



MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification

Material name C4934A
Use of the preparation Inkjet printing
Version # 03
Revision date 27-Mar-2008
CAS # Mixture
Manufacturer information Hewlett-Packard Company
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Corvallis, OR 97330-4239 US

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Date prepared Mar 27, 2008

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.

Aliphatic diol
Contact with skin may result in irritation.

Eye contact

2-pyrrolidone
Contact with eyes may result in irritation.

Aliphatic diol
Contact with eyes may result in irritation.

Inhalation

2-pyrrolidone
Inhalation may result in respiratory irritation.

Aliphatic diol
Inhalation may result in respiratory irritation.

Ingestion

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



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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.

3. Composition / Information on Ingredients

| Component/substance | CAS number | % by weight |
|---------------------|-------------|-------------|
| Water | 7732-18-5 | > 80 |
| Aliphatic diol | Proprietary | < 10 |
| 2-pyrrolidone | 616-45-5 | < 5 |

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); Pensky-Martens Closed Cup

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.



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| | |
|--------------------------------|--|
| 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. |
| Eye / face protection | Not required under intended use. |
| Skin protection | Protected gloves not required under intended use. |
| Respiratory protection | For use other than intended use (such as in the event of a large spill), goggles and respirators may be required. |
| General hygiene considerations | Handle in accordance with good industrial hygiene and safety practice. |

9. Physical & Chemical Properties

| | |
|---|---|
| Color | Cyan light |
| Odor threshold | Not available |
| Physical state | Liquid. |
| pH | 7 - 8 |
| Melting point | Not available |
| Freezing point | Not available |
| Boiling point | Not determined |
| Flash point | > 200 °F (> 93.3 °C); Pinsky-Martens Closed Cup |
| 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 in water | Soluble in water |



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| | |
|--|---------------|
| 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

| | |
|--------------------------------------|--------------------------------------|
| 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. Transportation Information

Department of Transportation (DOT) Requirements

Not regulated as hazardous goods.

IATA

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

15. Regulatory Information

| | |
|---|---|
| US federal regulations | US EPA TSCA 12(b): Does not contain listed chemicals. |
| CERCLA (Superfund) reportable quantity | None |



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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.

16. Other Information

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

NFPA ratings
Health: 1
Flammability: 2
Instability: 0

Issue date Mar 27 2008 2:13PM

Revision 3

Replaces sheet dated Jan 9 2006 11:46PM

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MSDS sections updated
3. Hazards Identification: Routes of exposure
8. Exposure Controls/Personal Protection: Respiratory



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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 |