

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

Version 10.0 Revision Date: 22.04.2024 SDS Number: 102000031781 Print Date: 23.04.2024
Date of first issue: 31.07.2019

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
Product code : 024894U20

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, Colouring agents, dyes

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. |
| 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)



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

Version 10.0 Revision Date: 22.04.2024 SDS Number: 102000031781 Print Date: 23.04.2024
Date of first issue: 31.07.2019

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

Hazardous components which must be listed on the label:

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate
Bisphenol A epoxy acrylate
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propenyl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide
Glycerol, propoxylated, esters with acrylic acid
2-Propenoic acid, ester with C12-16-alkyl glycidyl ether

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) |
|--|---|--|--------------------------|
| (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; | >= 25 - < 50 |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

Version
10.0

Revision Date:
22.04.2024

SDS Number:
102000031781

Print Date: 23.04.2024
Date of first issue: 31.07.2019

| | | | |
|--|--|---|---------------|
| 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 | H411 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 2; H411 | >= 20 - < 25 |
| Bisphenol A epoxy acrylate | 55818-57-0 500-130-2 01-2119490020-53 | Skin Sens. 1; H317 Aquatic Chronic 2; H411 | >= 10 - < 20 |
| aluminium powder (stabilised) | 7429-90-5 231-072-3 013-002-00-1 01-2119529243-45 | Flam. Sol. 1; H228 | >= 1 - < 10 |
| 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 | >= 2.5 - < 10 |
| acrylate | Not Assigned | Eye Irrit. 2; H319 | >= 1 - < 10 |
| phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide | 162881-26-7 423-340-5 015-189-00-5 01-2119489401-38 | Skin Sens. 1; H317 Aquatic Chronic 4; H413 | >= 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 |
| 2-Propenoic acid, ester with C12-16-alkyl glycidyl ether | 68071-40-9 | Skin Sens. 1A; H317 | >= 1 - < 10 |

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.

Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

| | | | |
|-----------------|------------------------------|-----------------------------|---|
| Version 10.0 | Revision Date: 22.04.2024 | SDS Number: 102000031781 | Print Date: 23.04.2024 Date of first issue: 31.07.2019 |
|-----------------|------------------------------|-----------------------------|---|

- 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 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.

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
- Unsuitable extinguishing media : High volume water jet
Carbon dioxide (CO₂)

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.
-

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

| | | | |
|-----------------|------------------------------|-----------------------------|---|
| Version 10.0 | Revision Date: 22.04.2024 | SDS Number: 102000031781 | Print Date: 23.04.2024 Date of first issue: 31.07.2019 |
|-----------------|------------------------------|-----------------------------|---|

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

6.2 Environmental precautions

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

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.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

Version 10.0 Revision Date: 22.04.2024 SDS Number: 102000031781 Print Date: 23.04.2024
Date of first issue: 31.07.2019

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.

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.

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) | 4 mg/m ³ | GB EH40 |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

Version
10.0

Revision Date:
22.04.2024

SDS Number:
102000031781

Print Date: 23.04.2024
Date of first issue: 31.07.2019

| | | | | |
|--|---|-----------------------|----------------------|---------|
| | | fraction) | | |
| | | TWA (inhalable dust) | 10 mg/m ³ | GB EH40 |
| | <p>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.</p> | | | |
| | | TWA (Respirable dust) | 4 mg/m ³ | GB EH40 |
| | <p>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,</p> | | | |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

Version
10.0

Revision Date:
22.04.2024

SDS Number:
102000031781

Print Date: 23.04.2024
Date of first issue: 31.07.2019

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 |
|---|-----------|-----------------|----------------------------|------------------------|
| 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) | Workers | Inhalation | Long-term systemic effects | 0.88 mg/m ³ |
| | Workers | Dermal | Long-term systemic effects | 0.5 mg/kg |
| Bisphenol A epoxy acrylate | Workers | Inhalation | Long-term systemic effects | 1.17 mg/m ³ |
| | Workers | Dermal | Long-term systemic effects | 33 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 0.29 mg/m ³ |
| | Consumers | Dermal | Long-term systemic effects | 16.67 mg/kg |
| | Consumers | Oral | Long-term systemic effects | 0.17 mg/kg |
| aluminium powder (stabilised) | Workers | Inhalation | Long-term systemic effects | 3.72 mg/m ³ |
| | Workers | Inhalation | Long-term local effects | 3.72 mg/m ³ |
| | Consumers | Oral | Long-term systemic effects | 3.95 mg/kg |
| phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide | Workers | Inhalation | Long-term systemic effects | 7.84 mg/m ³ |
| | Workers | Dermal | Long-term systemic effects | 3.0 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 1.93 mg/m ³ |
| | Consumers | Dermal | Long-term systemic effects | 1.5 mg/kg |
| | Consumers | Oral | Long-term systemic effects | 1.5 mg/kg |
| | Workers | Inhalation | Acute systemic effects | 7.84 mg/m ³ |
| | Workers | Dermal | Acute systemic effects | 3.3 mg/kg |
| | Consumers | Inhalation | Acute systemic effects | 1.93 mg/m ³ |
| | Consumers | Dermal | Acute systemic effects | 1.67 mg/kg |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

