

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

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

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

1.1 Product identifier

Trade name : ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste
Material number : 0283699J0

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
Guntersthal 4
91235 Hartenstein
Telephone : +499152770
Telefax : +499152777008
E-mail address : msds.eckart@altana.com
Responsible/issuing person

1.4 Emergency telephone

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 solids, Category 1, H228
Acute toxicity, Category 4, Oral, H302
Serious eye damage/eye irritation, Category 2A, H319

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

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

Short-term (acute) aquatic hazard, Category 1, H400
Long-term (chronic) aquatic hazard, Category 1, H410

GHS-Labeling

Symbol(s)



Signal Word

: Danger

Hazard Statements

: H228: Flammable solid.
H302: Harmful if swallowed.
H319: Causes serious eye irritation.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statements

: **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P264 + P265 Wash hands thoroughly after handling. Do not touch eyes.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
Response:
P301 + P317 + P330 IF SWALLOWED: Get medical help. Rinse mouth.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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.
P370 + P378 In case of fire: Use for extinction: Special

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

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

powder for metal fires.
P370 + P378 In case of fire: Use for extinction: Dry sand.
P391 Collect spillage.

Disposal:

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

Hazardous ingredients which must be listed on the label

Identification	CAS-No.
copper	7440-50-8
propan-2-ol	67-63-0

SECTION 3: Composition/information on ingredients

Substance No. :

Hazardous ingredients

Chemical name	CAS-No. EINECS-No.	Classification and labeling	Concentration[%]
copper	7440-50-8 231-159-6	Acute Tox.;4;H302 Eye Dam./Irrit.;2A;H319 Aquatic Acute;1;H400 Aquatic Chronic;1;H410	70 - 90
zinc	7440-66-6 231-175-3	Aquatic Acute;1;H400 Aquatic Chronic;1;H410	10 - 20
propan-2-ol	67-63-0 200-661-7	Flam. Liq.;2;H225 Acute Tox.;5;H303	10 - 20

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

		Acute Tox.;5;H313 Eye Dam./Irrit.;2A;H319 STOT SE;3;H336	
Fatty acids, C16-18	67701-03-5 266-928-5	Acute Tox.;5;H313	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 : Take the victim into fresh air.
Move out of dangerous area.
Show this material safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : Remove to fresh air.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with soap and plenty of water.
If 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.

4.2 Most important symptoms and effects, both acute and delayed

This information is not available.

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

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 : Special powder against metal fire, Dry sand, ABC powder

Unsuitable extinguishing media : Water, High volume water jet, Carbon dioxide (CO₂)**5.2 Special hazards arising from the substance or mixture**

Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

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

Further information : Standard procedure for chemical fires.

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**

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

Personal precautions : Evacuate personnel to safe areas.
 Ensure adequate ventilation.
 Use personal protective equipment.
 Avoid dust formation.
 Avoid breathing dust.
 Remove all sources of ignition.

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.
 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).
 Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).
 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 : Avoid formation of respirable particles. Do not breathe vapors/dust. Avoid contact with skin and eyes. For personal

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

protection see section 8. Smoking, eating and drinking should be prohibited in the application area. 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 : Keep away from heat and sources of ignition. No smoking.

Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures : General industrial hygiene practice.

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 : 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.

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. 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 : 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.

Dampness : Keep in a dry, cool and well-ventilated place.

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

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

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
copper	7440-50-8	AGW (inhalable fraction)	0,2 mg/m ³	2024-11-01	DE TRGS 900
Peak-limit category		4;(II)			
copper	7440-50-8	AGW (Alveolate fraction)	0,045 mg/m ³	2024-11-01	DE TRGS 900
Peak-limit category		8;(II)			
zinc	7440-66-6	AGW (Inhalable fraction)	10 mg/m ³	2021-07-02	DE TRGS 900
Peak-limit 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			
zinc	7440-66-6	AGW (Alveolate fraction)	1,25 mg/m ³	2021-07-02	DE TRGS 900
Peak-limit 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			
propan-2-ol	67-63-0	AGW	200 ppm 500 mg/m ³	2006-01-01	DE TRGS 900
Peak-limit 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			

