

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ULTRASTAR UV FP-8220 Silver

Version	Revision Date:	SDS Number:	Print Date: 01.03.2024
12.0	29.02.2024	102000002473	Date of first issue: 02.01.2014

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

1.1 Product identifier

Trade name : ULTRASTAR UV FP-8220 Silver

Product code : 052466U30

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

Use of the Substance/Mixture : Colorant; Printing ink related material; Printing ink

1.3 Details of the supplier of the safety data sheet

Company : ECKART GmbH
Guentersthal 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.

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.
Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)



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Hazard pictograms	:	 
Signal word	:	Warning
Hazard statements	:	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H410 Very 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: P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P391 Collect spillage.

Hazardous components which must be listed on the label:

hexamethylene diacrylate
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propenyl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)
Bisphenol A epoxy acrylate
Glycerol, propoxylated, esters with acrylic acid
Propoxylated neopentyl glycol diacrylate esters
2-ethylhexyl 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

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	ClassificationREGULATION (EC) No 1272/2008	Concentration (% w/w)
hexamethylene diacrylate	13048-33-4 235-921-9 607-109-00-8	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Acute 1;	>= 25 - < 50

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	01-2119484737-22	H400 Aquatic Chronic 2; H411 <hr/> M-Factor (Acute aquatic toxicity): 1	
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propenyl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)	28961-43-5 500-066-5 01-2119489900-30	Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Chronic 3; H412	>= 20 - < 25
Bisphenol A epoxy acrylate	55818-57-0 500-130-2	Skin Sens. 1; H317 Aquatic Chronic 2; H411	>= 10 - < 20
2-hydroxy-2-methylpropiophenone	7473-98-5 231-272-0 01-2119472306-39	Acute Tox. 4; H302 Aquatic Chronic 3; H412	>= 2.5 - < 10
Glycerol, propoxylated, esters with acrylic acid	52408-84-1 500-114-5 01-2119487948-12	Eye Irrit. 2; H319 Skin Sens. 1; H317	>= 1 - < 10
aluminium powder (stabilised)	7429-90-5 231-072-3 013-002-00-1 01-2119529243-45	Flam. Sol. 1; H228	>= 1 - < 10
Propoxylated neopentyl glycol diacrylate esters	84170-74-1 01-2119970213-43	Skin Sens. 1; H317 Aquatic Chronic 2; H411	>= 0.25 - < 1
2-hydroxy-1-(4-(4-(2-hydroxy-2-methylpropionyl)benzyl)phenyl)-2-methylpropan-1-one	474510-57-1 444-860-9 606-140-00-4 01-2119904050-59	STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 <hr/> M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	>= 0.25 - < 1
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 (Respiratory system)	>= 0.1 - < 1
2,6-di-tert-butyl-p-cresol	128-37-0 204-881-4	Aquatic Acute 1; H400 Aquatic Chronic 1;	>= 0.1 - < 0.25

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	01-2119555270-46	H410	
		M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : 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 : 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.
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.

4.3 Indication of any immediate medical attention and special treatment needed

This information is not available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Unsuitable extinguishing media : High volume water jet

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5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : 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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

6.2 Environmental precautions

General advice : 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 : 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.

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.

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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 : 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.

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

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 ³	GB EH40
		TWA (Respirable fraction)	4 mg/m ³	GB EH40
		TWA (inhalable dust)	10 mg/m ³	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 ⁻³ 8-hour TWA of inhalable dust or 4 mg.m ⁻³ 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				

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	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.			
		TWA (Respirable dust)	4 mg/m ³	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 ⁻³ 8-hour TWA of inhalable dust or 4 mg.m ⁻³ 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.			
2,6-di-tert-butyl-p-cresol	128-37-0	TWA	10 mg/m ³	GB EH40
	Further information: 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
hexamethylene diacrylate	Workers	Inhalation	Long-term systemic effects	24.48 mg/m ³
	Workers	Dermal	Long-term systemic effects	2.77 mg/kg
	Consumers	Oral	Long-term systemic effects	2.08 mg/kg
	Consumers	Dermal	Long-term systemic effects	1.66 mg/kg
	Consumers	Inhalation	Long-term systemic	7.24 mg/m ³

