# MATERIAL SAFETY DATA SHEET

## 1. Chemical Product and Company Identification

| | |
|---|---|
| **Material name** | C1892A |
| **Use of the preparation** | Inkjet printing |
| **Version #** | 03 |
| **Revision date** | 26-Mar-2008 |
| **CAS #** | Mixture |
| **Manufacturer information** | Hewlett-Packard Company<br>1000 NE Circle Boulevard<br>Corvallis, OR 97330-4239 US |
| **Hewlett-Packard health effects line** | |
| **(Toll-free within the US)** | 1-800-457-4209 |
| **(Direct)** | 1-503-494-7199 |
| **General information telephone number** | |
| **HP Customer Care Line** | 1-800-474-6836 |
| **(Toll-free)** | 1-800-474-6836 |
| **(Direct)** | 1-208-323-2551 |
| **Date prepared** | Mar 26, 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.

*Tetraethylene glycol*
Contact with skin may result in irritation.

**Eye contact**

*2-pyrrolidone*
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

**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**

Carbon black is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans). 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

| Component/substance | CAS number | % by weight |
|---|---|---|
| Water | 7732-18-5 | > 80 |
| Tetraethylene glycol | 112-60-7 | < 7.5 |
| 2-pyrrolidone | 616-45-5 | < 5 |
| Carbon black | 1333-86-4 | < 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. |
| **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 limits**

**ACGIH**

| Components | CAS # | TWA | STEL | Ceiling |
|---|---|---|---|---|
| Carbon black | 1333-86-4 | 3.5 mg/m3 | Not established | Not established |

**OSHA**

| Components | CAS # | TWA | STEL | Ceiling |
|---|---|---|---|---|
| Carbon black | 1333-86-4 | 3.5 mg/m3 | Not established | Not established |

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

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Carbon black 1333-86-4 3.5 mg/m3 TWA

U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)

Carbon black 1333-86-4 3.5 mg/m3 TWA

**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 hygeine considerations** | Handle in accordance with good industrial hygiene and safety practice. |

## 9. Physical & Chemical Properties

| | |
|---|---|
| **Color** | Black |
| **Odor threshold** | Not available |
| **Physical state** | Liquid. |
| **pH** | 7.8 - 8.4 |
| **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** | 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 |
| **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

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|---|---|
| **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**

U.S. - OSHA - Hazard Communication Carcinogens

| | | |
|---|---|---|
| Carbon black | 1333-86-4 | Present |

**Symptoms and target organs**

NIOSH - Pocket Guide - Target Organs

| | | |
|---|---|---|
| Carbon black | 1333-86-4 | respiratory system, eyes (lymphatic cancer in presence of PAHs) |

## 12. Ecological Information

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|---|---|
| **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 TSCA 12(b): Contains tetrahydrofuran (CASRN 109-99-9), subject to export notification requirements.

**CERCLA (Superfund) reportable quantity**

None

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

| | |
|---|---|
| **Hazard categories** | Immediate Hazard - No<br>Delayed Hazard - No<br>Fire Hazard - No<br>Pressure Hazard - No<br>Reactivity Hazard - No |
| **Section 302 extremely hazardous substance** | No |
| **Section 311 hazardous chemical** | No |

**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**

U.S. - California - Proposition 65 - Carcinogens List

| | | |
|---|---|---|
| Carbon black | 1333-86-4 | carcinogen, initial date 2/21/03 (airborne, unbound particles of respirable size) |

U.S. - Pennsylvania - RTK (Right to Know) List

| | | |
|---|---|---|
| 2-pyrrolidone | 616-45-5 | Present |

U.S. - Pennsylvania - RTK (Right to Know) List

| | | |
|---|---|---|
| Carbon black | 1333-86-4 | Present |

U.S. - New Jersey - Right to Know Hazardous Substance List

| | | |
|---|---|---|
| Carbon black | 1333-86-4 | sn 0342 |

## 16. Other Information

| | |
|---|---|
| **HMIS® ratings** | Health: 1<br>Flammability: 1<br>Physical hazard: 0 |
| **NFPA ratings** | Health: 1<br>Flammability: 1<br>Instability: 0 |
| **Issue date** | Mar 26 2008 3:33PM |
| **Revision** | 3 |
| **Replaces sheet dated** | Mar 28 2007 12:26PM |
| **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: Routes of exposure<br>3. Hazards Identification: Chronic health effects<br>3. Hazards Identification: Carcinogenicity<br>8. Exposure Controls/Personal Protection: Respiratory |

**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 |