



# SAFETY DATA SHEET

## 1. 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>Product identifier</b>	C4993Series	
<b>Other means of identification</b>	None.	
<b>Recommended use</b>	Inkjet printing	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
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## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Reproductive toxicity (fertility, the unborn child)	Category 1B
<b>Environmental hazards</b>	Not classified.	
<b>Label elements</b>		



<b>Signal word</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. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.	
<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

#### Mixtures

<b>Hazardous components</b>			
<b>Chemical name</b>	<b>Common name and synonyms</b>	<b>CAS-No. / EC No.</b>	<b>%</b>
2-pyrrolidone		616-45-5 210-483-1	<5
Substituted naphthalenesulfonate salt # 7		Proprietary -	<2.5
<b>Non-hazardous components</b>			
<b>Chemical name</b>	<b>Common name and synonyms</b>	<b>CAS-No. / EC No.</b>	<b>%</b>
Water		7732-18-5 231-791-2	80-90
Aliphatic diol		Proprietary 211-074-0	<10

**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>Inhalation</b>	Remove to fresh air. If symptoms persist, get medical attention.
<b>Skin contact</b>	Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.
<b>Eye contact</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>Ingestion</b>	If ingestion of a large amount does occur, seek medical attention.
<b>Most important symptoms/effects, acute and delayed</b>	Not available.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Dry chemical, CO2, water spray or regular foam.
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	Not applicable.
<b>Special protective equipment and precautions for firefighters</b>	Not available.
<b>Specific methods</b>	None established.

### 6. Accidental release measures

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

### 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid contact with skin, eyes and clothing.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep out of the reach of children. Keep away from excessive heat or cold.

### 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Exposure guidelines</b>	Exposure limits have not been established for this product.
<b>Appropriate engineering controls</b>	Use in a well ventilated area. Provide adequate ventilation.

**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	Not available.
<b>Skin protection</b>	
<b>Hand protection</b>	Not available.
<b>Other</b>	Use personal protective equipment to minimize exposure to skin and eye.
<b>Respiratory protection</b>	Not available.
<b>Thermal hazards</b>	Not available.

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

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**9. Physical and chemical properties****Appearance**

<b>Physical state</b>	Liquid.
<b>Form</b>	Not available.
<b>Color</b>	Cyan

**Odor** Not available.

**Odor threshold** Not available.

**pH** 7 - 8

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** Not determined

**Flash point** > 200.0 °F (> 93.3 °C) Pensky-Martens Closed Cup

**Evaporation rate** Not determined

**Flammability (solid, gas)** Not available.

**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)

**Solubility(ies)**

**Solubility (water)** Soluble in water

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

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** Not available.

**Other information**

**Oxidizing properties** Not determined

**Percent volatile** 4 % estimated

**VOC** < 142 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** Not available.

**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.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.
Ingestion	Not available.

**Symptoms related to the physical, chemical and toxicological characteristics** Not available.

### Information on toxicological effects

**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
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**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.

### Respiratory or skin sensitization

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

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

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

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

**Reproductive toxicity** 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).

**Specific target organ toxicity - single exposure** Based on available data, the classification criteria are not met.

**Specific target organ toxicity - repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** Based on available data, the classification criteria are not met.

**Further information** Complete toxicity data are not available for this specific formulation

## 12. Ecological information

### Ecotoxicity

Product	Species	Test Results
C4993Series		
<b>Aquatic</b>		
<i>Acute</i>		
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> ) > 750 mg/l, 96 hours

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

#### **Aquatic**

Crustacea	EC50	Water flea ( <i>Daphnia pulex</i> ) 13.21 mg/l, 48 hours
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**Persistence and degradability** Not available.

**Bioaccumulative potential** Not available.

#### **Partition coefficient n-octanol / water (log Kow)**

2-pyrrolidone	-0.85
Aliphatic diol	-0.106

**Mobility in soil** Not available.

**Other adverse effects** Not available.

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### 13. Disposal considerations

<b>Disposal instructions</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.
<b>Waste from residues / unused products</b>	Not available.
<b>Contaminated packaging</b>	Not available.

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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>Environmental hazards</b>	
<b>Marine pollutant</b>	No
<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

#### National regulations

**Banned Chemicals (Decree 113/2017/ND-CP, Annex III, 9 October 2017), as amended**

Not listed.

**Chemicals Subject to Conditional Production & Trading Requirements ((Decree 113/2017/ND-CP, Annex I, 9 October 2017), as amended**

Not listed.

**Chemicals That Must Be Declared (Decree 113/2017/ND-CP, Annex V, 9 October 2017), as amended**

Not regulated.

**CWC (Decree 38/2014/ND-CP, Mgmt. of chemicals under the Convention on the Prohibition of the Devel., Prod., Stockpiling, Use and Destruction of Chemical Weapons, Sched. 1-3, May 6, 2014), as amended**

Not regulated.

**Drug Precursors (Decree 82/2013/ND-CP on Promulgating List of Narcotics, Psychotropic Substances and Precursors, List IV, amended by Decree 126/2015/ND-CP, 9 December 2015), as amended**

Not regulated.

**Hazardous Chemicals Prevention, Response Plans & Safety Requirements (Decree 113/2017/ND-CP, Annex IV, Table 1, 9 October 2017), as amended**

Not listed.

**Ozone Depleting Substances (ODS) (Joint Circular No. 14/2005/TTLT-BTM-BTNMT of July 11, 2005), as amended**

Not regulated.

**Restricted Chemicals (Decree 113/2017/ND-CP, Annex II, 9 October 2017), as amended**

Not listed.

**International 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.

**Stockholm Convention**

Not applicable.

**Rotterdam Convention**

Not applicable.

**Montreal Protocol**

Not applicable.

**Kyoto protocol**

Not applicable.

**Basel Convention**

Not applicable.

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**16. Other information, including date of preparation or last revision**

**Issue date** 01-Nov-2016

**Revision date** 30-May-2020

**Version #** 05

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**Revision information**  
1. Product and Company Identification: Alternate Trade Names  
Hazard(s) identification: Supplemental information  
Composition/information on ingredients: Composition comments  
Toxicological information: Reproductivity

## 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