



SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the preparation C4821Series

Use of the Substance/Preparation Inkjet printing

Version # 03

Revision date 20-Apr-2011

CAS # Mixture

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2. HAZARDS IDENTIFICATION

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

Acute health effects

Any potential hazards are presumed to be due to exposure to the components.

Skin contact

- 1,5-pentanediol*
Contact with skin may result in irritation.
- 2-pyrrolidone*
Contact with skin may result in irritation.
- Alkyldicarboxylic acid*
Contact with skin may result in irritation.
- Alkyldiol ethoxylate*
Contact with skin may result in severe irritation.
- Ethyl alkyldiol*
Contact with skin may result in mild irritation.

Eye contact

- 1,5-pentanediol*
Contact with eyes may result in irritation.
- 2-pyrrolidone*
Contact with eyes may result in irritation.
- Alkyldicarboxylic acid*
Contact can cause moderate to severe irritation and possible injury to the eyes.
- Alkyldiol ethoxylate*
Contact can cause moderate to severe irritation and possible injury to the eyes.
- Ethyl alkyldiol*
Contact with eyes may result in mild irritation.

Inhalation

- 2-pyrrolidone*
Inhalation may result in respiratory irritation.
- Alkyldicarboxylic acid*
Inhalation may result in respiratory irritation.

Ingestion*2-pyrrolidone*

Ingestion may result in nausea, vomiting and diarrhea.

Alkyldicarboxylic acid

Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Alkyldiol ethoxylate

Ingestion may cause irritation of mouth, throat, nausea, vomiting and diarrhea.

Substituted phthalocyanine salt #2

Harmful if swallowed.

Potential health effects**Routes of exposure**

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

Chronic health effects

Substituted phthalocyanine salt: Prolonged ingestion exposure may cause serious damage to health.

Carcinogenicity

None of the components present in this formulation at concentrations equal to or greater than 0.1% are listed by EU, MAK, IARC, NTP or OSHA.

Other information

This cyan ink is classified for environmental effects according to EU Directive 1999/45/EC with R52/53

Classification

R52/53

Physical hazards

Not classified as a physical hazard.

Health hazards

Not classified as a health hazard.

Environmental hazards

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS #	Percent	EC-No.	Classification
Water	7732-18-5	60 - 70	231-791-2	
1,5-pentanediol	111-29-5	7.5 - 10	203-854-4	
2-pyrrolidone	616-45-5	5 - 7.5	210-483-1	Xi;R36/38
Alkyldicarboxylic acid	Proprietary	5 - 7.5	Proprietary	
Ethyl alkyldiol	Proprietary	5 - 7.5	Proprietary	
Alkyldiol ethoxylate	Proprietary	1 - 2.5	Proprietary	Xn;R21/22, Xi;R38-41, N;R51/53
Substituted phthalocyanine salt #2	Proprietary	1 - 2.5	Proprietary	Xn;R48/22, N;R51/53

Composition comments

This ink supply contains an aqueous ink formulation.

This product has been evaluated using criteria specified in the EU Directives 67/548/EEC and 1999/45/EC, as amended.

For the full text of the R phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES**Inhalation**

Move to fresh air. If symptoms persist, get medical attention.

Skin contact

Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.

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.

Ingestion

If ingestion of a large amount does occur, seek medical attention.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

CO₂, water, dry chemical, or foam

Extinguishing media which must not be used for safety reasons

None known.

Unusual fire & explosion hazards

None known.

Specific methods

None established.

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.

Containment procedures 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.

Methods for cleaning up Soak up with inert absorbent material.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional exposure data Exposure limits have not been established for this product.

Exposure controls Use in a well ventilated area.
Provide adequate ventilation.

Occupational exposure controls

- Respiratory protection** For use other than intended use (such as in the event of a large spill), goggles and respirators may be required.
- Eye protection** Not required under intended use.
- Skin and body protection** Protected gloves not required under intended use.
- General** Use personal protective equipment to minimize exposure to skin and eye.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Not available.

Physical state Liquid

Form Not available.

Color Not available.

Odor Not available.

Odour threshold Not available.

pH 3.75

Boiling point Not determined

Flash point 93.3 °C (200 °F) Pensky-Martens Closed Cup

Flammability limits in air, upper, % by volume Not available.

Flammability limits in air, lower, % by volume Not determined

Vapor pressure Not determined

Relative density Not available.

Solubility (water) Soluble in water

Partition coefficient (n-octanol/water) Not available

Viscosity 2 cp

Vapor density Not available.

Evaporation rate Not determined

Melting point Not available.

Freezing point Not available.

Auto-ignition temperature Not available.

Specific gravity 1

VOC < 3 %

10. STABILITY AND REACTIVITY

Hazardous decomposition products	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Stability	Stable under recommended storage conditions.
Materials to avoid	Incompatible with strong bases and oxidizing agents.
Hazardous polymerization	Will not occur.

11. TOXICOLOGICAL INFORMATION

Serious eye damage/eye irritation	Not available.
Skin sensitization	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

Ecotoxicity	EC50: > 100 mg/l, Algae, 72.00 hr EC50: 66 - 85 mg/l, Daphnia, 48.00 hr
	NOEC: 100 mg/l, Algae, 72.00 hr
Aquatic toxicity	LC50/96h/Fathead minnows =/< 400 mg/L Static acute toxicity (trout), survival (100 mg/L) = 90% Static acute toxicity (trout), survival (10 mg/L) = 100%

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 .
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14. TRANSPORT INFORMATION

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

Not regulated as dangerous goods.

IATA

Proper shipping name	Not applicable
Hazard class	Not applicable
UN number	None
Packing group	N/A
Packaging exceptions	None

IMDG

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

15. REGULATORY INFORMATION

Labeling

Contains	1,5-pentanediol, 2-pyrrolidone, Alkyldicarboxylic acid, Alkyldiol ethoxylate, Ethyl alkyldiol, Substituted phthalocyanine salt #2, Water
R-phrases(s)	R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrases(s)	S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

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.

16. OTHER INFORMATION

Wording of the R-phrases in sections 2 and 3

R21/22 Harmful in contact with skin and if swallowed.
R22 Harmful if swallowed.
R36/37/38 Irritating to eyes, respiratory system and skin.
R36/38 Irritating to eyes and skin.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Other information

This MSDS was prepared in compliance with EU Directive 91/155/EEC as amended by 2001/58/EC.

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.

Issue date

20-Apr-2011

This data sheet contains changes from the previous version in section(s):

HAZARDS IDENTIFICATION: Routes of exposure
HAZARDS IDENTIFICATION: Other information
EXPOSURE CONTROLS/PERSONAL PROTECTION: Respiratory protection
TOXICOLOGICAL INFORMATION: Further information
ECOLOGICAL INFORMATION: Ecotoxicity
ECOLOGICAL INFORMATION: Aquatic toxicity
TRANSPORT INFORMATION: Further 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