

METALSTAR UV SELECT 21-2073 873 GOLD

Version	Revision Date:	SDS Number:	Date of last issue: 03/26/2018
1.1	03/27/2018	102000029322	Date of first issue: 03/26/2018

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : METALSTAR UV SELECT 21-2073 873 GOLD

Product code : 046435DP0

Manufacturer or supplier's details

Company name of supplier : ECKART GmbH

Address : Guentersthal 4
Hartenstein 91235

Telephone : +499152770

Telefax : +499152777008

Emergency telephone : CHEMTREC: 800-424-9300
CHEMTREC: 1-703-527-3387 (International)

GBK Gefahrgut Buero GmbH, Ingelheim, Germany:
From outside US: (001) 352-323-3500
(First call in English, response in your language is possible)
US & Canada (toll free):1-800-5355-053

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Acute toxicity (Oral) : Category 4

Skin irritation : Category 3

Eye irritation : Category 2A

Skin sensitization : Category 1

Reproductive toxicity : Category 2

Acute aquatic toxicity : Category 1

Chronic aquatic toxicity : Category 1

GHS label elements

METALSTAR UV SELECT 21-2073 873 GOLD

Version	Revision Date:	SDS Number:	Date of last issue: 03/26/2018
1.1	03/27/2018	102000029322	Date of first issue: 03/26/2018

Hazard pictograms



Signal Word

: Warning

Hazard Statements

: H302 Harmful if swallowed.
 H316 Causes mild skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H361 Suspected of damaging fertility or the unborn child.
 H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

: **Prevention:**

P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
 P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P272 Contaminated work clothing must not be allowed out of the workplace.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
 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.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
 P362 + P364 Take off contaminated clothing and wash it before reuse.
 P391 Collect spillage.

Storage:

METALSTAR UV SELECT 21-2073 873 GOLD

Version	Revision Date:	SDS Number:	Date of last issue: 03/26/2018
1.1	03/27/2018	102000029322	Date of first issue: 03/26/2018

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous ingredients which must be listed on the label:

Copper

Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)

Zinc

1-Butanone, 2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-2-(phenylmethyl)-

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha."-1,2,3-propanetriyltris[.omega.-[(1-oxo-2-propen-1-yl)oxy]-

Polyester acrylate

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
Copper	7440-50-8	>= 30 -< 50
2-Propenoic acid, 1,1'-[2-[[2,2-bis[[[(1-oxo-2-propen-1-yl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl] ester	94108-97-1	>= 20 -< 30
Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)	28961-43-5	>= 5 -< 10
1-Butanone, 2-(dimethylamino)-1-[4-(4-morpholinyl)phenyl]-2-(phenylmethyl)-	119313-12-1	>= 1 -< 5
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha."-1,2,3-propanetriyltris[.omega.-[(1-oxo-2-propen-1-yl)oxy]-	52408-84-1	>= 1 -< 5
Polyester acrylate	Not Assigned	>= 1 -< 5

SECTION 4. FIRST AID MEASURES

General advice : Take the victim into fresh air.
Move out of dangerous area.
Show this material safety data sheet to the doctor in

METALSTAR UV SELECT 21-2073 873 GOLD

Version	Revision Date:	SDS Number:	Date of last issue: 03/26/2018
1.1	03/27/2018	102000029322	Date of first issue: 03/26/2018

- 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.
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.
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : Harmful if swallowed.
Causes mild skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Special powder against metal fire
Dry sand
ABC powder
- Unsuitable extinguishing media : Water
High volume water jet
- Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local
-

METALSTAR UV SELECT 21-2073 873 GOLD

Version	Revision Date:	SDS Number:	Date of last issue: 03/26/2018
1.1	03/27/2018	102000029322	Date of first issue: 03/26/2018

circumstances and the surrounding environment.

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.

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Ensure adequate ventilation.
Use personal protective equipment.

Environmental precautions :

Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Use mechanical handling equipment.

Pick up and transfer to properly labeled containers.
Do not flush with water.
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Keep away from heat and sources of ignition.
No smoking.

Normal measures for preventive fire protection.

Advice on safe handling : Do not breathe vapors/dust.

METALSTAR UV SELECT 21-2073 873 GOLD

Version	Revision Date:	SDS Number:	Date of last issue: 03/26/2018
1.1	03/27/2018	102000029322	Date of first issue: 03/26/2018

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 sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

- Hygiene measures : General industrial hygiene practice.
- Hygiene measures : When using do not eat or drink.
 When using do not smoke.
 Wash hands before breaks and at the end of workday.
- Conditions for safe storage : Keep away from sources of ignition - No smoking.
 Do not store near combustible materials.
 Keep containers tightly closed in a cool, well-ventilated place.
 To maintain product quality, do not store in heat or direct sunlight.
- 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.
- Materials to avoid : Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
 Do not store together with oxidizing and self-igniting products.
- Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis

METALSTAR UV SELECT 21-2073 873 GOLD

Version 1.1 Revision Date: 03/27/2018 SDS Number: 102000029322 Date of last issue: 03/26/2018
 Date of first issue: 03/26/2018

Copper	7440-50-8	LMPE-PPT	1 mg/m3 (Copper)	MX OEL
		LMPE-CT	2 mg/m3 (Copper)	MX OEL
		LMPE-PPT	0.2 mg/m3 (Copper)	MX OEL
		LMPE-CT	2 mg/m3 (Copper)	MX OEL
		VLE-PPT (Fumes)	0.2 mg/m3 (Copper)	NOM-010- STPS-2014
		VLE-PPT (Dust and mist)	1 mg/m3 (Copper)	NOM-010- STPS-2014
		TWA	1 mg/m3 (Copper)	ACGIH
		TWA	0.2 mg/m3 (Copper)	ACGIH
		TWA (Dust and mist)	1 mg/m3 (Copper)	ACGIH
		TWA (Fumes)	0.2 mg/m3 (Copper)	ACGIH

Personal protective equipment

Respiratory protection : Use suitable breathing protection if workplace concentration requires.
Respirator with a vapor filter (EN 141)

In the case of vapor formation use a respirator with an approved filter.

