

# **SAFETY DATA SHEET**

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

| 1.1. Product identifier<br>Trade name or<br>designation of the mixture | B3P21Series                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Registration number                                                    | N/A                                                                                                                                                                                                                                                                                        |
| Synonyms                                                               | None.                                                                                                                                                                                                                                                                                      |
| Issue date                                                             | 08-Jun-2013                                                                                                                                                                                                                                                                                |
| Version number                                                         | 01                                                                                                                                                                                                                                                                                         |
| 1.2. Relevant identified uses o                                        | f the substance or mixture and uses advised against                                                                                                                                                                                                                                        |
| Identified uses                                                        | Inkjet printing                                                                                                                                                                                                                                                                            |
| Uses advised against                                                   | None known.                                                                                                                                                                                                                                                                                |
| Company identification                                                 | Hewlett-Packard, Ltd.<br>Cain Road, Amen Corner<br>Bracknell, Berkshire, RG12 1HN<br>Telephone 1 344 36-0000                                                                                                                                                                               |
|                                                                        | Hewlett-Packard health effects line<br>(Toll-free within the US) 1-800-457-4209<br>(Direct) 1-503-494-7199<br>HP Customer Care Line<br>(Toll-free within the US) 1-800-474-6836<br>(Direct) 1-208-323-2551<br>Email: hpcustomer.inquiries@hp.com<br>Poison Information Center 0207771 5307 |

# SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

#### Classification according to Directive 67/548/EEC or 1999/45/EC as amended

| -                                 |                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Emergency overview                | Contact with skin and eyes may result in irritation.                                                                                                                                                                                                                                                                                                           |
| Hazard summary                    |                                                                                                                                                                                                                                                                                                                                                                |
| Physical hazards                  | Not classified for physical hazards.                                                                                                                                                                                                                                                                                                                           |
| Health hazards                    | Not classified as a health hazard.                                                                                                                                                                                                                                                                                                                             |
| Environmental hazards             | Not classified for hazards to the environment.                                                                                                                                                                                                                                                                                                                 |
| Specific hazards                  | Not available.                                                                                                                                                                                                                                                                                                                                                 |
| Main symptoms                     | Not available.                                                                                                                                                                                                                                                                                                                                                 |
| 2.2. Label elements               |                                                                                                                                                                                                                                                                                                                                                                |
| Label according to Directive 67   | 7/548/EEC or 1999/45/EC as amended                                                                                                                                                                                                                                                                                                                             |
| Contains:                         | 1-(2-hydroxyethyl)-2-pyrrolidone, 2-pyrrolidone, Aliphatic diol, Substituted naphthalenesulfonate salt # 13, Water                                                                                                                                                                                                                                             |
| R-phrase(s)                       | Not available.                                                                                                                                                                                                                                                                                                                                                 |
| S-phrase(s)                       | Not available.                                                                                                                                                                                                                                                                                                                                                 |
| Authorization number              | Not available.                                                                                                                                                                                                                                                                                                                                                 |
| Supplemental label<br>information | Not applicable.                                                                                                                                                                                                                                                                                                                                                |
| 2.3. Other hazards                | This yellow ink is not classified according to EU Directive 1999/45/EC. Potential routes of overexposure to this product are skin and eye contact Inhalation of vapor and ingestion are not expected to be significant routes of exposure for this product under normal use conditions. Complete toxicity data are not available for this specific formulation |

## SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

#### **General information**

**Chemical name** 

% CAS-No. / EC No. REACH Registration No. Index No. Notes

| Water                                                                                                                                                                                                                                                                           |                                                                                                            | > 7                                                                                                                                                                                                                               | 70                                                                                                       | 7732-18-5<br>231-791-2                                                                                                                                           | -                                                                                                                                                 | -                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Classification:                                                                                                                                                                                                                                                                 | DSD:                                                                                                       | -                                                                                                                                                                                                                                 |                                                                                                          |                                                                                                                                                                  |                                                                                                                                                   |                                                                                                                    |
|                                                                                                                                                                                                                                                                                 | CLP:                                                                                                       | -                                                                                                                                                                                                                                 |                                                                                                          |                                                                                                                                                                  |                                                                                                                                                   |                                                                                                                    |
| 1-(2-hydroxyethyl)-2-pyrr                                                                                                                                                                                                                                                       | olidone                                                                                                    | < 2                                                                                                                                                                                                                               | 10                                                                                                       | 3445-11-2<br>222-359-4                                                                                                                                           | -                                                                                                                                                 | -                                                                                                                  |
| Classification:                                                                                                                                                                                                                                                                 | DSD:                                                                                                       | -                                                                                                                                                                                                                                 |                                                                                                          |                                                                                                                                                                  |                                                                                                                                                   |                                                                                                                    |
|                                                                                                                                                                                                                                                                                 | CLP:                                                                                                       | -                                                                                                                                                                                                                                 |                                                                                                          |                                                                                                                                                                  |                                                                                                                                                   |                                                                                                                    |
| Aliphatic diol                                                                                                                                                                                                                                                                  |                                                                                                            | < 2                                                                                                                                                                                                                               | 10                                                                                                       | Proprietary                                                                                                                                                      | -                                                                                                                                                 | -                                                                                                                  |
| Classification:                                                                                                                                                                                                                                                                 | DSD:                                                                                                       | -                                                                                                                                                                                                                                 |                                                                                                          |                                                                                                                                                                  |                                                                                                                                                   |                                                                                                                    |
|                                                                                                                                                                                                                                                                                 | CLP:                                                                                                       | -                                                                                                                                                                                                                                 |                                                                                                          |                                                                                                                                                                  |                                                                                                                                                   |                                                                                                                    |
| 2-pyrrolidone                                                                                                                                                                                                                                                                   |                                                                                                            | <                                                                                                                                                                                                                                 | 5                                                                                                        | 616-45-5<br>210-483-1                                                                                                                                            | -                                                                                                                                                 | -                                                                                                                  |
| Classification:                                                                                                                                                                                                                                                                 | DSD:                                                                                                       | Xi;R36                                                                                                                                                                                                                            |                                                                                                          |                                                                                                                                                                  |                                                                                                                                                   |                                                                                                                    |
|                                                                                                                                                                                                                                                                                 | CLP:                                                                                                       | Eye Irrit. 2                                                                                                                                                                                                                      | ;H319                                                                                                    |                                                                                                                                                                  |                                                                                                                                                   |                                                                                                                    |
| Substituted naphthalenes<br># 13                                                                                                                                                                                                                                                | ulfonate                                                                                                   | e salt                                                                                                                                                                                                                            | 5                                                                                                        | Proprietary<br>-                                                                                                                                                 | -                                                                                                                                                 | -                                                                                                                  |
