1 Identification of substance:

· Product details:
· Trade name: TETRA POND FISH TREATMENT
· Article number: 822.085
· Manufacturer/Supplier:
  Tetra
  3001 Commerce Street
  Blacksburg, VA 24060-6671
  USA
· Additional information:
· Emergency information:
  Emergency Number Berlin
  +49 (0)30 19240

2 Composition/Data on components:

· Chemical characterization
  · Description: Mixture of the substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>Dangerous components</th>
<th>00-00-0 formaldyde</th>
<th>T; R 23/24/25-34-40-43</th>
<th>10-25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>6119-47-7 Chininhhydrochlorid-2-hydrat</td>
<td>Xn; R 20/21/22</td>
<td>2.5-10%</td>
<td></td>
</tr>
<tr>
<td>7647-01-0 hydrochloric acid</td>
<td>C; R 34-37</td>
<td>≤ 2.5%</td>
<td></td>
</tr>
</tbody>
</table>

· Additional information For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

· Hazard description:

Xn Harmful

· Information pertaining to particular dangers for man and environment
  The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
  R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
  R 36/37/38 Irritating to eyes, respiratory system and skin.
  R 40 Limited evidence of a carcinogenic effect.
  R 43 May cause sensitization by skin contact.

· Classification system
  The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

· NFPA ratings (scale 0-4)

  2 0
  Health = 2
  Fire = 2
  Reactivity = 0

4 First aid measures

· General information
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation
  Supply fresh air and to be sure call for a doctor.

(Contd. on page 2)
Trade name: TETRA POND FISH TREATMENT

In case of unconsciousness place patient stably in side position for transportation.
- After skin contact Immediately wash with water and soap and rinse thoroughly.
- After eye contact Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing Immediately call a doctor.

5 Fire fighting measures

- Suitable extinguishing agents
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Protective equipment: Mount respiratory protective device.

6 Accidental release measures

- Person-related safety precautions: Not required.
- Measures for environmental protection: Do not allow to enter sewers/surface or ground water.
- Measures for cleaning/collecting:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.

7 Handling and storage

- Handling
- Information for safe handling:
  Thorough dusting.
  Ensure good ventilation/exhaustion at the workplace.
- Information about protection against explosions and fires: No special measures required.
- Storage
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.

8 Exposure controls and personal protection

- Additional information about design of technical systems: No further data; see item 7.

- Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Short-term value</th>
<th>Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-00-0 formaldehyde (10-25%)</td>
<td>2 ppm</td>
<td>0.75 ppm</td>
</tr>
<tr>
<td></td>
<td>see 29 CFR 1910.1048 *</td>
<td></td>
</tr>
<tr>
<td>REL: Short-term value: C 0.1 ppm</td>
<td>Long-term value: 0.016 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*15-min</td>
<td></td>
</tr>
<tr>
<td>TLV: Short-term value: C 0.37 mg/m³, C 0.3 ppm</td>
<td>SEN</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Short-term value</th>
<th>Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>7647-01-0 hydrochloric acid (≤ 2.5%)</td>
<td>C 7 mg/m³, C 5 ppm</td>
<td>C 7 mg/m³, C 5 ppm</td>
</tr>
<tr>
<td></td>
<td>C 2.98 mg/m³, C 2 ppm</td>
<td></td>
</tr>
</tbody>
</table>

- Additional information: The lists that were valid during the creation were used as basis.
Trade name: TETRA POND FISH TREATMENT

- Personal protective equipment
- General protective and hygienic measures
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
  - Wash hands before breaks and at the end of work.
  - Avoid contact with the eyes and skin.
- Breathing equipment:
  - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- Protection of hands:
  - Protective gloves.
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
- Material of gloves:
  - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- Penetration time of glove material:
  - The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection: Tightly sealed goggles.