Version
10.0

Revision Date:
22.04.2024

SDS Number:
102000031781

Print Date: 23.04.2024
Date of first issue: 31.07.2019

| | | | | |
|--|-----------|------------|----------------------------|-------------|
| | Consumers | Oral | Acute systemic effects | 0.00167 ppm |
| 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 |

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

| Substance name | Environmental Compartment | Value |
|--|----------------------------|---------------|
| 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 | 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 |
| aluminium powder (stabilised) | Soil | 1.78 mg/kg |
| | Fresh water | 0.0749 mg/l |
| | clarification plant | 20 mg/l |
| | | |
| phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide | Fresh water | 0.8 µg/l |
| | Marine water | 0.8 µg/l |
| | STP | 1 mg/l |
| | Fresh water sediment | 0.712 mg/kg |
| | Marine sediment | 0.712 mg/kg |
| | Soil | 20 mg/kg |
| Glycerol, propoxylated, esters with acrylic acid | Intermittent water release | 0.8 µg/l |
| | 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 | |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

Version 10.0 Revision Date: 22.04.2024 SDS Number: 102000031781 Print Date: 23.04.2024
Date of first issue: 31.07.2019

| | | |
|--|------|--------------|
| | STP | 10 mg/l |
| | Soil | 0.0011 mg/kg |

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Goggles
Tightly fitting safety 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.

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.

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

Version 10.0 Revision Date: 22.04.2024 SDS Number: 102000031781 Print Date: 23.04.2024
Date of first issue: 31.07.2019

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 : 6 - 8
Concentration: 100 %

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

Vapor Pressure for Components:
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate : 0.6 Pa (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)
Glycerol, propoxylated, esters with acrylic acid : 0.0032 Pa (20 °C)
Method: OECD Test Guideline 104

Relative density : No data available

Density : 1.1 g/cm³

Relative vapour density : No data available

Particle characteristics
Particle Size Distribution : No data available

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Print Date: 23.04.2024 |
| 10.0 | 22.04.2024 | 102000031781 | Date of first issue: 31.07.2019 |

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.

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

This information is not available.

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.

Components:

aluminium powder (stabilised):

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

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

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 401

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

Version
10.0

Revision Date:
22.04.2024

SDS Number:
102000031781

Print Date: 23.04.2024
Date of first issue: 31.07.2019

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Causes skin irritation.

Product:

Remarks : May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks : May cause irreversible eye damage.

Components:

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:

Bisphenol A epoxy acrylate:

Result : May cause sensitisation by skin contact.

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.

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

Version 10.0 Revision Date: 22.04.2024 SDS Number: 102000031781 Print Date: 23.04.2024
Date of first issue: 31.07.2019

Result : May cause sensitisation by skin contact.

Glycerol, propoxylated, esters with acrylic acid:

Result : May cause sensitisation by skin contact.

2-Propenoic acid, ester with C12-16-alkyl glycidyl ether:

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

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.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

Further information

Product:

Remarks : No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

Bisphenol A epoxy acrylate:

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

Version 10.0 Revision Date: 22.04.2024 SDS Number: 102000031781 Print Date: 23.04.2024
Date of first issue: 31.07.2019

information

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.
((5-ethyl-1,3-dioxan-5-yl)methyl acrylate)
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(es)

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

14.4 Packing group

ADR

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

Version 10.0 Revision Date: 22.04.2024 SDS Number: 102000031781 Print Date: 23.04.2024
Date of first issue: 31.07.2019

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 : 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 <=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.

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

Version 10.0 Revision Date: 22.04.2024 SDS Number: 102000031781 Print Date: 23.04.2024
Date of first issue: 31.07.2019

- 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:
Number on list 3
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate (Number on list 3)
Bisphenol A epoxy acrylate (Number on list 3)
aluminium powder (stabilised) (Number on list 40)
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)
Glycerol, propoxylated, esters with acrylic acid (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.
H315 : Causes skin irritation.
H317 : May cause an allergic skin reaction.
H319 : Causes serious eye 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.

Full text of other abbreviations

- Aquatic Chronic : Long-term (chronic) aquatic hazard
Eye Irrit. : Eye irritation
Flam. Sol. : Flammable solids
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation
-

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

Version 10.0 Revision Date: 22.04.2024 SDS Number: 102000031781 Print Date: 23.04.2024
Date of first issue: 31.07.2019

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 |
| Aquatic Chronic 2 | H411 |

Classification procedure:

| |
|--------------------|
| Calculation method |
| Calculation method |
| Calculation method |
| Calculation method |

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 604 hard scratch silver

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Print Date: 23.04.2024 |
| 10.0 | 22.04.2024 | 102000031781 | Date of first issue: 31.07.2019 |

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.

GB / EN