

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



ROTOSTAR UV FX 68-41002 Shrink Silver

Version 12.0 Revision Date: 22.04.2024 SDS Number: 102000000361 Print Date: 23.04.2024
Date of first issue: 17.03.2014

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

1.1 Product identifier

Trade name : ROTOSTAR UV FX 68-41002 Shrink Silver
Product code : 053145U20

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.
Serious eye damage, Category 1	H318: Causes serious eye damage.
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	:	Danger
Hazard statements	:	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. 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: P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor. P391 Collect spillage.

Hazardous components which must be listed on the label:

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate
2-hydroxy-3-phenoxypropyl acrylate
ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate
Glycerol, propoxylated, esters with acrylic acid
Propylidynetrimethanol, ethoxylated, esters with acrylic acid
maleic anhydride

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	ClassificationREGUL ATION (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

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2-hydroxy-3-phenoxypropyl acrylate	16969-10-1 241-045-8	H411 Eye Dam. 1; H318 Skin Sens. 1B; H317 Aquatic Chronic 2; H411	>= 25 - < 50
ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate	84434-11-7 282-810-6	Skin Sens. 1; H317 Aquatic Chronic 2; H411	>= 2.5 - < 10
Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-[(1-oxo-2-propenyl)oxy]-	64401-02-1	Aquatic Chronic 2; H411	>= 2.5 - < 10
aluminium powder (stabilised)	7429-90-5 231-072-3 013-002-00-1 01-2119529243-45	Flam. Sol. 1; H228	>= 1 - < 10
Glycerol, propoxylated, esters with acrylic acid	52408-84-1 500-114-5	Eye Irrit. 2; H319 Skin Sens. 1; H317	>= 1 - < 10
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	28961-43-5 500-066-5	Eye Irrit. 2; H319 Skin Sens. 1; H317	>= 0.1 - < 1
acrylic acid	79-10-7 201-177-9 607-061-00-8	Flam. Liq. 3; H226 Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Corr. 1A; H314 Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system) Aquatic Acute 1; H400 Aquatic Chronic 2; H411 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1 specific concentration limit STOT SE 3; H335 >= 1 % STOT SE 3; H335	>= 0.1 - < 0.25

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		>= 1 %	
		Acute toxicity estimate	
		Acute oral toxicity: 500 mg/kg	
maleic anhydride	108-31-6 203-571-6 607-096-00-9	Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Resp. Sens. 1; H334 Skin Sens. 1A; H317 STOT RE 1; H372 (Respiratory system) EUH071	>= 0.001 - < 0.1
		specific concentration limit	
		Skin Sens. 1A; H317 >= 0.001 %	
		Skin Sens. 1A; H317 >= 0.001 %	
		Acute toxicity estimate	
		Acute oral toxicity: 500 mg/kg	

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.
- 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.

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- 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 damage.

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.
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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).
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.

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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 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				

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	<p>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, a figure three times the long-term exposure limit should be used.</p>			
acrylic acid	79-10-7	STEL	20 ppm 59 mg/m ³	2017/164/EU
	Further information: Indicative			
		TWA	10 ppm 29 mg/m ³	2017/164/EU
	Further information: Indicative			
		TWA	10 ppm 29 mg/m ³	GB EH40
		STEL	20 ppm 59 mg/m ³	GB EH40
maleic anhydride	108-31-6	TWA	1 mg/m ³	GB EH40

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	<p>Further information: Substances that can cause occupational asthma (also known as asthmagens and respiratory sensitisers) can induce a state of specific airway hyper-responsiveness via an immunological irritant or other mechanism. Once the airways have become hyper-responsive, further exposure to the substance, sometimes even in tiny quantities, may cause respiratory symptoms. These symptoms can range in severity from a runny nose to asthma. Not all workers who are exposed to a sensitiser will become hyper-responsive and it is impossible to identify in advance those who are likely to become hyper-responsive. Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of asthma in people with pre-existing airway hyper-responsiveness, but which do not include the disease themselves. The latter substances are not classified as asthmagens or respiratory sensitisers. Further information can be found in the HSE publication Asthmagen? Critical assessments of the evidence for agents implicated in occupational asthma., Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma, COSHH requires that exposure be reduced to as low as is reasonably practicable. Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance., Capable of causing occupational asthma., The 'Sen' notation in the list of WELs has been assigned only to those substances which may cause occupational asthma in the categories shown in Table 1. It should be remembered that other substances not in these tables may cause occupational asthma. HSE's asthma web pages (www.hse.gov.uk/asthma) provide further information.</p>
	STEL 3 mg/m3 GB EH40
	<p>Further information: Substances that can cause occupational asthma (also known as asthmagens and respiratory sensitisers) can induce a state of specific airway hyper-responsiveness via an immunological irritant or other mechanism. Once the airways have become hyper-responsive, further exposure to the substance, sometimes even in tiny quantities, may cause respiratory symptoms. These symptoms can range in severity from a runny nose to asthma. Not all workers who are exposed to a sensitiser will become hyper-responsive and it is impossible to identify in advance those who are likely to become hyper-responsive. Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of asthma in people with pre-existing airway hyper-responsiveness, but which do not include the disease themselves. The latter substances are not classified as asthmagens or respiratory sensitisers. Further information can be found in the HSE publication Asthmagen? Critical assessments of the evidence for agents implicated in occupational asthma., Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma, COSHH requires that exposure be reduced to as low as is reasonably practicable.</p>

