

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## ULTRASTAR UV LED FP-8320 Silver

Version 2.0      Revision Date: 22.04.2022      SDS Number: 102000032669      Print Date: 23.04.2022  
Date of first issue: 28.02.2020

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

#### 1.1 Product identifier

Trade name : ULTRASTAR UV LED FP-8320 Silver  
Product code : 025920U30

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

Use of the Substance/Mixture : Colouring agents, pigments

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

Company : ECKART GmbH  
Guntersthal 4  
91235 Hartenstein  
  
Telephone : +499152770  
  
Telefax : +499152777008  
  
E-mail address of person responsible for the SDS : msds.eckart@altana.com

#### 1.4 Emergency telephone number

NCEC: +44 1235 239670 (Europe)  
Call and response in your language is possible.  
Contract no.: ECKART29003-NCEC.

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

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### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**  
P261 Avoid breathing mist or vapours.  
P264 Wash skin thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ eye protection/ face protection.  
**Response:**  
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.  
P391 Collect spillage.

Hazardous components which must be listed on the label:

Propylidynetrimethanol, ethoxylated, esters with acrylic acid  
Bisphenol A epoxy acrylate  
monoalkyl or monoaryl or monoalkylaryl esters of acrylic acid  
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate  
ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate  
Glycerol, propoxylated, esters with acrylic acid  
hexamethylene diacrylate  
2-Propenoic acid, 1,1'-[(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)]] ester,  
reaction products with diethylamine  
2-ethylhexyl acrylate  
2,2-bis(acryloyloxymethyl)butyl acrylate

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Hazardous components

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Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification REGULATION (EC) No 1272/2008	Concentration (% w/w)
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	28961-43-5 500-066-5	Eye Irrit. 2; H319 Skin Sens. 1; H317	>= 10 - < 20
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2- propen-1-yl)oxy]-, ether with 2,2- bis(hydroxymethyl)-1,3- propanediol (4:1)	51728-26-8 500-111-9 01-2119969962-19	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 2; H411	>= 10 - < 20
Bisphenol A epoxy acrylate	55818-57-0 500-130-2	Skin Sens. 1; H317 Aquatic Chronic 2; H411	>= 10 - < 20
monoalkylor monoaryl or monoalkylaryl esters of acrylic acid	64194-22-5 264-727-7 607-133-00-9	Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1A; H317 STOT SE 3; H335 Aquatic Chronic 2; H411	>= 10 - < 20
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate	66492-51-1 266-380-7	Skin Irrit. 2; H315 Skin Sens. 1B; H317 Aquatic Chronic 2; H411	>= 2.5 - < 10
ethyl phenyl(2,4,6- trimethylbenzoyl)phosphinate	84434-11-7 282-810-6	Skin Sens. 1; H317 Aquatic Chronic 2; H411	>= 2.5 - < 10
Glycerol, propoxylated, esters with acrylic acid	52408-84-1 500-114-5	Eye Irrit. 2; H319 Skin Sens. 1; H317	>= 1 - < 10
hexamethylene diacrylate	13048-33-4 235-921-9 607-109-00-8 01-2119484737-22	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411	>= 2.5 - < 10
aluminium powder (stabilised)	7429-90-5 231-072-3 013-002-00-1 01-2119529243-45	Flam. Sol. 1; H228	>= 1 - < 10
2-Propenoic acid, 1,1'-[(1- methyl-1,2- ethanediyl)bis[oxy(methyl-2,1- ethanediyl)]] ester, reaction products with diethylamine	111497-86-0	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317	>= 1 - < 10
2-ethylhexyl acrylate	103-11-7 203-080-7 607-107-00-7 01-2119453158-37	Skin Irrit. 2; H315 Skin Sens. 1; H317 STOT SE 3; H335	>= 0.1 - < 1

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2,2-bis(acryloyloxymethyl)butyl acrylate	15625-89-5 239-701-3 607-111-00-9	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	$\geq 0.25 - < 1$
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For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General advice : Move the victim to fresh air.  
Do not leave the victim unattended.  
  
Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : Remove to fresh air.  
If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with soap and plenty of water.  
  
If skin irritation persists, call a physician.  
If on skin, rinse well with water.  
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
  
Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

#### 4.2 Most important symptoms and effects, both acute and delayed

- Risks : Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
May cause respiratory irritation.

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

This information is not available.

