



SAFETY DATA SHEET

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

Identification of the preparation C4823Series

Use of the Substance/Preparation Inkjet printing

Version # 04

Revision date 21-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.

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

None known.

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.

Classification

Not classified.

Physical hazards

Not classified as a physical hazard.

Health hazards

Not classified as a health hazard.

Environmental hazards

Not classified as an environmental hazard.

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 naphthalenesulfonate salt #7	Proprietary	1 - 2.5	Proprietary	

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 aide measures.

12. ECOLOGICAL INFORMATION

Ecotoxicity	EC50: > 100 mg/l, Algae, 72.00 hr EC50: > 100 mg/l, Daphnia, 48.00 hr NOEC: 100 mg/l, Algae, 72.00 hr Information given is based on data on the components and the ecotoxicology of similar products
Aquatic toxicity	LC50/96h/Fathead minnows =/ < 400 mg/L Static acute toxicity (trout), survival (100 mg/L) = 80% 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 naphthalenesulfonate salt #7, Water
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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

Wording of the R-phrases in sections 2 and 3	R21/22 Harmful in contact with skin and 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. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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Other information	This MSDS was prepared in compliance with EU Directive 91/155/EEC as amended by 2001/58/EC.
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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.
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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