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Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance., Capable of causing occupational asthma., The 'Sen' notation in the list of WELs has been assigned only to those substances which may cause occupational asthma in the categories shown in Table 1. It should be remembered that other substances not in these tables may cause occupational asthma. HSE's asthma web pages (www.hse.gov.uk/asthma) provide further information.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
2-hydroxy-3-phenoxypropyl acrylate	Workers	Inhalation	Long-term systemic effects	1.65 mg/m ³
	Workers	Dermal	Long-term systemic effects	4.67 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0.29 mg/m ³
	Consumers	Dermal	Long-term systemic effects	1.67 mg/kg
	Consumers	Oral	Long-term systemic effects	0.17 mg/kg
	ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate	Workers	Dermal	Long-term systemic effects
Workers		Inhalation	Long-term systemic effects	5.88 mg/m ³
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
	Glycerol, propoxylated, esters with acrylic acid	Workers	Inhalation	Long-term systemic effects
Workers		Dermal	Long-term systemic effects	1.92 mg/kg
	Consumers	Inhalation	Long-term systemic effects	4.87 mg/m ³
	Consumers	Dermal	Long-term systemic effects	1.15 mg/kg
	Consumers	Oral	Long-term systemic effects	1.39 mg/kg
	Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Workers	Inhalation	Long-term systemic effects

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	Workers	Dermal	Long-term systemic effects	0.8 mg/kg
	Consumers	Inhalation	Long-term systemic effects	4.9 mg/m3
	Consumers	Dermal	Long-term systemic effects	0.48 mg/kg
	Consumers	Oral	Long-term systemic effects	1.39 mg/kg
acrylic acid	Workers	Inhalation	Long-term systemic effects	30 mg/m3
	Workers	Inhalation	Acute systemic effects	30 mg/m3
	Workers	Inhalation	Long-term local effects	30 mg/m3
	Workers	Inhalation	Acute local effects	30 mg/m3
	Workers	Dermal	Long-term local effects	1 mg/cm2
	Workers	Dermal	Acute local effects	1 mg/cm2
	Consumers	Inhalation	Long-term systemic effects	3.6 mg/m3
	Consumers	Inhalation	Acute systemic effects	3.6 mg/m3
	Consumers	Inhalation	Long-term local effects	3.6 mg/m3
	Consumers	Inhalation	Acute local effects	3.6 mg/m3
	Consumers	Oral	Long-term systemic effects	0.4 mg/kg
	Consumers	Oral	Acute systemic effects	1.2 mg/kg
	Consumers	Dermal	Long-term local effects	1 mg/cm2
	Consumers	Dermal	Acute local effects	1 mg/cm2

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

Substance name	Environmental Compartment	Value
2-hydroxy-3-phenoxypropyl acrylate	Fresh water	0.0044 mg/l
	Intermittent water release	0.044 mg/l
	Marine water	0.00044 mg/l
	STP	10 mg/l
	Fresh water sediment	0.0345 mg/kg
	Marine sediment	0.00345 mg/kg
	Soil	0.0043 mg/kg
aluminium powder (stabilised)	Fresh water	0.0749 mg/l
	clarification plant	20 mg/l
Glycerol, propoxylated, esters with acrylic acid	Fresh water	0.0057 mg/l
	Marine water	0.00057 mg/l
	Fresh water sediment	0.0168 mg/kg
	Marine sediment	0.00168 mg/kg
	STP	10 mg/l

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	Soil	0.0011 mg/kg
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	Soil	0.00644 mg/kg
	Fresh water	0.00195 mg/l
	Fresh water sediment	0.038 mg/kg
	STP	10 mg/l
	Marine water	0.000195 mg/l
	Marine sediment	0.0038 mg/kg
	Intermittent Release	0.00195 mg/l
	Intermittent water release	0.0195 mg/l
acrylic acid	Fresh water	0.003 mg/l
	Marine water	0.0003 mg/l
	STP	0.9 mg/l
	Fresh water sediment	0.02364 mg/kg
	Marine sediment	0.002364 mg/kg
	Soil	1 mg/kg
	Intermittent water release	0.0013 mg/l
	Secondary Poisoning	0.03 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye/face 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.

