

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

ROTOSTAR UV/LED 164 604 hard scratch silver

Version 3.0

Revision Date 21.01.2020

Print Date 06.08.2020

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

1.1 Product identifier

Trade name : ROTOSTAR UV/LED 164 604 hard scratch silver
Material number : 024894U20

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 :

Telephone :
Telefax :
E-mail address : msds.eckart@altana.com
Responsible/issuing person

1.4 Emergency telephone number

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 sensitisation, Category 1, H317

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Short-term (acute) aquatic hazard, Category 3, H402
Long-term (chronic) aquatic hazard, Category 2, H411

GHS-Labeling

Symbol(s)	:	
Signal word	:	Warning
Hazard statements	:	H315: Causes skin irritation. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H402: Harmful to aquatic life. H411: Toxic to aquatic life with long lasting effects.
Precautionary statements	:	Prevention: P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. 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. P337 + P313 If eye irritation persists: Get medical advice/ attention. Disposal: P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label

Identification	CAS-No.
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate	66492-51-1
Epoxy acrylate	55818-57-0
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	28961-43-5

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phenyl bis(2,4,6-trimethylbenzoyl)- phosphine oxide	162881-26-7
Glycerol, propoxylated, esters with acrylic acid	52408-84-1
2-Propenoic acid, ester with C12-16-alkyl glycidyl ether	68071-40-9
2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3- propanediyl diacrylate	15625-89-5

SECTION 3: Composition/information on ingredients

Substance name : RSTAR LED 164 604 HARD SILVER

Substance No. :

Hazardous components

Chemical name	CAS-No. EINECS-No.	Classification and labelling	Concentration[%]
(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	20 - 25
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 Irrit.;2;H315 Eye Irrit.;2;H319 Aquatic Chronic;2;H411	20 - 25
Epoxy acrylate	55818-57-0	Skin Sens.;1;H317	10 - 20
aluminium powder (stabilised)	7429-90-5 231-072-3	Flam. Sol.;1;H228	1 - 10

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Propylidyntrimethanol, ethoxylated, esters with acrylic acid	28961-43-5	;2A;H319 Skin Sens.;1;H317	1 - 10
acrylate	Not Assigned	Eye Irrit.;2A;H319	1 - 10
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	Skin Sens.;1;H317 Aquatic Chronic;4;H413	2,5 - 10
Glycerol, propoxylated, esters with acrylic acid	52408-84-1	Eye Irrit.;2A;H319 Skin Sens.;1;H317	1 - 10
2-Propenoic acid, ester with C12-16-alkyl glycidyl ether	68071-40-9	Skin Sens.;1;H317	1 - 10
2,2-bis(acryloyloxymethyl)butyl acrylate	15625-89-5 239-701-3	;2;H315 ;2A;H319 Skin Sens.;1;H317 Aquatic Acute;1;H400 Aquatic Chronic;1;H410	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 the victim to fresh air.
 Do not leave the victim unattended.

Move out of dangerous area.

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Show this safety data sheet to the doctor in attendance.

- If inhaled : 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

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**

Suitable extinguishing media : Dry sand, ABC powder, Foam

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Unsuitable extinguishing media : High volume water jet

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.

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.

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 materials for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

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Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Do not flush with water.
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. 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 : Earthing of containers and apparatuses is essential. Reaction with water liberates extremely flammable gas (hydrogen) Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. 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.

