# ROTOFLEX XA 6-206 Rich Pale Gold

Version 5.0 Revision Date 19.06.2026 Print Date 20.06.2026

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

### 1.1 Product identifier

Trade name : ROTOFLEX XA 6-206 Rich Pale Gold
Material number : 0245559J0

### 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.<br>EINECS-No. | Classification and labeling | Concentration[%] |
|---|---|---|---|
| copper | 7440-50-8<br>231-159-6 | Acute Tox.;4;H302<br>Eye Dam./Irrit.;2A;H319<br>Aquatic Acute;1;H400<br>Aquatic Chronic;1;H410 | 70 - 90 |
| zinc | 7440-66-6<br>231-175-3 | Aquatic Acute;1;H400<br>Aquatic Chronic;1;H410 | 20 - 25 |
| Fatty acids, C16-18 | 67701-03-5<br>266-928-5 | | 1 - 10 |
| octadecylamine | 124-30-1<br>204-695-3 | Skin Corr./Irrit.;2;H315<br>Eye Dam./Irrit.;1;H318<br>STOT RE;2;H373 | 0,25 - 1 |

| | | | |
|---|---|---|---|
| | | Asp. Tox.;1;H304<br>Aquatic Acute;1;H400<br>Aquatic Chronic;1;H410 | |

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 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 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.<br><br>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.<br>Evacuate personnel to safe areas.<br>Use personal protective equipment.<br>Avoid dust formation.<br>Avoid breathing dust.<br>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 areas and containers | : | Electrical installations / working materials must comply with the technological safety standards.<br><br>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.<br><br>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 | | | |

### 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<br>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.<br>The exact break through time can be obtained from the protective glove producer and this has to be observed.<br>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<br>Safety shoes |
| | : | Dust impervious protective suit<br>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.<br>Respirator with a dust filter<br>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.<br>Prevent further leakage or spillage if safe to do so.<br>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.<br><br>No decomposition if stored and applied as directed.<br><br>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.

**Fatty acids, C16-18 :**

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

Method: OECD Test Guideline 401

**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. |

**octadecylamine (124-30-1) :**

| | | |
|---|---|---|
| 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. |

### 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.<br>Do not contaminate ponds, waterways or ditches with chemical or used container.<br>Send to a licensed waste management company.<br>In accordance with local and national regulations. |
| Contaminated packaging | : | Empty remaining contents.<br>Dispose of as unused product.<br>Do not re-use empty containers.<br>Do not burn, or use a cutting torch on, the empty drum.<br>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.<br>(Gold bronze powder ,Copper metal powder) |
| **TDG** | : | METAL POWDER, FLAMMABLE, N.O.S.<br>(Gold bronze powder ) |
| **CFR** | : | METAL POWDERS, FLAMMABLE, N.O.S. |

(Gold bronze powder )

**IMDG** : METAL POWDER, FLAMMABLE, N.O.S.
(,Gold bronze powder ,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) (octadecylamine) |
| REACH - Candidate List of Substances of Very High | : | Not applicable |

Concern for Authorization (Article 59).

| | | |
|---|---|---|
| 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. |
| H304 | : | May be fatal if swallowed and enters airways. |
| H315 | : | Causes skin irritation. |
| H318 | : | Causes serious eye damage. |
| H319 | : | Causes serious eye irritation. |
| H373 | : | May cause damage to organs through prolonged or repeated exposure if swallowed. |
| 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.

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