# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Identification of the preparation** CN673Series

**Product use** Inkjet printing. For use only in inkjet printing

**Version #** 01

**Revision date** 30-Apr-2011

**CAS #** Mixture

**Company identification**

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## 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.

**Eye contact**

*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.

**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** None known.

**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 |
|---|---|---|
| 2-pyrrolidone | 616-45-5 | 10 - 15 |
| Substituted diol | Proprietary | 7.5 - 10 |
| Acrylic-Styrene Polymer | N/A | 5 - 7.5 |
| Carbon black | 1333-86-4 | 1 - 2.5 |
| Water | 7732-18-5 | >60 |

**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).

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

**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 |

**U.S. - Tennessee**

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

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

**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** | Not available. |
| **Melting point** | Not available. |
| **Freezing point** | Not available. |
| **Boiling point** | Not available. |
| **Flash point** | 200 °F (93.3 °C) Pensky-Martens Closed Cup |
| **Evaporation rate** | Not available. |
| **Flammability limits in air, upper, % by volume** | Not available. |
| **Flammability limits in air, lower, % by volume** | Not available. |
| **Vapor pressure** | Not available. |
| **Vapor density** | Not available. |
| **Specific gravity** | Not available. |
| **Relative density** | Not available. |
| **Solubility (water)** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition temperature** | Not available. |
| **VOC** | 256 g/l (Determined by EPA Method 24) |
| **Other information** | VOC content (less water, less exempt compounds) = 807 g/L (U.S. requirement, not for emissions) US EPA Method 24 |

## 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., fluorinated hydrocarbons and hydrogen fluoride. |
| **Possibility of hazardous reactions** | None known. |

## 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. |

**Acute toxicity** Not available.

**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<br>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

**Ecotoxicity** No information available.

**Aquatic toxicity** No information available.

**Persistence and degradability** Not available.

**Chemical fate information** This product is highly soluble in water.

## 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

**DOT**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**RID**

Not regulated as dangerous goods.

## 15. Regulatory Information

**US federal regulations** US TSCA 12(b): Does not contain listed chemicals.
US EPA TSCA Inventory: All chemical substances in this product comply with all rules or orders under TSCA.

**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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**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 |