| Classification:                                                                                                                                                                                                                                                                 | DSD:                                                                                                       | -                                                                                                                                                                                                                                 |                                                                                                          |                                                                                                                                                                  |                                                                                                                                                   |                                                                                                                    |
|                                                                                                                                                                                                                                                                                 | CLP:                                                                                                       | -                                                                                                                                                                                                                                 |                                                                                                          |                                                                                                                                                                  |                                                                                                                                                   |                                                                                                                    |
|                                                                                                                                                                                                                                                                                 |                                                                                                            |                                                                                                                                                                                                                                   |                                                                                                          |                                                                                                                                                                  |                                                                                                                                                   |                                                                                                                    |
| mposition comments                                                                                                                                                                                                                                                              | T<br>1<br>F                                                                                                | his product<br>999/45/EC,<br>or the full te                                                                                                                                                                                       | has been<br>as ameno                                                                                     |                                                                                                                                                                  | ria specified in the E                                                                                                                            | EU Directives 67/548/EEC anc                                                                                       |
| CTION 4: First aid me                                                                                                                                                                                                                                                           | T<br>1<br>F<br>easures                                                                                     | his product<br>999/45/EC,<br>for the full te                                                                                                                                                                                      | has been<br>as amend<br>ext of the                                                                       | evaluated using crite                                                                                                                                            | ria specified in the E                                                                                                                            |                                                                                                                    |
| CTION 4: First aid me                                                                                                                                                                                                                                                           | T<br>1<br>F<br>easures                                                                                     | his product<br>999/45/EC,<br>for the full te<br>5<br>lot available                                                                                                                                                                | has been<br>as amend<br>ext of the                                                                       | evaluated using crite                                                                                                                                            | ria specified in the E                                                                                                                            |                                                                                                                    |
| CTION 4: First aid me<br>neral information<br>Description of first aid                                                                                                                                                                                                          | T<br>1<br>F<br>easures<br>N<br>I meas                                                                      | This product<br>999/45/EC,<br>for the full te<br>5<br>lot available<br><b>ures</b>                                                                                                                                                | has been<br>as amend<br>ext of the                                                                       | evaluated using crite<br>ded.<br>R phrases mentioned                                                                                                             | ria specified in the E                                                                                                                            |                                                                                                                    |
| CTION 4: First aid me                                                                                                                                                                                                                                                           | T<br>1<br>F<br>easures<br>M<br>d meas<br>M<br>V                                                            | This product<br>999/45/EC,<br>for the full te<br>5<br>lot available<br><b>ures</b><br>flove to fresh                                                                                                                              | has been<br>as amend<br>ext of the                                                                       | vevaluated using criter<br>ded.<br>R phrases mentioned<br>ymptoms persist, get r                                                                                 | ria specified in the E<br>I in this Section, see<br>nedical attention.                                                                            |                                                                                                                    |
| CTION 4: First aid me<br>neral information<br>Description of first aid<br>Inhalation                                                                                                                                                                                            | T<br>1<br>F<br>casures<br>N<br>i meas<br>M<br>V<br>a<br>C<br>C                                             | This product<br>999/45/EC,<br>for the full te<br>or the full te<br>bot available<br><b>ures</b><br>Nove to fresh<br>Vash affecte<br>ttention.                                                                                     | has been<br>as amend<br>ext of the                                                                       | evaluated using crite<br>ded.<br>R phrases mentioned<br>ymptoms persist, get r<br>horoughly with mild so<br>ediately flush with larg                             | ria specified in the E<br>I in this Section, see<br>nedical attention.<br>Dap and water. If irr<br>ge amounts of clear                            | e Section 16.                                                                                                      |
| CTION 4: First aid me<br>neral information<br>Description of first aid<br>Inhalation<br>Skin contact                                                                                                                                                                            | T<br>1<br>F<br>Sasures<br>N<br>I meas<br>N<br>V<br>a<br>C<br>C<br>I<br>G                                   | This product<br>999/45/EC,<br>for the full te<br>for available<br><b>ures</b><br>Move to fresh<br>Vash affecte<br>ttention.<br>Do not rub ey<br>east 15 minu                                                                      | has been<br>as amend<br>ext of the<br>h air. If sy<br>d areas t<br>yes. Imm<br>utes or ur                | evaluated using crite<br>ded.<br>R phrases mentioned<br>ymptoms persist, get r<br>horoughly with mild so<br>ediately flush with larg                             | ria specified in the E<br>I in this Section, see<br>medical attention.<br>Dap and water. If irr<br>ge amounts of clear<br>red. If irritation pers | e Section 16.<br>itation persists get medical<br>n, warm water (low pressure) for a<br>ists get medical attention. |
| CTION 4: First aid me<br>neral information<br>Description of first aid<br>Inhalation<br>Skin contact<br>Eye contact                                                                                                                                                             | T<br>1<br>F<br>casures<br><b>i meas</b><br><b>i meas</b><br>M<br>V<br>a<br>C<br>I<br>k<br>f<br>I<br>I<br>N | This product<br>999/45/EC,<br>for the full te<br>for available<br><b>ures</b><br>Move to fresh<br>Vash affecte<br>ttention.<br>Do not rub ey<br>east 15 minu                                                                      | has been<br>as amend<br>ext of the<br>h air. If sy<br>ed areas t<br>yes. Imm<br>utes or ur<br>of a large | evaluated using criter<br>ded.<br>R phrases mentioned<br>ymptoms persist, get r<br>horoughly with mild so<br>ediately flush with larg<br>til particles are remov | ria specified in the E<br>I in this Section, see<br>medical attention.<br>Dap and water. If irr<br>ge amounts of clear<br>red. If irritation pers | e Section 16.<br>itation persists get medical<br>n, warm water (low pressure) for a<br>ists get medical attention. |
| CTION 4: First aid me<br>neral information<br>Description of first aid<br>Inhalation<br>Skin contact<br>Eye contact<br>Ingestion<br>Most important<br>nptoms and effects, bot                                                                                                   | T<br>1<br>F<br>Casures<br>N<br>I meass<br>N<br>V<br>a<br>C<br>C<br>I<br>I<br>I<br>K<br>h                   | This product<br>999/45/EC,<br>for the full te<br>or the full te<br>boot available<br><b>ures</b><br>Nove to fresh<br>Vash affecte<br>ttention.<br>Do not rub ey<br>east 15 minu<br>f ingestion o                                  | has been<br>as amend<br>ext of the<br>h air. If sy<br>d areas t<br>yes. Imm<br>utes or ur<br>of a large  | evaluated using criter<br>ded.<br>R phrases mentioned<br>ymptoms persist, get r<br>horoughly with mild so<br>ediately flush with larg<br>til particles are remov | ria specified in the E<br>I in this Section, see<br>medical attention.<br>Dap and water. If irr<br>ge amounts of clear<br>red. If irritation pers | e Section 16.<br>itation persists get medical<br>n, warm water (low pressure) for a<br>ists get medical attention. |
| CTION 4: First aid me<br>neral information<br>Description of first aid<br>Inhalation<br>Skin contact<br>Eye contact<br>Ingestion<br>Most important<br>nptoms and effects, bot<br>ite and delayed<br>Indication of any<br>mediate medical attenti<br>d special treatment         | T<br>1<br>F<br>casures<br>N<br>I meass<br>N<br>V<br>a<br>C<br>I<br>I<br>K<br>th<br>N<br>th                 | This product<br>999/45/EC,<br>for the full te<br>or the full te<br>bot available<br><b>ures</b><br>Nove to fresh<br>Vash affecte<br>ttention.<br>Do not rub ey<br>east 15 minu<br>f ingestion o<br>lot available<br>lot available | has been<br>as amend<br>ext of the<br>h air. If sy<br>d areas t<br>yes. Imm<br>utes or ur<br>of a large  | evaluated using criter<br>ded.<br>R phrases mentioned<br>ymptoms persist, get r<br>horoughly with mild so<br>ediately flush with larg<br>til particles are remov | ria specified in the E<br>I in this Section, see<br>medical attention.<br>Dap and water. If irr<br>ge amounts of clear<br>red. If irritation pers | e Section 16.<br>itation persists get medical<br>n, warm water (low pressure) for a<br>ists get medical attention. |
| CTION 4: First aid me<br>neral information<br>Description of first aid<br>Inhalation<br>Skin contact<br>Eye contact<br>Ingestion<br>Most important<br>nptoms and effects, bot<br>ite and delayed<br>Indication of any<br>mediate medical attenti<br>d special treatment<br>eded | T<br>1<br>F<br>casures<br>M<br>I mease<br>I<br>k<br>I<br>th<br>M<br>T<br>th                                | This product<br>999/45/EC,<br>for the full te<br>or the full te<br>bot available<br><b>ures</b><br>Nove to fresh<br>Vash affecte<br>ttention.<br>Do not rub ey<br>east 15 minu<br>f ingestion o<br>lot available<br>lot available | has been<br>as amend<br>ext of the<br>a air. If sy<br>ad areas t<br>yes. Imm<br>utes or ur<br>of a large | evaluated using criter<br>ded.<br>R phrases mentioned<br>ymptoms persist, get r<br>horoughly with mild so<br>ediately flush with larg<br>til particles are remov | ria specified in the E<br>I in this Section, see<br>medical attention.<br>Dap and water. If irr<br>ge amounts of clear<br>red. If irritation pers | e Section 16.<br>itation persists get medical<br>n, warm water (low pressure) for a<br>ists get medical attention. |

