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

1.1 Product identifier

Trade name : Sample Floristic Gold Spray 400 ml 14-01016
Product code : 08310105Z 08310105Z

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 of person responsible for the SDS : msds.eckart@altana.com

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)
Aerosols, Category 1
H222: Extremely flammable aerosol.
H229: Pressurised container: May burst if heated.

Skin irritation, Category 2
H315: Causes skin irritation.

Eye irritation, Category 2
H319: Causes serious eye irritation.

Skin sensitisation, Category 1
H317: May cause an allergic skin reaction.

Specific target organ toxicity - single exposure, Category 3, Central nervous system
H336: May cause drowsiness or dizziness.

Acute aquatic toxicity, Category 1
H400: Very toxic to aquatic life.
Chronic aquatic toxicity, Category 1

H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008)**

<table>
<thead>
<tr>
<th>Hazard pictograms</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Signal word</th>
<th>Danger</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Hazard statements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>H222</td>
<td>Extremely flammable aerosol.</td>
</tr>
<tr>
<td>H229</td>
<td>Pressurised container: May burst if heated.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H336</td>
<td>May cause drowsiness or dizziness.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Precautionary statements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>P101</td>
<td>If medical advice is needed, have product container or label at hand.</td>
</tr>
<tr>
<td>P102</td>
<td>Keep out of reach of children.</td>
</tr>
<tr>
<td><strong>Prevention:</strong></td>
<td></td>
</tr>
<tr>
<td>P210</td>
<td>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</td>
</tr>
<tr>
<td>P211</td>
<td>Do not spray on an open flame or other ignition source.</td>
</tr>
<tr>
<td>P251</td>
<td>Do not pierce or burn, even after use.</td>
</tr>
<tr>
<td>P271</td>
<td>Use only outdoors or in a well-ventilated area.</td>
</tr>
<tr>
<td>P280</td>
<td>Wear protective gloves.</td>
</tr>
<tr>
<td><strong>Storage:</strong></td>
<td></td>
</tr>
<tr>
<td>P405</td>
<td>Store locked up.</td>
</tr>
<tr>
<td>P410 + P412</td>
<td>Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.</td>
</tr>
<tr>
<td><strong>Disposal:</strong></td>
<td></td>
</tr>
<tr>
<td>P501</td>
<td>Dispose of contents/ container to an approved waste disposal plant.</td>
</tr>
</tbody>
</table>

Hazardous components which must be listed on the label:
- acetone
- solvent naphtha (petroleum), light arom.
- naphtha (petroleum), hydrotreated light n-butyl acetate
- Orange, sweet, ext.
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

Hazardous components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Index-No.</th>
<th>Registration number</th>
<th>Classification</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>200-827-9</td>
<td></td>
<td>601-003-00-5</td>
<td>Flam. Gas 1; H220 Press. Gas Liquefied gas; H280</td>
<td>20 - &lt; 25</td>
</tr>
<tr>
<td>butane</td>
<td>106-97-8</td>
<td>203-448-7</td>
<td></td>
<td>601-004-00-0</td>
<td>Flam. Gas 1; H220 Press. Gas C; H280</td>
<td>20 - &lt; 25</td>
</tr>
<tr>
<td>acetone</td>
<td>67-64-1</td>
<td>200-662-2</td>
<td></td>
<td>606-001-00-8</td>
<td>Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336</td>
<td>10 - &lt; 20</td>
</tr>
<tr>
<td>copper</td>
<td>7440-50-8</td>
<td>231-159-6</td>
<td></td>
<td>01-2119480154-42</td>
<td>Acute Tox. 4; H302 Eye Irrit. 2; H319 Aquatic Acute 1; H400 Aquatic Chronic 1; H410</td>
<td>2.5 - &lt; 10</td>
</tr>
<tr>
<td>solvent naphtha (petroleum), light arom.</td>
<td>64742-95-6</td>
<td>918-668-5</td>
<td></td>
<td>649-356-00-4</td>
<td>Flam. Liq. 3; H226 STOT SE 3; H336 STOT SE 3; H335 Asp. Tox. 1; H304 Aquatic Chronic 2; H411</td>
<td>2.5 - &lt; 10</td>
</tr>
<tr>
<td>naphtha (petroleum), hydrotreated light</td>
<td>64742-49-0</td>
<td>265-151-9</td>
<td></td>
<td>649-328-00-1</td>
<td>Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411</td>
<td>2.5 - &lt; 10</td>
</tr>
<tr>
<td>xylene</td>
<td>1330-20-7</td>
<td>215-535-7</td>
<td></td>
<td>601-022-00-9</td>
<td>Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315</td>
<td>1 - &lt; 10</td>
</tr>
<tr>
<td>n-butyl acetate</td>
<td>123-86-4</td>
<td>204-658-1</td>
<td></td>
<td>607-025-00-1</td>
<td>Flam. Liq. 3; H226 STOT SE 3; H336</td>
<td>1 - &lt; 10</td>
</tr>
<tr>
<td>zinc powder - zinc dust</td>
<td>7440-66-6</td>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 1;</td>
<td>1 - &lt; 2.5</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.

