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

1.1 Product identifier

Trade name: VISIONAIRE Honey

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 number

GBK Gefahrgut Büro GmbH, Ingelheim, Germany:
From outside US: (001) 352-323-3500
(First call in English, response in your language is possible)
US & Canada (toll free): 1-800-5355-053

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4 H302: Harmful if swallowed.
Acute aquatic toxicity, Category 1 H400: Very toxic to aquatic life.
Chronic aquatic toxicity, Category 2 H411: Toxic to aquatic life with long lasting effects.

Classification (67/548/EEC, 1999/45/EC)

Harmful
Dangerous for the environment R22: Harmful if swallowed.
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

VISIONAIRE Honey

Version 1.2 Revision Date 17.02.2015 Print Date 20.11.2018

Hazard pictograms:

Signal word: Warning

Hazard statements:
- H302 Harmful if swallowed.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P273 Avoid release to the environment.

Response:
- P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P391 Collect spillage.

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

Hazardous components which must be listed on the label:
- 7440-50-8 copper

2.3 Other hazards
No information available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No. EC-No. Registration number</th>
<th>Classification (67/548/EEC)</th>
<th>Classification (REGULATION (EC) No 1272/2008)</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>copper</td>
<td>7440-50-8 231-159-6 01-2119480154-42</td>
<td>Xn-N; R22-R50/53</td>
<td>Acute Tox. 4; H302 Aquatic Acute 1; H400 Aquatic Chronic 2; H411</td>
<td>&gt;= 50 - &lt;= 100</td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

4.1 Description of first aid measures

General advice: Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Move the victim to fresh air. Do not leave the victim unattended.

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.

In case of eye contact: Flush eyes with water as a precaution. 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

Symptoms: No information available.

Risks: No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: No information 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

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.

5.3 Advice for firefighters

Special protective equipment for firefighters: Wear self contained breathing apparatus for fire fighting if necessary.

Further information: 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.

Standard procedure for chemical fires. 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: Avoid dust formation. Avoid breathing dust. Use personal protective equipment. Evacuate personnel to safe areas.

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: Keep in suitable, closed containers for disposal.

Use mechanical handling equipment.

Pick up and transfer to properly labelled containers.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: Avoid formation of respirable particles. Do not breathe vapours/dust. 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.

Avoid creating dust. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

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

Hygiene measures: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

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.

7.2 Conditions for safe storage, including any incompatibilities

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

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.

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

Advice on common storage: Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. Do not store together with oxidizing and self-igniting products.

Other data: Keep in a dry place. No decomposition if stored and applied as directed.

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

7.3 Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>copper</td>
<td>7440-50-8</td>
<td>TWA (Inhalable)</td>
<td>10 mg/m³</td>
<td>2011-12-01</td>
<td>GB EH40</td>
</tr>
</tbody>
</table>

Further information: The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m\(^{-3}\) 8-hour TWA of inhalable dust or 4 mg.m\(^{-3}\) 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

| copper     | 7440-50-8 | TWA (Respirable)              | 4 mg/m³            | 2011-12-01 | GB EH40   |

Further information: The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m\(^{-3}\) 8-hour TWA of inhalable dust or 4 mg.m\(^{-3}\) 8-hour TWA of respirable dust. This means that any
dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

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<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>copper</td>
<td>7440-50-8</td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>2005-04-06</td>
<td>GB EH40</td>
</tr>
<tr>
<td>copper</td>
<td>7440-50-8</td>
<td>STEL</td>
<td>2 mg/m³</td>
<td>2005-04-06</td>
<td>GB EH40</td>
</tr>
<tr>
<td>copper</td>
<td>7440-50-8</td>
<td>TWA</td>
<td>0.2 mg/m³</td>
<td>2005-04-06</td>
<td>GB EH40</td>
</tr>
</tbody>
</table>

Further information

The word ‘fume’ is often used to include gases and vapours. This is not the case for exposure limits where ‘fume’ should normally be applied to solid particles generated by chemical reactions or condensed from the gaseous state, usually after volatilisation from melted substances. The generation of fume is often accompanied by a chemical reaction such as oxidation or thermal breakdown. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc</td>
<td>7440-66-6</td>
<td>TWA (Inhalable)</td>
<td>10 mg/m³</td>
<td>2011-12-01</td>
<td>GB EH40</td>
</tr>
</tbody>
</table>

Further information

The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m⁻³ 8-hour TWA of inhalable dust or 4 mg.m⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

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</tr>
</thead>
<tbody>
<tr>
<td>zinc</td>
<td>7440-66-6</td>
<td>TWA (Respirable)</td>
<td>4 mg/m³</td>
<td>2011-12-01</td>
<td>GB EH40</td>
</tr>
</tbody>
</table>
Further information