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.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	:	liquid
Colour	:	silver
Odour	:	characteristic
Odour Threshold	:	No data available
Melting point/range	:	Not applicable
Boiling point/boiling range	:	> 100 °C
Flammability	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	> 100 °C
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
pH	:	substance/mixture is non-soluble (in water)
Viscosity, kinematic	:	No data available
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	No data available
Vapor Pressure for Components:		
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate	:	0.6 Pa (20 °C)
Glycerol, propoxylated, esters with acrylic acid	:	0.0032 Pa (20 °C) Method: OECD Test Guideline 104
Propylidynetrimethanol, ethoxylated, esters with	:	0.0032 Pa (20 °C)

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Components:

ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate:

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

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

aluminium powder (stabilised):

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

acrylic acid:

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg
Method: Converted acute toxicity point estimate

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

LD50 (Rat, male): 1.000 mg/kg
Method: OECD Test Guideline 423

Acute inhalation toxicity : LC50 (Rat): > 5.1 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

Assessment: The component/mixture is moderately toxic after short term inhalation.

Acute dermal toxicity : Assessment: The component/mixture is slightly toxic after single contact with skin.

maleic anhydride:

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg
Method: Converted acute toxicity point estimate

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

Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

Skin corrosion/irritation

Causes skin irritation.

Product:

Remarks : May cause skin irritation and/or dermatitis.

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Components:

ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate:

Remarks : May cause skin irritation and/or dermatitis.

acrylic acid:

Species : Rabbit
Exposure time : 3 min
Method : OECD Test Guideline 404
Result : Corrosive after 3 minutes or less of exposure

maleic anhydride:

Result : Corrosive after 3 minutes to 1 hour of exposure

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks : May cause irreversible eye damage.

Components:

2-hydroxy-3-phenoxypropyl acrylate:

Result : Corrosive

ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate:

Remarks : Vapours may cause irritation to the eyes, respiratory system and the skin.

Glycerol, propoxylated, esters with acrylic acid:

Result : Eye irritation

Propylidyntrimethanol, ethoxylated, esters with acrylic acid:

Result : Irritating to eyes.

acrylic acid:

Result : Irreversible effects on the eye

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

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Respiratory sensitisation

Not classified based on available information.

Product:

Remarks : Causes sensitisation.

Components:

2-hydroxy-3-phenoxypropyl acrylate:

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

ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate:

Result : May cause sensitisation by skin contact.

Glycerol, propoxylated, esters with acrylic acid:

Result : May cause sensitisation by skin contact.

Propylidynetrimethanol, ethoxylated, esters with acrylic acid:

Result : May cause sensitisation by skin contact.

Remarks : Causes sensitisation.
May cause sensitisation of susceptible persons by skin contact.

maleic anhydride:

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

Result : May cause sensitisation by inhalation.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

Components:

acrylic acid:

Assessment : May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

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Components:

maleic anhydride:

Exposure routes : Inhalation
Target Organs : Respiratory system
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1.

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:

2-hydroxy-3-phenoxypropyl acrylate:

Ecotoxicology Assessment

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

ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate:

Ecotoxicology Assessment

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

Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-[(1-oxo-2-propenyl)oxy]-:

Ecotoxicology Assessment

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

acrylic acid:

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

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

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Components:

Glycerol, propoxylated, esters with acrylic acid:

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

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Product:

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

Components:

ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate:

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.

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

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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 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
-

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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

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)
ethyl phenyl(2,4,6-

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trimethylbenzoyl)phosphinate
(Number on list 3)
aluminium powder (stabilised)
(Number on list 40)
Glycerol, propoxylated, esters with
acrylic acid (Number on list 3)
Propylidynetrimethanol, ethoxylated,
esters with acrylic acid (Number on
list 3)
acrylic acid (Number on list 40, 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

H226 : Flammable liquid and vapour.
H228 : Flammable solid.
H302 : Harmful if swallowed.
H312 : Harmful in contact with skin.
H314 : Causes severe skin burns and eye damage.
H315 : Causes skin irritation.
H317 : May cause an allergic skin reaction.
H318 : Causes serious eye damage.
H319 : Causes serious eye irritation.
H332 : Harmful if inhaled.
H334 : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 : May cause respiratory irritation.
H372 : Causes damage to organs through prolonged or repeated exposure if inhaled.
H400 : Very toxic to aquatic life.
H411 : Toxic to aquatic life with long lasting effects.
EUH071 : Corrosive to the respiratory tract.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard
Eye Dam. : Serious eye damage

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Eye Irrit. : Eye irritation
Flam. Liq. : Flammable liquids
Flam. Sol. : Flammable solids
Resp. Sens. : Respiratory sensitisation
Skin Corr. : Skin corrosion
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation
STOT RE : Specific target organ toxicity - repeated exposure
STOT SE : Specific target organ toxicity - single exposure
2017/164/EU : Europe. Commission Directive 2017/164/EU establishing a fourth list of indicative occupational exposure limit values
GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
2017/164/EU / STEL : Short term exposure limit
2017/164/EU / TWA : Limit Value - eight hours
GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL : Short-term exposure limit (15-minute 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

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Classification of the mixture:

Skin Irrit. 2	H315
Eye Dam. 1	H318
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 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.

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