



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name CN057Series
Version # 03
Issue date 04-Jan-2012
Revision date 06-Jan-2014
Product use Inkjet printing
CAS # Mixture
Company identification Hewlett-Packard Company
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2. Hazards Identification

Emergency overview Contact with skin and eyes may result in irritation. Do not breathe Vapor.

Potential health effects
Inhalation Avoid breathing vapors or mists of this product. Inhalation of mist causes irritation of respiratory system. Inhalation may result in respiratory irritation.

Other hazards Potential routes of exposure to this product are skin and eye contact, ingestion, and inhalation. 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. Complete toxicity data are not available for this specific formulation. 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

| Hazardous components | CAS # | Percent |
|---------------------------------|--------------|----------------|
| 2-pyrrolidone | 616-45-5 | < 15 |
| Carbon Black Colorant | 1333-86-4 | < 5 |
| Non-hazardous components | CAS # | Percent |
| Water | 7732-18-5 | > 70 |
| Co-Solvent | Proprietary | < 10 |

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

General advice No information

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

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|---|--|
| Flammable properties | None known. |
| Extinguishing media | |
| Suitable extinguishing media | For small (incipient) fires, use media such as foam, sand, dry chemical, or carbon dioxide. For large fires use very large (flooding) quantities of water and/or foam, applied as a mist or spray. |
| Unsuitable extinguishing media | None known. |
| Fire fighting equipment/instructions | Not available. |
| 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 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

US. ACGIH Threshold Limit Values

| Components | Type | Value | Form |
|---------------------------------------|------|---------|---------------------|
| Carbon Black Colorant (CAS 1333-86-4) | TWA | 3 mg/m3 | Inhalable fraction. |

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Components | Type | Value |
|---------------------------------------|------|-----------|
| Carbon Black Colorant (CAS 1333-86-4) | PEL | 3.5 mg/m3 |

US. NIOSH: Pocket Guide to Chemical Hazards

| Components | Type | Value |
|---------------------------------------|------|-----------|
| Carbon Black Colorant (CAS 1333-86-4) | TWA | 0.1 mg/m3 |

US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A

| Components | Type | Value |
|---------------------------------------|------|-----------|
| Carbon Black Colorant (CAS 1333-86-4) | TWA | 3.5 mg/m3 |

| | |
|--------------------------------------|---|
| Exposure guidelines | Exposure limits have not been established for this product. |
| Engineering controls | Use in a well ventilated area. |
| 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

| | |
|-------------------------------------|---|
| Appearance | Not available. |
| Physical state | Liquid. |
| Form | Not available. |
| Color | Black. |
| Odor | Not available. |
| pH | 7.5 - 9 |
| Vapor pressure | Not available. |
| Boiling point | Not available. |
| Melting point/Freezing point | Not available. |
| Solubility (water) | Not available. |
| Specific gravity | Not available. |
| Flash point | > 230.00 °F (> 110.00 °C) Pensky-Martens Closed Cup |
| VOC | < 229 g/L |
| Other information | For other VOC regulatory data/information see Section 15. |

10. Chemical Stability & Reactivity Information

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|---|---|
| Chemical stability | Stable under recommended storage conditions. |
| Conditions to avoid | No information available |
| 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**Toxicological data**

| Components | Species | Test Results |
|---|---|---------------------|
| 2-pyrrolidone (CAS 616-45-5) | | |
| Acute | | |
| <i>Oral</i> | | |
| LD50 | Guinea pig | 6500 mg/kg |
| | Rat | 6500 mg/kg |
| Carbon Black Colorant (CAS 1333-86-4) | | |
| Acute | | |
| <i>Oral</i> | | |
| LD50 | Rat | > 8000 mg/kg |
| Acute effects | No information available. | |
| 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, INHALABLE FRACTION (CAS 1333-86-4) | A3 Confirmed animal carcinogen with unknown relevance to humans. | |
| IARC Monographs. Overall Evaluation of Carcinogenicity | | |
| Carbon Black Colorant (CAS 1333-86-4) | 2B Possibly carcinogenic to humans. | |
| Serious eye damage/eye irritation | Not available. | |

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

Aquatic toxicity This product has not been tested for ecological effects.

Ecotoxicological data

| Components | Species | Test Results |
|---|--|----------------------|
| 2-pyrrolidone (CAS 616-45-5) | | |
| Aquatic | | |
| Crustacea | EC50 Water flea (<i>Daphnia pulex</i>) | 13.21 mg/l, 48 hours |
| Ecotoxicity This product has not been tested for ecological effects. | | |
| Persistence and degradability Not available. | | |
| Bioaccumulation / Accumulation | | |
| Bioaccumulative potential | | |
| Octanol/water partition coefficient log Kow | | |
| 2-pyrrolidone | | -0.85 |
| Partition coefficient | | |
| 2-pyrrolidone | | -0.85 |

13. Disposal Considerations

Disposal instructions Do not allow this material to drain into sewers/water supplies.
Dispose of waste material according to Local, State, Federal, and Provincial Environmental 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.

Further information

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

15. Regulatory Information

US federal regulations US TSCA 12(b): Does not contain listed chemicals.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Not listed.

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated.

DEA Exempt Chemical Mixtures Code Number

Not regulated.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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|--|--|
| Hazard categories | Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No |
| SARA 302 Extremely hazardous substance | No |
| SARA 311/312 Hazardous chemical | No |
| Other information | Exposure Limits (See Section 8): Executive regulation of Minister of Labour and Social Policy dated Nov. 29, 2002 concerning the highest exposure limits and volume of factors harmful for health and environment at work (Official Journal of Laws no 217/2002 item 1833 with further amendments). VOC content (less water, less exempt compounds) = < 884 g/L (U.S. requirement, not for emissions) VOC data based on formulation (Organic compounds minus solids) |
| Other 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 - California Proposition 65 - CRT: Listed date/Carcinogenic substance | |
| CARBON BLACK (AIRBORNE, UNBOUND PARTICLES OF RESPIRABLE SIZE [≤ 10 MICROMETERS]) (CAS 1333-86-4) | Listed: February 21, 2003 Carcinogenic. |
| US - New Jersey RTK - Substances: Listed substance | |
| Carbon Black Colorant (CAS 1333-86-4) | Listed. |
| US. Massachusetts RTK - Substance List | |
| 2-pyrrolidone (CAS 616-45-5) | |
| Carbon Black Colorant (CAS 1333-86-4) | |
| US. Pennsylvania RTK - Hazardous Substances | |
| 2-pyrrolidone (CAS 616-45-5) | Listed. |
| Carbon Black Colorant (CAS 1333-86-4) | Listed. |
| US. Rhode Island RTK | |
| Carbon Black Colorant (CAS 1333-86-4) | |

16. Other Information

| | |
|--|---|
| 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. |
| Other information | This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200). |
| Issue date | 04-Jan-2012 |
| This data sheet contains changes from the previous version in section(s): | 1. Product and Company Identification: Alternate Trade Names |

Manufacturer information

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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 |