

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

**STANDART RESIST ROTOFLEX Brillant Pale Gold Bronze Powder**

Version 2.0

Revision Date 11.12.2019

Print Date 27.11.2024

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

Trade name : STANDART RESIST ROTOFLEX Brillant Pale Gold Bronze Powder  
Material number : 022955BP0

**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**

: Acute toxicity, Category 4, Oral, H302  
Serious eye damage/eye irritation, Category 2A, H319

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

**GHS-Labelling**

Symbol(s)

:



Signal word

:

Warning

Hazard statements

:

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

Precautionary statements

:

**Prevention:**  
P264 Wash skin thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear eye protection/ face protection.  
**Response:**  
P337 + P313 If eye irritation persists: Get medical advice/  
attention.  
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  
copper  
silicon dioxide

CAS-No.  
7440-50-8  
7631-86-9

**Other hazards which do not result in classification**

Combustible Solids

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**SECTION 3: Composition/information on ingredients**

Substance No. :

**Hazardous components**

Chemical name	CAS-No. EINECS-No.	Classification and labelling	Concentration[%]
Copper	7440-50-8 231-159-6	Acute Tox.;4;H302 ;2A;H319 Aquatic Acute;1;H400 Aquatic Chronic;1;H410	50 - 100
zinc powder — zinc dust (stabilised)	7440-66-6 231-175-3	Aquatic Acute;1;H400 Aquatic Chronic;1;H410	2,5 - 10
silicon dioxide	7631-86-9 231-545-4	Acute Tox.;5;H303	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.  
Do not leave the victim unattended.  
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.

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In case of skin contact	: Wash off immediately with soap and plenty of water.
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.

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**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

**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.
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**5.3 Advice for firefighters**

Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary.
Further information	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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

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**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.  
Use personal protective equipment.  
Avoid dust formation.  
Avoid breathing dust.

**6.2 Environmental precautions**

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.

**6.3 Methods and materials for containment and cleaning up**

Methods for cleaning up : Use mechanical handling equipment.  
Pick up and transfer to properly labelled containers.  
Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For personal protection see section 8.

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**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 vapours/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.

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 areas and containers : Electrical installations / working materials must comply with 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.

Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.

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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)	1 mg/m <sup>3</sup>		DE TRGS 900
zinc powder — zinc dust (stabilised)	7440-66-6	AGW (Inhalable fraction)	10 mg/m <sup>3</sup>	2014-04-02	DE TRGS 900
Peak-limit: excursion factor (category)		2;(II)			
Further information		Commission for dangerous substances Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).			
zinc powder	7440-66-6	AGW (Alveolate)	1,25 mg/m <sup>3</sup>	2014-04-02	DE TRGS 900

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— zinc dust (stabilised)		fraction)			
Peak-limit: excursion factor (category)		2;(II)			
Further information		Commission for dangerous substances Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).			
silicon dioxide	7631-86-9	AGW (Inhalable fraction)	4 mg/m <sup>3</sup>	2013-09-19	DE TRGS 900
Further information		Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission). Colloidal amorphous silica, including pyrogenic silica and in wet processes manufactured silica (precipitated silica, silicagel). 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/m <sup>3</sup>	2008-01-01	
Copper	7440-50-8	TWA (dust and mists)	1 mg/m <sup>3</sup>	2005-09-01	
Copper	7440-50-8	TWA	1 mg/m <sup>3</sup>	1989-01-19	
Copper	7440-50-8	TWA	0,2 mg/m <sup>3</sup>	2008-01-01	
Copper	7440-50-8	TWA	0,1 mg/m <sup>3</sup>	1989-01-19	
Copper	7440-50-8	TWA (Dust and mist)	1 mg/m <sup>3</sup>	2010-03-01	
Copper	7440-50-8	TWA (Fumes)	0,2 mg/m <sup>3</sup>	2010-03-01	
Copper	7440-50-8	TWA (Dust)	1 mg/m <sup>3</sup>	2013-10-08	
Copper	7440-50-8	TWA (Mist)	1 mg/m <sup>3</sup>	2013-10-08	
Copper	7440-50-8	TWA (dusts and mists)	1 mg/m <sup>3</sup>	2011-07-01	
Copper	7440-50-8	TWA (Fumes)	0,1 mg/m <sup>3</sup>	2011-07-01	
Copper	7440-50-8	TWA (Fumes)	0,1 mg/m <sup>3</sup>	1989-01-19	
Copper	7440-50-8	TWA (Dust and mist)	1 mg/m <sup>3</sup>	1989-01-19	
Copper	7440-50-8	PEL (Fumes)	0,1 mg/m <sup>3</sup>	2014-11-26	

