1. Identification of substance:

- **Product details:**
  - **Trade name:** TETRA POND BARLEY & PEAT EXTRACT
  - **Article number:** 821.347/3
  - **Manufacturer/Supplier:** Tetra
    3001 Commerce Street
    Blacksburg, VA 24060-6671
    USA
  - **Additional information:** Tetra (USA)
    Tel.: (540)951-5508
  - **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>T: R 23/24/25-34-40-43 ≤ 2.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td></td>
</tr>
</tbody>
</table>

3. Hazards identification

- **Hazard description:**
  - Xi Irritant

  **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 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):**
  - Health = 0
  - Fire = 0
  - Reactivity = 0

4. First aid measures

- **After inhalation**
  Supply fresh air and to be sure call for a doctor.
  In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact**
  Immediately wash with water and soap and rinse thoroughly.

(Contd. on page 2)
Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 02/17/2005
Reviewed on 02/17/2005

Trade name: TETRA POND BARLEY & PEAT EXTRACT

(Contd. of page 1)

- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult 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: No special measures required.

6 Accidental release measures

- Person-related safety precautions: Not required.
- Measures for environmental protection:
  Dilute with plenty of water.
  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).

7 Handling and storage

- Handling:
  Information for safe handling: 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: None.

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>50-40-8 formaldehyde (≤ 2.5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>REL</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>TLV</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

- Additional information: The lists that were valid during the creation were used as basis.
- Personal protective equipment:
  General protective and hygienic measures
  Immediately remove all soiled and contaminated clothing
  Wash hands before breaks and at the end of work.
  Breathing equipment: Not required.

(Contd. on page 3)
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: Goggles recommended during refilling.

9 Physical and chemical properties:

<table>
<thead>
<tr>
<th>General Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form: Fluid</td>
</tr>
<tr>
<td>Color: Brown</td>
</tr>
<tr>
<td>Odor: Characteristic</td>
</tr>
</tbody>
</table>

- Change in condition
  - Melting point/Melting range: undetermined
  - Boiling point/Boiling range: undetermined

- Flash point: Not applicable
- Auto igniting: Product is not selfigniting.
- Danger of explosion: Product does not present an explosion hazard.
- Density at 20°C (68°F): 1.01 g/cm³
- Solubility in / Miscibility with Water: Fully miscible
- pH-value at 20°C (68°F): 7.3
- Solvent content:
  - Organic solvents: 0.5 %
- Solids content: 15.0 %

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

(Contd. on page 4)
Material Safety Data Sheet
acc. to ISO/DIS 11014

Trade name: TETRA POND BARLEY & PEAT EXTRACT

(Contd. of page 3)

11 Toxicological information

- Acute toxicity:
- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No 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:

Irritant

12 Ecological information:

- General notes:
  Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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.
  - Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- DOT regulations:
- Hazard class:
- Land transport ADR/RID (cross-border)
  - ADR/RID class:
- Maritime transport IMDG:
  - IMDG Class:
  - Marine pollutant: No
- Air transport ICAO-TI and IATA-DGR:
  - ICAO/IATA Class:

15 Regulations

- Cancerogeneity categories
  - EPA (Environmental Protection Agency)
    - None of the ingredients is listed.
  - IARC (International Agency for Research on Cancer)
    - 50-00-0 formaldehyde 2A

(Contd. on page 5)
Materials Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 02/17/2005
Reviewed on 02/17/2005

Trade name: TETRA POND BARLEY & PEAT EXTRACT

- NTP (National Toxicology Program)
- 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:
  Xi Irritant

- Hazard-determining components of labelling:
  Formaldehyde

- Risk phrases:
  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>1</td>
<td>0.5</td>
</tr>
</tbody>
</table>

- Water hazard class: Water hazard class 1 (Self-assessment): slightly 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: Herr J. Böhmman