




## 1. Chemical and company identification

<b>Important information</b>	*** This Safety Data Sheet is only authorised for use by HP for HP Original products. Any unauthorised use of this Safety Data Sheet is strictly prohibited and may result in legal action being taken by HP. ***
<b>Name of chemical (Product name)</b>	C4990Series
	HP Japan Inc. 5F Ojima2-2-1 Koto-ku Tokyo, Japan 136-8711
<b>Poison Information Centre Telephone</b>	0120-50-3024 (+81) 3 5628-1101
<b>HP Inc. health effects line (Toll-free within the US) (Direct)</b>	1-800-457-4209 1-760-710-0048
<b>HP Inc. Customer Care Line (Toll-free within the US) (Direct)</b>	1-800-474-6836 1-208-323-2551
<b>Email:</b>	hpcustomer.inquiries@hp.com
<b>Recommended use of the chemical and restrictions on use</b>	
<b>Intended use</b>	Inkjet printing

## 2. Hazards identification

<b>GHS classification</b>	
<b>Physical hazards</b>	The product is not classified according to GHS.
<b>Health hazards</b>	Reproductive toxicity (fertility, the unborn child) Category 1B
<b>Environmental hazards</b>	The product is not classified according to GHS.
<b>GHS label elements</b>	
<b>Symbols</b>	
<b>Signal words</b>	Danger
<b>Hazard statement</b>	May damage fertility or the unborn child.
<b>Precautionary statement</b>	
<b>Prevention</b>	Wear protective gloves/protective clothing/eye protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
<b>Response</b>	IF exposed or concerned: Get medical advice/attention.
<b>Storage</b>	Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Other hazards which do not result in classification</b>	Complete toxicity data are not available for this specific formulation.  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.
<b>Supplemental information</b>	2-pyrrolidone: Specific Concentration Limits, Reproductive toxicity Category 1B, fertility or the unborn child 3%. Mixture classification threshold based on data related to developmental toxicity in animals. No adverse effects on sexual function or damage to fertility have been observed in an animal study. See Section 11.

## 3. Composition/information on ingredients

<b>Substance or mixture</b>	Mixture
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Components	CAS Number	Gazette notification		Concentration (%)
		ENCS no.	ISHL no.	
Water	7732-18-5	(9)-447		80-90
2-pyrrolidone	616-45-5	(5)-112	(5)-112	<10
Substituted naphthalenesulfonate salt	Proprietary	Proprietary	Proprietary	<5
Trimethylolpropane	77-99-6	(2)-245	(2)-245	<5

**Chemical formula** H<sub>2</sub>O (7732-18-5), C<sub>4</sub>H<sub>7</sub>N-O (616-45-5), C<sub>4</sub>H<sub>7</sub>N-O (616-45-5), C<sub>6</sub>H<sub>14</sub>O<sub>3</sub> (77-99-6), C<sub>6</sub>H<sub>14</sub>O<sub>3</sub> (77-99-6)

**Composition comments** This ink supply contains an aqueous ink formulation.

2-pyrrolidone: Specific Concentration Limit 3%. Mixture classification threshold based on data related to developmental toxicity in animals. No adverse effects on sexual function or damage to fertility have been observed in an animal study. See Section 11.

#### 4. First aid measures

<b>If inhaled</b>	Move to fresh air. If symptoms persist, get medical attention.
<b>If on skin</b>	Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.
<b>If in eyes</b>	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.
<b>If swallowed</b>	If ingestion of a large amount does occur, seek medical attention.

#### 5. Fire-fighting measures

<b>Extinguishing media</b>	CO <sub>2</sub> , water, dry chemical, or foam
<b>Extinguishing media to avoid</b>	None known.
<b>Specific methods</b>	None established.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency measures</b>	Wear appropriate personal protective equipment.
<b>Environmental precautions</b>	Do not let product enter drains. Do not flush into surface water or sanitary sewer system.
<b>Methods or materials for containment and cleaning up</b>	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.

#### 7. Handling and storage

<b>Handling</b>	
<b>Technical measures (e.g. Local and general ventilation)</b>	Not available.
<b>Safe handling advice</b>	Avoid contact with skin, eyes and clothing.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Storage</b>	
<b>Safe storage conditions</b>	Keep out of the reach of children. Keep away from excessive heat or cold.
<b>Safe packaging materials</b>	Not available.

#### 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Exposure guidelines</b>	Exposure limits have not been established for this product.
<b>Engineering measures</b>	Use in a well ventilated area. Provide adequate ventilation.
<b>Personal protective equipment</b>	
<b>Respiratory protection</b>	For use other than intended use (such as in the event of a large spill), goggles and respirators may be required.
<b>Hand protection</b>	Not available.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Personal protective equipment</b>	
<b>Eye protection</b>	Not available.
<b>Skin and body protection</b>	Use personal protective equipment to minimize exposure to skin and eye.

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## 9. Physical and chemical properties

### Appearance

Physical state	Liquid.
Form	Liquid.
Color	Black.