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

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

	no risk of harming the unborn child
--	-------------------------------------

8.2 Exposure controls

Personal protective equipment

- Eye protection : Safety glasses
: 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 : 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.
Equipment should conform to EN 14387

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

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	: Pasty solid
Color	: gold
Odor	: characteristic
pH	: substance/mixture is non-soluble (in water)
Freezing point	: No data available
Boiling point/boiling range	: 82 °C
Flash point	: 13 °C
Bulk density	: No data available
Flammability (solid, gas)	: The substance or mixture is a flammable solid with the category 1.
Auto-flammability	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapor pressure	: No data available
Density	: 7,5 - 8,0 g/cm ³
Solubility(ies)	

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

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
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 : Stable under recommended storage conditions.

No decomposition if stored and applied as directed.

10.4 Conditions to avoidConditions to avoid : Do not allow evaporation to dryness.
Heat, flames and sparks.**10.5 Incompatible materials**

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

Materials to avoid : No data available

10.6 Hazardous decomposition products

Hazardous decomposition products :

Other information : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity****Components:****copper :**

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

propan-2-ol :

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

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

Fatty acids, C16-18 :

Acute oral toxicity : LD50 Rat: > 5 000 mg/kg

Method: OECD Test Guideline 401

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

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

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

Skin corrosion/irritation**Product**

May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation**Product**

May cause irreversible eye damage.

Respiratory or skin sensitization

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

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

Aspiration toxicity

No data available

Further information**Product**

No data available

SECTION 12: Ecological information**12.1 Toxicity****Components:****copper (7440-50-8) :**

M-Factor : 10

Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Very toxic to aquatic life.

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

zinc (7440-66-6) :

M-Factor : 1

Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Very toxic to aquatic life.

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

12.2 Persistence and degradability

No data available

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

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

: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Very 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.

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.

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

SECTION 14: Transport information**14.1 UN number**

ADR	: 1325
TDG	: 1325
CFR	: 1325
IMDG	: 1325
IATA	: 1325

14.2 Proper shipping name

ADR	: FLAMMABLE SOLID, ORGANIC, N.O.S. (Gold bronze paste)
TDG	: FLAMMABLE SOLID, ORGANIC, N.O.S. (Gold bronze paste)
CFR	: FLAMMABLE SOLIDS, ORGANIC, N.O.S. (Gold bronze paste)
IMDG	: FLAMMABLE SOLID, ORGANIC, N.O.S. (,Gold bronze paste ,Copper metal powder)
IATA	: FLAMMABLE SOLID, ORGANIC, N.O.S. (Gold bronze paste)

14.3 Transport hazard class

ADR	: 4.1
TDG	: 4.1
CFR	: 4.1
IMDG	: 4.1
IATA	: 4.1

14.4 Packing group

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

ADR

Packaging group : II
 Classification Code : F1
 Hazard Identification Number : 40
 Labels : 4.1
 Tunnel restriction code : (E)

TDG

Packaging group : II
 Labels : 4.1

CFR

Packaging group : II
 Labels : 4.1

IMDG

Packaging group : II
 Labels : 4.1
 EmS Number : F-G, S-G

IATA

Packing instruction (cargo aircraft) : 448
 Packing instruction (passenger aircraft) : 445
 Packing instruction (LQ) : Y441
 Packaging group : II
 Labels : 4.1

14.5 Environmental hazards

IMDG : Marine pollutant

ADR : Environmentally hazardous

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

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

14.6 Special precautions for user

IMDG Code- segregation group:

: IMDG Code segregation group 15 - Powdered metals

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 (propan-2-ol)
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: (Copper) (propan-2-ol)
REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59).	: Not applicable
Regulation (EU) No 2024/590 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

ROTOVARIO 580 170 Rich Pale Gold Red Bronze Paste

Version 2.0

Revision Date 11.05.2026

Print Date 12.05.2026

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

H225	: Highly flammable liquid and vapor.
H228	: Flammable solid.
H302	: Harmful if swallowed.
H303	: May be harmful if swallowed.
H313	: May be harmful in contact with skin.
H319	: Causes serious eye irritation.
H336	: May cause drowsiness or dizziness.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.

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.