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media : Dry sand  
Special powder against metal fire

Unsuitable extinguishing media : ABC powder  
Carbon dioxide (CO<sub>2</sub>)  
Water  
Foam

High volume water jet

#### 5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Contact with water liberates extremely flammable gas (hydrogen).

Do not allow run-off from fire fighting to enter drains or water courses.

#### 5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.  
Use personal protective equipment.  
Use personal protective equipment.

#### 6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

#### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.

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Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For personal protection see section 8.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Advice on safe handling : Do not breathe vapours/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Dispose of rinse water in accordance with local and national regulations.  
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Hygiene measures : When using do not eat or drink. When using do not smoke.  
Wash hands before breaks and at the end of workday.

### 7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition - No smoking. Keep container closed when not in use.
- Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.
- Advice on common storage : Do not store near acids.  
Do not store together with oxidizing and self-igniting products.  
Keep away from oxidizing agents and strongly acid or alkaline materials.  
Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
- Further information on : No decomposition if stored and applied as directed.
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storage stability

### 7.3 Specific end use(s)

This information is not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
aluminium powder (stabilised)	7429-90-5	TWA (Inhalable)	10 mg/m <sup>3</sup>	GB EH40
Further information	The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m <sup>-3</sup> 8-hour TWA of inhalable dust or 4 mg.m <sup>-3</sup> 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.			
		TWA (Respirable fraction)	4 mg/m <sup>3</sup>	GB EH40
Further information	The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m <sup>-3</sup> 8-hour TWA of inhalable dust or 4 mg.m <sup>-3</sup> 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.			
		TWA (inhalable dust)	10 mg/m <sup>3</sup>	GB EH40
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m <sup>-3</sup> 8-hour TWA of inhalable dust or 4 mg.m <sup>-3</sup> 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable			

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	dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.
	TWA (Respirable dust) 4 mg/m <sup>3</sup> GB EH40
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m <sup>-3</sup> 8-hour TWA of inhalable dust or 4 mg.m <sup>-3</sup> 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.

### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Workers	Skin contact	Long-term systemic effects	10.5 mg/kg
	Workers	Inhalation	Long-term systemic effects	37 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic effects	0.48 mg/kg
	Consumers	Inhalation	Long-term systemic effects	4.9 mg/m <sup>3</sup>
	Consumers	Oral	Long-term systemic effects	1.39 mg/kg
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with	Workers	Inhalation	Long-term systemic effects	0.88 mg/m <sup>3</sup>



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2,2-bis(hydroxymethyl)-1,3-propanediol (4:1)				
	Workers	Dermal	Long-term systemic effects	0.5 mg/kg
Bisphenol A epoxy acrylate	Workers	Inhalation	Long-term systemic effects	1.17 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	33 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0.29 mg/m <sup>3</sup>
	Consumers	Dermal	Long-term systemic effects	16.67 mg/kg
	Consumers	Oral	Long-term systemic effects	0.17 mg/kg
monoalkyl or monoaryl or monoalkylaryl esters of acrylic acid	Workers	Inhalation	Long-term systemic effects	5.88 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	0.83 mg/kg
	Consumers	Inhalation	Long-term systemic effects	1.45 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic effects	0.42 mg/kg
	Consumers	Ingestion	Long-term systemic effects	0.42 mg/kg
ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate	Workers	Skin contact	Long-term systemic effects	1.7 mg/kg
	Workers	Inhalation	Long-term systemic effects	5.88 mg/m <sup>3</sup>
Glycerol, propoxylated, esters with acrylic acid	Workers	Inhalation	Long-term systemic effects	16.22 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	1.92 mg/kg
	Consumers	Inhalation	Long-term systemic effects	4.87 mg/m <sup>3</sup>
	Consumers	Dermal	Long-term systemic effects	1.15 mg/kg
	Consumers	Oral	Long-term systemic effects	1.39 mg/kg
hexamethylene diacrylate	Workers	Inhalation	Long-term systemic effects	24.48 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	2.77 mg/kg
	Consumers	Ingestion	Long-term systemic effects	2.08 mg/kg
	Consumers	Skin contact	Long-term systemic effects	1.66 mg/kg
	Consumers	Inhalation	Long-term systemic effects	7.24 mg/m <sup>3</sup>