**Odor** Not available.

**pH** 7.5 - 8

**Melting point/Freezing point** Not available.

**Boiling point, initial boiling point, and boiling range** Not determined

**Flash point** > 230.0 °F (> 110.0 °C) Pensky-Martens Closed Cup

### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not determined

**Flammability limit - upper (%)** Not available.

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** Not determined

**Vapor density** >= 1 (air = 1.0)

**Evaporation rate** Not determined

**Specific gravity** Not available.

### Solubility(ies)

**Solubility (water)** Soluble in water

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity (Coefficient of viscosity)** Not available.

### Other information

**Oxidizing properties** Not determined

**VOC** < 86 g/l

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## 10. Stability and reactivity

**Reactivity** Not available.

**Chemical stability** Stable under recommended storage conditions.

**Possibility of hazardous reactions** Will not occur.

**Conditions to avoid** None.

**Incompatible materials** Incompatible with strong bases and oxidizing agents.

**Hazardous decomposition products** Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

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## 11. Toxicological information

**Acute toxicity** Based on available data, the classification criteria are not met.

Components	Species	Test Results
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2-pyrrolidone (CAS 616-45-5)

### Acute

#### Oral

LD50

Rat

> 5000 mg/kg

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met. Not classified as an irritant according to, OECD 405.

### Respiratory or skin sensitization

**Respiratory sensitization** Based on available data, the classification criteria are not met.

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<b>Skin sensitization</b>	Based on available data, the classification criteria are not met.
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
<b>Reproductive toxicity</b>	May damage fertility or the unborn child.

2-pyrrolidone: This component showed developmental effects only at high doses that were toxic to pregnant test animals (OECD Testing Guideline 414: Prenatal Developmental Toxicity Study). Uptake by people of small doses is not expected to cause developmental toxicity. This component has not caused adverse effects on sexual function or damage to fertility in an animal study (OECD Testing Guideline 443: Extended One-Generation Reproductive Toxicity Study).

<b>Specific target organ toxicity - single exposure</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.
<b>Other information</b>	Complete toxicity data are not available for this specific formulation

## 12. Ecological information

<b>Aquatic toxicity</b>	LC50/96h/Fathead minnows =>750mg/l EC50/48h/daphnia => 100mg/l, OECD 202 EC50/72h/algae => 100 mg/l , OECD 201
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### Ecotoxicological data

Components	Species	Test Results
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2-pyrrolidone (CAS 616-45-5)

#### Aquatic

Crustacea	EC50	Water flea (Daphnia pulex)	13.21 mg/l, 48 hours
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Trimethylolpropane (CAS 77-99-6)

#### Aquatic

Crustacea	EC50	Daphnia	102, 48 Hours
Fish	LC50	Fish	1000, 96 Hours

**Ecotoxicity** Information given is based on data on the components and the ecotoxicology of similar products

**Persistence and degradability** Not available.

**Bioaccumulation** Not available.

#### Bioaccumulative potential

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

2-pyrrolidone	-0.85
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**Mobility in soil** Not available.

**Hazardous to the ozone layer** Not available.

## 13. Disposal considerations

<b>Local disposal regulations</b>	Do not allow this material to drain into sewers/water supplies. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.
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## 14. Transport information

### DOT

<b>UN number</b>	Not available.
<b>UN proper shipping name</b>	Not Regulated
<b>Transport hazard class(es)</b>	
<b>Class</b>	Not available.
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not available.
<b>Special precautions for user</b>	Not available.

### IATA

<b>UN number</b>	Not available.
<b>UN proper shipping name</b>	Not Regulated
<b>Transport hazard class(es)</b>	
<b>Class</b>	Not available.
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not available.
<b>Environmental hazards</b>	No.
<b>Special precautions for user</b>	Not available.

**IMDG**

<b>UN number</b>	Not available.
<b>UN proper shipping name</b>	Not Regulated
<b>Transport hazard class(es)</b>	
<b>Class</b>	Not available.
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not available.
<b>Transport hazard class(es)</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	Not available.
<b>Special precautions for user</b>	Not available.

**ADR**

<b>UN number</b>	Not available.
<b>UN proper shipping name</b>	Not Regulated
<b>Transport hazard class(es)</b>	
<b>Class</b>	Not available.
<b>Subsidiary risk</b>	-
<b>Hazard No. (ADR)</b>	Not available.
<b>Tunnel restriction code</b>	Not available.
<b>Packing group</b>	Not available.
<b>Environmental hazards</b>	No.
<b>Special precautions for user</b>	Not available.

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

Transport in bulk according to Annex II of MARPOL73/78 and the IBC code: Not applicable.

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**15. Regulatory information****Industrial Safety and Health Act****Notifiable substances**

Not regulated.

**Labeling substances**

Not regulated.

**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**

Not regulated.

**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 dangerous goods under Fire Service Law

**Ship Safety Law, Dangerous Goods Marine Transport and Storage Rule**

Not regulated.

**Air Law, Enforcement Rule**

Not regulated.

**Explosives Control Act**

Not regulated.

**Act on Prevention of Marine Pollution and Maritime Disaster**

WATER

Ethyl alkyldiol

Category: Other Substances

Category: Y

**Regulatory information**

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.

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**16. Other information**

This Safety Data Sheet document is provided without charge to customers of HP. Data is the most current known to HP 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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**Revision information**

1. Product and Company Identification: Alternate Trade Names

**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