MATERIAL SAFETY DATA SHEET

1. Chemical product and company identification

Product name CH168Series

Recommended use of the chemical and restrictions on use

Intended use Inkjet printing.

Company identification Hewlett-Packard Japan, Ltd.
2-2-1 Ojima, Koto-ku, Tokyo, 136-8711 Japan
Telephone (+81) 3 5628-1101

Hewlett-Packard health effects line
(Toll-free within the US) 1-800-457-4209
(Direct) 1-503-494-7199
HP Customer Care Line
(Toll-free within the US) 1-800-474-6836
(Direct) 1-208-323-2551
Email: hpcustomer.inquiries@hp.com
Poison Information Centre 0120-50-3024

2. Hazards identification

Physical hazards Not classified as a physical hazard.

Health hazards Not classified as a health hazard.

Environmental hazards Not classified as an environmental hazard.

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

Other hazards Potential routes of exposure to this product are skin and eye contact, ingestion, and inhalation.

3. Composition/information on ingredients

Substance or mixture Mixture

Components	CAS #	Percent
2-pyrrolidone	616-45-5	<15
Dyes	Proprietary	1-5
Glycerol Ethoxylate	31694-55-0	<5
1,2-Hexanediol	6920-22-5	<3
Isopropyl alcohol	67-63-0	<2.5
Diethanolamine	111-42-2	<2
Glycerol	56-81-5	<2
Minor Ingredients		<1
Water	7732-18-5	Balance

Synonym(s) ColorSpan 0900700-101

4. First aid measures

If inhaled In case of accident by inhalation: remove casualty to fresh air and keep at rest. If symptoms persist, get medical attention.

If on skin In case of contact, immediately remove contaminated clothing and flush skin with copious amounts of water.
Wash clothing separately before reuse.

If in eyes In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation develops or persists.

If swallowed Rinse mouth out with water. Give several glasses of water. If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. If symptoms persist, get medical attention.

Most important symptoms and effects No data available

5. Fire-fighting measures

Flash point Not flammable

Extinguishing media Use any media suitable for the surrounding fires.

Extinguishing media to avoid None.

Special fire fighting procedures Wear suitable protective equipment.

Protection of fire-fighters No data available.

6. Accidental release measures

Personal precautions, protective equipment and emergency measures Avoid contact with skin. Do not touch or walk through spilled material.
Use personal protective equipment to minimize exposure to skin and eye.

Environmental precautions Do not flush into surface water or sanitary sewer system.

Clean-up methods and materials and containment measures Clean-up methods - small spillage

7. Handling and storage

Handling

Technical measures Not available.

Local and general ventilation Not available.

Precautions Not available.

Safe handling advice Avoid contact with skin, eyes and clothing.

Storage

Technical measures Keep out of the reach of children. Keep away from excessive heat or cold.

Suitable storage conditions Not available.

Incompatible products No data.

Safe packaging materials Not available.

8. Exposure controls/personal protection

Occupational exposure limits

Japan. OELs - ISHL. (Workplace Environment Assessment Standards)

Components	Type	Value
ISOPROPYL ALCOHOL (CAS 67-63-0)	TLV	200 ppm

Japan. OELs - JSOH. (Japan Society of Occupational Health: Advisory Opinion on Permissible [Exposure] Limits)

Components	Type	Value
Isopropyl alcohol (CAS 67-63-0)	Ceiling	980 mg/m3
		400 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Diethanolamine (CAS 111-42-2)	TWA	1 mg/m3	Inhalable fraction and vapor.
Glycerol (CAS 56-81-5)	TWA	10 mg/m3	Mist.
Isopropyl alcohol (CAS 67-63-0)	STEL	400 ppm	
	TWA	200 ppm	

Recommended monitoring procedures

Additional exposure data Not available.

Personal protective equipment

Respiratory protection	Under normal conditions, respirator is not normally required. Provide adequate ventilation.
Hand protection	Not available.
Eye protection	Wear safety glasses; chemical goggles (if splashing is possible). Eye wash fountain and emergency showers are recommended.
Skin and body protection	Wear appropriate chemical resistant clothing. Wear appropriate chemical resistant gloves.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Launder contaminated clothing before reuse.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Aqueous solution.
Color	Cyan
Odor	slight solvent
Odor threshold	No information available.
pH	7 - 9
Melting point/Freezing point	Not available.
Boiling point, initial boiling point, and boiling range	212 °F (100 °C)
Flash point	Not flammable
Auto-ignition temperature	Not available.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapor pressure	Not available.
Specific gravity	Not available.
Solubility	Soluble
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.

Other data

Chemical family	Water/Glycol/Dye Blend
VOC (Weight %)	161.2 g/L

10. Stability and reactivity

Stability	Stable under normal storage conditions.
Possibility of hazardous reactions	None known.
Conditions to avoid	Avoid high temperatures.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	None.

11. Toxicological information

General information Not available.

Information on likely routes of exposure

Ingestion	Not available.
Inhalation	Not available.

Skin contact Not available.

Eye contact Not available.