If inhaled: Consult a physician after significant exposure. If unconscious, place in recovery position and seek medical advice.

In case of skin contact: If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact: Immediately flush eye(s) with plenty of water. Remove contact lenses. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

If swallowed: Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Risks: Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause drowsiness or dizziness.
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: Dry sand
Carbon dioxide (CO2)
Alcohol-resistant foam
ABC powder

Unsuitable extinguishing media: Water

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 firefighting 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. For safety reasons in case of fire, cans should be stored separately in closed containments. 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.
Avoid breathing dust.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low 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 material for containment and cleaning up
Methods for cleaning up: Pick up and transfer to properly labelled containers.

6.4 Reference to other sections

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Advice on safe handling: Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Advice on protection against fire and explosion: Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures: 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: BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects. No smoking. 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.

Further information on storage stability: No decomposition if stored and applied as directed.
### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

**Occupational Exposure Limits**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters</th>
<th>Basis (Version Date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>butane</td>
<td>106-97-8</td>
<td>STEL</td>
<td>750 ppm 1,810 mg/m³</td>
<td>GB EH40 (2007-08-01)</td>
</tr>
</tbody>
</table>

**Further information**

Capable of causing cancer and/or heritable genetic damage. The identified substances include those which: - are assigned the risk phrases 'R45: May cause cancer'; 'R46: may cause heritable genetic damage'; 'R49: May cause cancer by inhalation' or - a substance or process listed in Schedule 1 of COSHH., Carcinogenic only applies if butane contains more than 0.1% of buta-1,3-diene

<table>
<thead>
<tr>
<th>TWA</th>
<th>600 ppm 1,450 mg/m³</th>
<th>GB EH40 (2007-08-01)</th>
</tr>
</thead>
</table>

**Further information**

Capable of causing cancer and/or heritable genetic damage. The identified substances include those which: - are assigned the risk phrases 'R45: May cause cancer'; 'R46: may cause heritable genetic damage'; 'R49: May cause cancer by inhalation' or - a substance or process listed in Schedule 1 of COSHH., Carcinogenic only applies if butane contains more than 0.1% of buta-1,3-diene

<table>
<thead>
<tr>
<th>TWA</th>
<th>500 ppm 1,210 mg/m³</th>
<th>2000/39/EC (2000-06-16)</th>
</tr>
</thead>
</table>

**Further information**

Indicative

<table>
<thead>
<tr>
<th>TWA</th>
<th>500 ppm 1,210 mg/m³</th>
<th>GB EH40 (2005-04-06)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>STEL</th>
<th>1,500 ppm 3,620 mg/m³</th>
<th>GB EH40 (2005-04-06)</th>
</tr>
</thead>
</table>

**Further information**

Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

<table>
<thead>
<tr>
<th>TWA (Fumes)</th>
<th>0.2 mg/m³ (Copper)</th>
<th>GB EH40 (2011-12-01)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>TWA (Dusts and mists)</th>
<th>1 mg/m³ (Copper)</th>
<th>GB EH40 (2011-12-01)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>STEL (Dusts and mists)</th>
<th>2 mg/m³ (Copper)</th>
<th>GB EH40 (2011-12-01)</th>
</tr>
</thead>
</table>

**Further information**

Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

<table>
<thead>
<tr>
<th>TWA</th>
<th>50 ppm 220 mg/m³</th>
<th>GB EH40 (2005-04-06)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>STEL</th>
<th>100 ppm 441 mg/m³</th>
<th>GB EH40 (2005-04-06)</th>
</tr>
</thead>
</table>

