ROTOSTAR HE 81-41203 Silver

Version 3.1 Revision Date 27.03.2025 Print Date 28.03.2025

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

1.1 Product identifier

Trade name : ROTOSTAR HE 81-41203 Silver
Material number : 072745FY0

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 GmbH
Guentersthal 4
91235 Hartenstein
Telephone : +499152770
Telefax : +499152777008
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

: Flammable liquids, Category 2, H225
Code: Skin Corr./Irrit., Category 3, H316
Code: Eye Dam./Irrit., Category 2A, H319

Specific target organ toxicity - single exposure, Category 3, Central nervous system, H336

GHS-Labelling

Symbol(s) :

Symbol(s)

Signal word : Danger
Danger

Hazard statements : H225: Highly flammable liquid and vapour.
H316: Causes mild skin irritation.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
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H336: May cause drowsiness or dizziness.

Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.
P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
P242 Use non-sparking tools.

P243 Take action to prevent static discharges.
P261 Avoid breathing mist or vapours.
P264+P265 Wash hands thoroughly after handling. Do not touch eyes.
P271 Use only outdoors or with adequate ventilation.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
Response:
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water.
P304 + P340 + P319 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P317 If skin irritation occurs: Get medical help.
P337 + P317 If eye irritation persists: Get medical help.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label

Identification	CAS-No.
1-methoxypropan-2-ol	107-98-2
ethyl acetate	141-78-6
propan-2-ol	67-63-0
2-methoxypropanol	1589-47-5

Identification	CAS-No.
1-methoxypropan-2-ol	107-98-2
ethyl acetate	141-78-6
propan-2-ol	67-63-0

SECTION 3: Composition/information on ingredients

Substance No. :

Hazardous components

Chemical name	CAS-No. EINECS-No.	Classification and labelling	Concentration[%]
1-methoxypropan-2-ol	107-98-2 203-539-1	Flam. Liq.;3;H226 STOT SE;3;H336	50 - 70
ethyl acetate	141-78-6 205-500-4	Flam. Liq.;2;H225 ;2A;H319 STOT SE;3;H336	1 - 10
propan-2-ol	67-63-0 200-661-7	Flam. Liq.;2;H225 Acute Tox.;5;H303 Acute Tox.;5;H313 ;2A;H319 STOT SE;3;H336	1 - 10
aluminium	7429-90-5 231-072-3	Flam. Sol.;1;H228	1 - 10

butyl lactate	34451-19-9 205-316-4	Flam. Liq.;4;H227 ;2;H315 ;2A;H319	1 - 10

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.
Do not leave the victim unattended.

If inhaled : Remove to fresh air.
Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.

In case of skin contact : Wash off immediately with soap and plenty of water.
If skin irritation persists, call a physician.
If on clothes, remove clothes.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

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

4.2 Most important symptoms and effects, both acute and delayed

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) High volume water jet

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. For safety reasons in case of fire, cans should be stored separately in closed containments. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use a water spray to cool fully closed containers.

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.

Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

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.

This information is not available.

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).
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).

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 : Avoid formation of aerosol. 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. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may

be under pressure. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion	:	Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.
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. No smoking. 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. Observe label precautions. 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.

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
1-methoxypropan-2-ol	107-98-2	STEL	150 ppm 568 mg/m3	2000-06-16	2000/39/EC
Further information		Identifies the possibility of significant uptake through the skinIndicative			
1-methoxypropan-2-ol	107-98-2	TWA	100 ppm 375 mg/m3	2000-06-16	2000/39/EC
Further information		Identifies the possibility of significant uptake through the skinIndicative			
1-methoxypropan-2-ol	107-98-2	AGW	100 ppm 370 mg/m3	2010-08-04	DE TRGS 900
Peak-limit: excursion factor (category)		2;(I)			
Further information		Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).European Union (The EU has established a limit value: deviations in value and peak limit are possible)When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
ethyl acetate	141-78-6	AGW	200 ppm	2017-06-08	DE TRGS 900

