11)
hexamethylene diacrylate; hexane-1,6-diol diacrylate	EC50 (0.5 h): ca. 270 mg/l (OECD-Guideline No.209; 88/302/EEC C.11)
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

## Chronic Toxicity

### Remarks:

Harmful to aquatic life with long lasting effects.

### Fish

**Product:** No data available.

### Components

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
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# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

## Aquatic Invertebrates

**Product:** No data available.

### Components

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

## Toxicity to Aquatic Plants

**Product:** No data available.

### Components

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

## 12.2 Persistence and Degradability

### Biodegradation

**Product:** No data available.

### Components

Oxybis(methyl-2,1-ethanediyl) diacrylate	(28 d): 90 - 100 % Detected in water. Experimental result, Key study
2-(2-Vinyloxyethoxy) ethyl acrylate	(28 d): > 84.4 % Detected in water. Experimental result, Key study OECD 301D Readily biodegradable 82 %
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	(28 d): > 0 - 10 % Detected in water. Experimental result, Key study
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	(28 d): 60 - 70 % Detected in water. Experimental result, Key study
2,6-di-tert-Butyl-p-cresol	(28 d): 4.5 % Detected in water. Experimental result, Key study
Cetrimonium chloride	(28 d): 93.5 % Detected in water. Experimental result, Key study

### BOD/COD Ratio

**Product** No data available.

### Components

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

## 12.3 Bioaccumulative potential

**Product:** No data available.

### Components

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Cyprinus carpio, Bioconcentration Factor (BCF): 22 - 32 Aquatic sediment Experimental result, Key study
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	Bioconcentration Factor (BCF): 598.4 Aquatic sediment Estimated by calculation, Weight of Evidence study
Cetrimonium chloride	Bioconcentration Factor (BCF): 70.8 Aquatic sediment Estimated by calculation, Key study

## 12.4 Mobility in soil

**Product:** No data available.

### Components

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.



# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

## 12.5 Results of PBT and vPvB assessment

**Product:** Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria Not fulfilling vPvB (very persistent/very bioaccumulative) criteria

### Components

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

## 12.6 Endocrine disrupting properties

**Product:** The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

**Components:**

Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
2-Isopropyl-9H-thioxanthen-9-one	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Ethyl 4-dimethylaminobenzoate	No data available.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
hexamethylene diacrylate; hexane-1,6-diol diacrylate	No data available.
2,6-di-tert-Butyl-p-cresol	No data available.
Cetrimonium chloride	No data available.

**12.7 Other adverse effects:** Harmful to aquatic life with long lasting effects.**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

<b>General information:</b>	Disposal considerations (including disposal of contaminated containers or packaging) Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
<b>Disposal methods:</b>	Discharge, treatment, or disposal may be subject to national, state, or local laws.  Since emptied containers retain product residue, follow label warnings even after container is emptied.
<b>Contaminated Packaging:</b>	Dispose in accordance with all applicable regulations.

**SECTION 14: Transport information****ADR**

14.1 UN Number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es)	Not regulated.
14.4 Packing Group:	Not regulated.
14.5 Environmental Hazards:	Not regulated.
14.6 Special precautions for user:	Not regulated.

**RID**

14.1 UN Number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es)	Not regulated.

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

- 14.4 Packing Group: Not regulated.
- 14.5 Environmental Hazards: Not regulated.
- 14.6 Special precautions for user: Not regulated.

## IMDG

- 14.1 UN Number: Not regulated.
- 14.2 UN Proper Shipping Name: Not regulated.
- 14.3 Transport Hazard Class(es): Not regulated.
- 14.4 Packing Group: Not regulated.
- 14.5 Environmental Hazards: Not regulated.
- 14.6 Special precautions for user: Not regulated.

## IATA

- 14.1 UN Number: Not regulated.
- 14.2 UN Proper Shipping Name: Not regulated.
- 14.3 Transport Hazard Class(es): Not regulated.
- 14.4 Packing Group: Not regulated.
- 14.5 Environmental Hazards: Not regulated.
- 14.6 Special precautions for user: Not regulated.

