METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |

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

### 1.1 Product identifier

Trade name : METALSTAR 070001 Rich Gold
Product code : 076399RN0
1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the
Substance/Mixture
: Colorant; Printing ink related material; Printing ink, Colouring agents, dyes
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 of person : msds.eckart@altana.com
responsible for the SDS

### 1.4 Emergency telephone number

NCEC: +44 1235239670 (Europe)
Call and response in your language is possible.
Contract no.: ECKART29003-NCEC.

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture <br> Classification (REGULATION (EC) No 1272/2008) <br> Acute toxicity, Category $4 \quad \mathrm{H} 302$ : Harmful if swallowed. <br> Eye irritation, Category 2 <br> Short-term (acute) aquatic hazard, <br> Category 1 <br> Long-term (chronic) aquatic hazard, <br> Category 1 <br> H319: Causes serious eye irritation. <br> H400: Very toxic to aquatic life. <br> H410: Very toxic to aquatic life with long lasting effects.

### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

METALSTAR070001 Rich Gold

| Version Revision Date: <br> 8.0 30.04 .2024 | SDS Number: 102000029134 | Print Date: 03.05.2024 <br> Date of first issue: 09.02.2018 |
| :---: | :---: | :---: |
| Hazard pictograms Signal word |  |  |
| Hazard statements | H 302 H 319 H 410 | Harmful if swallowed. Causes serious eye irritation. Very toxic to aquatic life with long lasting effects. |
| Precautionary statements | Prevention: <br> P264 <br> P273 <br> P280 <br> Response: P337 + P313 <br> P391 <br> Disposal: <br> P501 | Wash skin thoroughly after handling. <br> Avoid release to the environment. <br> Wear eye protection/ face protection. <br> If eye irritation persists: Get medical advice/ attention. <br> Collect spillage. <br> Dispose of contents/ container to an approved waste disposal plant. |

Hazardous components which must be listed on the label:
Copper

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic ( PBT ), or very persistent and very bioaccumulative ( vPvB ) at levels of $0.1 \%$ or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Components

| Chemical name | CAS-No. <br> EC-No. <br> Index-No. <br> Registration number | ClassificationREGUL <br> ATION (EC) No <br> $1272 / 2008$ | Concentration <br> $(\% \mathrm{w} / \mathrm{w})$ |
| :--- | :--- | :--- | :--- |
| Copper | $7440-50-8$ <br> $231-159-6$ | Acute Tox. 4; H302 <br> Eye Irrit. 2; H319 <br> Aquatic Acute 1; <br> H400 <br> Aquatic Chronic 1; <br> H410 | $>=25-<50$ |
| $01-2119480154-42$ | M-Factor (Acute <br> aquatic toxicity): 10 |  |  |

METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |


|  |  | M-Factor (Chronic aquatic toxicity): 10 |  |
| :---: | :---: | :---: | :---: |
| Distillates (petroleum), solventrefined middle; Gasoil unspecified | $\begin{array}{\|l} \hline 64741-91-9 \\ 919-029-3 \end{array}$ | Asp. Tox. 1; H304 | >= 10-<20 |
| zinc powder - zinc dust (stabilised) | $\begin{aligned} & 7440-66-6 \\ & 231-175-3 \\ & 030-001-01-9 \\ & \\ & 01-2119467174-37 \end{aligned}$ | Aquatic Acute 1; H400 <br> Aquatic Chronic 1; H410 <br> M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1 | $>=10-<20$ |
| Petroleum resins | $\begin{array}{\|l} \hline 64742-16-1 \\ 265-116-8 \end{array}$ | Aquatic Chronic 4; H413 | >= $2.5-<10$ |
| 1-isopropyl-2,2- dimethyltrimethylene diisobutyrate | $6846-50-0$ $229-934-9$ $01-2119451093-47$ | Repr. 2; H361d Aquatic Chronic 3; H412 | >= $1-<2.5$ |
| octadecylamine | $\begin{array}{\|l\|} \hline 124-30-1 \\ 204-695-3 \\ 612-282-00-8 \\ \\ 01-2119473804-32 \end{array}$ | Skin Irrit. 2; H315 <br> Eye Dam. 1; H318 <br> STOT RE 2; H373 <br> (Liver, <br> Gastrointestinal tract, <br> Immune system) <br> Asp. Tox. 1; H304 <br> Aquatic Acute 1; <br> H400 <br> Aquatic Chronic 1; <br> H410 <br> M-Factor (Acute aquatic toxicity): 10 <br> M-Factor (Chronic aquatic toxicity): 10 | $>=0.25-<1$ |
| amines, hydrogenated tallow alkyl | $\begin{aligned} & 61788-45-2(90640- \\ & 32-7) \\ & 262-976-6 \\ & 612-284-00-9 \end{aligned}$ | Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT RE 2; H373 (Liver, Gastrointestinal tract, Immune system) Asp. Tox. 1; H304 Aquatic Acute 1; H400 | $\begin{gathered} >=0.025-< \\ 0.1 \end{gathered}$ |

METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |


|  | Aquatic Chronic 1; <br> H410 <br> $\frac{\text { M-Factor (Acute }}{}$ <br> aquatic toxicity): 10 <br> M-Factor (Chronic <br> aquatic toxicity): 10 |
| :--- | :--- | :--- |

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

| General advice | $:$Move the victim to fresh air. <br> Move out of dangerous area. <br> Show this safety data sheet to the doctor in attendance. <br> Do not leave the victim unattended. |
| :--- | :--- |
| If inhaled | $:$Remove to fresh air. <br> If unconscious, place in recovery position and seek medical <br> advice. <br> If symptoms persist, call a physician. |
| 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. <br> Remove contact lenses. <br> Keep eye wide open while rinsing. <br> If eye irritation persists, consult a specialist. |
| If swallowed | Induce vomiting immediately and call a physician. <br> Keep respiratory tract clear. <br> Do not give milk or alcoholic beverages. <br> Never give anything by mouth to an unconscious person. <br> If symptoms persist, call a physician. |
| Take victim immediately to hospital. |  |

### 4.2 Most important symptoms and effects, both acute and delayed

Risks : Harmful if swallowed.
Causes serious eye irritation.

### 4.3 Indication of any immediate medical attention and special treatment needed

This information is not available.

METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

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

### 5.2 Special hazards arising from the substance or mixture

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

### 5.3 Advice for firefighters

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

## SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions
: Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment.

### 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.

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.

METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |

Pick up and transfer to properly labelled 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).

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). 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 : 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 : Keep away from heat and sources of ignition. No smoking. fire and explosion

Normal measures for preventive fire protection.
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 : Keep away from sources of ignition - No smoking. Do not areas and containers

Further information on
: Protect from humidity and water. 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. 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.

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878

## METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |

Advice on common storage

Dampness
Further information on storage stability
: 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.
: Keep in a dry, cool and well-ventilated place.
: No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

## Occupational Exposure Limits

| Components | CAS-No. | Value type (Form <br> of exposure) | Control parameters | Basis |
| :--- | :--- | :--- | :--- | :--- |
| Copper | $7440-50-8$ | TWA (Fumes) | $0.2 \mathrm{mg} / \mathrm{m3}$ <br> (Copper) | GB EH40 |
|  |  | TWA (Dusts and <br> mists) | $1 \mathrm{mg} / \mathrm{m3}$ <br> $($ Copper | GB EH40 |
| STEL (Dusts and <br> mists) | $2 \mathrm{mg} / \mathrm{m3}$ <br> (Copper) | GB EH40 |  |  |
| zinc powder - <br> zinc dust <br> (stabilised) | $7440-66-6$ | TWA (Inhalable) | $10 \mathrm{mg} / \mathrm{m3}$ | GB EH40 |
|  |  | TWA (Respirable <br> fraction) | $4 \mathrm{mg} / \mathrm{m} 3$ | GB EH40 |