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aluminium powder (stabilised)	Workers	Inhalation	Long-term local effects	3.72 mg/m <sup>3</sup>
	Consumers	Oral	Long-term systemic effects	3.95 mg/kg
	Workers	Inhalation	Long-term systemic effects	3.72 mg/m <sup>3</sup>
2,2-bis(acryloyloxymethyl) butyl acrylate	Workers	Skin contact	Long-term systemic effects	404 mg/kg
	Workers	Inhalation	Long-term systemic effects	17.1 mg/m <sup>3</sup>
	Consumers	Ingestion	Long-term systemic effects	0.5 mg/kg
	Consumers	Skin contact	Long-term systemic effects	42 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0.87 mg/m <sup>3</sup>

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Soil	0.00644 mg/kg
	Fresh water	0.00195 mg/l
	Fresh water sediment	0.038 mg/kg
	STP	10 mg/l
	Marine water	0.000195 mg/l
	Marine sediment	0.0038 mg/kg
	Intermittent Release	0.00195 mg/l
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1)	Soil	0.0078 mg/kg
	Fresh water	0.00176 mg/l
	Fresh water sediment	0.017 mg/kg
	Marine water	0.000176 mg/l
	Marine sediment	0.0017 mg/kg
	STP	4 mg/l
	Bisphenol A epoxy acrylate	Fresh water
Marine water		0.01 mg/l
Intermittent Release		1 mg/l
Fresh water sediment		35.8 mg/kg
Marine sediment		3.58 mg/kg
STP		10 mg/l
Soil		7.1 mg/kg
monoalkylor monoaryl or monoalkylaryl esters of acrylic acid	Fresh water	0.001 mg/l
	Marine water	0 mg/l

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	STP	2.7 mg/l
	Fresh water sediment	0.031 mg/kg
	Marine sediment	0.003 mg/kg
	water (intermittent release)	0.012 mg/l
Glycerol, propoxylated, esters with acrylic acid	Fresh water	0.0057 mg/l
	Marine water	0.0005 mg/l
	Fresh water sediment	0.0169 mg/kg
	Marine sediment	0.0017 mg/kg
	STP	10 mg/l
	Soil	0.0011 mg/kg
hexamethylene diacrylate	Soil	0.094 mg/kg
	Fresh water	0.007 mg/l
	Marine water	0.001 mg/l
	STP	2.7 mg/l
	Marine sediment	0.049 mg/kg
aluminium powder (stabilised)	Fresh water	0.0749 mg/l
	clarification plant	20 mg/l
2,2-bis(acryloyloxymethyl)butyl acrylate	Soil	0.0029 mg/kg
	Fresh water	0.00087 mg/l
	Fresh water sediment	0.017 mg/kg
	Marine water	0.000087 mg/l
	Marine sediment	0.0017 mg/kg
	STP	6.25 mg/l
	Secondary Poisoning	10 mg/kg

### 8.2 Exposure controls

#### Personal protective equipment

Eye protection : Goggles

Tightly fitting safety goggles  
Wear face-shield and protective suit for abnormal processing problems.

Hand protection

Remarks

: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection

: Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection

: Use suitable breathing protection if workplace concentration requires.

#### Environmental exposure controls

Water

: The product should not be allowed to enter drains, water courses or the soil.

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### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Appearance	: liquid
Colour	: silver
Odour	: characteristic
Odour Threshold	: No data available
pH	: 6 - 8 Concentration: 100 %
Freezing point	: No data available
Boiling point/boiling range	:
Flash point	: > 100 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Self-ignition	: No data available
Auto-ignition temperature	: No data available
Smoldering temperature	: No data available
Decomposition temperature	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: No data available

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Bulk density : No data available

Solubility(ies)  
Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Decomposition temperature : No data available

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Flow time : No data available

### 9.2 Other information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No decomposition if stored and applied as directed.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Contact with acids and alkalis may release hydrogen.

No decomposition if stored and applied as directed.

### 10.4 Conditions to avoid

Conditions to avoid : Do not allow evaporation to dryness.

No data available

### 10.5 Incompatible materials

Materials to avoid : Acids  
Bases  
Oxidizing agents

### 10.6 Hazardous decomposition products

Contact with water or humid air : This information is not available.

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Thermal decomposition : This information is not available.

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity

Not classified based on available information.

##### Product:

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: Calculation method

##### Components:

##### **monoalkyl or monoaryl or monoalkylaryl esters of acrylic acid:**

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after short term inhalation.

