



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name CE018Series
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

Hazardous components	CAS #	Percent
Glycerol	56-81-5	<40
2-pyrrolidone	616-45-5	<7.5
Non-hazardous components	CAS #	Percent
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.

5. Fire Fighting Measures

Extinguishing media

Suitable extinguishing media CO2, 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.

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.

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.

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/m3	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/m3	Respirable fraction.
		15 mg/m3	Total dust.

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

Components	Type	Value	Form
Glycerol (CAS 56-81-5)	TWA	5 mg/m3	Respirable fraction and dust or fume.
		10 mg/m3	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.

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.

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

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	No information available
Incompatible materials	Not available.
Hazardous decomposition products	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Acute		
<i>Oral</i>		
LD50	Guinea pig	6500 mg/kg
	Rat	6500 mg/kg
Carcinogenicity	None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.	
Serious eye damage/eye irritation	Not available.	
Further information	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)		
Aquatic		
Crustacea	EC50	Water flea (<i>Daphnia pulex</i>)
		13.21 mg/l, 48 hours
Glycerol (CAS 56-81-5)		
Aquatic		
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

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>.

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.

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/NDSL), 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)

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

ACGIH	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