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

| Substance name | End Use | Exposure routes | Potential health <br> effects | Value |
| :--- | :--- | :--- | :--- | :--- |
| Copper | Workers | Dermal | Long-term systemic <br> effects | $137 \mathrm{mg} / \mathrm{kg}$ |
|  | Workers | Dermal | Acute systemic <br> effects | $273 \mathrm{mg} / \mathrm{kg}$ |
|  | Workers | Inhalation | Long-term systemic <br> effects | $20 \mathrm{mg} / \mathrm{m} 3$ |
|  | Consumers | Inhalation | Long-term local <br> effects | $1 \mathrm{mg} / \mathrm{m} 3$ |
|  | Consumers | Dermal | Acute local effects <br> Long-term systemic <br> effects | $1 \mathrm{mg} / \mathrm{m} 3$ |
|  | Consumers | Dermal | Acute systemic <br> effects | $273 \mathrm{mg} / \mathrm{kg}$ |
|  | Consumers | Oral | Long-term systemic <br> effects | $0.041 \mathrm{mg} / \mathrm{kg}$ |
| zinc powder - zinc <br> dust (stabilised) | Workers | Inhalation | Long-term systemic <br> effects | $5 \mathrm{mg} / \mathrm{m} 3$ |

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
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## METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |


|  | Workers | Dermal | Long-term systemic <br> effects | $83 \mathrm{mg} / \mathrm{kg}$ |
| :--- | :--- | :--- | :--- | :--- |
|  | Consumers | Inhalation | Long-term systemic <br> effects | $2.5 \mathrm{mg} / \mathrm{m} 3$ |
|  | Consumers | Dermal | Long-term systemic <br> effects | $83 \mathrm{mg} / \mathrm{kg}$ |
|  | Consumers | Oral | Long-term systemic <br> effects | $0.83 \mathrm{mg} / \mathrm{kg}$ |
| 1-isopropyl-2,2- <br> dimethyltrimethylene <br> diisobutyrate | Workers | Dermal | Long-term systemic <br> effects | $5.00 \mathrm{mg} / \mathrm{kg}$ |
|  | Workers | Inhalation | Long-term systemic <br> effects | $17.62 \mathrm{mg} / \mathrm{m3}$ |
|  | Consumers | Oral | Long-term systemic <br> effects | $5.00 \mathrm{mg} / \mathrm{kg}$ |
|  | Consumers | Dermal | Long-term systemic <br> effects | $5.00 \mathrm{mg} / \mathrm{kg}$ |
|  | Consumers | Inhalation | Long-term systemic <br> effects | $4.35 \mathrm{mg} / \mathrm{m} 3$ |
| amines, hydrogenated <br> tallow alkyl | Workers | Inhalation | Long-term systemic <br> effects | $0.38 \mathrm{mg} / \mathrm{m} 3$ |
|  | Workers | Inhalation | Long-term local <br> effects | $1 \mathrm{mg} / \mathrm{m3}$ |
|  | Workers | Inhalation | Acute local effects | $1 \mathrm{mg} / \mathrm{m3}$ |
|  | Consumers | Inhalation | Long-term systemic <br> effects | $0.035 \mathrm{mg} / \mathrm{m} 3$ |
|  | Oral | Long-term systemic <br> effects | $0.04 \mathrm{mg} / \mathrm{kg}$ |  |

