

Globally Harmonized System of Classification and Labeling of
Chemicals (GHS)

ULTRASTAR UV/LED FPG 78321 Silver

Version 3.0

Revision Date 25.03.2026

Print Date 26.03.2026

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

1.1 Product identifier

Trade name : ULTRASTAR UV/LED FPG 78321 Silver
Material number : 028423U31

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

This information is not available.

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 : msds.eckart@altana.com
Responsible/issuing person

1.4 Emergency telephone

NCEC:

(contract no.: ECKART29003-NCEC)

+44 1235 239671 (Middle East/Africa, call and response in your language)

+1 215 207 0061 (Americas, call and response in your language)

+65 3158 1074 (Asia-Pacific, call and response in your language)

SECTION 2: Hazards identification

GHS Classification

: Skin corrosion/irritation, Category 2, H315
Serious eye damage/eye irritation, Category 2A, H319
Skin sensitization, Category 1, H317

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Long-term (chronic) aquatic hazard, Category 2, H411

GHS-Labeling

- Symbol(s) : 
- Signal Word : Warning
- Hazard Statements : H315 + H319: Causes skin irritation and serious eye irritation.
 H317: May cause an allergic skin reaction.
 H411: Toxic to aquatic life with long lasting effects.
- Precautionary Statements : **Prevention:**
 P261 Avoid breathing mist or vapors.
 P264 + P265 Wash hands thoroughly after handling. Do not touch eyes.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ eye protection/ face protection.
Response:
 P302 + P352 IF ON SKIN: Wash with plenty of water.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P333 + P317 If skin irritation or rash occurs: Get medical help.
 P337 + P317 If eye irritation persists: Get medical help.
 P391 Collect spillage.
Disposal:
 P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous ingredients which must be listed on the label

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Identification	CAS-No.
3-methyl-1,5-pentanediyyl diacrylate	64194-22-5
Glycerol, propoxylated, esters with acrylic acid	52408-84-1
Alkoxyolated multifunctional acrylate oligomer	104634-06-2
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7
	2067275-86-7

SECTION 3: Composition/information on ingredients

Substance No. :

Hazardous ingredients

Chemical name	CAS-No. EINECS-No.	Classification and labeling	Concentration[%]
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	Skin Corr./Irrit.;2;H315 Eye Dam./Irrit.;2A;H319 Aquatic Chronic;2;H411	30 - 50
3-methyl-1,5-pentanediyyl diacrylate	64194-22-5 264-727-7	Acute Tox.;4;H332 Skin Corr./Irrit.;2;H315 Eye Dam./Irrit.;2A;H319 Skin Sens.;1A;H317 STOT SE;3;H335 Aquatic Chronic;3;H412	10 - 20
Glycerol, propoxylated, esters with acrylic acid	52408-84-1	Eye Dam./Irrit.;2A;H319	10 - 20

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		Skin Sens.;1;H317	
Alkoxylated multifunctional acrylate oligomer	104634-06-2	Skin Corr./Irrit.;2;H315 Eye Dam./Irrit.;2A;H319 Skin Sens.;1A;H317	1 - 10
aluminium	7429-90-5 231-072-3	Flam. Sol.;1;H228	1 - 10
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	Acute Tox.;5;H303 Acute Tox.;5;H313 Skin Sens.;1;H317 Aquatic Chronic;4;H413	2,5 - 10
1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with oxirane, 4-(dimethylamino)benzoate	2067275-86-7	Skin Sens.;1B;H317 Aquatic Chronic;4;H413	1 - 2,5

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures
4.1 Description of first-aid measures

- General advice : Move out of dangerous area.
 Show this material 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.

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In case of skin contact	: If symptoms persist, call a physician. : If skin irritation persists, call a physician. If on skin, rinse well with water.
In case of eye contact	: If on clothes, remove clothes. : 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

This information is not available.

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

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for firefighters

Special protective equipment for fire-fighters : 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

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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.

This information is not available.

6.3 Methods and materials 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

This information is not available.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Advice on safe handling : Avoid formation of aerosol. Do not breathe vapors/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. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance

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with local and national regulations. Persons susceptible to skin sensitization 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. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection
8.1 Control parameters
Germany:

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Update	Basis
aluminium	7429-90-5	AGW (Inhalable fraction)	10 mg/m ³	2021-07-02	DE TRGS 900
Peak-limit category		2;(II)			

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Further information		When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
aluminium	7429-90-5	AGW (Alveolate fraction)	1,25 mg/m ³	2021-07-02	DE TRGS 900
Peak-limit category		2;(II)			
Further information		When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			


8.2 Exposure controls
Personal protective equipment

- Eye protection : 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 : In the case of vapor formation use a respirator with an approved filter.