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zinc powder — zinc dust (stabilised)	7440-66-6	TWA (total dust)	50 Million particles per cubic foot	2012-07-01	
zinc powder — zinc dust (stabilised)	7440-66-6	TWA (total dust)	15 mg/m <sup>3</sup>	2012-07-01	
zinc powder — zinc dust (stabilised)	7440-66-6	TWA (respirable fraction)	5 mg/m <sup>3</sup>	2012-07-01	
zinc powder — zinc dust (stabilised)	7440-66-6	TWA (respirable fraction)	15 Million particles per cubic foot	2012-07-01	
zinc powder — zinc dust (stabilised)	7440-66-6	PEL (Total dust)	10 mg/m <sup>3</sup>	2014-11-26	
zinc powder — zinc dust (stabilised)	7440-66-6	PEL (respirable dust fraction)	5 mg/m <sup>3</sup>	2014-11-26	
silicon dioxide	7631-86-9	TWA (Dust)	20 Million particles per cubic foot	2012-07-01	
silicon dioxide	7631-86-9	TWA (Dust)	80 mg/m <sup>3</sup> / %SiO <sub>2</sub>	2012-07-01	
silicon dioxide	7631-86-9	TWA	6 mg/m <sup>3</sup>	2013-10-08	
silicon dioxide	7631-86-9	PEL	6 mg/m <sup>3</sup>	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

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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
Skin and body protection	: The suitability for a specific workplace should be discussed with the producers of the protective gloves. : 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
<b>Environmental exposure controls</b>	
General advice	: : 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.
Water	: The product should not be allowed to enter drains, water courses or the soil. :

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

Appearance : powder

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Colour	: gold
Odour	: odourless
pH	: No data available
Freezing point	: No data available
Boiling point/boiling range	: No data available
Flash point	: No data available
Bulk density	: No data available
Flammability (solid, gas)	: Combustible Solids
Auto-flammability	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Density	: ca. 8,6 g/cm <sup>3</sup>
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

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

No decomposition if stored and applied as directed.

**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 : No data available  
No data available**10.5 Incompatible materials**

Materials to avoid : No data available

**10.6 Hazardous decomposition products**Hazardous decomposition : No data available  
products

Other information : No data available

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**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

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**Acute toxicity****Components:****Copper :**

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

**zinc powder — zinc dust (stabilised) :**

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

**silicon dioxide :**

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

Mouse: 15 000 mg/kg

Acute inhalation toxicity : Rat: 0,139 mg/l

Exposure time: 4 h

Acute dermal toxicity : LD50 Rabbit: > 5 000 mg/kg

**Skin corrosion/irritation****Product**

May cause skin irritation in susceptible persons.

**Serious eye damage/eye irritation**

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**Product**

Eye irritation

**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**

No data available

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**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) :****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.

**silicon dioxide (7631-86-9) :**

Toxicity to daphnia and other aquatic invertebrates : (Daphnia (water flea)): 7 600 mg/l

Toxicity to algae : (Chlorella pyrenoidosa (aglae)): 440 mg/l  
Exposure time: 72 h**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

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**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.


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**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.

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

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**ADR** : 3077**TDG**

Not dangerous goods

**CFR**

Not dangerous goods

**IMDG** : 3077**IATA** : 3077**14.2 Proper shipping name**

**ADR** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,  
N.O.S.  
(Copper metal powder )

**TDG**

Not dangerous goods

**CFR**

Not dangerous goods

**IMDG** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,  
N.O.S.  
(,Copper metal powder )

**IATA** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,  
N.O.S.  
(Copper metal powder)

**14.3 Transport hazard class****ADR** : 9**TDG**

Not dangerous goods

**CFR**

Not dangerous goods

**IMDG** : 9

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**IATA** : 9**14.4 Packing group****ADR**

Packaging group : III  
Classification Code : M7  
Hazard Identification Number : 90  
Labels : 9

**TDG**

Not dangerous goods

**CFR**

Not dangerous goods

**IMDG**

Packaging group : III  
Labels : 9  
EmS Number : F-A, S-F

**IATA**

Packing instruction (cargo aircraft) : 956  
Packing instruction (passenger aircraft) : 956  
Packing instruction (LQ) : Y956  
Packaging group : III  
Labels : 9

**14.5 Environmental hazards****IMDG** : Marine pollutant**ADR** : Environmentally hazardous

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**14.6 Special precautions for user****IMDG Code- segregation group:**

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

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.

**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

**15.2 Chemical safety assessment**

No data available

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

H302	: Harmful if swallowed.
H303	: May be harmful if swallowed.
H319	: Causes serious eye irritation.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.

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