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

| Substance name | Environmental Compartment | Value |
| :--- | :--- | :--- |
| Copper | Fresh water | $0.0078 \mathrm{mg} / \mathrm{l}$ |
|  | Marine water | $0.0052 \mathrm{mg} / \mathrm{l}$ |
|  | STP | $0.230 \mathrm{mg} / \mathrm{l}$ |
|  | Fresh water sediment | $87 \mathrm{mg} / \mathrm{kg}$ |
|  | Marine sediment | $676 \mathrm{mg} / \mathrm{kg}$ |
|  | Soil | $65 \mathrm{mg} / \mathrm{kg}$ |
|  | Fresh water | $0.0206 \mathrm{mg} / \mathrm{l}$ |
| zinc powder <br> (stabilised) | zinc dust | Marine water |
|  | STP | $0.0061 \mathrm{mg} / \mathrm{l}$ |
|  | Fresh water sediment | $0.100 \mathrm{mg} / \mathrm{l}$ |
|  | Marine sediment | $235.6 \mathrm{mg} / \mathrm{kg}$ |
|  | Soil | $121 \mathrm{mg} / \mathrm{kg}$ |
|  | Fresh water | $35.6 \mathrm{mg} / \mathrm{kg}$ |
| 1 -isopropyl-2,2- <br> dimethyltrimethylene <br> diisobutyrate |  | $0.014 \mathrm{mg} / \mathrm{l}$ |
|  | Marine water |  |
|  | Fresh water sediment | $0.0014 \mathrm{mg} / \mathrm{l}$ |
|  | Soil | $5.29 \mathrm{mg} / \mathrm{kg}$ |
|  |  | $1.05 \mathrm{mg} / \mathrm{kg}$ |

METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |


|  | STP | $3 \mathrm{mg} / \mathrm{l}$ |
| :--- | :--- | :--- |
|  | Marine sediment | $0.529 \mathrm{mg} / \mathrm{kg}$ |
|  | oral (secondary poisoning) | $83.3 \mathrm{mg} / \mathrm{kg}$ |
| amines, hydrogenated tallow <br> alkyl | Fresh water | $0.00026 \mathrm{mg} / \mathrm{l}$ |
|  | Marine water | $0.000026 \mathrm{mg} / \mathrm{l}$ |
|  | Sewage treatment plant | $0.55 \mathrm{mg} / \mathrm{kg}$ |
|  | Fresh water sediment | $3.76 \mathrm{mg} / \mathrm{kg}$ |
|  | Marine sediment | $376 \mathrm{mg} / \mathrm{kg}$ |
|  | Soil | $10 \mathrm{mg} / \mathrm{kg}$ |
|  | Intermittent Release | $0.0016 \mathrm{mg} / \mathrm{l}$ |

8.2 Exposure controls

## Personal protective equipment

| Eye/face protection | Safety glasses <br> Tightly fitting safety goggles <br> 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. |
| Skin and body protection | Impervious clothing <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> Equipment should conform to EN 14387 |

## SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form
: liquid

METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |


| Colour | gold |
| :---: | :---: |
| Odour | characteristic |
| Odour Threshold | No data available |
| Freezing point | No data available |
| Boiling point/boiling range | $>100{ }^{\circ} \mathrm{C}$ |
| Flammability | No data available |
| Upper explosion limit / Upper flammability limit | No data available |
| Lower explosion limit / Lower flammability limit | No data available |
| Flash point | $>100{ }^{\circ} \mathrm{C}$ |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| pH | substance/mixture is non-soluble (in water) |
| Viscosity |  |
| Viscosity, kinematic | > $21 \mathrm{mm2} / \mathrm{s}\left(40{ }^{\circ} \mathrm{C}\right)$ |
| Solubility(ies) |  |
| Water solubility | insoluble |
| Solubility in other solvents | No data available |
| Partition coefficient: n octanol/water | No data available |
| Vapour pressure | No data available |
| Vapor Pressure for Component |  |
| Distillates (petroleum), hydrotreated middle; Gasoil - unspecified | $4 \mathrm{hPa}\left(40{ }^{\circ} \mathrm{C}\right)$ |
| 1-isopropyl-2,2dimethyltrimethylene diisobutyrate amines, hydrogenated tallow alkyl | $1.5 \mathrm{~Pa}\left(25^{\circ} \mathrm{C}\right)$ $<1 \mathrm{hPa}\left(20^{\circ} \mathrm{C}\right)$ |
| Relative density | No data available |
| Density | $1.4 \mathrm{~g} / \mathrm{cm} 3$ |

METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |

Relative vapour density : No data available
Particle characteristics
Particle Size Distribution : 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 avoid

Conditions to avoid
: Do not allow evaporation to dryness.
No data available

### 10.5 Incompatible materials

### 10.6 Hazardous decomposition products

Thermal decomposition : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

## Acute toxicity

Harmful if swallowed.

