



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Identification of the preparation Q7481A

Use of the preparation Inkjet printing

Manufacturer information Hewlett-Packard Company
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Date prepared Feb 28, 2007

MSDS number 146657

2. COMPOSITION / INFORMATION ON INGREDIENTS

| Component/substance | CAS number | % by weight |
|--------------------------|-------------|-------------|
| Water | 7732-18-5 | > 70 |
| 2-pyrrolidone | 616-45-5 | < 10 |
| 1,5-pentanediol | 111-29-5 | < 5 |
| Modified carbon black #6 | Proprietary | < 5 |
| Substituted diol | Proprietary | < 2.5 |

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).

3. 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.

Substituted diol
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.

Substituted diol
Contact with eyes may result in irritation.

Inhalation

2-pyrrolidone
Inhalation may result in respiratory irritation.



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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

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.

4. FIRST AID MEASURES

First aid procedures

Skin

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

Eye

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

Flash point and method

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

Hazardous combustion products

Refer to section 10.

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.

Procedures if material is released or spilled

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.



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| | |
|--------------------------------------|---|
| Exposure limit values | Exposure limits have not been established for this product. |
| Personal protective equipment | |
| General | Use personal protective equipment to minimize exposure to skin and eye. |
| Hygiene measures | Handle in accordance with good industrial hygiene and safety practice. |
| Exposure guidelines | Use in a well ventilated area. |

9. PHYSICAL & CHEMICAL PROPERTIES

| | |
|-----------------------------|----------------------|
| pH | 7.5 - 8.2 |
| Vapor pressure | Not determined |
| Boiling point | Not determined |
| Solubility | Soluble in water |
| Specific gravity | 1 - 1.2 |
| VOC content | < 3 % |
| Flash point | > 93.3 °C (> 200 °F) |
| Viscosity | > 2 cp |
| Vapor density | > 1 (air = 1.0) |
| Evaporation rate | Not determined |
| Flammability | Not determined |
| Oxidizing properties | Not determined |
| Color | Black |

10. CHEMICAL STABILITY & REACTIVITY INFORMATION

| | |
|---|---|
| Stability | Stable under recommended storage conditions. |
| 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. |
| Incompatibility | Incompatible with strong bases and oxidizing agents. |

11. TOXICOLOGICAL 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.

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. 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

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



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IATA

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

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. |
| US federal regulations | US TSCA 12(b): Contains sodium nitrite (CASRN 7632-00-0), subject to export notification requirements. |
| HMIS ratings | Health: 1 Flammability: 1 Physical hazard: 1 |
| NFPA ratings | Health: 1 Flammability: 1 Instability: 1 |
| Superfund Amendments and Reauthorization Act of 1986 (SARA) | |
| Section 302 extremely hazardous substance | No |
| Section 311 hazardous chemical | Yes |
| Hazard categories | Immediate Hazard - No Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No |

16. OTHER INFORMATION

| | |
|------------------------------|---|
| Other information | This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200). |
| Issue date | Feb 28 2007 2:05PM |
| Revision | 5 |
| Replaces sheet dated | Feb 1 2007 9:00AM |
| 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 | 3. Hazards Identification: Chronic health effects |



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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 |