

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

ROTOSTAR UV/LED FPG 730 877 FLEXO INK

Version 5.0

Revision Date 10.10.2023

Print Date 16.04.2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name : ROTOSTAR UV/LED FPG 730 877 FLEXO INK
Material number : 024757HW0

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

This information is not available.

1.3 Details of the supplier of the safety data sheet

Company : ECKART Suisse SA
Route de la Brasserie 2
1963 Vétroz
Telephone : +410273454800
Telefax : +410273454859
E-mail address : msds.eckart@altana.com
Responsible/issuing person

1.4 Emergency telephone number**NCEC:**

(contract no.: ECKART29003-NCEC)

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

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

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

SECTION 2: Hazards identification**GHS Classification**

: Serious eye damage/eye irritation, Category 2A, H319
Skin sensitisation, Category 1, H317
Long-term (chronic) aquatic hazard, Category 2, H411

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GHS-Labeling

Symbol(s)



Signal word

: Warning

Hazard statements

 : 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.
 P272 Contaminated work clothing should not be allowed out
 of the workplace.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ eye protection/ face protection.
Response:
 P302 + P352 IF ON SKIN: Wash with plenty of water.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with
 water for several minutes. Remove contact lenses, if present
 and easy to do. Continue rinsing.
 P333 + P317 If skin irritation or rash occurs: Get medical
 help.
 P337 + P317 If eye irritation persists: Get medical help.
 P391 Collect spillage.
Disposal:
 P501 Dispose of contents/ container to an approved waste
 disposal plant.
Hazardous components which must be listed on the label

Identification

CAS-No.

Propylidyntrimethanol, ethoxylated, esters 28961-43-5

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with acrylic acid
 Glycerol, propoxylated, esters with acrylic acid 52408-84-1
 2-Propenoic acid, reaction products with dipentaerythritol 1384855-91-7
 phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide 162881-26-7

SECTION 3: Composition/information on ingredients

Substance No. :

Hazardous components

Chemical name	CAS-No. EINECS-No.	Classification and labelling	Concentration[%]
2-Propenoic acid, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol, methyloxirane and oxirane	144086-02-2 604-394-0	;2A;H319 Aquatic Chronic;2;H411	25 - 50
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	28961-43-5	;2A;H319 Skin Sens.;1;H317	20 - 25
Glycerol, propoxylated, esters with acrylic acid	52408-84-1	;2A;H319 Skin Sens.;1;H317	10 - 20
2-Propenoic acid, reaction products with dipentaerythritol	1384855-91-7	;2A;H319 Skin Sens.;1A;H317 Aquatic Chronic;3;H412	2,5 - 10
aluminium	7429-90-5 231-072-3	Flam. Sol.;1;H228	1 - 10

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phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	Acute Tox.;5;H303 Acute Tox.;5;H313 Skin Sens.;1;H317 Aquatic Chronic;4;H413	2,5 - 10
2-Propenoic acid, reaction products with pentaerythritol	1245638-61-2	Acute Tox.;4;H302 Skin Irrit.;2;H315 Eye Dam.;1;H318 Skin Sens.;1;H317 Aquatic Acute;2;H401 Aquatic Chronic;2;H411	0,1 - 0,25

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

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

- General advice : Move the victim to fresh air.
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.
- 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.

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If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

This information is not available.

4.3 Indication of any immediate medical attention and special treatment needed

This information is not available.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media : Dry sand, ABC powder, Foam

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

Environmental precautions : 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 materials for containment and cleaning up

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

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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.

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : Protect from humidity and water.

Advice on common storage : Do not store near acids. Do not store together with oxidizing and self-igniting products. Never allow product to get in contact with water during storage. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

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

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7.3 Specific end use(s)

This information is not available.

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

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Update	Basis
aluminium	7429-90-5	AGW (Inhalable fraction)	10 mg/m ³	2021-07-02	DE TRGS 900
Peak-limit: excursion factor (category)		2;(II)			
Further information		When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
aluminium	7429-90-5	AGW (Alveolate fraction)	1,25 mg/m ³	2021-07-02	DE TRGS 900
Peak-limit: excursion factor (category)		2;(II)			
Further information		When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

United States of America (USA):

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Update	Basis
aluminium	7429-90-5	TWA (total dust)	50 Million particles per cubic foot	2012-07-01	
aluminium	7429-90-5	TWA (Respirable)	5 mg/m ³	2013-10-08	
aluminium	7429-90-5	TWA (total dust)	15 mg/m ³	2012-07-01	
aluminium	7429-90-5	TWA (total)	10 mg/m ³	2013-10-08	
aluminium	7429-90-5	TWA (respirable fraction)	5 mg/m ³	2012-07-01	