**Further information**

Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

<table>
<thead>
<tr>
<th>TWA</th>
<th>50 ppm</th>
<th>2000/39/EC</th>
</tr>
</thead>
</table>
Further information Identifies the possibility of significant uptake through the skin, Indicative

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Sampling time</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>xylene</td>
<td>1330-20-7</td>
<td>methyl hippuric acid: 650 Millimoles per mole Creatinine (Urine)</td>
<td>After shift</td>
<td>GB EH40 BAT</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Substance name</th>
<th>End Use</th>
<th>Exposure routes</th>
<th>Potential health effects</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>acetone</td>
<td>Workers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>186 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>1210 mg/m3</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Ingestion</td>
<td>long term – systemic effects</td>
<td>62 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>62 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>200 mg/m3</td>
</tr>
</tbody>
</table>
### Sample Floristic Gold Spray 400 ml 14-01016

<table>
<thead>
<tr>
<th></th>
<th>Workers</th>
<th>Inhalation</th>
<th>short term – local effects</th>
<th>2420 mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>copper</td>
<td>Workers</td>
<td>Skin contact</td>
<td>short term – systemic effects</td>
<td>273 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>short term – systemic effects</td>
<td>20 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>137 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Skin contact</td>
<td>short term – systemic effects</td>
<td>273 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Inhalation</td>
<td>short term – systemic effects</td>
<td>20 mg/m³</td>
</tr>
<tr>
<td>n-butyl acetate</td>
<td>Workers</td>
<td>Inhalation</td>
<td>short term – systemic effects</td>
<td>960 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>480 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Inhalation</td>
<td>short term – systemic effects</td>
<td>859.7 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>102.34 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Inhalation</td>
<td>long term – local effects</td>
<td>102.34 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>long term – local effects</td>
<td>480 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>short term – local effects</td>
<td>960 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Inhalation</td>
<td>short term – local effects</td>
<td>859.7 mg/m³</td>
</tr>
<tr>
<td>zinc powder - zinc dust (stabilized)</td>
<td>Workers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>83 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Ingestion</td>
<td>long term – systemic effects</td>
<td>0.83 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>83 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>2.5 mg/m³</td>
</tr>
<tr>
<td>Orange, sweet, ext.</td>
<td>Consumers</td>
<td>Ingestion</td>
<td>long term – systemic effects</td>
<td>4.44 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>8.89 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>4.44 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Skin contact</td>
<td>short term – local effects</td>
<td>0.1858 mg/cm²</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Skin contact</td>
<td>short term – local effects</td>
<td>0.0929 mg/cm²</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>31.1 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>7.78 mg/m³</td>
</tr>
</tbody>
</table>
Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Environmental Compartment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>acetone</td>
<td>Soil</td>
<td>29.5 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Fresh water</td>
<td>10.6 mg/l</td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>30.4 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>1.06 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>3.04 mg/kg</td>
</tr>
<tr>
<td></td>
<td>STP</td>
<td>100 mg/l</td>
</tr>
<tr>
<td>copper</td>
<td>Soil</td>
<td>65.5 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Fresh water</td>
<td>0.0078 mg/l</td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>87 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0.0052 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>676 mg/kg</td>
</tr>
<tr>
<td></td>
<td>STP</td>
<td>0.230 mg/l</td>
</tr>
<tr>
<td>n-butyl acetate</td>
<td>Soil</td>
<td>0.0903 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Fresh water</td>
<td>0.18 mg/l</td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>0.981 mg/kg</td>
</tr>
<tr>
<td></td>
<td>STP</td>
<td>35.6 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0.018 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>0.0981 mg/kg</td>
</tr>
<tr>
<td>zinc powder - zinc dust (stabilized)</td>
<td>Fresh water</td>
<td>0.0206 mg/l</td>
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<tr>
<td></td>
<td>Fresh water sediment</td>
<td>117.8 mg/kg</td>
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<tr>
<td></td>
<td>Marine water</td>
<td>0.0061 mg/l</td>
</tr>
<tr>
<td></td>
<td>Soil</td>
<td>35.6 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>56.5 mg/kg</td>
</tr>
<tr>
<td>Orange, sweet, ext.</td>
<td>Soil</td>
<td>0.261 mg/kg</td>
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<tr>
<td></td>
<td>STP</td>
<td>2.1 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0.00054 mg/l</td>
</tr>
<tr>
<td></td>
<td>Fresh water</td>
<td>0.0054 mg/l</td>
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<tr>
<td></td>
<td>Marine sediment</td>
<td>0.13 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>1.3 mg/kg</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Personal protective equipment

