



SAFETY DATA SHEET

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

Identification of the preparation 51600C Rev B

Use of the Substance/Preparation Inkjet printing

Version # 02

Revision date 15-Sep-2010

CAS # Mixture

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2. HAZARDS IDENTIFICATION

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

Acute health effects

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

2-pyrrolidone
Contact with skin may result in irritation.

Alkyldiol
Contact with skin may result in irritation.

Food Black 2 acid salt #3
This product may cause an allergic skin reaction.

Eye contact *2-pyrrolidone*
Contact with eyes may result in irritation.

Alkyldiol
Contact with eyes may result in irritation.

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

Alkyldiol
Inhalation may result in respiratory irritation.

Ingestion *2-pyrrolidone*
Ingestion may result in nausea, vomiting and diarrhea.

Ethylene glycol
Harmful if swallowed. May cause kidney and liver damage. May depress the central nervous system.

Food Black 2 acid salt #3
Toxic 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 Prolonged or repeated skin contact may cause skin irritation or allergic skin sensitisation reaction.

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	R43
Physical hazards	Not classified as a physical hazard.
Health hazards	May cause sensitization by skin contact.
Environmental hazards	Not classified as an environmental hazard.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS #	Percent	EC-No.	Classification
Water	7732-18-5	< 40	231-791-2	
2-pyrrolidone	616-45-5	< 30	210-483-1	Xi;R36/38
Alkyldiol	Proprietary	< 7.5	Proprietary	
Ethylene glycol	107-21-1	< 25	203-473-3	Xn;R22
Food Black 2 acid salt #3	Proprietary	< 5	Proprietary	T;R25, R43, R52/53

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	Remove to fresh air. If symptoms persist, get medical attention.
Skin contact	Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.
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	Dry chemical, CO ₂ , water spray or regular 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**Exposure limit values****United Kingdom**

Components	Type	Value	Form
Ethylene glycol (107-21-1)	STEL	104.0000 mg/m ³	Vapor.
		40.0000 ppm	Vapor.
	TWA	10.0000 mg/m ³	Particulate.

Components	Type	Value	Form
		20.0000 ppm	Vapor.
		52.0000 mg/m3	Vapor.
Additional exposure data	Exposure limits have not been established for this product.		
Exposure controls	Use in a well ventilated area.		
Occupational exposure controls			
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	7 - 7.4
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 - 1.2
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

Oral toxicity	LD50/oral/rat >2500mg/kg (OECD 401) Not classified for acute oral toxicity according to EU Directive 67/548/EEC and 1999/45/EC.
Acute toxicity	Non- irritant in rabbit (OECD 404) Not classified for Dermal irritation according to EU Directive 67/548/EEC and 1999/45/EC.
Serious eye damage/eye irritation	Non - irritant in rabbit (OECD 405) Not classified for eye irritation according to EU Directive 67/548/EEC and 1999/45/EC.
Skin sensitization	Not available.

Sensitization	Sensitizer in guinea pig (OECD 406) Repeated contact may cause allergic reactions in very susceptible persons.
Further information	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

Aquatic toxicity LC50/96h/Fathead minnows => 750 mg/L

13. DISPOSAL CONSIDERATIONS

Disposal instructions Dispose of in compliance with federal, state, and local regulations.

14. TRANSPORT INFORMATION

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

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
Labels required	None
Packaging non bulk	None

IMDG

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

15. REGULATORY INFORMATION

Labeling

Contains 2-pyrrolidone, Alkyldiol, Ethylene glycol, Food Black 2 acid salt #3, Water

Symbol(s)



Irritant

R-phrase(s) R43 May cause sensitization by skin contact.

S-phrase(s) S2 Keep out of the reach of children.
S24 Avoid contact with skin.

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.

Contains Food Black 2 acid salt

16. OTHER INFORMATION

Wording of the R-phrases in sections 2 and 3

R22 Harmful if swallowed.
R25 Toxic if swallowed.
R36/38 Irritating to eyes and skin.
R43 May cause sensitization by skin contact.
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

15-Sep-2010

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

HAZARDS IDENTIFICATION: Routes of exposure
HAZARDS IDENTIFICATION: Other information
TOXICOLOGICAL INFORMATION: Oral toxicity
TOXICOLOGICAL INFORMATION: Acute toxicity
TOXICOLOGICAL INFORMATION: Further information
TOXICOLOGICAL INFORMATION: Skin sensitization
TOXICOLOGICAL INFORMATION: Serious eye damage/eye irritation
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