| 5.1. Extinguishing media        |                                   |
|---------------------------------|-----------------------------------|
| Suitable extinguishing<br>media | CO2, water, dry chemical, or foam |
| Unsuitable extinguishing media  | None known.                       |

# 5.3. Advice for firefighters Special protective equipment for firefighters Special fire fighting procedures Not available.

#### SECTION 6: Accidental release measures

| 6.1. Personal precautions, prot                              | tective equipment and emergency procedures                                                                                                                                |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| For non-emergency<br>personnel                               | Wear appropriate personal protective equipment.                                                                                                                           |
| For emergency<br>responders                                  | Not available.                                                                                                                                                            |
| 6.2. Environmental<br>precautions                            | Do not let product enter drains. Do not flush into surface water or sanitary sewer system.                                                                                |
| 6.3. Methods and material for<br>containment and cleaning up | Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. |
| 6.4. Reference to other sections                             | Not available.                                                                                                                                                            |

#### SECTION 7: Handling and storage

| J                                                                       |                                                                           |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------|
| 7.1. Precautions for safe<br>handling                                   | Avoid contact with skin, eyes and clothing.                               |
| 7.2. Conditions for safe<br>storage, including any<br>incompatibilities | Keep out of the reach of children. Keep away from excessive heat or cold. |
| 7.3. Specific end use(s)                                                | Not available.                                                            |

#### SECTION 8: Exposure controls/personal protection

| 1                                             |                                                                         |
|-----------------------------------------------|-------------------------------------------------------------------------|
| 8.1. Control parameters                       |                                                                         |
| <b>Occupational exposure limits</b>           | No exposure limits noted for ingredient(s).                             |
| <b>Biological limit values</b>                | No biological exposure limits noted for the ingredient(s).              |
| Recommended monitoring<br>procedures          | Not available.                                                          |
| Derived no-effect level<br>(DNEL)             | Not available.                                                          |
| Predicted no effect<br>concentrations (PNECs) | Not available.                                                          |
| 8.2. Exposure controls                        |                                                                         |
| Appropriate engineering<br>controls           | Use in a well ventilated area.                                          |
| Individual protection measure                 | es, such as personal protective equipment                               |
| General information                           | Use personal protective equipment to minimize exposure to skin and eye. |
| Eye/face protection                           | Not available.                                                          |
| Skin protection                               |                                                                         |
| - Hand protection                             | Not available.                                                          |
| - Other                                       | Not available.                                                          |
| <b>Respiratory protection</b>                 | Not available.                                                          |
| Thermal hazards                               | Not available.                                                          |
| Hygiene measures                              | Handle in accordance with good industrial hygiene and safety practice.  |
| SECTION 9: Physical and ch                    | nemical properties                                                      |
| 9.1. Information on basic phy                 | sical and chemical properties                                           |
|                                               |                                                                         |

