



## 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>	C4841Series
	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>	Serious eye damage/eye irritation Category 1 Reproductive toxicity (fertility, the unborn child) Category 1B
<b>Environmental hazards</b>	Hazardous to the aquatic environment, long-term hazard Category 3
<b>GHS label elements</b>	
<b>Symbols</b>	
<b>Signal words</b>	Danger
<b>Hazard statement</b>	Causes serious eye damage. May damage fertility or the unborn child. Harmful to aquatic life with long lasting effects.
<b>Precautionary statement</b>	
<b>Prevention</b>	Wear protective gloves/protective clothing/eye protection. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Avoid release to the environment.
<b>Response</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. 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>	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.
<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

Substance or mixture	Mixture	Gazette notification			
		CAS Number	ENCS no.	ISHL no.	Concentration (%)
Water		7732-18-5	(9)-447		60-80
2-pyrrolidone		616-45-5	(5)-112	(5)-112	<10
Trimethylolpropane		77-99-6	(2)-245	(2)-245	<10
succinic acid		110-15-6	(2)-846	(2)-846	<7.5
C11-C15 secondary ethoxylated alcohols		Proprietary	(7)-97	(7)-97	<2.5
Direct Blue 199 Tetramethylammonium Salt		Proprietary	(5)-1317	(5)-1317	<2.5

<b>Chemical formula</b>	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), C <sub>4</sub> -H <sub>6</sub> -O <sub>4</sub> (110-15-6), C <sub>4</sub> -H <sub>6</sub> -O <sub>4</sub> (110-15-6)
<b>Composition comments</b>	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.  This ink supply contains an aqueous ink formulation.

### 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. If irritation persists get medical attention.
<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>	Not available.
<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>	Not available.
<b>Hand protection</b>	Recommended gloves: Nitrile 4 mil minimum thickness.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice.

**Personal protective equipment**

<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**

<b>Physical state</b>	Liquid.
<b>Color</b>	Cyan

**Odor** Not available.

**pH** 3.8 - 4.3

**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** Not available.

**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)** >= 2 cp

**Other information**

**Oxidizing properties** Not determined

**Percent volatile** 10 % estimated

**VOC** < 221 g/l Estimated

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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.

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
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2-pyrrolidone (CAS 616-45-5)

**Acute****Oral**

LD50	Rat	> 5000 mg/kg
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**Skin corrosion/irritation** Based on available data, the classification criteria are not met.  
Non irritant in rabbit (OECD 404)

<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Based on available data, the classification criteria are not met.
<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 Refer to Section 2 for potential health effects and Section 4 for first aid measures.

## 12. Ecological information

<b>Aquatic toxicity</b>	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Static acute toxicity (trout), survival (100 mg/L) = 90% Static acute toxicity (trout), survival (10 mg/L) = 100%
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### Ecotoxicological data

Product		Species	Test Results
C4841Series			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Algae	> 100 mg/l, 72 hours
Crustacea	EC50	Daphnia	> 66 mg/l, 48 hours
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> )	< 400 mg/l, 96 hours
<b>Components</b>			
2-pyrrolidone (CAS 616-45-5)			
<b>Aquatic</b>			
Crustacea	EC50	Water flea ( <i>Daphnia pulex</i> )	13.21 mg/l, 48 hours
Direct Blue 199 Tetramethylammonium Salt			
<b>Aquatic</b>			
Crustacea	EC50	Daphnia	50 - 100 mg/l, 48 Hours
succinic acid (CAS 110-15-6)			
<b>Aquatic</b>			
Fish	LC50	Fish	101, 96 Hours
Trimethylolpropane (CAS 77-99-6)			
<b>Aquatic</b>			
Crustacea	EC50	Daphnia	102, 48 Hours
Fish	LC50	Fish	1000, 96 Hours
<b>Ecotoxicity</b>	Not available.		
<b>Persistence and degradability</b>	Not available.		
<b>Bioaccumulation</b>	Not available.		
<b>Bioaccumulative potential</b>			
<b>Octanol/water partition coefficient log Kow</b>			
2-pyrrolidone		-0.85	
succinic acid		-0.59	
<b>Mobility in soil</b>	Not available.		
<b>Hazardous to the ozone layer</b>	Not available.		

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### 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.  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 <a href="http://www.hp.com/recycle">http://www.hp.com/recycle</a> .
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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

<b>Notifiable substances</b>	Not regulated.
<b>Labeling substances</b>	Not regulated.

#### Poisonous and Deleterious Substances Control Act

<b>Specified poisonous substances</b>	Not regulated.
<b>Poisonous substances</b>	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**

Butanedioic acid

**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**

Class 4 Group 3 oils (Non-water soluble) Hazard rank III

**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

Category: Other Substances

Ethyl alkyldiol

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 is meant to convey information about HP inks (toners) provided in HP Original ink (toner) supplies. If our Safety Data Sheet has been provided to you with a refilled, remanufactured, compatible or other non-HP Original supply please be aware that the information contained herein was not meant to convey information about such products and there could be considerable differences from information in this document and the safety information for the product you purchased. Please contact the seller of the refilled, remanufactured or compatible supplies for applicable information, including information on personal protective equipment, exposure risks and safe handling guidance. HP does not accept refilled, remanufactured or compatible supplies in our recycling programs. 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.

## 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