## Product:

Acute oral toxicity : Acute toxicity estimate: $1,627 \mathrm{mg} / \mathrm{kg}$ Method: Calculation method

## Components:

## Copper:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after

METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |


|  | single ingestion. |
| :---: | :---: |
| Distillates (petroleum), solvent-refined middle; Gasoil - unspecified: |  |
| Acute oral toxicity | LD50 (Rat): > 5,000 mg/kg |
| Acute dermal toxicity | LD50 (Rabbit): > 2,000 mg/kg |
| zinc powder - zinc dust (stabilised): |  |
| Acute oral toxicity | (Rat): $>2,000 \mathrm{mg} / \mathrm{kg}$ |
| Acute inhalation toxicity | LC50 (Rat): $5.41 \mathrm{mg} / \mathrm{l}$ <br> Exposure time: 4 h Test atmosphere: dust/mist |
| 1-isopropyl-2,2-dimethyltrimeth ylene diisobutyrate: |  |
| Acute dermal toxicity | LD50 Dermal (Rabbit): > 2,000 mg/kg Method: OECD Test Guideline 402 |
| amines, hydrogenated tallow alkyl: |  |
| Acute oral toxicity | LD50 (Rat): > 2,000-5,000 mg/kg Method: OECD Test Guideline 401 |
| Skin corrosion/irritation |  |
| Not classified based on available information. |  |
| Product: |  |
| Remarks | May cause skin irritation in susceptible persons. |
| Components: |  |
| Copper: |  |
| Remarks | May cause skin irritation in susceptible persons. |
| 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate: |  |
| Species | Rabbit |
| Exposure time | 4 h |
| Method | OECD Test Guideline 404 |
| Result | No skin irritation |
| octadecylamine: |  |
| Assessment | Irritating to skin. |
| amines, hydrogenated tallow alkyl: |  |
| Result | Skin irritation |

METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |

Remarks : May cause skin irritation in susceptible persons.

## Serious eye damage/eye irritation

Causes serious eye irritation.

## Product:

Remarks : May cause irreversible eye damage.

## Components:

Copper:
Result : Eye irritation

## 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate:

Species : Rabbit
Exposure time : 72 h
Method : OECD Test Guideline 405
Result : No eye irritation
octadecylamine:
Assessment : Corrosive
amines, hydrogenated tallow alkyl:
Result : Irreversible effects on the eye
Remarks : May cause irreversible eye damage.

Respiratory or skin sensitisation

## Skin sensitisation

Not classified based on available information.
Respiratory sensitisation
Not classified based on available information.
Germ cell mutagenicity
Not classified based on available information.

## Carcinogenicity

Not classified based on available information.

## Components:

Distillates (petroleum), solvent-refined middle; Gasoil — unspecified:
Carcinogenicity - : Classified based on the conditions cited in Nota N (Regulation
Assessment (EC) 1272/2008, Annex VI, Part 3, Note N)

METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |

## Reproductive toxicity

Not classified based on available information.

## Components:

1-isopropyl-2,2-dimethyltrimeth ylene diisobutyrate:
Reproductive toxicity - : Some evidence of adverse effects on development, based on Assessment animal experiments.

## STOT - single exposure

Not classified based on available information.

## STOT - repeated exposure

Not classified based on available information.

## Components:

octadecylamine:
Exposure routes : Ingestion
Target Organs : Liver, digestive system, Immune system
Assessment : May cause damage to organs through prolonged or repeated exposure.
amines, hydrogenated tallow alkyl:

| Target Organs | $:$ Liver, Gastrointestinal tract, Immune system |
| :--- | :--- | :--- |
| Assessment | $: \quad$ The substance or mixture is classified as specific target organ |
|  | toxicant, repeated exposure, category 2. |

## Aspiration toxicity

Not classified based on available information.