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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 conditions : Protect from humidity and water.
- Advice on common storage : Do not store near acids. Do not store together with oxidizing and self-igniting products. Never allow product to get in contact with water during storage. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
- 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
Epoxy acrylate	55818-57-0	AGW (Inhalable fraction)	10 mg/m ³	2014-04-02	DE TRGS 900
Peak-limit: excursion factor (category)		2;(II)			
Further information		General dust value. For this substance no specific occupational exposure limit value is established, since the AGS does not yet have information regarding unspecific action on the respiratory			

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		organs in excess of the normal values. Commission for dangerous substances Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).			
Epoxy acrylate	55818-57-0	AGW (Alveolate fraction)	1,25 mg/m ³	2014-04-02	DE TRGS 900
Peak-limit: excursion factor (category)		2;(II)			
Further information		General dust value. For this substance no specific occupational exposure limit value is established, since the AGS does not yet have information regarding unspecific action on the respiratory organs in excess of the normal values. Commission for dangerous substances Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).			
aluminium powder (stabilised)	7429-90-5	AGW (Inhalable fraction)	10 mg/m ³	2014-04-02	DE TRGS 900
Peak-limit: excursion factor (category)		2;(II)			
Further information		Commission for dangerous substances Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).			
aluminium powder (stabilised)	7429-90-5	AGW (Alveolate fraction)	1,25 mg/m ³	2014-04-02	DE TRGS 900
Peak-limit: excursion factor (category)		2;(II)			
Further information		Commission for dangerous substances Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).			

8.2 Exposure controls

Personal protective equipment

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- Eye protection : Goggles
- : Wear face-shield and protective suit for abnormal processing problems.
- Hand protection
- Material : Solvent-resistant gloves (butyl-rubber)
- Remarks : Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
 The exact break through time can be obtained from the protective glove producer and this has to be observed.
 Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
 Recommended preventive skin protection
 Skin should be washed after contact.
 The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Skin and body protection : 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

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

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

- Appearance : liquid
- Colour : silver
- Odour : characteristic
- pH : No data available
- 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

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Vapour 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

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 : Contact with acids and alkalis may release hydrogen.

Stable under recommended storage conditions.

10.4 Conditions to avoid

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Conditions to avoid : Do not allow evaporation to dryness.

No data available

10.5 Incompatible materialsMaterials to avoid : Acids
Bases
Oxidizing agents**10.6 Hazardous decomposition products**

Hazardous decomposition products : No data available

Other information : No data available

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity****Components:****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

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Product

May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation**Product**

Eye irritation

Respiratory or skin sensitisation**Product**

Causes sensitisation.

May cause sensitisation of susceptible persons by skin contact.

Carcinogenicity

No data available

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

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Aspiration toxicity

No data available

Further information**Product**

No data available

SECTION 12: Ecological information**12.1 Toxicity****Components:****Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5) :**

Toxicity to daphnia and other aquatic invertebrates : (Daphnia (water flea)): 10 232,73 mg/l

2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate (15625-89-5) :**Ecotoxicology Assessment**

Long-term (chronic) aquatic hazard : Harmful 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

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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 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.
Send to a licensed waste management company.
In accordance with local and national regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
In accordance with local and national regulations.

SECTION 14: Transport information**14.1 UN number****ADR** : 3082

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TDG

Not dangerous goods

CFR

Not dangerous goods

IMDG : 3082**IATA** : 3082**14.2 Proper shipping name****ADR** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
((5-ethyl-1,3-dioxan-5-yl)methyl acrylate)**TDG**

Not dangerous goods

CFR

Not dangerous goods

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
((5-ethyl-1,3-dioxan-5-yl)methyl acrylate)**IATA** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
((5-ethyl-1,3-dioxan-5-yl)methyl acrylate)**14.3 Transport hazard class****ADR** : 9**TDG**

Not dangerous goods

CFR

Not dangerous goods

IMDG : 9**IATA** : 9

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14.4 Packing group**ADR**

Packaging group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

TDG

Not dangerous goods

CFR

Not dangerous goods

IMDG

Packaging group : III
Labels : 9
EmS Number : 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

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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

SECTION 15: Regulatory information

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

Prohibition/Restriction

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

Prohibition/Restriction

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

Prohibition/Restriction

Regulation (EC) No 850/2004 on persistent organic pollutants : 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.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H319	: Causes serious eye irritation.
H400	: Very toxic to aquatic life.
H402	: Harmful to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.
H411	: Toxic 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.