# Appearance Not available. Form Not available.

| Color                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Yellow                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Odor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| Odor threshold                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| рН                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 7.1 - 7.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| Melting point/freezing point                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| Initial boiling point and<br>boiling range                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Not determined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| Flash point                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | > 200.00 °F (> 93.33 °C) Setaflash Closed Tester                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| Evaporation rate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Not determined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| Flammability (solid, gas)                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Not applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| Upper/lower flammability or e                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | xplosive limits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| Flammability limit - lower<br>(%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Not determined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| Flammability limit -<br>upper (%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| Vapor pressure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Not determined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| Relative density                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| Solubility(ies)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Soluble in water                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| Partition coefficient<br>(n-octanol/water)                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| Decomposition temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| Viscosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | > 2 cp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| Explosive properties                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| Oxidizing properties                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Not determined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| 9.2. Other information                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| VOC (Weight %)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | < 245 g/L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| SECTION 10: Stability and r                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | eactivity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | eactivity<br>Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| 10.1. Reactivity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| 10.1. Reactivity<br>10.2. Chemical stability<br>10.3. Possibility of hazardous                                                                                                                                                                                                                                                                                                                                                                                                                       | Not available.<br>Stable under recommended storage conditions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| 10.1. Reactivity<br>10.2. Chemical stability<br>10.3. Possibility of hazardous<br>reactions                                                                                                                                                                                                                                                                                                                                                                                                          | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| 10.1. Reactivity<br>10.2. Chemical stability<br>10.3. Possibility of hazardous<br>reactions<br>10.4. Conditions to avoid                                                                                                                                                                                                                                                                                                                                                                             | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
| <ul> <li>10.1. Reactivity</li> <li>10.2. Chemical stability</li> <li>10.3. Possibility of hazardous reactions</li> <li>10.4. Conditions to avoid</li> <li>10.5. Incompatible materials</li> <li>10.6. Hazardous</li> </ul>                                                                                                                                                                                                                                                                           | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.<br>Incompatible with strong bases and oxidizing agents.<br>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon<br>dioxide and/or low molecular weight hydrocarbons.                                                                                                                                                                                                                                           |  |
| <ul> <li>10.1. Reactivity</li> <li>10.2. Chemical stability</li> <li>10.3. Possibility of hazardous reactions</li> <li>10.4. Conditions to avoid</li> <li>10.5. Incompatible materials</li> <li>10.6. Hazardous decomposition products</li> </ul>                                                                                                                                                                                                                                                    | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.<br>Incompatible with strong bases and oxidizing agents.<br>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon<br>dioxide and/or low molecular weight hydrocarbons.                                                                                                                                                                                                                                           |  |
| <ul> <li>10.1. Reactivity</li> <li>10.2. Chemical stability</li> <li>10.3. Possibility of hazardous reactions</li> <li>10.4. Conditions to avoid</li> <li>10.5. Incompatible materials</li> <li>10.6. Hazardous decomposition products</li> <li>SECTION 11: Toxicological in General information</li> </ul>                                                                                                                                                                                          | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.<br>Incompatible with strong bases and oxidizing agents.<br>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon<br>dioxide and/or low molecular weight hydrocarbons.<br>Information<br>Not available.                                                                                                                                                                                                          |  |
| <ul> <li>10.1. Reactivity</li> <li>10.2. Chemical stability</li> <li>10.3. Possibility of hazardous reactions</li> <li>10.4. Conditions to avoid</li> <li>10.5. Incompatible materials</li> <li>10.6. Hazardous decomposition products</li> <li>SECTION 11: Toxicological in</li> </ul>                                                                                                                                                                                                              | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.<br>Incompatible with strong bases and oxidizing agents.<br>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon<br>dioxide and/or low molecular weight hydrocarbons.<br>Information<br>Not available.                                                                                                                                                                                                          |  |
| <ul> <li>10.1. Reactivity</li> <li>10.2. Chemical stability</li> <li>10.3. Possibility of hazardous reactions</li> <li>10.4. Conditions to avoid</li> <li>10.5. Incompatible materials</li> <li>10.6. Hazardous decomposition products</li> <li>SECTION 11: Toxicological i</li> <li>General information</li> <li>Information on likely routes of</li> </ul>                                                                                                                                         | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.<br>Incompatible with strong bases and oxidizing agents.<br>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon<br>dioxide and/or low molecular weight hydrocarbons.<br>nformation<br>Not available.<br>Fexposure                                                                                                                                                                                              |  |