For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust. The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg·m⁻³ 8-hour TWA of inhalable dust or 4 mg·m⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed ‘inhalable’ and ‘respirable’. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.
<table>
<thead>
<tr>
<th>DNEL:</th>
<th>copper (7440-50-8)</th>
<th>End Use: Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Exposure routes: Skin contact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potential health effects: short term – systemic effects</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Value: 273 mg/kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DNEL:</th>
<th>copper (7440-50-8)</th>
<th>End Use: Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Exposure routes: Inhalation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potential health effects: short term – systemic effects</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Value: 20 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DNEL:</th>
<th>copper (7440-50-8)</th>
<th>End Use: Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Exposure routes: Skin contact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potential health effects: long term – systemic effects</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Value: 137 mg/kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DNEL:</th>
<th>copper (7440-50-8)</th>
<th>End Use: Consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Exposure routes: Skin contact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potential health effects: short term – systemic effects</td>
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<td></td>
<td></td>
<td>Value: 273 mg/kg</td>
</tr>
</tbody>
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<tr>
<td></td>
<td></td>
<td>Exposure routes: Inhalation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potential health effects: long term – systemic effects</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Value: 20 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DNEL:</th>
<th>zinc (7440-66-6)</th>
<th>End Use: Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Exposure routes: Inhalation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potential health effects: long term – systemic effects</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Value: 5 mg/m3</td>
</tr>
</tbody>
</table>

Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.
VISIONAIRE Honey

zinc (7440-66-6)  
End Use: Workers  
Exposure routes: Skin contact  
Potential health effects: long term – systemic effects  
Value: 83 mg/kg

**DNEL:**  
zinc (7440-66-6)  
End Use: Consumers  
Exposure routes: Ingestion  
Potential health effects: long term – systemic effects  
Value: 0.83 mg/kg

**DNEL:**  
zinc (7440-66-6)  
End Use: Consumers  
Exposure routes: Skin contact  
Potential health effects: long term – systemic effects  
Value: 83 mg/kg

**DNEL:**  
zinc (7440-66-6)  
End Use: Consumers  
Exposure routes: Inhalation  
Potential health effects: long term – systemic effects  
Value: 2.5 mg/m3

**PNEC:**  
copper (7440-50-8)  
Soil  
Value: 65.5 mg/kg

**PNEC:**  
copper (7440-50-8)  
Fresh water  
Value: 0.0078 mg/l

**PNEC:**  
copper (7440-50-8)  
Fresh water sediment  
Value: 87 mg/kg

**PNEC:**  
copper (7440-50-8)  
Marine water  
Value: 0.0052 mg/l

**PNEC:**  
copper (7440-50-8)  
Marine sediment  
Value: 676 mg/kg

**PNEC:**  
copper (7440-50-8)  
STP  
Value: 0.230 mg/l

---

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8.2 Exposure controls

Personal protective equipment
Eye protection : Eye wash bottle with pure water
: Safety glasses

Hand protection
Material : Leather

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

: 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: Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

: Anti-static and fire resistant protective clothing. EN 531; EN 533; EN 1149-1. Anti-static safety shoes.
Recommended preventive skin protection

Respiratory protection: Use suitable breathing protection if workplace concentration requires.
Respirator with a dust filter
P1 filter

Environmental exposure controls
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

Colour: gold

Odour: odourless

pH: no data available

Freezing point: no data available

Boiling point/boiling range: no data available
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

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Flash point: no data available
Bulk density: no data available
Flammability (solid, gas): no data available
Auto-flammability: no data available
Upper explosion limit: no data available
Lower explosion limit: no data available
Vapour pressure: no data available
Density: no data available
Water solubility: no data available
Solubility in other solvents: no data available
Partition coefficient: n-octanol/water: no data available
Auto-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.
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: No decomposition if stored and applied as directed.
Stable under recommended storage conditions., No hazards to be specially mentioned.
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 products: no data available

Other information: no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product

Acute oral toxicity: Acute toxicity estimate: 589.37 mg/kg

Method: Calculation method

Components:

7440-66-6:

Acute oral toxicity: rat: > 2,000 mg/kg

Acute inhalation toxicity: LC50 rat: 5.41 mg/l

Exposure time: 4 h

Skin corrosion/irritation

no data available

Serious eye damage/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

Components:
7440-50-8 :
no data available

SECTION 12: Ecological information

12.1 Toxicity
Components:
copper (7440-50-8):
M-Factor : 10

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., Toxic to aquatic life with long lasting effects.

Components:
copper (7440-50-8):
  Additional ecological information  :  An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Very toxic to aquatic life., Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

  European Waste Catalogue : 12 01 04 - non-ferrous metal dust and particles

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
- **ADR**: 3077
- **IMDG**: 3077
- **IATA**: 3077

#### 14.2 Proper shipping name
- **ADR**: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper metal powder)
- **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
- **IMDG**: 9
- **IATA**: 9

#### 14.4 Packing group
- **ADR**
  - Packaging group: III
  - Classification Code: M7
  - Hazard identification No: 90
  - Labels: 9
  - Tunnel restriction code: (E)
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

14.6 Special precautions for user
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

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Prohibition/Restriction
Candidate List of Substances of Very High Concern for Authorisation : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

15.2 Chemical Safety Assessment
no data available

SECTION 16: Other information

Full text of R-Phrases

R22 Harmful if swallowed.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of H-Statements

H302 Harmful if swallowed.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 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.