1. Product and Company Identification

Material name: C4906A
Use of the preparation: Inkjet printing
Version #: 03
Revision date: 20-Nov-2009
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
Date prepared: Nov 20, 2009
MSDS number: 323906

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
2-pyrrolidone
Contact with skin may result in irritation.
Substituted diol
Contact with skin may result in irritation.
Tetraethylene glycol
Contact with skin may result in irritation.

Eye contact
2-pyrrolidone
Contact with eyes may result in irritation.
Substituted diol
Contact with eyes may result in irritation.
Tetraethylene glycol
Contact with eyes may cause irritation.

Inhalation
2-pyrrolidone
Inhalation may result in respiratory irritation.
Tetraethylene glycol
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.
Material Safety Data Sheet

Chronic health effects

Carbon Black: Chronic inhalation studies performed with fine dust particles resulted in lung tumors in animals. The IARC classification was based upon these results. IARC also concluded "there is inadequate evidence in humans for the carcinogenicity of carbon black." Inhalation of fine dust particles is not expected to occur during normal conditions of use of this ink.

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.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Component/substance</th>
<th>CAS number</th>
<th>% by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt; 70</td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td>616-45-5</td>
<td>&lt; 20</td>
</tr>
<tr>
<td>Modified Carbon Black #11</td>
<td>Proprietary</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Substituted diol</td>
<td></td>
<td>&lt; 2.5</td>
</tr>
<tr>
<td>Tetraethylene glycol</td>
<td>112-60-7</td>
<td>&lt; 2.5</td>
</tr>
</tbody>
</table>

Composition comments

This ink supply contains an aqueous ink formulation. This product has been evaluated using criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard).

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

Flash point and method

> 200 °F (> 93.3 °C); Setaflash Closed Tester

Hazardous combustion products

Refer to section 10.

Flammable properties

None known.

Extinguishing media

Suitable extinguishing media

Dry chemical, CO2, water spray or regular foam.

Unsuitable extinguishing media

None known.

Unusual fire and explosion hazard

None known.

Special firefighting procedures

None established.

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

Exposure guidelines
Exposure limits have not been established for this product.

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

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Color
Black

Odor threshold
Not available.

Physical state
Not available.

pH
9.3 - 9.7

Melting point
Not available.

Freezing point
Not available.

Boiling point
Not determined

Flash point
> 200 °F (> 93.3 °C); Setaflash Closed Tester

Evaporation rate
Not determined

Flammability
Not available.

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

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

Vapor pressure
Not determined

Vapor density
> 1 (air = 1.0)

Specific gravity
1 - 1.2

Relative density
Not available.

Solubility (water)
Soluble in water

Partition coefficient (n-octanol/water)
Not available.

Auto-ignition temperature
Not available.

Decomposition temperature
Not available.

VOC
< 3 %

Viscosity
> 2 cp

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

Not available.
12. Ecological Information

Ecotoxicity
96.00 hr, LC50 > 750 mg/l, fathead minnow (pimephales promelas)

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

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

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

15. Regulatory Information

US federal regulations
US TSCA 12(b): Contains sodium nitrite (CASRN 7632-00-0), subject to export notification requirements.

CERCLA (Superfund) reportable quantity
None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

Section 302 extremely hazardous substance
No

Section 311 hazardous chemical
Yes

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.

State regulations
US - Pennsylvania RTK - Hazardous Substances: Listed substance
2-pyrrolidone (616-45-5) Listed.

16. Other Information

HMIS® ratings
Health: 1
Flammability: 2
Physical hazard: 0

NFPA ratings
Health: 1
Flammability: 2
Instability: 0

Issue date
Nov 20 2009 6:55AM

Revision
3

Material name C4906A
Creation date Apr 30, 2003
Version number 3
Material Safety Data Sheet

Replaces sheet dated      May 28 2009 10:06AM
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

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

MSDS sections updated     14. Transport Information: General
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