



CHEMICAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material name 51644C
Product use Inkjet printing
Company identification China Hewlett-Packard Bldg.
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CSDS number
Revision date 16-May-2009
CAS # Mixture

2. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Component/substance	CAS number	% by weight
Water	7732-18-5	< 70
1,5-pentanediol	111-29-5	< 10
2-pyrrolidone	616-45-5	< 7.5
Ethyl alkylidol	Proprietary	< 7.5
Metal nitrate #2	Proprietary	< 7.5
Substituted phthalocyanine salt #2	Proprietary	< 2.5

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.

3. HAZARDS IDENTIFICATION

Classification (EU) R52/53



CHEMICAL SAFETY DATA SHEET

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

1,5-pentanediol

Not available.

2-pyrrolidone

Not available.

Alkyldiol ethoxylate

Not available.

Ethyl alkyldiol

Not available.

Metal nitrate #2

Not available.

Substituted phthalocyanine salt #2

Not available.

Water

Not available.

Not available.

Health hazards

Environmental hazards

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

Physical hazards

Not available.

Acute health effects

Skin contact

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

1,5-pentanediol

Contact with skin may result in irritation.

2-pyrrolidone

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.

Metal nitrate #2

Contact with skin may result in irritation.

Eye contact

1,5-pentanediol

Contact with eyes may result in irritation.

2-pyrrolidone

Contact with eyes may result in irritation.

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.

Metal nitrate #2

Contact with eyes may result in irritation.

Inhalation

2-pyrrolidone

Inhalation may result in respiratory irritation.

Metal nitrate #2

Inhalation may result in respiratory irritation.



CHEMICAL SAFETY DATA SHEET

Ingestion

2-pyrrolidone

Ingestion may result in nausea, vomiting and diarrhea.

Alkyldiol ethoxylate

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

Metal nitrate #2

Contains nitrate salts, may cause methemoglobinemia.

Substituted phthalocyanine salt #2

Harmful if swallowed.

Potential health effects

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

4. FIRST AID MEASURES

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.

Inhalation

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

Ingestion

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

5. FIRE-FIGHTING MEASURES

General fire hazards

Not available.

Specific hazards

Not available.

Fire fighting equipment/instructions

Not available.

Suitable extinguishing media

Dry chemical, CO₂, water spray or regular foam.

Extinguishing media which must not be used for safety reasons

None known.

Flash point and method

> 93.3 °C (> 200 °F); Pensky-Martens Closed Cup

Unusual fire & explosion hazards

None known.

Hazardous combustion products

Refer to section 10.

Specific methods

None established.

6. ACCIDENTAL RELEASE MEASURES

Evacuation procedures

Not available.

Personal precautions

Wear appropriate personal protective equipment.

Methods for cleaning up

Soak up with inert absorbent material.

Environmental precautions

Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

Spill or leak procedure

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.

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.



CHEMICAL SAFETY DATA SHEET

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

Engineering measures	Provide adequate ventilation.
Personal protective equipment	
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.
Hand protection	Not available.
General	Use personal protective equipment to minimize exposure to skin and eye.
Additional exposure data	Exposure limits have not been established for this product.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical state	Liquid.
Color	Cyan
Odor	
pH	7.8 - 8.6
Melting point	Not available.
Boiling point	Not determined
Relative density	Not available.
Partition coefficient (n-octanol/water)	Not available.
Flash point	> 93.3 °C (> 200 °F); Pensky-Martens Closed Cup
Auto-ignition temperature	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not determined
Solubility (water)	Soluble in water
Product use	Inkjet printing
VOC	< 3 %
Viscosity	> 2 cp
Evaporation rate	Not determined
Flammability	Not determined
Vapor pressure	Not determined
Vapor density	> 1 (air = 1.0)
Specific gravity	1 - 1.2

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Materials to avoid	Not available.
Conditions to avoid	Not available.



CHEMICAL SAFETY DATA SHEET

Hazardous polymerization

Will not occur.

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

Acute toxicity

Not available.

Eye contact

Not available.

Skin contact

Not available.

Further information

This ink formulation has not been tested for toxicological effects. Refer to Section 3 for potential health effects and Section 4 for first aid measures.

Toxicological information

Complete toxicity data are not available for this specific formulation

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not available.

Persistence and degradability

Not available.

Aquatic toxicity

LC50/96h/Fathead minnows = 400 mg/L
Static acute toxicity (trout), survival (100 mg/L) = 100%
Static acute toxicity (trout), survival (10 mg/L) = 100%

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products

Not available.

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>.

Contaminated packaging

Not available.

14. TRANSPORT INFORMATION

ADR

Not regulated as dangerous goods.

IMDG

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

Packaging non bulk

None

Labels required

None

General

Not a regulated article under United States DOT, IATA, ADR, IMDG, or RID.

15. REGULATORY INFORMATION

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.



CHEMICAL SAFETY DATA SHEET

16. OTHER INFORMATION

Manufacturer	Hewlett-Packard Company 1000 NE Circle Boulevard Corvallis, OR 97330-4239 US (Direct) 1-503-494-7199 (Toll-free within the US) 1-800-457-4209
Finalized date	16-May-2009
Prepared by	
Approved by	
Sections changed	Not available.
Other information	This MSDS was prepared in compliance with EU Directive 91/155/EEC as amended by 2001/58/EC.
List of relevant R phrases	R8 Contact with combustible material may cause fire. 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.
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.



CHEMICAL SAFETY DATA SHEET

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