## Components:

Distillates (petroleum), solvent-refined middle; Gasoil - unspecified:
May be fatal if swallowed and enters airways.
octadecylamine:
May be fatal if swallowed and enters airways.
amines, hydrogenated tallow alkyl:
May be fatal if swallowed and enters airways.

### 11.2 Information on other hazards

Further information
Product:
Remarks : No data available

METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |

## Components:

Copper:
Remarks : No data available
zinc powder - zinc dust (stabilised):
Remarks : No data available

## SECTION 12: Ecological information

### 12.1 Toxicity

## Components:

Copper:
M-Factor (Short-term (acute) : 10
aquatic hazard)
M-Factor (Long-term : 10
(chronic) aquatic hazard)
Ecotoxicology Assessment
Acute aquatic toxicity $\quad:$ Very toxic to aquatic life.
Chronic aquatic toxicity $\quad:$ Very toxic to aquatic life with long lasting effects.
zinc powder - zinc dust (stabilised):
M-Factor (Short-term (acute) : 1
aquatic hazard)
M-Factor (Long-term : 1
(chronic) aquatic hazard)

## Ecotoxicology Assessment

Acute aquatic toxicity $\quad:$ Very toxic to aquatic life.
Chronic aquatic toxicity $\quad:$ Very toxic to aquatic life with long lasting effects.

## Petroleum resins:

Ecotoxicology Assessment
Chronic aquatic toxicity : May cause long lasting harmful effects to aquatic life.

1-isopropyl-2,2-dimethyltrimethylene diisobutyrate:
Toxicity to daphnia and other : (Daphnia (water flea)): $2.46 \mathrm{mg} / \mathrm{l}$ aquatic invertebrates

METALSTAR07 0001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |

## Ecotoxicology Assessment

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.
octadecylamine:
M-Factor (Short-term (acute) : 10
aquatic hazard)
M-Factor (Long-term : 10
(chronic) aquatic hazard)
Ecotoxicology Assessment
Acute aquatic toxicity : Very toxic to aquatic life.
Chronic aquatic toxicity $\quad:$ Very toxic to aquatic life with long lasting effects.
amines, hydrogenated tallow alkyl:
M-Factor (Short-term (acute) : 10
aquatic hazard)
M-Factor (Long-term : 10
(chronic) aquatic hazard)
Ecotoxicology Assessment
Acute aquatic toxicity $\quad:$ Very toxic to aquatic life.
Chronic aquatic toxicity $\quad:$ 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

Product:
Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative ( vPvB ) at levels of $0.1 \%$ or higher.

### 12.6 Endocrine disrupting properties

No data available

### 12.7 Other adverse effects

Product:
Additional ecological : An environmental hazard cannot be excluded in the event of

METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |

information
unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

Components:

## Copper:

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.
zinc powder - zinc dust (stabilised):
Additional ecological : An environmental hazard cannot be excluded in the event of information unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.
amines, hydrogenated tallow alkyl:

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

European Waste Catalogue : 0803 12* - waste ink containing dangerous substances

### 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.

## SECTION 14: Transport information

### 14.1 UN number or ID number

| ADR | $:$ UN 3082 |
| :--- | :--- |
| IMDG | $:$ UN 3082 |
| IATA | $:$ UN 3082 |

14.2 UN proper shipping name

## METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Copper metal powder)
IMDG

IATA : Environmentally hazardous substance, liquid, n.o.s.
(Copper metal powder)

### 14.3 Transport hazard class(es)

Class
Subsidiary risks

| ADR | $: 9$ |
| :--- | :---: |
| IMDG | $: 9$ |
| IATA | $: 9$ |

14.4 Packing group

## ADR

Packing group : III

Classification Code : M6
Hazard Identification Number : 90
Labels : 9
Tunnel restriction code : (-)
IMDG
Packing group : III
Labels : 9
EmS Code : F-A, S-F
IATA (Cargo)
Packing instruction (cargo : 964
aircraft)
Packing instruction (LQ) : Y964
Packing group : III
Labels : 9
IATA (Passenger)
Packing instruction : 964
(passenger aircraft)
Packing instruction (LQ) : Y964
Packing group : III
Labels : 9
14.5 Environmental hazards