| 10.1. Reactivity<br>10.2. Chemical stability<br>10.3. Possibility of hazardous<br>reactions<br>10.4. Conditions to avoid<br>10.5. Incompatible materials<br>10.6. Hazardous<br>decomposition products<br>SECTION 11: Toxicological i<br>General information<br>Information on likely routes of<br>Ingestion                                                                                                                                                                                          | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.<br>Incompatible with strong bases and oxidizing agents.<br>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon<br>dioxide and/or low molecular weight hydrocarbons.<br>Information<br>Not available.<br>Fexposure<br>Not available.                                                                                                                                                                           |  |
| <ul> <li>10.1. Reactivity</li> <li>10.2. Chemical stability</li> <li>10.3. Possibility of hazardous reactions</li> <li>10.4. Conditions to avoid</li> <li>10.5. Incompatible materials</li> <li>10.6. Hazardous decomposition products</li> <li>SECTION 11: Toxicological i</li> <li>General information</li> <li>Information on likely routes of Ingestion</li> <li>Inhalation</li> </ul>                                                                                                           | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.<br>Incompatible with strong bases and oxidizing agents.<br>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon<br>dioxide and/or low molecular weight hydrocarbons.<br>nformation<br>Not available.<br><b>fexposure</b><br>Not available.<br>Not available.                                                                                                                                                   |  |
| 10.1. Reactivity<br>10.2. Chemical stability<br>10.3. Possibility of hazardous<br>reactions<br>10.4. Conditions to avoid<br>10.5. Incompatible materials<br>10.6. Hazardous<br>decomposition products<br>SECTION 11: Toxicological i<br>General information<br>Information on likely routes of<br>Ingestion<br>Inhalation<br>Skin contact                                                                                                                                                            | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.<br>Incompatible with strong bases and oxidizing agents.<br>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon<br>dioxide and/or low molecular weight hydrocarbons.<br>Information<br>Not available.<br>Fexposure<br>Not available.<br>Not available.<br>Not available.                                                                                                                                       |  |
| 10.1. Reactivity<br>10.2. Chemical stability<br>10.3. Possibility of hazardous<br>reactions<br>10.4. Conditions to avoid<br>10.5. Incompatible materials<br>10.6. Hazardous<br>decomposition products<br>SECTION 11: Toxicological i<br>General information<br>Information on likely routes of<br>Ingestion<br>Inhalation<br>Skin contact<br>Eye contact                                                                                                                                             | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.<br>Incompatible with strong bases and oxidizing agents.<br>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon<br>dioxide and/or low molecular weight hydrocarbons.<br>nformation<br>Not available.<br><b>f exposure</b><br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.                                                        |  |
| 10.1. Reactivity<br>10.2. Chemical stability<br>10.3. Possibility of hazardous<br>reactions<br>10.4. Conditions to avoid<br>10.5. Incompatible materials<br>10.6. Hazardous<br>decomposition products<br>SECTION 11: Toxicological i<br>General information<br>Information on likely routes of<br>Ingestion<br>Inhalation<br>Skin contact<br>Eye contact<br>Symptoms                                                                                                                                 | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.<br>Incompatible with strong bases and oxidizing agents.<br>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon<br>dioxide and/or low molecular weight hydrocarbons.<br>nformation<br>Not available.<br><b>f exposure</b><br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.                                                        |  |
| <ul> <li>10.1. Reactivity</li> <li>10.2. Chemical stability</li> <li>10.3. Possibility of hazardous reactions</li> <li>10.4. Conditions to avoid</li> <li>10.5. Incompatible materials</li> <li>10.6. Hazardous decomposition products</li> <li>SECTION 11: Toxicological if</li> <li>General information</li> <li>Information on likely routes of Ingestion</li> <li>Inhalation</li> <li>Skin contact</li> <li>Eye contact</li> <li>Symptoms</li> <li>11.1. Information on toxicological</li> </ul> | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.<br>Incompatible with strong bases and oxidizing agents.<br>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon<br>dioxide and/or low molecular weight hydrocarbons.<br>Information<br>Not available.<br><b>f exposure</b><br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available. |  |
| 10.1. Reactivity<br>10.2. Chemical stability<br>10.3. Possibility of hazardous<br>reactions<br>10.4. Conditions to avoid<br>10.5. Incompatible materials<br>10.6. Hazardous<br>decomposition products<br>SECTION 11: Toxicological i<br>General information<br>Information on likely routes of<br>Ingestion<br>Inhalation<br>Skin contact<br>Eye contact<br>Symptoms<br>11.1. Information on toxicolog<br>Components                                                                                 | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.<br>Incompatible with strong bases and oxidizing agents.<br>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon<br>dioxide and/or low molecular weight hydrocarbons.<br>Information<br>Not available.<br><b>f exposure</b><br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available. |  |
| 10.1. Reactivity<br>10.2. Chemical stability<br>10.3. Possibility of hazardous<br>reactions<br>10.4. Conditions to avoid<br>10.5. Incompatible materials<br>10.6. Hazardous<br>decomposition products<br>SECTION 11: Toxicological i<br>General information<br>Information on likely routes of<br>Ingestion<br>Inhalation<br>Skin contact<br>Eye contact<br>Symptoms<br>11.1. Information on toxicolog<br>Components<br>2-pyrrolidone (CAS 616-45-5)                                                 | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.<br>Incompatible with strong bases and oxidizing agents.<br>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon<br>dioxide and/or low molecular weight hydrocarbons.<br>Information<br>Not available.<br><b>f exposure</b><br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available. |  |
| 10.1. Reactivity<br>10.2. Chemical stability<br>10.3. Possibility of hazardous<br>reactions<br>10.4. Conditions to avoid<br>10.5. Incompatible materials<br>10.6. Hazardous<br>decomposition products<br>SECTION 11: Toxicological if<br>General information<br>Information on likely routes of<br>Ingestion<br>Inhalation<br>Skin contact<br>Eye contact<br>Symptoms<br>11.1. Information on toxicolog<br>Components<br>2-pyrrolidone (CAS 616-45-5)<br>Acute                                       | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.<br>Incompatible with strong bases and oxidizing agents.<br>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon<br>dioxide and/or low molecular weight hydrocarbons.<br>Information<br>Not available.<br><b>f exposure</b><br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available. |  |
| 10.1. Reactivity<br>10.2. Chemical stability<br>10.3. Possibility of hazardous<br>reactions<br>10.4. Conditions to avoid<br>10.5. Incompatible materials<br>10.6. Hazardous<br>decomposition products<br>SECTION 11: Toxicological if<br>General information<br>Information on likely routes of<br>Ingestion<br>Inhalation<br>Skin contact<br>Eye contact<br>Symptoms<br>11.1. Information on toxicolog<br>Components<br>2-pyrrolidone (CAS 616-45-5)<br>Acute<br>Oral                               | Not available.<br>Stable under recommended storage conditions.<br>Will not occur.<br>Not available.<br>Incompatible with strong bases and oxidizing agents.<br>Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon<br>dioxide and/or low molecular weight hydrocarbons.<br>Information<br>Not available.<br><b>fexposure</b><br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br><b>ical effects</b><br><b>Species</b><br><b>Test Results</b>          |  |