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.

METALSTAR UV SELECT 21-2073 873 GOLD

Version	Revision Date:	SDS Number:	Date of last issue: 03/26/2018
1.1	03/27/2018	102000029322	Date of first issue: 03/26/2018

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.

Eye protection : Safety glasses
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
 Color : gold
 Odor : characteristic
 Odor Threshold : No data available
 pH : No data available
 Melting point/freezing point : No data available
 Boiling point/boiling range : > 150 °C

Flash point : > 100 °C

Evaporation rate : No data available
 Flammability (solid, gas) : No data available
 Upper explosion limit / Upper flammability limit : No data available
 Lower explosion limit / Lower flammability limit : No data available
 Vapor pressure : No data available
 Relative density : No data available
 Density : 1.4 - 1.6 g/cm³

Solubility(ies)
 Water solubility : insoluble
 Partition coefficient: n-octanol/water : No data available
 Autoignition temperature : No data available
 Decomposition temperature : No data available
 Viscosity : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

METALSTAR UV SELECT 21-2073 873 GOLD

Version	Revision Date:	SDS Number:	Date of last issue: 03/26/2018
1.1	03/27/2018	102000029322	Date of first issue: 03/26/2018

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous reactions : Stable under recommended storage conditions.
No decomposition if stored and applied as directed.

Conditions to avoid : Do not allow evaporation to dryness.

No data available

Hazardous decomposition products

Thermal decomposition : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Harmful if swallowed.

Ingredients:**Copper:**

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

Skin corrosion/irritation

Causes mild skin irritation.

Ingredients:**Copper:**

Remarks: May cause skin irritation in susceptible persons.

Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Result: Skin irritation

Remarks: May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation

Causes serious eye irritation.

METALSTAR UV SELECT 21-2073 873 GOLD

Version	Revision Date:	SDS Number:	Date of last issue: 03/26/2018
1.1	03/27/2018	102000029322	Date of first issue: 03/26/2018

Ingredients:**Copper:**

Result: Eye irritation

Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

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

Respiratory or skin sensitization**Skin sensitization**

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Ingredients:**Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):**

Result: May cause sensitization by skin contact.

Remarks: Causes sensitization.

May cause sensitization of susceptible persons by skin contact.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

METALSTAR UV SELECT 21-2073 873 GOLD

Version	Revision Date:	SDS Number:	Date of last issue: 03/26/2018
1.1	03/27/2018	102000029322	Date of first issue: 03/26/2018

Further information**Ingredients:****Copper:**

Remarks: No data available

Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Ingredients:****Copper:**

M-Factor (Acute aquatic toxicity) : 10

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Toxicity to daphnia and other aquatic invertebrates : (Daphnia): 10,232.73 mg/l

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Other adverse effects

No data available

Ingredients:**Copper:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

METALSTAR UV SELECT 21-2073 873 GOLD

Version	Revision Date:	SDS Number:	Date of last issue: 03/26/2018
1.1	03/27/2018	102000029322	Date of first issue: 03/26/2018

Very toxic to aquatic life with long lasting effects.

Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal methods

Waste from residues : 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
International Regulations
IATA-DGR

UN/ID No. : UN 3082
 Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
 (Copper metal powder)
 Class : 9
 Packing group : III
 Labels : Miscellaneous Dangerous Goods
 Packing instruction (cargo aircraft) : 964
 Packing instruction (passenger aircraft) : 964

IMDG-Code

UN number : UN 3082
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
 N.O.S.
 (Copper metal powder)
 Class : 9
 Packing group : III

METALSTAR UV SELECT 21-2073 873 GOLD

Version	Revision Date:	SDS Number:	Date of last issue: 03/26/2018
1.1	03/27/2018	102000029322	Date of first issue: 03/26/2018

Labels : 9
 EmS Code : F-A, S-F
 Marine pollutant : yes
 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.

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

Not applicable for product as supplied.

Domestic regulation**NOM-002-SCT**

Not regulated as a dangerous good

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.

SECTION 15. REGULATORY INFORMATION
Safety, health and environmental regulations/legislation specific for the substance or mixture

Federal Law for the control of chemical precursors, essential chemical products and machinery for producing capsules, tablets and pills. : Not applicable

The ingredients of this product are reported in the following inventories:

DSL : This product contains one or several components that are not on the Canadian DSL nor NDSL.

TSCA : On TSCA Inventory

EINECS : On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION
Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
 MX OEL : Mexico. Occupational Exposure Limits
 NOM-010-STPS-2014 : Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and

METALSTAR UV SELECT 21-2073 873 GOLD

Version	Revision Date:	SDS Number:	Date of last issue: 03/26/2018
1.1	03/27/2018	102000029322	Date of first issue: 03/26/2018

Control - Appendix 1 Occupational Exposure Limits

ACGIH / TWA : 8-hour, time-weighted average
 MX OEL / LMPE-PPT : Time weighted average
 MX OEL / LMPE-CT : Short term exposure limit
 NOM-010-STPS-2014 / VLE- PPT : Time weighted average limit value

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; 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; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Revision Date : 03/27/2018

The information provided in this Material 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.

SAFETY DATA SHEET



METALSTAR UV SELECT 21-2073 873 GOLD

Version	Revision Date:	SDS Number:	Date of last issue: 03/26/2018
1.1	03/27/2018	102000029322	Date of first issue: 03/26/2018

MX / Z8