			730 mg/m3		
Peak-limit: excursion factor (category)		2;(I)			
Further information		Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).European Union (The EU has established a limit value: deviations in value and peak limit are possible)When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
ethyl acetate	141-78-6	STEL	400 ppm 1 468 mg/m3	2017-02-01	2017/164/EU
Further information		Indicative			
ethyl acetate	141-78-6	TWA	200 ppm 734 mg/m3	2017-02-01	2017/164/EU
Further information		Indicative			
propan-2-ol	67-63-0	AGW	200 ppm 500 mg/m3	2006-01-01	DE TRGS 900
Peak-limit: excursion factor (category)		2;(II)			
Further information		Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).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 (Inhalable fraction)	10 mg/m3	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/m3	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			
maleic	108-31-6	AGW (Vapour	0,02 ppm	2018-06-07	DE TRGS 900

anhydride		and aerosols)	0,081 mg/m3		
Peak-limit: excursion factor (category)	1; =2.5=(I)				
Further information	Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).Sum of vapor and aerosols.When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn childSubstance sensitizing through the skin and respiratory system				

8.2 Exposure controls

Personal protective equipment

Eye protection : Goggles

: Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing problems.

Hand protection

Material : Solvent-resistant gloves (butyl-rubber)

Remarks : Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

The exact break through time can be obtained from the protective glove producer and this has to be observed.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Recommended preventive skin protection

Skin should be washed after contact.

The suitability for a specific workplace should be discussed with the producers of the protective gloves.

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

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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	silver
Odour	:	characteristic
pH	:	6 - 8, 100 %
Melting point/ range	:	Not applicable
Boiling point/boiling range	:	82 °C
Flash point	:	-4 °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	:	0,9 - 1,0 g/cm3
Solubility(ies)		
Water solubility	:	insoluble
Miscibility with water	:	partly miscible
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
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.

No decomposition if stored and applied as directed.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Do not allow evaporation to dryness.
Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Acids
Bases
Oxidizing agents

10.6 Hazardous decomposition products

Other information : No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Components:

ethyl acetate :

Acute oral toxicity : Rat: 5 620 mg/kg

Acute inhalation toxicity : LC50 Rat: 56 mg/l

Exposure time: 4 h

Test atmosphere: vapour

Acute dermal toxicity : LD50 Rabbit: > 18 000 mg/kg

propan-2-ol :

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

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

Skin corrosion/irritation

Product

May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation

Product

May cause irreversible eye damage.

Respiratory or skin sensitisation

No data available

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

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:
ethyl acetate (141-78-6) :

Toxicity to daphnia and other aquatic invertebrates	:	(Daphnia (water flea)): 717 mg/l

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:

Additional ecological information	:	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number

ADR	:	1210
TDG	:	1210
CFR	:	1210
IMDG	:	1210
IATA	:	1210

14.2 Proper shipping name

ADR	:	PRINTING INK
TDG	:	PRINTING INK
CFR	:	PRINTING INK
IMDG	:	PRINTING INK
IATA	:	PRINTING INK

14.3 Transport hazard class

ADR	:	3
TDG	:	3
CFR	:	3
IMDG	:	3
IATA	:	3

14.4 Packing group

ADR

Packaging group	:	II
Classification Code	:	F1
Hazard Identification Number	:	33
Labels	:	3

Tunnel restriction code	:	(D/E)

TDG

Packaging group	:	II
Labels	:	3

CFR

Packaging group	:	II
Labels	:	3

IMDG

Packaging group	:	II
Labels	:	3
EmS Code	:	F-E, S-D

IATA

Packing instruction (cargo aircraft)	:	364
Packing instruction (passenger aircraft)	:	353
Packing instruction (LQ)	:	Y341
Packaging group	:	II
Labels	:	3

14.5 Environmental hazards

14.6 Special precautions for user

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

No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Banned and/or restricted (1-methoxy-2-propanol) (ethyl acetate) (propan-2-ol) (butyl lactate) (ethanol)
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 (1-methoxy-2-propanol) (ethyl acetate) (aluminium powder (stabilised))
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	(ethyl acetate) (propan-2-ol) (2-methoxypropanol)
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EC) on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable

15.2 Chemical safety assessment

No data available

SECTION 16: Other information

Full text of H-Statements

H225	:	Highly flammable liquid and vapour.
H226	:	Flammable liquid and vapour.
H227	:	Combustible liquid.
H228	:	Flammable solid.
H303	:	May be harmful if swallowed.
H313	:	May be harmful in contact with skin.
H315	:	Causes skin irritation.
H316	:	Causes mild skin irritation.
H319	:	Causes serious eye irritation.
H336	:	May cause drowsiness or dizziness.

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.