**14.7 Maritime transport in bulk according to IMO instruments:** not applicable

## SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

### EU Regulations

**EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC):** none

**EU. REACH Annex XIV, Substances Subject to Authorization:** none

**Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:**

Chemical name	CAS-No.	Concentration
Octamethylcyclotetrasiloxane	556-67-2	- <0.1%

**Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances:** none

**Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex II, New Substances:** none

**EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended:** none

**EU. Directive 2010/75/EU on Industrial Emissions (IPPC), Annex II, L 334/17:**

Chemical name	CAS-No.
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8
Octamethylcyclotetrasiloxane	556-67-2

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I,**

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

**Part 1 as amended:** none

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended:** none

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended:** none

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended:** none

**Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.:** none

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.:**

Chemical name	CAS-No.	Concentration
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	1.0 - 10%
Octamethylcyclotetrasiloxane	556-67-2	0 - <0.1%

**EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I:**

Classification	Lower-tier Requirements	Upper-tier Requirements
E1. Hazardous to the aquatic environment	100 t	200 t

**EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants:**

Chemical name	CAS-No.	Concentration
blue organic pigment	147-14-8	0.1 - 1.0%

**Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:**

Chemical name	CAS-No.	Concentration
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	1.0 - 10%
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	1.0 - 10%
hexamethylene diacrylate; hexane-1,6-diol diacrylate	13048-33-4	0.1 - 1.0%
Phenol, 4-methoxy-	150-76-5	0 - <0.1%
Octamethylcyclotetrasiloxane	556-67-2	0 - <0.1%

**15.2 Chemical safety assessment:**

Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

### Abbreviations and acronyms:

ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
ADNR	Accord européen relatif au transport international des marchandises Dangereuses par la

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

	Rhin
AGW	Arbeitsplatzgrenswerte (DE)
ATEmix	Acute toxicity estimate of the mixture
CLP	Classification, Labelling and Packaging of substances and mixtures
CMR	carcinogenicity, mutagenicity and toxicity for reproduction
DNEL	Derived No Effect Level
EC0	Effective Concentration 0%
EC5	Effective Concentration 5%
EC10	Effective Concentration 10%
EC50	Median Effective Concentration
EC100	Effective Concentration 100%
EH40 WEL	Workplace Exposure Limit (GB)
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IC50	inhibitory concentration 50%
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
IUCLID	International Uniform Chemical Information Database
LC50	Lethal Concentration 50%
LC100	Lethal Concentration 100%
LOAEL	Lowest Observed Adverse Effect Level
LDL0	Lethal Dose (minimum found to be lethal)
LD50	Lethal Dose 50%
MAC	Maximaal Aanvaardbare Concentratie (NL)
MAK	Maximale Arbeitsplatz-Konzentration
NOAEL	No Observed Adverse Effect Level
NOEL	No Observed Effect Level
NOEC	No Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Transport of Dangerous Goods by Rail
STEL	Short Term Exposure Limit
TLV	Treshold Limit Value
TRGS900	Arbeitsplatzgrenswerte (DE)
TWA	Time Weighted Average
VOC	Volatile Organic Compound
vPvB	very Persistent and very Bioaccumulative substance

**Key literature references and sources for data:** Safety Data Sheet from the supplier.  
 ECHA

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]**

Classification according to Regulation (EC) No 1272/2008 as amended.	Classification procedure
Skin irritation, Category 2	Calculation method
Serious eye damage, Category 1	Calculation method
Skin sensitizer, Category 1	Calculation method
Toxic to reproduction, Category 1B	Calculation method

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

Chronic hazards to the aquatic environment, Category 3	Calculation method
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### Wording of the H-statements in section 2 and 3

H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H360	May damage fertility or the unborn child.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

**Training information:** Follow training instructions when handling this material.

**Disclaimer:** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.