



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Identification of the preparation CN680Series

Product use Inkjet printing

Version # 02

Revision date 04-Jan-2011

CAS # Mixture

Company identification Hewlett-Packard Company
3000 Hanover Street
Palo Alto, CA 94304-1185
United States
Telephone 650-857-1501

Hewlett-Packard health effects line
(Toll-free within the US) 1-800-457-4209
(Direct) 1-503-494-7199
HP Customer Care Line
(Toll-free within the US) 1-800-474-6836
(Direct) 1-208-323-2551
Email: hpcustomer.inquiries@hp.com

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.

Eye contact
1,5-pentanediol
Contact with eyes may result in irritation.
2-pyrrolidone
Contact with eyes may result in irritation.

Inhalation
2-pyrrolidone
Inhalation may result in respiratory irritation.

Ingestion
2-pyrrolidone
Ingestion may result in 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

Carcinogenicity

Carbon black is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans). Carbon black in this preparation, due to its bound form, does not present this carcinogenic risk.

None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.

3. Composition / Information on Ingredients

Components	CAS #	Percent
1,5-pentanediol	111-29-5	< 7.5

2-pyrrolidone	616-45-5	< 7.5
Carbon black	1333-86-4	< 5
Water	7732-18-5	> 75

Composition comments This ink supply contains an aqueous ink formulation. Carbon black is present only in a bound form in this preparation. This product has been evaluated using criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard).

Carbon black is present only in a bound form in this preparation.

4. First Aid Measures

First aid procedures

- 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.
- Skin contact** Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.
- 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

- Flammable properties** None known.
- Extinguishing media**
 - Suitable extinguishing media** Dry chemical, CO2, water spray or regular foam.
 - Unsuitable extinguishing media** 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.
- Methods for containment** 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

Occupational exposure limits

ACGIH

Components	Type	Value
Carbon black (1333-86-4)	TWA	3.5000 mg/m3

Components**Type****Value**

Components	Type	Value
Carbon black (1333-86-4)	TWA	3.5000 mg/m ³

Exposure guidelines

Exposure limits have not been established for this product.

Engineering controls

Use in a well ventilated area.

Personal protective equipment**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

General

Use personal protective equipment to minimize exposure to skin and eye.

9. Physical & Chemical Properties**Appearance**

Not available.

Color

Black.

Odor

Not available.

Odor threshold

Not available.

Physical state

Liquid

Form

Not available.

pH

7

Melting point

Not available.

Freezing point

Not available.

Boiling point

Not determined

Flash point

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

Evaporation rate

Not determined

Flammability limits in air, upper, % by volume

Not available.

Flammability limits in air, lower, % by volume

Not determined

Vapor pressure

Not determined

Vapor density

Not available.

Specific gravity

1 - 1.2

Relative density

Not available.

Solubility (water)

Soluble in water

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

Viscosity

2 cp

VOC

< 179 g/L

Other information

VOC content (less water, less exempt compounds) = < 781 g/L (U.S. requirement, not for emissions)

10. Chemical Stability & Reactivity Information**Chemical stability**

Stable under recommended storage conditions.

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.

Possibility of hazardous reactions

Will not occur.

11. Toxicological Information**Carcinogenicity**

Carbon black is classified as a carcinogen by the IARC (possibly carcinogenic to humans, Group 2B) and by the State of California under Proposition 65. In their evaluations of carbon black, both organizations indicate that exposure to carbon black, per se, does not occur when it remains bound within a product matrix, specifically, rubber, ink, or paint.

ACGIH Carcinogens

Carbon black (CAS 1333-86-4)

A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Carbon black (CAS 1333-86-4)

2B Possibly carcinogenic to humans.

IARC Monographs: Evidence of carcinogenicity in humans

Carbon black (CAS 1333-86-4)

Inadequate data.

Serious eye damage/eye irritation Not available.**Skin sensitization** Not available.**Symptoms and target organs****Target Organs (NIOSH)**

Carbon black (CAS 1333-86-4)

Eyes
Respiratory system**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****Aquatic toxicity** LC50/96h/Fathead minnows =>750 mg/L.**Persistence and degradability** Not available.**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>.**14. Transport Information****Further information** Not a dangerous good under United States DOT, IATA, ADR, IMDG, or RID.**DOT**

Not regulated as dangerous goods.

IATA**Basic shipping requirements:****Proper shipping name** Not applicable**Hazard class** Not applicable**UN number** None**Packing group** N/A**Additional information:****Packaging exceptions** None**Basic shipping requirements:****Labels required** None**Additional information:****Packaging non bulk** None**IMDG**

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

15. Regulatory Information**CERCLA (Superfund) reportable quantity**

None

Occupational Safety and Health Administration (OSHA)**29 CFR 1910.1200 hazardous chemical** No

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical No

State regulations

US - Pennsylvania RTK - Hazardous Substances: Listed substance

2-pyrrolidone (CAS 616-45-5) Listed.
Carbon black (CAS 1333-86-4) Listed.

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

Other information This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).

HMIS® ratings Health: 1
Flammability: 1
Physical hazard: 0

NFPA ratings Health: 1
Flammability: 1
Instability: 0

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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This data sheet contains changes from the previous version in section(s): Product and Company Identification: Alternate Trade Names
11. Toxicological Information: Further information
14. Transport Information: Further information

Manufacturer information 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

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