



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Identification of the preparation** CN051Series

**Product use** Inkjet printing

**Version #** 01

**Revision date** 18-Jan-2012

**CAS #** Mixture

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## 2. Hazards Identification

**Emergency overview** Contact with skin and eyes may result in irritation.

### Acute health effects

#### Skin contact

Any potential hazards are presumed to be due to exposure to the components.

Avoid contact with skin Contact with skin may result in irritation.

*1-(2-hydroxyethyl)-2-pyrrolidone*

Contact with skin may result in irritation.

*2-pyrrolidone*

Contact with skin may result in irritation.

*Aliphatic diol*

Contact with skin may result in irritation.

*Tetraethylene glycol*

Contact with skin may result in irritation.

#### Eye contact

*1-(2-hydroxyethyl)-2-pyrrolidone*

Contact with eyes may result in irritation.

*2-pyrrolidone*

Contact with eyes may result in irritation.

*Aliphatic diol*

Contact with eyes may result in irritation.

*Tetraethylene glycol*

Contact with eyes may cause irritation.

#### Inhalation

Inhalation may result in respiratory irritation.

*1-(2-hydroxyethyl)-2-pyrrolidone*

Inhalation may result in respiratory irritation.

*2-pyrrolidone*

Inhalation may result in respiratory irritation.

*Aliphatic diol*

Inhalation may result in respiratory irritation.

*Tetraethylene glycol*

Inhalation may result in respiratory irritation.

**Ingestion***1-(2-hydroxyethyl)-2-pyrrolidone*

Ingestion may result in nausea, vomiting and diarrhea.

*2-pyrrolidone*

Ingestion may result in nausea, vomiting and diarrhea.

**Potential health effects****Routes of exposure**

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

**Chronic health effects**

None known.

**Carcinogenicity**

None of the components present in this formulation at concentrations equal to or greater than 0.1% are listed by EU, MAK, IARC, NTP or OSHA.

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**3. Composition / Information on Ingredients**

Components	CAS #	Percent
1-(2-hydroxyethyl)-2-pyrrolidone	3445-11-2	< 10
2-pyrrolidone	616-45-5	<7.5
Aliphatic diol	Proprietary	< 5
Magenta Colorant	Proprietary	< 2.5
Tetraethylene glycol	112-60-7	< 5
Water	7732-18-5	> 65

**Composition comments**

This ink supply contains an aqueous ink formulation.  
 This product has been evaluated using criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard).

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**4. First Aid Measures****First aid procedures****Eye contact**

Do not rub eyes. Immediately flush with large amounts of clean, warm water (low pressure) for at least 15 minutes or until particles are removed. If irritation persists get medical attention.

**Skin contact**

Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.

**Inhalation**

Move to fresh air. If symptoms persist, get medical attention.

**Ingestion**

If ingestion of a large amount does occur, seek medical attention.

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**5. Fire Fighting Measures****Flammable properties**

None known.

**Extinguishing media****Suitable extinguishing media**

For small (incipient) fires, use media such as foam, sand, dry chemical, or carbon dioxide. For large fires use very large (flooding) quantities of water and/or foam, applied as a mist or spray.

**Unsuitable extinguishing media**

None known.

**Specific methods**

None established.

**Hazardous combustion products**

Refer to section 10.

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**6. Accidental Release Measures****Personal precautions**

Wear appropriate personal protective equipment.

**Environmental precautions**

Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

**Other information**

Soak up with inert absorbent material. Slowly vacuum or sweep the material into a bag or other sealed container. Dispose of in compliance with federal, state, and local regulations. See also section 13 Disposal considerations.

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## 7. Handling and Storage

<b>Handling</b>	Avoid contact with skin, eyes and clothing.
<b>Storage</b>	Keep away from excessive heat or cold. Keep out of the reach of children.

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## 8. Exposure Controls / Personal Protection

<b>Exposure guidelines</b>	Exposure limits have not been established for this product.
<b>Engineering controls</b>	Use in a well ventilated area.
<b>Personal protective equipment</b>	
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>General</b>	Use personal protective equipment to minimize exposure to skin and eye.

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## 9. Physical & Chemical Properties

<b>Appearance</b>	Not available.
<b>Color</b>	Magenta
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>Physical state</b>	Liquid
<b>Form</b>	Not available.
<b>pH</b>	8.8
<b>Melting point</b>	Not available.
<b>Freezing point</b>	Not available.
<b>Boiling point</b>	Not available.
<b>Flash point</b>	> 212 °F (> 100 °C) Pensky-Martens Closed Cup US EPA Method 1020
<b>Evaporation rate</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Specific gravity</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>VOC</b>	< 297 g/L

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## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Incompatible materials</b>	Incompatible with strong bases and oxidizing agents.
<b>Hazardous decomposition products</b>	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
<b>Possibility of hazardous reactions</b>	Will not occur.

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## 11. Toxicological Information

<b>Serious eye damage/eye irritation</b>	Not available.
<b>Further information</b>	This ink formulation has not been tested for toxicological effects. Refer to Section 2 for potential health effects and Section 4 for first aid measures.



**HMIS® ratings** Health: 1  
Flammability: 1  
Physical hazard: 0

**NFPA ratings** Health: 1  
Flammability: 1  
Instability: 0

**Disclaimer** This Safety Data Sheet document is provided without charge to customers of Hewlett-Packard 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.

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### Explanation of abbreviations

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