Eye protection : Tightly fitting safety goggles

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

Respiratory protection: In the case of vapour formation use a respirator with an approved filter. In the case of dust or aerosol formation use respirator with an approved filter.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>aerosol</td>
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<tr>
<td>Colour</td>
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<tr>
<td>Odour</td>
<td>characteristic</td>
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<td>Odour Threshold</td>
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<tr>
<td>pH</td>
<td>No data available</td>
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<tr>
<td>Freezing point</td>
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<td>Boiling point/boiling range</td>
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<td>Flash point</td>
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<tr>
<td>Evaporation rate</td>
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<td>Flammability (solid, gas)</td>
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<td>Self-ignition</td>
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<td>Auto-ignition temperature</td>
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<td>Smoldering temperature</td>
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<tr>
<td>Decomposition temperature</td>
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<tr>
<td>Explosive properties</td>
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<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
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</tbody>
</table>
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Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : No data available

Bulk density : No data available

Solubility(ies)
   Water solubility : immiscible

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Decomposition temperature : 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 : No decomposition if stored and applied as directed.
   Vapours may form explosive mixture with air.

10.4 Conditions to avoid
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Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

10.6 Hazardous decomposition products

Contact with water or humid air : This information is not available.

Thermal decomposition : This information is not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Components:

propane:

Acute inhalation toxicity : LC50 (Rat): 800000 ppm
Exposure time: 0.25 h

acetone:

Acute oral toxicity : LD50 (Rabbit): 4,700 - 5,800 mg/kg
(Mouse): 3,000 mg/kg
(Rat): 9,800 mg/kg

Acute inhalation toxicity : LC50 (Rat): 76 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
# Sample Floristic Gold Spray 400 ml 14-01016

**copper:**

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

**solvent naphtha (petroleum), light arom.:**

Acute oral toxicity : LD50 (Rat): 3,492 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 3,160 mg/kg

**xylene:**

Acute oral toxicity : LD50 (Rat): 8,700 mg/kg

Acute inhalation toxicity : LC50 (Rat): 6,350 mg/l
  Exposure time: 4 h
  Test atmosphere: vapour

  Assessment: The component/mixture is moderately toxic after short term inhalation.

Acute dermal toxicity : Acute toxicity estimate: 1,100 mg/kg
  Method: Converted acute toxicity point estimate

  Assessment: The component/mixture is moderately toxic after single contact with skin.

**zinc powder - zinc dust (stabilized):**

Acute oral toxicity : (Rat): > 2,000 mg/kg

**amines, hydrogenated tallow alkyl:**

Acute oral toxicity : LD50 (Rat): > 2,000 - 5,000 mg/kg
  Method: OECD Test Guideline 401

## Skin corrosion/irritation

Causes skin irritation.

**Product:**

Remarks: May cause skin irritation and/or dermatitis.

**Components:**

**acetone:**

Remarks: Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin.
copper:
Remarks: May cause skin irritation in susceptible persons.

xylene:
Result: Skin irritation

amines, hydrogenated tallow alkyl:
Result: Skin irritation
Remarks: May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation
Causes serious eye irritation.

Product:
Remarks: Eye irritation

Components:
acetone:
Remarks: Severe eye irritation

copper:
Result: Eye irritation

amines, hydrogenated tallow alkyl:
Result: Irreversible effects on the eye
Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation
Skin sensitisation
May cause an allergic skin reaction.
Respiratory sensitisation
Not classified based on available information.

Product:
Remarks: Causes sensitisation.
May cause sensitisation of susceptible persons by skin contact.

Germ cell mutagenicity
Not classified based on available information.
Carcinogenicity
Not classified based on available information.
Reproductive toxicity
Not classified based on available information.

STOT - single exposure
May cause drowsiness or dizziness.

Components:
solvent naphtha (petroleum), light arom.:  
Assessment: May cause respiratory irritation., May cause drowsiness or dizziness.

n-butyl acetate:  
Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure
Not classified based on available information.