| Components                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Species                                                                                                                                             |                                                                               | Test Results                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------|
| Aliphatic diol (CAS Proprietary)                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                     |                                                                               |                                             |
| Acute                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                     |                                                                               |                                             |
| Dermal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Data                                                                                                                                                |                                                                               | 10000                                       |
| LD50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Rabbit                                                                                                                                              |                                                                               | > 10000 mg/kg                               |
| <i>Oral</i><br>LD50                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Rat                                                                                                                                                 |                                                                               | 3730 mg/kg                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Kal                                                                                                                                                 |                                                                               | 5750 Hig/kg                                 |
| <i>Other</i><br>LD50                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Mouse                                                                                                                                               |                                                                               | 1738 mg/kg                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                     |                                                                               | 1750 mg/kg                                  |
| Skin corrosion/irritation<br>Serious eye damage/eye                                                                                                                                                                                                                                                                                                                                                                                                                                         | Not available.<br>Not available.                                                                                                                    |                                                                               |                                             |
| irritation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | NUL avaliable.                                                                                                                                      |                                                                               |                                             |
| Respiratory sensitization                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Not available.                                                                                                                                      |                                                                               |                                             |
| Skin sensitization                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Not available.                                                                                                                                      |                                                                               |                                             |
| Germ cell mutagenicity                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Not available.                                                                                                                                      |                                                                               |                                             |
| Carcinogenicity                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Not available.                                                                                                                                      |                                                                               |                                             |
| Reproductive toxicity                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Not available.                                                                                                                                      |                                                                               |                                             |
| Specific target organ toxicity<br>- single exposure                                                                                                                                                                                                                                                                                                                                                                                                                                         | Not available.                                                                                                                                      |                                                                               |                                             |
| Specific target organ toxicity<br>- repeated exposure                                                                                                                                                                                                                                                                                                                                                                                                                                       | Not available.                                                                                                                                      |                                                                               |                                             |
| Aspiration hazard                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Not available.                                                                                                                                      |                                                                               |                                             |
| Mixture versus substance<br>information                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Not available.                                                                                                                                      |                                                                               |                                             |
| Other information                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                     | lation has not been tested for toxic<br>on 2 for potential health effects and |                                             |
| SECTION 12. Ecological info                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                     |                                                                               |                                             |
| JECTION IZ. LUUUYILAI IIIIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | rmation                                                                                                                                             |                                                                               |                                             |
| -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                     | nead minnows => 750 mg/L                                                      |                                             |
| Aquatic toxicity                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                     | nead minnows => 750 mg/L                                                      |                                             |
| Aquatic toxicity<br>12.1. Toxicity                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                     | nead minnows => 750 mg/L<br>Species                                           | Test Results                                |
| Aquatic toxicity<br>12.1. Toxicity<br>Components                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                     |                                                                               | Test Results                                |
| Aquatic toxicity<br>12.1. Toxicity<br>Components                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                     | Species                                                                       |                                             |
| Aquatic toxicity<br>12.1. Toxicity<br>Components<br>2-pyrrolidone (CAS 616-45-5)<br>Aquatic                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                     |                                                                               | <b>Test Results</b><br>13.21 mg/l, 48 hours |
| Aquatic toxicity<br>12.1. Toxicity<br>Components<br>2-pyrrolidone (CAS 616-45-5)<br>Aquatic<br>Crustacea<br>12.2. Persistence and                                                                                                                                                                                                                                                                                                                                                           | LC50/96h/Fath                                                                                                                                       | Species                                                                       |                                             |
| Aquatic toxicity<br>12.1. Toxicity<br>Components<br>2-pyrrolidone (CAS 616-45-5)<br>Aquatic<br>Crustacea<br>12.2. Persistence and<br>degradability<br>12.3. Bioaccumulative                                                                                                                                                                                                                                                                                                                 | LC50/96h/Fath                                                                                                                                       | Species                                                                       |                                             |
| Aquatic toxicity<br>12.1. Toxicity<br>Components<br>2-pyrrolidone (CAS 616-45-5)<br>Aquatic<br>Crustacea<br>12.2. Persistence and<br>degradability<br>12.3. Bioaccumulative<br>potential<br>Partition coefficient                                                                                                                                                                                                                                                                           | LC50/96h/Fath<br>EC50<br>Not available.                                                                                                             | Species                                                                       |                                             |
| Aquatic toxicity<br>12.1. Toxicity<br>Components<br>2-pyrrolidone (CAS 616-45-5)<br>Aquatic<br>Crustacea<br>12.2. Persistence and<br>degradability<br>12.3. Bioaccumulative<br>potential<br>Partition coefficient<br>n-octanol/water (log Kow)                                                                                                                                                                                                                                              | LC50/96h/Fath<br>EC50<br>Not available.                                                                                                             | Species<br>Water flea (Daphnia pulex)                                         |                                             |
| Aquatic toxicity<br>12.1. Toxicity<br>Components<br>2-pyrrolidone (CAS 616-45-5)<br>Aquatic<br>Crustacea<br>12.2. Persistence and<br>degradability<br>12.3. Bioaccumulative<br>potential<br>Partition coefficient                                                                                                                                                                                                                                                                           | LC50/96h/Fath<br>EC50<br>Not available.                                                                                                             | Species                                                                       |                                             |
| Aquatic toxicity<br>12.1. Toxicity<br>Components<br>2-pyrrolidone (CAS 616-45-5)<br>Aquatic<br>Crustacea<br>12.2. Persistence and<br>degradability<br>12.3. Bioaccumulative<br>potential<br>Partition coefficient<br>n-octanol/water (log Kow)<br>2-pyrrolidone<br>Aliphatic diol                                                                                                                                                                                                           | LC50/96h/Fath<br>EC50<br>Not available.<br>Not available.                                                                                           | Species<br>Water flea (Daphnia pulex)<br>-0.85                                |                                             |
| Aquatic toxicity<br>12.1. Toxicity<br>Components<br>2-pyrrolidone (CAS 616-45-5)<br>Aquatic<br>Crustacea<br>12.2. Persistence and<br>degradability<br>12.3. Bioaccumulative<br>potential<br>Partition coefficient<br>n-octanol/water (log Kow)<br>2-pyrrolidone<br>Aliphatic diol<br>Bioconcentration factor (BCF)                                                                                                                                                                          | LC50/96h/Fath<br>EC50<br>Not available.<br>Not available.                                                                                           | Species<br>Water flea (Daphnia pulex)<br>-0.85                                |                                             |
| Crustacea<br>12.2. Persistence and<br>degradability<br>12.3. Bioaccumulative<br>potential<br>Partition coefficient<br>n-octanol/water (log Kow)<br>2-pyrrolidone<br>Aliphatic diol<br>Bioconcentration factor (BCF)<br>12.4. Mobility in soil<br>12.5. Results of PBT<br>and vPvB                                                                                                                                                                                                           | LC50/96h/Fath<br>EC50<br>Not available.<br>Not available.<br>Not available.<br>Not available.                                                       | Species<br>Water flea (Daphnia pulex)<br>-0.85                                |                                             |
| Aquatic toxicity<br>12.1. Toxicity<br>Components<br>2-pyrrolidone (CAS 616-45-5)<br>Aquatic<br>Crustacea<br>12.2. Persistence and<br>degradability<br>12.3. Bioaccumulative<br>potential<br>Partition coefficient<br>n-octanol/water (log Kow)<br>2-pyrrolidone<br>Aliphatic diol<br>Bioconcentration factor (BCF)<br>12.4. Mobility in soil<br>12.5. Results of PBT<br>and vPvB<br>assessment                                                                                              | LC50/96h/Fath<br>EC50<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not a PBT or v                   | Species<br>Water flea (Daphnia pulex)<br>-0.85<br>-0.106                      |                                             |
| Aquatic toxicity<br>12.1. Toxicity<br>Components<br>2-pyrrolidone (CAS 616-45-5)<br>Aquatic<br>Crustacea<br>12.2. Persistence and<br>degradability<br>12.3. Bioaccumulative<br>potential<br>Partition coefficient<br>n-octanol/water (log Kow)<br>2-pyrrolidone<br>Aliphatic diol<br>Bioconcentration factor (BCF)<br>12.4. Mobility in soil<br>12.5. Results of PBT<br>and vPvB<br>assessment<br>12.6. Other adverse effects                                                               | LC50/96h/Fath<br>EC50<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not a PBT or v                   | Species<br>Water flea (Daphnia pulex)<br>-0.85<br>-0.106                      |                                             |
| Aquatic toxicity<br>12.1. Toxicity<br>Components<br>2-pyrrolidone (CAS 616-45-5)<br>Aquatic<br>Crustacea<br>12.2. Persistence and<br>degradability<br>12.3. Bioaccumulative<br>potential<br>Partition coefficient<br>n-octanol/water (log Kow)<br>2-pyrrolidone<br>Aliphatic diol<br>Bioconcentration factor (BCF)<br>12.4. Mobility in soil<br>12.5. Results of PBT<br>and vPvB<br>assessment<br>12.6. Other adverse effects<br>SECTION 13: Disposal consi                                 | LC50/96h/Fath<br>EC50<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not a PBT or v<br>Not available.                   | Species<br>Water flea (Daphnia pulex)<br>-0.85<br>-0.106                      |                                             |
| Aquatic toxicity<br>12.1. Toxicity<br>Components<br>2-pyrrolidone (CAS 616-45-5)<br>Aquatic<br>Crustacea<br>12.2. Persistence and<br>degradability<br>12.3. Bioaccumulative<br>potential<br>Partition coefficient<br>n-octanol/water (log Kow)<br>2-pyrrolidone<br>Aliphatic diol<br>Bioconcentration factor (BCF)<br>12.4. Mobility in soil<br>12.5. Results of PBT<br>and vPvB<br>assessment<br>12.6. Other adverse effects<br>SECTION 13: Disposal consi<br>13.1. Waste treatment method | LC50/96h/Fath<br>EC50<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not a PBT or v<br>Not available. | Species<br>Water flea (Daphnia pulex)<br>-0.85<br>-0.106                      |                                             |
| Aquatic toxicity<br>12.1. Toxicity<br>Components<br>2-pyrrolidone (CAS 616-45-5)<br>Aquatic<br>Crustacea<br>12.2. Persistence and<br>degradability<br>12.3. Bioaccumulative<br>potential<br>Partition coefficient<br>n-octanol/water (log Kow)<br>2-pyrrolidone<br>Aliphatic diol<br>Bioconcentration factor (BCF)<br>12.4. Mobility in soil<br>12.5. Results of PBT                                                                                                                        | LC50/96h/Fath<br>EC50<br>Not available.<br>Not available.<br>Not available.<br>Not available.<br>Not a PBT or v<br>Not available.                   | Species<br>Water flea (Daphnia pulex)<br>-0.85<br>-0.106                      |                                             |