##### **ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate:**

Acute oral toxicity : (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 401

Acute dermal toxicity : (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 402

##### **hexamethylene diacrylate:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : (Rat): 0.14 mg/l  
Exposure time: 7 h

Acute dermal toxicity : LD50 (Rabbit): 3,650 mg/kg  
Method: OECD Test Guideline 402

##### **aluminium powder (stabilised):**

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

##### **Skin corrosion/irritation**

Causes skin irritation.

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### **Product:**

Remarks: May cause skin irritation and/or dermatitis.

### **Components:**

#### **monoalkyl or monoaryl or monoalkylaryl esters of acrylic acid:**

Result: Skin irritation

#### **ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate:**

Remarks: May cause skin irritation and/or dermatitis.

#### **hexamethylene diacrylate:**

Result: Skin irritation

#### **2-Propenoic acid, 1,1'-[(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)]] ester, reaction products with diethylamine:**

Result: Skin irritation

#### **2-ethylhexyl acrylate:**

Result: Skin irritation

#### **2,2-bis(acryloyloxymethyl)butyl acrylate:**

Result: Skin irritation

### **Serious eye damage/eye irritation**

Causes serious eye irritation.

### **Product:**

Remarks: May cause irreversible eye damage.

### **Components:**

#### **Propylidynetrimethanol, ethoxylated, esters with acrylic acid:**

Result: Irritating to eyes.

#### **monoalkyl or monoaryl or monoalkylaryl esters of acrylic acid:**

Result: Eye irritation

#### **ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate:**

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

#### **Glycerol, propoxylated, esters with acrylic acid:**

Result: Eye irritation

#### **hexamethylene diacrylate:**

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Result: Eye irritation

**2-Propenoic acid, 1,1'-[(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)]] ester, reaction products with diethylamine:**

Result: Eye irritation

**2,2-bis(acryloyloxymethyl)butyl acrylate:**

Result: Eye irritation

**Respiratory or skin sensitisation**

**Skin sensitisation**

May cause an allergic skin reaction.

**Respiratory sensitisation**

Not classified based on available information.

**Product:**

Remarks: Causes sensitisation.

**Components:**

**Propylidynetrimethanol, ethoxylated, esters with acrylic acid:**

Result: May cause sensitisation by skin contact.

Remarks: Causes sensitisation.

May cause sensitisation of susceptible persons by skin contact.

**Bisphenol A epoxy acrylate:**

Result: May cause sensitisation by skin contact.

**monoalkyl or monoaryl or monoalkylaryl esters of acrylic acid:**

Result: The product is a skin sensitiser, sub-category 1A.

**ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate:**

Result: May cause sensitisation by skin contact.

**Glycerol, propoxylated, esters with acrylic acid:**

Result: May cause sensitisation by skin contact.

**hexamethylene diacrylate:**

Result: May cause sensitisation by skin contact.

**2-Propenoic acid, 1,1'-[(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)]] ester, reaction products with diethylamine:**

Result: May cause sensitisation by skin contact.

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### **2-ethylhexyl acrylate:**

Result: May cause sensitisation by skin contact.

### **2,2-bis(acryloyloxymethyl)butyl acrylate:**

Result: May cause sensitisation by skin contact.

### **Germ cell mutagenicity**

Not classified based on available information.

### **Carcinogenicity**

Not classified based on available information.

### **Reproductive toxicity**

Not classified based on available information.

### **STOT - single exposure**

May cause respiratory irritation.

### **Components:**

#### **monoalkyl or monoaryl or monoalkylaryl esters of acrylic acid:**

Exposure routes: Inhalation

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

### **2-ethylhexyl acrylate:**

Assessment: May cause respiratory irritation.

### **STOT - repeated exposure**

Not classified based on available information.

### **Aspiration toxicity**

Not classified based on available information.

### **Further information**

#### **Product:**

Remarks: No data available

---

## SECTION 12: Ecological information

### 12.1 Toxicity

#### **Components:**

#### **Bisphenol A epoxy acrylate:**

#### **Ecotoxicology Assessment**

Short-term (acute) aquatic : Toxic to aquatic life.

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hazard

Long-term (chronic) aquatic hazard : Toxic to aquatic life with long lasting effects.

### monoalkyl or monoaryl or monoalkylaryl esters of acrylic acid:

#### Ecotoxicology Assessment

Long-term (chronic) aquatic hazard : Harmful to aquatic life with long lasting effects.

### ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate:

#### Ecotoxicology Assessment

Long-term (chronic) aquatic hazard : Toxic to aquatic life with long lasting effects.

