

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV/LED 164 614 soft scratch silver

Version 11.0 Revision Date: 22.04.2024 SDS Number: 102000031535 Print Date: 23.04.2024
Date of first issue: 27.05.2019

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

1.1 Product identifier

Trade name : ROTOSTAR UV/LED 164 614 soft scratch silver
Product code : 024893U20

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 Suisse SA
Route de la Brasserie 2
1963 Vétroz
Telephone : +410273454800
Telefax : +410273454859
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)

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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. 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
Poly(oxy-1,2-ethanediyl),a,a'-[(1-methylethylidene)di-4,1-phenylene]bis[w_hydroxy-, polymer with 1,3-diisocyanatomethylbenzene, 2-propenoate (ester) 3,5,5-trimethylhexanoate (ester) 4,4'-Isopropylidenediphenol, ethoxylated, esters with acrylic acid and isononanoic acid 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-methyl-m-phenylene diisocyanate

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. | ClassificationREGUL ATION (EC) No | Concentration (% w/w) |
|---------------|--------------------------------|--------------------------------------|--------------------------|
| | | 1272/2008 | |

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| | Registration number | | |
|---|--|--|---------------------|
| (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 | >= 10 - < 20 |
| Poly(oxy-1,2-ethanediyl),a,a'-[(1-methylethylidene)di-4,1-phenylene]bis[w_hydroxy-, polymer with 1,3-diisocyanatomethylbenzene, 2-propenoate (ester) 3,5,5-trimethylhexanoate (ester) | 2146146-71-4 | Skin Sens. 1B; H317 Aquatic Chronic 2; H411 | >= 10 - < 20 |
| Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1) | 51728-26-8 500-111-9 01-2119969962-19 | Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 2; H411 | >= 10 - < 20 |
| 4,4'-Isopropylidenediphenol, ethoxylated, esters with acrylic acid and isononanoic acid | Not Assigned 919-846-5 | Skin Sens. 1B; 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-methyl-m-phenylene diisocyanate | 91-08-7 202-039-0 615-006-00-4 | Acute Tox. 2; H330 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 | >= 0.0025 - < 0.025 |

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| | | | |
|--|--|--|--|
| | | Skin Sens. 1; H317 Carc. 2; H351 STOT SE 3; H335 (Respiratory system) Aquatic Chronic 3; H412 | |
| | | specific concentration limit Resp. Sens. 1; H334 >= 0.1 % Resp. Sens. 1; H334 >= 0.1 % | |

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.
- 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.
- Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- 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.

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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.

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

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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.
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.

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 distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne | | | | |

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| | 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/m3 | 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. | | |

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/m3 |
| | Workers | Dermal | Long-term systemic effects | 0.5 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 |

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| | | | | |
|--|-----------|------------|----------------------------|--------------|
| | Consumers | Oral | Long-term systemic effects | 3.95 mg/kg |
| 1,2,4-Benzenetricarboxylic acid, mixed decyl and octyl triesters | Workers | Dermal | Long-term systemic effects | 50 mg/kg |
| | Workers | Inhalation | Long-term systemic effects | 35.242 mg/m3 |
| | Consumers | Oral | Long-term systemic effects | 2.5 mg/kg |
| | Consumers | Dermal | Long-term systemic effects | 25 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 8.7 mg/m3 |
| phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide | Workers | Inhalation | Long-term systemic effects | 7.84 mg/m3 |
| | Workers | Dermal | Long-term systemic effects | 3.0 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 1.93 mg/m3 |
| | 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/m3 |
| | Workers | Dermal | Acute systemic effects | 3.3 mg/kg |
| | Consumers | Inhalation | Acute systemic effects | 1.93 mg/m3 |
| | Consumers | Dermal | Acute systemic effects | 1.67 mg/kg |
| | 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.- | Soil | 0.0078 mg/kg |

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| | | |
|--|----------------------------|---------------|
| hydro-.omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1) | | |
| | 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 |
| aluminium powder (stabilised) | 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 |
| | Intermittent water release | 0.8 µg/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 |

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

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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

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

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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

2-ethyl-2-[[1-(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate : < 0.1 Pa (20 °C)

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 : 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

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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

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

2-methyl-m-phenylene diisocyanate:

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

Skin corrosion/irritation

Causes skin irritation.

Product:

Remarks : May cause skin irritation and/or dermatitis.

Components:

2-methyl-m-phenylene diisocyanate:

Result : Skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

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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

2-methyl-m-phenylene diisocyanate:

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:

Poly(oxy-1,2-ethanediyl),a,a'-[(1-methylethylidene)di-4,1-phenylene]bis[w_hydroxy-, polymer with 1,3-

diisocyanatomethylbenzene, 2-propenoate

(ester) 3,5,5-trimethylhexanoate (ester)

:

Result : Probability or evidence of low to moderate skin sensitisation rate in humans

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:

Result : May cause sensitisation by skin contact.

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Glycerol, propoxylated, esters with acrylic acid:

Result : May cause sensitisation by skin contact.

2-methyl-m-phenylene diisocyanate:

Result : May cause sensitisation by skin contact.

Result : May cause sensitisation by inhalation.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Components:

2-methyl-m-phenylene diisocyanate:

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in animal studies

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

Components:

2-methyl-m-phenylene diisocyanate:

Assessment : May cause respiratory irritation.

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

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SECTION 12: Ecological information

12.1 Toxicity

Components:

Poly(oxy-1,2-ethanediyl),a,a'-[(1-methylethylidene)di-4,1-phenylene]bis[w_hydroxy-, polymer with 1,3-

diisocyanatomethylbenzene, 2-propenoate

(ester) 3,5,5-trimethylhexanoate (ester)

:

Ecotoxicology Assessment

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.

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

Ecotoxicology Assessment

Chronic aquatic toxicity : May cause long lasting harmful effects to aquatic life.

2-methyl-m-phenylene diisocyanate:

Ecotoxicology Assessment

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

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Components:

Poly(oxy-1,2-ethanediyl),a,a'-[(1-methylethylidene)di-4,1-phenylene]bis[w_hydroxy-, polymer with 1,3-

diisocyanatomethylbenzene, 2-propenoate

(ester) 3,5,5-trimethylhexanoate (ester)

:

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Partition coefficient: n-octanol/water : Pow: 1.49 - 4.74
Method: OECD Test Guideline 117

Glycerol, propoxylated, esters with acrylic acid:

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

2-methyl-m-phenylene diisocyanate:

Partition coefficient: n-octanol/water : log Pow: 3.74

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

Components:

Glycerol, propoxylated, esters with acrylic acid:

Additional ecological information : No data available

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

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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
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) : 964

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

IATA (Passenger)
Packing instruction : 964
(passenger aircraft)
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

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)
Poly(oxy-1,2-ethanediyl),a,a'-[(1-methylethylidene)di-4,1-phenylene]bis[w_hydroxy-, polymer with 1,3-diisocyanatomethylbenzene, 2-

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propenoate
(ester) 3,5,5-trimethylhexanoate
(ester)
(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.
H330 : Fatal if inhaled.
H334 : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 : May cause respiratory irritation.
H351 : Suspected of causing cancer.
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

Acute Tox. : Acute toxicity
Aquatic Chronic : Long-term (chronic) aquatic hazard
Carc. : Carcinogenicity
Eye Irrit. : Eye irritation
Flam. Sol. : Flammable solids

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Resp. Sens. : Respiratory sensitisation
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation
STOT SE : Specific target organ toxicity - single exposure
GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - 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; TECl - 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

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GB / EN