STANDART Super Ink Lining ROTOFLEX Pale Gold Bronze Powder

Version 4.0 Revision Date 19.06.2026 Print Date 24.06.2026

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

1.1 Product identifier

Trade name : STANDART Super Ink Lining ROTOFLEX Pale Gold Bronze Powder
Material number : 065249C20

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

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
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 for extinction: Special 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

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	2,5 - 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.
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 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.

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	:	Special powder against metal fire, Dry sand, ABC powder
Unsuitable extinguishing	:	Water, High volume water jet, Carbon dioxide (CO2)

media

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. 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	:	Use personal protective equipment. Evacuate personnel to safe areas. 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.
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 creating dust. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

Avoid formation of respirable particles. Do not breathe vapors/dust. 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.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Avoid dust formation. Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures : General industrial hygiene practice. Do not smoke. Wash hands before breaks and at the end of workday. Keep away from food and drink. Keep away from tobacco products.

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 : Electrical installations / working materials must comply with

areas and containers		the technological safety standards. 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. 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.
Other data	:	Keep in a dry place. 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/m3	2024-11-01	DE TRGS 900

Peak-limit category		4;(II)			
copper	7440-50-8	AGW (Alveolate fraction)	0,045 mg/m3	2024-11-01	DE TRGS 900
Peak-limit category		8;(II)			
zinc	7440-66-6	AGW (Inhalable fraction)	10 mg/m3	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/m3	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			

United States of America (USA):

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Update	Basis
copper	7440-50-8	TWA	1 mg/m3	2008-01-01	
copper	7440-50-8	TWA (dust and mists)	1 mg/m3	2005-09-01	
copper	7440-50-8	TWA	1 mg/m3	1989-01-19	
copper	7440-50-8	TWA	0,2 mg/m3	2008-01-01	
copper	7440-50-8	TWA	0,1 mg/m3	1989-01-19	
copper	7440-50-8	TWA (Dust and mist)	1 mg/m3	2010-03-01	
copper	7440-50-8	TWA (Fumes)	0,2 mg/m3	2010-03-01	
copper	7440-50-8	TWA (Dust)	1 mg/m3	2013-10-08	
copper	7440-50-8	TWA (Mist)	1 mg/m3	2013-10-08	
copper	7440-50-8	TWA (dusts and mists)	1 mg/m3	2011-07-01	
copper	7440-50-8	TWA (Fumes)	0,1 mg/m3	2011-07-01	
copper	7440-50-8	PEL (Fumes)	0,1 mg/m3	2014-11-26	
copper	7440-50-8	TWA (Fumes)	0,1 mg/m3	1989-01-19	
copper	7440-50-8	TWA (Dust and mist)	1 mg/m3	1989-01-19	
zinc	7440-66-6	TWA (total dust)	50 Million particles	2012-07-01	

			per cubic foot		
zinc	7440-66-6	TWA (total dust)	15 mg/m3	2012-07-01	
zinc	7440-66-6	TWA (respirable fraction)	5 mg/m3	2012-07-01	
zinc	7440-66-6	TWA (respirable fraction)	15 Million particles per cubic foot	2012-07-01	
zinc	7440-66-6	PEL (Total dust)	10 mg/m3	2014-11-26	
zinc	7440-66-6	PEL (respirable dust fraction)	5 mg/m3	2014-11-26	

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses

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

Hand protection

Material : Leather

Remarks : Leather gloves

The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.

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

Recommended preventive skin protection

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

Skin and body protection : Long sleeved clothing

Safety shoes

: Dust impervious protective suit

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.
Respirator with a dust filter
P1 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	:	powder
Color	:	gold
Odor	:	characteristic
pH	:	substance/mixture is non-soluble (in water)
Melting point/ range	:	> 900 °C
Boiling point/boiling range	:	No data available
Flash point	:	No data available
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	:	8 - 9 g/cm3
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
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 hazards to be specially mentioned.

No decomposition if stored and applied as directed.

Dust may form explosive mixture in air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

Other information : No data available

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.

Skin corrosion/irritation

Product

May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Product

Eye irritation

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

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

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. In accordance with local and national regulations.
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. In accordance with local and national regulations.

SECTION 14: Transport information

14.1 UN number

ADR	:	3089
TDG	:	3089
CFR	:	3089
IMDG	:	3089

IATA	:	3089

14.2 Proper shipping name

ADR	:	METAL POWDER, FLAMMABLE, N.O.S.
TDG	:	METAL POWDER, FLAMMABLE, N.O.S.
CFR	:	METAL POWDERS, FLAMMABLE, N.O.S.
IMDG	:	METAL POWDER, FLAMMABLE, N.O.S. (,Copper metal powder)
IATA	:	METAL POWDER, FLAMMABLE, N.O.S.

14.3 Transport hazard class

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

14.4 Packing group

ADR

Packaging group	:	II
Classification Code	:	F3
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 Code	:	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

ADR	:	Environmentally hazardous
IMDG	:	Marine pollutant

14.6 Special precautions for user

IMDG Code- segregation group:

: IMDG Code segregation group 7 - Heavy metals and their salts

: 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)	:	(Copper)
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

SECTION 16: Other information

Full text of H-Statements

H228	:	Flammable solid.
H302	:	Harmful if swallowed.
H319	:	Causes serious eye irritation.
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.