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			effects	
Bisphenol A epoxy acrylate	Workers	Inhalation	Long-term systemic effects	1.17 mg/m3
	Workers	Dermal	Long-term systemic effects	33 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0.29 mg/m3
	Consumers	Dermal	Long-term systemic effects	16.67 mg/kg
	Consumers	Oral	Long-term systemic effects	0.17 mg/kg
2-hydroxy-2-methylpropiophenone	Workers	Dermal	Long-term systemic effects	1.25 mg/kg
	Workers	Inhalation	Long-term systemic effects	3.5 mg/m3
Glycerol, propoxylated, esters with acrylic acid	Workers	Inhalation	Long-term systemic effects	16.22 mg/m3
	Workers	Dermal	Long-term systemic effects	1.92 mg/kg
	Consumers	Inhalation	Long-term systemic effects	4.87 mg/m3
	Consumers	Dermal	Long-term systemic effects	1.15 mg/kg
	Consumers	Oral	Long-term systemic effects	1.39 mg/kg
aluminium powder (stabilised)	Workers	Inhalation	Long-term systemic effects	3.72 mg/m3
	Workers	Inhalation	Long-term local effects	3.72 mg/m3
	Consumers	Oral	Long-term systemic effects	3.95 mg/kg
Propoxylated neopentyl glycol diacrylate esters	Workers	Inhalation	Long-term systemic effects	32.9 mg/m3
	Workers	Dermal	Long-term systemic effects	46.7 mg/kg
2,6-di-tert-butyl-p-cresol	Workers	Inhalation	Long-term systemic effects	0.78 mg/m3
	Workers	Dermal	Long-term systemic effects	0.5 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0.435 mg/m3
	Consumers	Dermal	Long-term systemic effects	0.25 mg/kg
	Consumers	Oral	Long-term systemic effects	0.25 mg/kg

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

Substance name	Environmental Compartment	Value
hexamethylene diacrylate	Soil	0.094 mg/kg

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	Fresh water	0.007 mg/l
	Marine water	0.001 mg/l
	STP	2.7 mg/l
	Marine sediment	0.049 mg/kg
Bisphenol A epoxy acrylate	Fresh water	0.025 mg/l
	Marine water	0.003 mg/l
	Intermittent Release	1 mg/l
	Fresh water sediment	8.96 mg/kg
	Marine sediment	0.896 mg/kg
	STP	10 mg/l
	Soil	1.78 mg/kg
2-hydroxy-2-methylpropiophenone	Soil	0.000674 mg/kg
	Fresh water	0.00195 mg/l
	Fresh water sediment	0.00514 mg/kg
	clarification plant	45 mg/l
	Marine water	0.000195 mg/l
	Marine sediment	0.000514 mg/kg
	Sporadic Release	0.0195 mg/l
Glycerol, propoxylated, esters with acrylic acid	Fresh water	0.0057 mg/l
	Marine water	0.00057 mg/l
	Fresh water sediment	0.0168 mg/kg
	Marine sediment	0.00168 mg/kg
	STP	10 mg/l
	Soil	0.0011 mg/kg
aluminium powder (stabilised)	Fresh water	0.0749 mg/l
	clarification plant	20 mg/l
Propoxylated neopentyl glycol diacrylate esters	Fresh water	0.0027 mg/l
	Fresh water sediment	0.0638 mg/kg
	Marine water	0.00027 mg/l
	STP	0.1 mg/l
	Soil	0.0112 mg/kg
	Marine sediment	0.0064 mg/kg
	Sporadic Release	0.027 mg/l
2,6-di-tert-butyl-p-cresol	Fresh water	0.199 µg/l
	Marine water	0.02 µg/l
	STP	0.017 mg/l
	Fresh water sediment	0.0996 mg/kg
	Marine sediment	0.00996 mg/kg
	Soil	0.054 mg/kg
	Secondary Poisoning	8.33 mg/kg
	oral (secondary poisoning)	16.67 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing

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Hand protection : problems.

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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form : liquid

Colour : silver

Odour : characteristic

Odour Threshold : No data available

Melting point/range : Not applicable

Boiling point/boiling range : > 100 °C

Flammability : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Flash point : > 100 °C

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : substance/mixture is non-soluble (in water)

Viscosity, kinematic : No data available

Solubility(ies)
Water solubility : insoluble
Solubility in other solvents : No data available

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

Vapour pressure : No data available

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Vapor Pressure for Components:

hexamethylene diacrylate	:	< 0.01 hPa (20 °C)
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1- oxo-2-propenyl)oxy]-, ether with 2-ethyl-2- (hydroxymethyl)-1,3- propanediol (3:1)	:	0.0032 hPa (20 °C)
2-hydroxy-2- methylpropiophenone	:	0.0057 hPa (20 °C)
Glycerol, propoxylated, esters with acrylic acid	:	0.0032 Pa (20 °C) Method: OECD Test Guideline 104
2-ethylhexyl acrylate	:	1.33 hPa

Relative density : No data available

Density : 1.1 g/cm³

Relative vapour density : No data available

Particle characteristics

Particle Size Distribution : No data available

9.2 Other information

No data available

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 : No decomposition if stored and applied as directed.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

10.6 Hazardous decomposition products

This information is not available.

