



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Material name** CE017Series  
**Version #** 02  
**Issue date** 05-Nov-2010  
**Revision date** 11-Jul-2013  
**Product use** Inkjet printing  
**CAS #** Mixture  
**Company identification** Hewlett-Packard Company  
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## 2. Hazards Identification

**Emergency overview** Contact with skin and eyes may result in irritation.  
Allergic reactions are possible. Causes skin and eye irritation.

**Potential health effects**  
**Skin** This product may cause an allergic skin reaction. Irritating to skin, Contact with skin may result in irritation, Harmful if absorbed through the skin, May cause skin sensitization, an allergic reaction, which becomes evident on re-exposure to this material.

**Other hazards** 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

## 3. Composition / Information on Ingredients

<b>Hazardous components</b>	<b>CAS #</b>	<b>Percent</b>
Glycerol	56-81-5	<40
2-pyrrolidone	616-45-5	<7.5
<b>Non-hazardous components</b>	<b>CAS #</b>	<b>Percent</b>
Water	7732-18-5	> 55
ethoxylated 2,4,7,9-tetramethyl-5-decyn-4,7-diol	9014-85-1	<2.5

**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).

## 4. First Aid Measures

**General advice** No information

**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

### Extinguishing media

**Suitable extinguishing media** CO<sub>2</sub>, water, dry chemical, or foam

**Unsuitable extinguishing media** None known.

**Fire fighting equipment/instructions** Not available.

**Specific methods** Wear self contained breathing apparatus for fire fighting if necessary.

**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

**Handling** Avoid contact with skin, eyes and clothing.

**Storage** Keep away from excessive heat or cold. Keep out of the reach of children.

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## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Glycerol (CAS 56-81-5)	TWA	10 mg/m <sup>3</sup>	Mist.

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Glycerol (CAS 56-81-5)	PEL	5 mg/m <sup>3</sup>	Respirable fraction.
		15 mg/m <sup>3</sup>	Total dust.

#### US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A

Components	Type	Value	Form
Glycerol (CAS 56-81-5)	TWA	5 mg/m <sup>3</sup>	Respirable fraction and dust or fume.
		10 mg/m <sup>3</sup>	Total dust and mist.

**Exposure guidelines** Exposure limits have not been established for this product.

**Engineering controls** Use in a well ventilated area.

### Personal protective equipment

**General** Use personal protective equipment to minimize exposure to skin and eye.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

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## 9. Physical & Chemical Properties

**Appearance** Not available.

**Physical state** Liquid.

**Form** Not available.

**Color** Clear.

**Odor** Not available.

**pH** 8.8 - 9.1

**Vapor pressure** Not available.

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<b>Boiling point</b>	Not available.
<b>Melting point/Freezing point</b>	Not available.
<b>Solubility (water)</b>	Not available.
<b>Specific gravity</b>	1 - 1.1
<b>Flash point</b>	> 200.00 °F (> 93.33 °C) Pensky-Martens Closed Cup
<b>Viscosity</b>	3.2 - 3.3 cP
<b>VOC</b>	< 445 g/L
<b>Other information</b>	No information available

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	No information available
<b>Incompatible materials</b>	Not available.
<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.

## 11. Toxicological Information

### Toxicological data

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Guinea pig	6500 mg/kg
	Rat	6500 mg/kg
<b>Carcinogenicity</b>	None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.	
<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.	

## 12. Ecological Information

### Ecotoxicological data

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea ( <i>Daphnia pulex</i> )
		13.21 mg/l, 48 hours
Glycerol (CAS 56-81-5)		
<b>Aquatic</b>		
Fish	LC50	Rainbow trout, donaldson trout ( <i>Oncorhynchus mykiss</i> )
		51000 - 57000 mg/l, 96 hours

**Persistence and degradability** Not available.

### Bioaccumulation / Accumulation

#### Bioaccumulative potential

##### Octanol/water partition coefficient log Kow

2-pyrrolidone	-0.85
Glycerol	-1.76

### Partition coefficient

2-pyrrolidone	-0.85
Glycerol	-1.76

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## 13. Disposal Considerations

### Disposal instructions

Dispose of in compliance with federal, state, and local 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>.

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## 14. Transport Information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

### RID

Not regulated as dangerous goods.

### Further information

Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.

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## 15. Regulatory Information

### US federal regulations

US TSCA 12(b): Does not contain listed chemicals.

US EPA TSCA Inventory: All chemical substances in this product comply with all rules or orders under TSCA.

### Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Not listed.

### Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated.

### DEA Exempt Chemical Mixtures Code Number

Not regulated.

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

### CERCLA (Superfund) reportable quantity

None

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

No

#### SARA 311/312 Hazardous chemical

No

### Other information

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).

VOC content (less water, less exempt compounds) = < 1127 g/L (U.S. requirement, not for emissions)

VOC data based on formulation (Organic compounds minus solids)

### Other regulations

All chemical substances in this HP product have been notified or are exempt from notification under chemical substances notification laws in the following countries: US (TSCA), EU (EINECS/ELINCS), Switzerland, Canada (DSL/NDL), Australia, Japan, Philippines, South Korea, New Zealand, and China.

## State regulations

### US - New Jersey RTK - Substances: Listed substance

Glycerol (CAS 56-81-5) Listed.

### US. Massachusetts RTK - Substance List

2-pyrrolidone (CAS 616-45-5)

Glycerol (CAS 56-81-5)

### US. Pennsylvania RTK - Hazardous Substances

2-pyrrolidone (CAS 616-45-5) Listed.

Glycerol (CAS 56-81-5) Listed.

### US. Rhode Island RTK

Glycerol (CAS 56-81-5)

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## 16. Other Information

### 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.

### Other information

This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).

### Issue date

05-Nov-2010

### This data sheet contains changes from the previous version in section(s):

Hazards Identification: Other hazards  
Composition / Information on Ingredients: Disclosure Overrides  
14. Transport Information: Further information  
15. Regulatory Information: Other information

### Manufacturer information

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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