Symptoms Not available.

Acute toxicity

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Acute		
Oral		
LD50	Guinea pig	6500 mg/kg
	Rat	6500 mg/kg
Diethanolamine (CAS 111-42-2)		
Acute		
Dermal		
LD50	Rabbit	11.9 ml/kg
Oral		
LD50	Rat	710 mg/kg
		1.82 g/kg
Other		
LD50	Mouse	2300 mg/kg
Isopropyl alcohol (CAS 67-63-0)		
Acute		
Dermal		
LD50	Rabbit	12800 mg/kg
Oral		
LD50	Dog	4797 mg/kg
	Mouse	3600 mg/kg
		4.5 g/kg
	Rabbit	6410 mg/kg
		5.03 g/kg
	Rat	5045 mg/kg
		4.7 g/kg
Other		
LD50	Mouse	1509 mg/kg
	Rat	1099 mg/kg

Carcinogenicity

ACGIH Carcinogens

2-PROPANOL (CAS 67-63-0)	A4 Not classifiable as a human carcinogen.
DIETHANOLAMINE, INHALABLE FRACTION AND VAPOR (CAS 111-42-2)	A3 Confirmed animal carcinogen with unknown relevance to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Diethanolamine (CAS 111-42-2)	2B Possibly carcinogenic to humans.

Specific target organ toxicity - single exposure No data available.

Specific target organ toxicity - repeated exposure No data available

Other information Complete toxicity data are not available for this specific formulation

12. Ecological information

Ecotoxicological data

Components		Species	Test Results
2-pyrrolidone (CAS 616-45-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	13.21 mg/l, 48 hours
Diethanolamine (CAS 111-42-2)			
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	61.8 - 86.04 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	100 mg/l, 96 hours
Glycerol (CAS 56-81-5)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	51000 - 57000 mg/l, 96 hours
Isopropyl alcohol (CAS 67-63-0)			
Acute			
Algae	EC50	Algae	> 1000 mg/l, 72 hours
Crustacea	EC50	Daphnia	13299 mg/l, 48 hours
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	> 1400 mg/l, 96 hours
Acute			
Fish	LC50	Fathead minnow (Pimephales promelas)	9460 mg/l, 96 hours

Ecotoxicity Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Bioaccumulation

Bioaccumulative potential

Octanol/water partition coefficient log Kow

2-pyrrolidone	-0.85
Diethanolamine	-1.43
Glycerol	-1.76
Isopropyl alcohol	0.05

Mobility in soil No data available.

13. Disposal considerations

Contaminated packaging No special precautions.

Local disposal regulations Dispose of in compliance with federal, state, and local regulations. Do not allow this material to drain into sewers/water supplies.

14. Transport information

International regulations

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

ADR

Not regulated as dangerous goods.

15. Regulatory information

Industrial Safety and Health Act

Specified substances regulation

Class 1 designated chemical substances

Not regulated.

Specified substances regulation

Class 2 designated chemical substances

Not regulated.

Class 3 designated chemical substances

Not regulated.

Organic solvent regulation

Class 1 organic solvents

Not regulated.

Class 2 organic solvents

ISOPROPYL ALCOHOL

Class 3 organic solvents

Not regulated.

Notifiable substances

DIETHANOLAMINE	0 - 2.5 %
PROPYL ALCOHOL	0 - 2.5 %

Labeling substances

ISOPROPYL ALCOHOL	0 - 2.5 %

Poisonous and Deleterious Substances Control Act

Specified poisonous substances

Not regulated.

Poisonous substances

Not regulated.

Deleterious substances

Not regulated.

Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

Class I specified chemical substances

Not regulated.

Class II specified chemical substances

Not regulated.

Monitoring chemical substances

Not regulated.

Priority Assessment Chemical Substances (PACs)

Not regulated.

Reporting Exempted Substances

1,2,3-Propanetriol

Law concerning Pollutant Release and Transfer Register

Specified class 1 substances (substance name, ordinance number and content)

Not regulated.

Class 1 substances (substance name, ordinance number and content)

Not regulated.

Class 2 substances (substance name, ordinance number and content)

Not regulated.

Fire Service Act Not regulated.

Ship Safety Law, Dangerous Goods Marine Transport and Storage Rule Not regulated.

Air Law, Enforcement Rule Not regulated.

Explosives Control Act

Not regulated.

High Pressure Gas Safety Act

Not regulated.

Act on Prevention of Marine Pollution and Maritime Disaster

WATER	Category: Other Substances
DIETHANOLAMINE	Category: Y
GLYCEROL	Category: Z
ISOPROPYL ALCOHOL	Category: Z
GLYCEROL, PROPOXYLATED/ETHOXYLATED MIXTURE	Category: Z

GLYCEROL, PROPOXYLATED/ETHOXYLATED MIXTURE Category: Other Substances

Waste Management and Public Cleansing Act
Not regulated.

16. Other information

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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Manufacturer information	Hewlett-Packard Company 3000 Hanover Street Palo Alto, California 94304-1112 US Product Information 1-800-925-0563

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