### hexamethylene diacrylate:

M-Factor (Short-term (acute) aquatic hazard) : 1

#### Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Very toxic to aquatic life.

Long-term (chronic) aquatic hazard : Toxic to aquatic life with long lasting effects.

### 2,2-bis(acryloyloxymethyl)butyl acrylate:

#### Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Very toxic to aquatic life.

Long-term (chronic) aquatic hazard : Very toxic to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

#### Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or

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very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

### 12.6 Other adverse effects

#### **Product:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Toxic to aquatic life with long lasting effects.

#### **Components:**

##### **ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Toxic to aquatic life with long lasting effects.

##### **Glycerol, propoxylated, esters with acrylic acid:**

Additional ecological information : No data available

##### **2-ethylhexyl acrylate:**

Additional ecological information : No data available

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## SECTION 13: Disposal considerations

European Waste Catalogue : 08 03 12 - waste ink containing dangerous substances

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

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## SECTION 14: Transport information

### 14.1 UN number

ADR : UN 3082

IMDG : UN 3082

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**IATA** : UN 3082

### 14.2 UN proper shipping name

**ADR** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
(hexane-1,6-diol diacrylate)

**IMDG** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
(hexane-1,6-diol diacrylate)

**IATA** : Environmentally hazardous substance, liquid, n.o.s.  
(hexane-1,6-diol diacrylate)

### 14.3 Transport hazard class(es)

**ADR** : 9

**IMDG** : 9

**IATA** : 9

### 14.4 Packing group

**ADR**  
Packing group : III  
Classification Code : M6  
Hazard Identification Number : 90  
Labels : 9  
Tunnel restriction code : (-)

**IMDG**  
Packing group : III  
Labels : 9  
EmS Code : F-A, S-F

**IATA (Cargo)**  
Packing instruction (cargo aircraft) : 964  
Packing instruction (LQ) : Y964  
Packing group : III  
Labels : Miscellaneous

**IATA (Passenger)**  
Packing instruction (passenger aircraft) : 964  
Packing instruction (LQ) : Y964  
Packing group : III  
Labels : Miscellaneous

### 14.5 Environmental hazards

**ADR**  
Environmentally hazardous : yes

**IMDG**  
Marine pollutant : yes

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### IATA (Passenger)

Environmentally hazardous : yes

### IATA (Cargo)

Environmentally hazardous : yes

### 14.6 Special precautions for user

Remarks : For single packagings <=5L / 5 kg, or combination packagings containing inner packagings <= 5L / 5 kg net per inner packaging, SV375 ADR, 2.10.2.7 IMDG-Code, A197 IATA-DGR may be applied.

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

Not applicable for product as supplied.

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## SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

UK REACH List of substances subject to authorisation (Annex XIV) : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:  
Number on list 3  
Propylidynetrimethanol, ethoxylated, esters with acrylic acid (Number on list 3)  
Bisphenol A epoxy acrylate (Number on list 3)  
monoalkylor monoaryl or monoalkylaryl esters of acrylic acid (Number on list 3)  
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate (Number on list 3)  
ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate (Number on list 3)  
Glycerol, propoxylated, esters with

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acrylic acid (Number on list 3)  
hexamethylene diacrylate (Number on list 3)  
aluminium powder (stabilised) (Number on list 40)  
2-Propenoic acid, 1,1'-[(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)]] ester, reaction products with diethylamine (Number on list 3)  
2-ethylhexyl acrylate (Number on list 3)  
2,2-bis(acryloyloxymethyl)butyl acrylate (Number on list 3)

### 15.2 Chemical safety assessment

## SECTION 16: Other information

### Full text of H-Statements

H228 : Flammable solid.  
H315 : Causes skin irritation.  
H317 : May cause an allergic skin reaction.  
H319 : Causes serious eye irritation.  
H332 : Harmful if inhaled.  
H335 : May cause respiratory irritation.  
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.

### Full text of other abbreviations

Acute Tox. : Acute toxicity  
Aquatic Acute : Short-term (acute) aquatic hazard  
Aquatic Chronic : Long-term (chronic) aquatic hazard  
Eye Irrit. : Eye irritation  
Flam. Sol. : Flammable solids  
Skin Irrit. : Skin irritation  
Skin Sens. : Skin sensitisation  
STOT SE : Specific target organ toxicity - single exposure  
GB EH40 : UK. EH40 WEL - Workplace Exposure Limits  
GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System;

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GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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