### 9 Physical and chemical properties:

<table>
<thead>
<tr>
<th>General Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form:</strong></td>
</tr>
<tr>
<td><strong>Color:</strong></td>
</tr>
<tr>
<td><strong>Odor:</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in condition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Melting point/Melting range:</strong></td>
</tr>
<tr>
<td><strong>Boiling point/Boiling range:</strong></td>
</tr>
</tbody>
</table>

| **Flash point:** | 58°C (136°F) |
| **Auto igniting:** | Product is not selfigniting. |
| **Danger of explosion:** | Product does not present an explosion hazard. |

<table>
<thead>
<tr>
<th>Explosion limits:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lower:</strong></td>
</tr>
<tr>
<td><strong>Upper:</strong></td>
</tr>
</tbody>
</table>

| **Vapor pressure at 20°C (68°F):** | 23.0 hPa (17 mm Hg) |
| **Density at 20°C (68°F):** | 1.090 g/cm³ |
| **Solubility in / Miscibility with Water:** | Fully miscible |
| **pH-value at 20°C (68°F):** | 2.1 |

<table>
<thead>
<tr>
<th><strong>Solvent content:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organic solvents:</strong></td>
</tr>
<tr>
<td><strong>Water:</strong></td>
</tr>
</tbody>
</table>
Trade name: TETRA POND FISH TREATMENT

· Solids content: 4.0 %

10 Stability and reactivity

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
· Dangerous reactions: No dangerous reactions known
· Dangerous products of decomposition: No dangerous decomposition products known

11 Toxicological information

· Acute toxicity:

<table>
<thead>
<tr>
<th>LD/LC50 values that are relevant for classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-00-0 formaldehyde</td>
</tr>
<tr>
<td>Oral [LD50] &gt; 200 mg/kg (rat)</td>
</tr>
</tbody>
</table>

· Primary irritant effect:

| on the skin: Irritant to skin and mucous membranes. |
| on the eye: Irritating effect.                     |
| Sensitization: Sensitization possible through skin contact. |

· Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant

12 Ecological information:

· General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

· Product:

| Recommendation | Must not be disposed of together with household garbage. Do not allow product to reach sewage system. |

· Uncleaned packagings:

| Recommendation: Disposal must be made according to official regulations. |

14 Transport information

· Maritime transport IMDG:
· Marine pollutant: No

15 Regulations

· Cancerogenity categories

<table>
<thead>
<tr>
<th>EPA (Environmental Protection Agency)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>
Trade name: TETRA POND FISH TREATMENT

- IARC (International Agency for Research on Cancer)
  50-00-0 formaldehyde  2A
  7647-01-0 hydrochloric acid  3
- NTP (National Toxicology Program)
  50-00-0 formaldehyde
- TLV (Threshold Limit Value established by ACGIH)
  None of the ingredients is listed.
- MAK (German Maximum Workplace Concentration)
  None of the ingredients is listed.
- NIOSH-Ca (National Institute for Occupational Safety and Health)
  None of the ingredients is listed.
- OSHA-Ca (Occupational Safety & Health Administration)
  None of the ingredients is listed.
- Markings according to EU guidelines:
  The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials
- Code letter and hazard designation of product:
  Xn Harmful
- Hazard-determining components of labelling:
  formaldehyde
- Risk phrases:
  20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
  36/37/38 Irritating to eyes, respiratory system and skin.
  40 Limited evidence of a carcinogenic effect.
  43 May cause sensitization by skin contact.
- Safety phrases:
  2 Keep out of the reach of children.
  24 Avoid contact with skin.
  46 If swallowed, seek medical advice immediately and show this container or label.
  56 Dispose of this material and its container at hazardous or special waste collection point
- National regulations
- Technical instructions (air):

<table>
<thead>
<tr>
<th>Class</th>
<th>Share in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wasser</td>
<td>78.7</td>
</tr>
<tr>
<td>1</td>
<td>16.0</td>
</tr>
</tbody>
</table>
- Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

16 Other information:
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing MSDS:
  Tetra GmbH
  Herrenteich 78
  49324 Melle
  Germany
  Legal Department
- Contact:
  Jürgen Böhmann
  Tetra GmbH
  Tel.: +49(0)5422105-134