



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Identification of the preparation C9364Zseries
Product use Inkjet printing
Version # 07
Revision date 11-Jan-2012
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.

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.

Eye contact

1,5-pentanediol
Contact with eyes may result in irritation.

2-pyrrolidone
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

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 |
|-----------------|----------|---------|
| 1,5-pentanediol | 111-29-5 | < 7.5 |

| | | |
|---------------|-----------|-------|
| 2-pyrrolidone | 616-45-5 | < 7.5 |
| Carbon black | 1333-86-4 | < 5 |
| Water | 7732-18-5 | > 75 |

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. If irritation persists get medical attention. |
| Inhalation | Move 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

Flammable properties None known.

Extinguishing media

Suitable extinguishing media CO2, water, dry chemical, or 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 | Form |
|--------------------------|------|--------------|---------------------|
| Carbon black (1333-86-4) | TWA | 3.0000 mg/m3 | Inhalable fraction. |

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. |
| Engineering controls | Use in a well ventilated area. |
| 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 | 7 |
| 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 limits in air, upper, % by volume | Not available. |
| Flammability limits in air, lower, % by volume | Not determined |
| Vapor pressure | Not determined |
| Vapor density | Not available. |
| Specific gravity | 1 - 1.2 |
| Relative density | Not available. |
| Solubility (water) | Soluble in water |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | 2 cp |
| VOC | < 179 g/L |

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

| | |
|------------------------|---|
| 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. |
|------------------------|---|

IARC Monographs: Evidence of carcinogenicity in humans

| | |
|------------------------------|------------------|
| Carbon black (CAS 1333-86-4) | Inadequate data. |
|------------------------------|------------------|

IARC Monographs: Overall evaluation

| | |
|------------------------------|-------------------------------------|
| Carbon black (CAS 1333-86-4) | 2B Possibly carcinogenic to humans. |
|------------------------------|-------------------------------------|

US ACGIH Threshold Limit Values: A3 carcinogen

| | |
|------------------------------|--|
| Carbon black (CAS 1333-86-4) | A3 Confirmed animal carcinogen with unknown relevance to humans. |
|------------------------------|--|

Serious eye damage/eye irritation Not available.

Symptoms and target organs

Target Organs (NIOSH)

Carbon black (CAS 1333-86-4)

Eyes
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

Aquatic toxicity LC50/96h/Fathead minnows =>750 mg/L.

Persistence and degradability Not available.

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

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

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.

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.

Other information

Specific Provisions: Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (in the amended version OJ L 396 from 29.05.2007 page 3 with further rectifications and amendments).

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) = < 781 g/L (U.S. requirement, not for emissions)

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.

Issue date

11-Jan-2012

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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 |