Do not allow this material to drain into sewers/water supplies. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

HP's Planet Partners (trademark) supplies recycling program enables simple, convenient recycling of HP original inkjet and LaserJet supplies. For more information and to determine if this service is available in your location, please visit http://www.hp.com/recycle.

#### SECTION 14: Transport information

#### ADR

Not regulated as dangerous goods.

#### RID

Not regulated as dangerous goods.

#### ADN

Not regulated as dangerous goods.

#### IATA

Not regulated as dangerous goods.

#### IMDG

Not regulated as dangerous goods.

#### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### **EU** regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II Not listed.

**Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended** Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended** Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA Not listed.

#### Authorizations

Regulation (EC) No. 143/2011 Annex XIV Substances Subject to Authorization

Not listed.

#### **Restrictions on use**

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work

#### Not regulated.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not regulated.

#### **Other EU regulations**

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances Not regulated.

| agents at work<br>Not regulated.    | e protection of the health and safety of workers from the risks related to chemical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Not regulated.                      | e protection of young people at work                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Other regulations                   | All chemical substances in this HP product have been notified or are exempt from notification<br>under chemical substances notification laws in the following countries: US (TSCA), EU<br>(EINECS/ELINCS), Switzerland, Canada (DSL/NDSL), Australia, Japan, Philippines, South Korea,<br>New Zealand, and China.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| National regulations                | Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 15.2. Chemical Safety<br>Assessment | Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Other information                   | Specific Provisions: Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (in the amended version OJ L 396 from 29.05.2007 page 3 with further rectifications and amendments). Exposure Limits (See Section 8): Executive regulation of Minister of Labour and Social Policy dated Nov. 29, 2002 concerning the highest exposure limits and volume of factors harmful for health and environment at work (Official Journal of Laws no 217/2002 item 1833 with further amendments). |

# SECTION 16: Other information

| References                                                                             | Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Full text of any statements or<br>R-phrases and H-statements<br>under Sections 2 to 15 | R36 Irritating to eyes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                        | H319 Causes serious eye irritation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Revision information                                                                   | Product and Company Identification: Synonyms<br>Composition / Information on Ingredients: Ingredients<br>Fire Fighting Measures: Fire & Explosion Properties<br>Physical & Chemical Properties: Physical & Chemical Properties<br>14. Transport Information: Material Transportation Information<br>15. Regulatory Information: United States<br>HazReg Data: Europe - EU                                                                                                                                                                       |
| Training information                                                                   | Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Disclaimer                                                                             | This Safety Data Sheet document is provided without charge to customers of Hewlett-Packarc Company. Data is the most current known to Hewlett-Packard Company at the time of preparation of this document and is believed to be accurate. It should not be construed as guaranteeing specific properties of the products as described or suitability for a particular application. This document was prepared to the requirements of the jurisdiction specified in Section 1 above and may not meet regulatory requirements in other countries. |
| Manufacturer information                                                               | Hewlett-Packard Company<br>3000 Hanover Street<br>Palo Alto, California 94304-1112 US<br>(Direct) 1-503-494-7199<br>(Toll-free within the US) 1-800-457-4209                                                                                                                                                                                                                                                                                                                                                                                    |

#### **Explanation of abbreviations**

| ACGIH  | American Conference of Covernmental Industrial Hygiopists           |
|--------|---------------------------------------------------------------------|
|        | American Conference of Governmental Industrial Hygienists           |
| CAS    | Chemical Abstracts Service                                          |
| CERCLA | Comprehensive Environmental Response Compensation and Liability Act |
| CFR    | Code of Federal Regulations                                         |
| COC    | Cleveland Open Cup                                                  |
| DOT    | Department of Transportation                                        |
| EPCRA  | Emergency Planning and Community Right-to-Know Act (aka SARA)       |
| IARC   | International Agency for Research on Cancer                         |
| NIOSH  | National Institute for Occupational Safety and Health               |
| NTP    | National Toxicology Program                                         |
| OSHA   | Occupational Safety and Health Administration                       |
| PEL    | Permissible Exposure Limit                                          |
| RCRA   | Resource Conservation and Recovery Act                              |
| REC    | Recommended                                                         |
| REL    | Recommended Exposure Limit                                          |
| SARA   | Superfund Amendments and Reauthorization Act of 1986                |
| STEL   | Short-Term Exposure Limit                                           |
| TCLP   | Toxicity Characteristics Leaching Procedure                         |
| TLV    | Threshold Limit Value                                               |
| TSCA   | Toxic Substances Control Act                                        |
| VOC    | Volatile Organic Compounds                                          |
|        |                                                                     |