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aluminium	7429-90-5	TWA (respirable fraction)	15 Million particles per cubic foot	2012-07-01	
aluminium	7429-90-5	PEL (Total dust)	10 mg/m3	2014-11-26	
aluminium	7429-90-5	PEL (respirable dust fraction)	5 mg/m3	2014-11-26	
aluminium	7429-90-5	TWA (Respirable particulate matter)	1 mg/m3	2008-01-01	
aluminium	7429-90-5	TWA	5 mg/m3	2005-09-01	
aluminium	7429-90-5	TWA (Total)	15 mg/m3	1989-01-19	
aluminium	7429-90-5	TWA (Respirable fraction)	5 mg/m3	1989-01-19	
aluminium	7429-90-5	TWA (total dust)	15 mg/m3	2011-07-01	
aluminium	7429-90-5	TWA (respirable fraction)	5 mg/m3	2011-07-01	
aluminium	7429-90-5	TWA (Total dust)	15 mg/m3	1989-01-19	
aluminium	7429-90-5	TWA (respirable dust fraction)	5 mg/m3	1989-01-19	
aluminium	7429-90-5	TWA (welding fumes)	5 mg/m3	2013-10-08	
aluminium	7429-90-5	TWA (pyro powders)	5 mg/m3	2013-10-08	
aluminium	7429-90-5	TWA (Respirable particulate matter)	1 mg/m3	2013-03-01	
aluminium	7429-90-5	TWA (Fumes)	5 mg/m3	1989-01-19	
aluminium	7429-90-5	PEL (Welding fumes)	5 mg/m3	2017-10-02	
aluminium	7429-90-5	PEL (Pyro powders)	5 mg/m3	2017-10-02	
aluminium	7429-90-5	TWA (powder)	5 mg/m3	1989-01-19	

8.2 Exposure controls

Personal protective equipment

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

Environmental exposure controls

- 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.

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

Appearance	: liquid
Colour	: silver
Odour	: characteristic
pH	: substance/mixture is non-soluble (in water)
Melting point/range	: Not applicable
Boiling point/boiling range	: > 100 °C
Flash point	: > 100 °C
Bulk density	: No data available
Flammability (solid, gas)	: No data available
Auto-flammability	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Density	: 1,1 g/cm ³
Solubility(ies)	
Water solubility	: insoluble
Miscibility with water	: immiscible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Ignition temperature	: No data available
Thermal decomposition	: No data available

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Viscosity, dynamic : No data available
Viscosity, kinematic : No data available
Flow time : No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity**10.1 Reactivity**

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Contact with acids and alkalis may release hydrogen.

Stable under recommended storage conditions.

10.4 Conditions to avoidConditions 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**

Other information : No data available

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SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity****Components:****phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide :**

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

Method: OECD Test Guideline 401

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

Method: OECD Test Guideline 402

Skin corrosion/irritation**Product**

May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation**Product**

Eye irritation

Respiratory or skin sensitisation**Product**

Causes sensitisation.

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May cause sensitisation of susceptible persons by skin contact.

Carcinogenicity

No data available

Toxicity to reproduction/fertility

No data available

Reprod.Tox./Development/Teratogenicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information**Product**

No data available

SECTION 12: Ecological information**12.1 Toxicity**

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Components:**2-Propenoic acid, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol, methyloxirane and oxirane (144086-02-2) :****Ecotoxicology Assessment**

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

2-Propenoic acid, reaction products with dipentaerythritol (1384855-91-7) :**Ecotoxicology Assessment**

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

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

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

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects**Product:**

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

SECTION 13: Disposal considerations
13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
 Do not contaminate ponds, waterways or ditches with chemical or used container.
 Send to a licensed waste management company.
 In accordance with local and national regulations.

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

SECTION 14: Transport information
14.1 UN number

ADR : 3082

TDG

Not dangerous goods


CFR

Not dangerous goods

IMDG : 3082

IATA : 3082

14.2 Proper shipping name

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

(Alkoxylated Pentaerythritol Tetraacrylate)

TDG

Not dangerous goods

CFR

Not dangerous goods

IMDG

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

(,Alkoxylated Pentaerythritol Tetraacrylate)

IATA

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

(Alkoxylated Pentaerythritol Tetraacrylate)

14.3 Transport hazard class

ADR : 9

TDG

Not dangerous goods

CFR

Not dangerous goods

IMDG : 9

IATA : 9

14.4 Packing group**ADR**

Packaging group : III

Classification Code : M6

Hazard Identification Number : 90

Labels : 9

Tunnel restriction code : (-)

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TDG

Not dangerous goods

CFR

Not dangerous goods

IMDG

Packaging group : III

Labels : 9

IATAPacking instruction (cargo
aircraft) : 964Packing instruction
(passenger aircraft) : 964

Packing instruction (LQ) : Y964

Packaging group : III

Labels : 9

14.5 Environmental hazards**ADR** : Environmentally hazardous**IMDG** : Marine pollutant**14.6 Special precautions for user**

For single packagings $\leq 5L / 5 \text{ kg}$, or combination packagings containing inner packagings $\leq 5L / 5 \text{ kg}$ net per inner packaging, SV375 ADR, 2.10.2.7 IMDG-Code, A197 IATA-DGR may be applied.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	: Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	: Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	: Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	: Not applicable
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: Banned and/or restricted (2-Propenoic acid, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol, methyloxirane and oxirane) (Propylidynetrimethanol, ethoxylated, esters with acrylic acid) (Glycerol, propoxylated, esters with acrylic acid) (2-Propenoic acid, reaction products with dipentaerythritol) (aluminium powder (stabilised))

15.2 Chemical safety assessment

No data available

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

H228	: Flammable solid.
H302	: Harmful if swallowed.
H303	: May be harmful if swallowed.
H313	: May be harmful in contact with skin.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
H401	: Toxic to aquatic life.
H411	: Toxic to aquatic life with long lasting effects.
H412	: Harmful to aquatic life with long lasting effects.
H413	: May cause long lasting harmful effects to aquatic life.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.