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Components:

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

2-hydroxy-2-methylpropiophenone:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

aluminium powder (stabilised):

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

2-hydroxy-1-(4-(4-(2-hydroxy-2-methylpropionyl)benzyl)phenyl)-2-methylpropan-1-one:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

2,6-di-tert-butyl-p-cresol:

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

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Causes skin irritation.

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Product:

Remarks : May cause skin irritation and/or dermatitis.

Components:

hexamethylene diacrylate:

Result : Skin irritation

2-ethylhexyl acrylate:

Result : Skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks : May cause irreversible eye damage.

Components:

hexamethylene diacrylate:

Result : Eye irritation

Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propenyl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Result : Irritating to eyes.

Glycerol, propoxylated, esters with acrylic acid:

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:

hexamethylene diacrylate:

Result : May cause sensitisation by skin contact.

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Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propenyl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Result : May cause sensitisation by skin contact.

Bisphenol A epoxy acrylate:

Result : May cause sensitisation by skin contact.

Glycerol, propoxylated, esters with acrylic acid:

Result : May cause sensitisation by skin contact.

2-ethylhexyl 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

Not classified based on available information.

Components:

2-ethylhexyl acrylate:

Assessment : May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Components:

2-hydroxy-1-(4-(4-(2-hydroxy-2-methylpropionyl)benzyl)phenyl)-2-methylpropan-1-one:

Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

Further information

Product:

Remarks : No data available

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SECTION 12: Ecological information

12.1 Toxicity

Components:

hexamethylene diacrylate:

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

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propenyl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Ecotoxicology Assessment

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

Bisphenol A epoxy acrylate:

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

2-hydroxy-2-methylpropiophenone:

Ecotoxicology Assessment

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

2-hydroxy-1-(4-(4-(2-hydroxy-2-methylpropionyl)benzyl)phenyl)-2-methylpropan-1-one:

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

M-Factor (Long-term : 1
(chronic) aquatic hazard)

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

2,6-di-tert-butyl-p-cresol:

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

M-Factor (Long-term : 1

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(chronic) aquatic hazard)

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Components:

Glycerol, propoxylated, esters with acrylic acid:

Partition coefficient: n- : log Pow: 2.52 (23 °C)
octanol/water Method: OECD Test Guideline 107

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

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Product:

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

Components:

Glycerol, propoxylated, esters with acrylic acid:

Additional ecological : No data available
information

2-ethylhexyl acrylate:

Additional ecological : No data available
information

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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.

SECTION 14: Transport information

14.1 UN number or ID number

ADR	: UN 3082
IMDG	: UN 3082
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)

	Class	Subsidiary risks
ADR	: 9	
IMDG	: 9	
IATA	: 9	

14.4 Packing group

ADR	
Packing group	: III
Classification Code	: M6
Hazard Identification Number	: 90

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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 : 9

IATA (Passenger)

Packing instruction (passenger aircraft) : 964
Packing instruction (LQ) : Y964
Packing group : III
Labels : 9

14.5 Environmental hazards

ADR

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

Remarks : For single packagings $\leq 5L / 5 \text{ kg}$, or combination packagings containing inner packagings $\leq 5L / 5 \text{ kg}$ net per inner packaging, SV375 ADR, 2.10.2.7 IMDG-Code, A197 IATA-DGR may be applied.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: Conditions of restriction for the following entries should be considered:
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Number on list 3
hexamethylene diacrylate (Number on list 3)
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propenyl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (Number on list 3)
Bisphenol A epoxy acrylate (Number on list 3)
2-hydroxy-2-methylpropiophenone (Number on list 3)
Glycerol, propoxylated, esters with acrylic acid (Number on list 3)
aluminium powder (stabilised) (Number on list 40)
Propoxylated neopentyl glycol diacrylate esters (Number on list 3)
2-ethylhexyl acrylate (Number on list 3)

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation	: Not applicable
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain)	: Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	: Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	: Not applicable

15.2 Chemical safety assessment

No data available

SECTION 16: Other information

Full text of H-Statements

H228	: Flammable solid.
H302	: Harmful if swallowed.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H319	: Causes serious eye irritation.
H335	: May cause respiratory irritation.
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.

Full text of other abbreviations

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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 RE	: Specific target organ toxicity - repeated exposure
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 - 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; 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

Classification of the mixture:

Skin Irrit. 2	H315
Eye Irrit. 2	H319
Skin Sens. 1	H317

Classification procedure:

Calculation method
Calculation method
Calculation method

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Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 2	H411	Calculation method

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