## ADR

Environmentally hazardous : yes
IMDG
Marine pollutant : yes

METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |

### 14.6 Special precautions for user

Remarks : For single packagings $<=5 \mathrm{~L} / 5 \mathrm{~kg}$, 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.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

## SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Relevant EU provisions transposed through retained EU law
REACH - Restrictions on the manufacture, placing on : Conditions of restriction for the the market and use of certain dangerous substances, mixtures and articles (Annex XVII) following entries should be considered:
Number on list 3
Distillates (petroleum), hydrotreated middle; Gasoil - unspecified (Number on list 3) 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate (Number on list 3)

```
UK REACH Candidate list of substances of very high : Not applicable concern (SVHC) for Authorisation
The Persistent Organic Pollutants Regulations (retained : Not applicable Regulation (EU) 2019/1021 as amended for Great Britain)
Regulation (EC) No 1005/2009 on substances that : Not applicable deplete the ozone layer
UK REACH List of substances subject to authorisation : Not applicable (Annex XIV)
```


### 15.2 Chemical safety assessment

No data available

## SECTION 16: Other information

## Full text of H-Statements

H302 : Harmful if swallowed.
H304 : May be fatal if swallowed and enters airways.

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |


| H315 | $:$ | Causes skin irritation. |
| :--- | :---: | :--- |
| H318 | $:$ | Causes serious eye damage. |
| H319 | $:$ | Causes serious eye irritation. |
| H361d | $:$ | Suspected of damaging the unborn child. |
| H373 | May cause damage to organs through prolonged or repeated |  |
|  |  | exposure. |
| H400 | $:$ Very toxic to aquatic life. |  |
| H410 | $:$ Very toxic to aquatic life with long lasting effects. |  |
| H412 | $:$ Harmful to aquatic life with long lasting effects. |  |
| H413 | May cause long lasting harmful effects to aquatic life. |  |
| Full text of other abbreviations |  |  |
| Acute Tox. | $:$ Acute toxicity |  |
| Aquatic Acute | $:$ Short-term (acute) aquatic hazard |  |
| Aquatic Chronic | $:$ Long-term (chronic) aquatic hazard |  |
| Asp. Tox. | $:$ Aspiration hazard |  |
| Eye Dam. | $:$ Serious eye damage |  |
| Eye Irrit. | $:$ Eye irritation |  |
| Repr. | $:$ Reproductive toxicity |  |
| Skin Irrit. | $:$ Skin irritation |  |
| STOT RE | $:$ Specific target organ toxicity - repeated exposure |  |
| GB EH40 | $:$ UK. EH40 WEL - Workplace Exposure Limits |  |
| GB EH40 / TWA | $:$ Long-term exposure limit (8-hour TWA reference period) |  |
| GB EH40 / STEL | $:$ Short-term exposure limit (15-minute reference period) |  |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AllC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx Concentration associated with x\% response; ELx - Loading rate associated with x\% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx Concentration associated with x\% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to $50 \%$ of a test population; LD50 - Lethal Dose to $50 \%$ of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZloC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council

## METALSTAR070001 Rich Gold

| Version | Revision Date: | SDS Number: | Print Date: 03.05.2024 |
| :--- | :--- | :--- | :--- |
| 8.0 | 30.04 .2024 | 102000029134 | Date of first issue: 09.02.2018 |

concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - SelfAccelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information
Classification of the mixture:
Acute Tox. $4 \quad \mathrm{H} 302$
Eye Irrit. $2 \quad \mathrm{H} 319$
Aquatic Acute $1 \quad \mathrm{H} 400$
Aquatic Chronic $1 \quad \mathrm{H} 410$

## Classification procedure:

Calculation method
Calculation method
Calculation method
Calculation method

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GB / EN