Environmental exposure controls

- 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.

SECTION 9: Physical and chemical properties
9.1 Information on basic physical and chemical properties

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Appearance	: liquid
Color	: silver
Odor	: characteristic
pH	: substance/mixture is non-soluble (in water)
Freezing point	: No data available
Boiling point/boiling range	: > 100 °C
Flash point	: > 100 °C
Bulk density	: No data available
Flammability (solid, gas)	: No data available
Auto-flammability	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapor pressure	: No data available
Density	: No data available
Solubility(ies)	
Water solubility	: insoluble
Miscibility with water	: immiscible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Flow time	: No data available

9.2 Other information

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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

Materials to avoid : No data available

10.6 Hazardous decomposition products

Other information : No data available

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity****Components:****3-methyl-1,5-pentanediy l diacrylate :**

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

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inhalation.

phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide :

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

Method: OECD Test Guideline 401

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

Method: OECD Test Guideline 402

Skin corrosion/irritation**Product**

May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation**Product**

May cause irreversible eye damage.

Respiratory or skin sensitization**Product**

Causes sensitization.

Carcinogenicity

No data available

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Toxicity to reproduction/fertility

No data available

Reprod.Tox./Development/Teratogenicity

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration toxicity

No data available

Further information**Product**

No data available

SECTION 12: Ecological information**12.1 Toxicity****Components:****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) :****Ecotoxicology Assessment**

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

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hazard

3-methyl-1,5-pentenediyl diacrylate (64194-22-5) :**Ecotoxicology Assessment**

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

hazard

phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide (162881-26-7) :**Ecotoxicology Assessment**

Long-term (chronic) aquatic : May cause long lasting harmful effects to aquatic life.

hazard

(2067275-86-7) :**Ecotoxicology Assessment**

Long-term (chronic) aquatic : May cause long lasting harmful effects to aquatic life.

hazard

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

No data available

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

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long lasting effects.

SECTION 13: Disposal considerations**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.
Contaminated packaging	:	Send to a licensed waste management company. Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14: Transport information**14.1 UN number**

ADR : 3082

TDG

Not dangerous goods

CFR

Not dangerous goods

IMDG : 3082

IATA : 3082

14.2 Proper shipping nameADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(Pentaerythritol, ethoxylated, esters with acrylic acid)

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TDG

Not dangerous goods

CFR

Not dangerous goods

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.

(,Pentaerythritol, ethoxylated, esters with acrylic acid)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.

(Pentaerythritol, ethoxylated, esters with acrylic acid)

14.3 Transport hazard class**ADR** : 9**TDG**

Not dangerous goods

CFR

Not dangerous goods

IMDG : 9**IATA** : 9**14.4 Packing group****ADR**

Packaging group : III

Classification Code : M6

Hazard Identification Number : 90

Labels : 9

Tunnel restriction code : (-)

TDG

Not dangerous goods

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CFR

Not dangerous goods

IMDG

Packaging group : III
Labels : 9
EmS Code : F-A, S-F

IATA

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

14.5 Environmental hazards

ADR : Environmentally hazardous
IMDG : Marine pollutant

14.6 Special precautions for user

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 73/78 and the IBC Code

No data available

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SECTION 15: Regulatory information
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: Banned and/or restricted (3-methyl-1,5-pentanediy l diacrylate) (Glycerol, propoxylated, esters with acrylic acid)
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: Banned and/or restricted (aluminium powder (stabilised))
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: (3-methyl-1,5-pentanediy l diacrylate) (phenyl bis(2,4,6-trimethylbenzoyl)- phosphine oxide) (mequinol)
REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59).	: Not applicable
Regulation (EU) No 2024/590 on substances that deplete the ozone layer	: Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	: Not applicable
Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	: Not applicable

15.2 Chemical Safety Assessment

No data available

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SECTION 16: Other information**Full text of H-Statements**

H228	: Flammable solid.
H303	: May be harmful if swallowed.
H313	: May be harmful in contact with skin.
H315	: Causes skin irritation.
H315 + H319	: Causes skin irritation and serious eye irritation.
H317	: May cause an allergic skin reaction.
H319	: Causes serious eye irritation.
H332	: Harmful if inhaled.
H335	: May cause respiratory irritation.
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.

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.