Components:
amines, hydrogenated tallow alkyl:  
Target Organs: Liver, Gastrointestinal tract, Immune system  
Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Aspiration toxicity
Not classified based on available information.

Components:
solvent naphtha (petroleum), light arom.:  
May be fatal if swallowed and enters airways.

amines, hydrogenated tallow alkyl:  
May be fatal if swallowed and enters airways.

Further information
Product:
Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.  
Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.

Components:
copper:  
Remarks: No data available

zinc powder - zinc dust (stabilized):  
Remarks: No data available
amines, hydrogenated tallow alkyl:
Remarks: Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:
acetone:
Toxicity to daphnia and other aquatic invertebrates:
(Daphnia magna (Water flea)): 21,600 mg/l

Copper:
M-Factor (Acute aquatic toxicity): 10

Ecotoxicology Assessment
Acute aquatic toxicity: Very toxic to aquatic life.
Chronic aquatic toxicity: Very toxic to aquatic life with long lasting effects.

solvent naphtha (petroleum), light arom.:
Ecotoxicology Assessment
Chronic aquatic toxicity: Toxic to aquatic life with long lasting effects.

Zinc powder - zinc dust (stabilized):
Ecotoxicology Assessment
Acute aquatic toxicity: Very toxic to aquatic life.
Chronic aquatic toxicity: Very toxic to aquatic life with long lasting effects.

amines, hydrogenated tallow alkyl:
M-Factor (Acute aquatic toxicity): 10
M-Factor (Chronic aquatic toxicity): 10

Ecotoxicology Assessment
Acute aquatic toxicity: Very toxic to aquatic life.
Chronic aquatic toxicity: Very toxic to aquatic life with long lasting effects.
12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
Components:
n-butyl acetate:
Partition coefficient: n-octanol/water: log Pow: 2.3

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 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.

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 (stabilized):
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.

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: 16 05 04 - gases in pressure containers (including halons)
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. In accordance with local and national regulations.

Contaminated packaging:
Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum. In accordance with local and national regulations.

SECTION 14: Transport information

14.1 UN number

ADR: UN 1950
IMDG: UN 1950
IATA: UN 1950

14.2 UN proper shipping name

ADR: AEROSOLS (Copper metal powder)
IMDG: AEROSOLS (Copper metal powder)
IATA: Aerosols, flammable

14.3 Transport hazard class(es)

ADR: 2
IMDG: 2.1
IATA: 2.1

14.4 Packing group

ADR
Packing group: Not assigned by regulation
Classification Code: 5F
Labels: 2.1
Tunnel restriction code: (D)

IMDG
Packing group: Not assigned by regulation
Labels: 2.1
EmS Code: F-D, S-U
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

This information is not available.

SECTION 16: Other information

Full text of H-Statements

H220 : Extremely flammable gas.
H225 : Highly flammable liquid and vapour.
H226 : Flammable liquid and vapour.
H280 : Contains gas under pressure; may explode if heated.
H302 : Harmful if swallowed.
H304 : May be fatal if swallowed and enters airways.
H312 : Harmful in contact with skin.
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Date of first issue: 07.01.2014

H315 : Causes skin irritation.
H317 : May cause an allergic skin reaction.
H318 : Causes serious eye damage.
H319 : Causes serious eye irritation.
H332 : Harmful if inhaled.
H335 : May cause respiratory irritation.
H336 : May cause drowsiness or dizziness.
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.
H411 : Toxic to aquatic life with long lasting effects.

Full text of other abbreviations
Acute Tox. : Acute toxicity
Aquatic Acute : Acute aquatic toxicity
Aquatic Chronic : Chronic aquatic toxicity
Asp. Tox. : Aspiration hazard
Eye Dam. : Serious eye damage
Eye Irrit. : Eye irritation
Flam. Gas : Flammable gases
Flam. Liq. : Flammable liquids
Press. Gas : Gases under pressure
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation
STOT RE : Specific target organ toxicity - repeated exposure
STOT SE : Specific target organ toxicity - single exposure
GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
GB EH40 BAT : UK. Biological monitoring guidance values
2000/39/EC / TWA : Limit Value - eight hours
2000/39/EC / STEL : Short term exposure limit
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 - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; 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 % 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
Further information

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.

GB / EN