



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Identification of the preparation Q2289Series

Product use Inkjet printing

Version # 12

Revision date 12-Nov-2012

CAS # Mixture

Company identification Hewlett-Packard Company
3000 Hanover Street
Palo Alto, CA 94304-1185
United States
Telephone 650-857-1501

Hewlett-Packard health effects line
(Toll-free within the US) 1-800-457-4209
(Direct) 1-503-494-7199
HP Customer Care Line
(Toll-free within the US) 1-800-474-6836
(Direct) 1-208-323-2551
Email: hpcustomer.inquiries@hp.com

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.

Eye contact

2-pyrrolidone
Contact with eyes may result in irritation.

Isopropyl Alcohol
Contact with eyes may result in severe irritation.

Inhalation

2-pyrrolidone
Inhalation may result in respiratory irritation.

Isopropyl Alcohol
Inhalation may cause drowsiness or dizziness.

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 |
|-------------------|-----------|---------|
| Water | 7732-18-5 | < 80 |
| 2-pyrrolidone | 616-45-5 | < 15 |
| Carbon black | 1333-86-4 | < 5 |
| Isopropyl Alcohol | 67-63-0 | < 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).

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.

General advice

No additional information

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

Carbon black (1333-86-4)

Isopropyl Alcohol (67-63-0)

Type

TWA

BEI

STEL

Value

3.0000 mg/m3

40.0000 mg/l

400.0000 ppm

Form

Inhalable fraction.

| Components | Type | Value | Form |
|------------|------|--------------|------|
| | TWA | 200.0000 ppm | |

| U.S. - OSHA | | | |
|-----------------------------|------|----------------|--|
| Components | Type | Value | |
| Isopropyl Alcohol (67-63-0) | PEL | 400.0000 ppm | |
| | | 980.0000 mg/m3 | |

| U.S. - Tennessee | | | |
|-----------------------------|------|-----------------|--|
| Components | Type | Value | |
| Carbon black (1333-86-4) | TWA | 3.5000 mg/m3 | |
| Isopropyl Alcohol (67-63-0) | STEL | 500.0000 ppm | |
| | | 1225.0000 mg/m3 | |
| | | 400.0000 ppm | |
| | TWA | 980.0000 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 7.8

Melting point Not available.

Freezing point Not available.

Boiling point 200 °F (93.3 °C)

Flash point 131 °F (55 °C) Pinsky-Martens Closed Cup; No ignition, sustained combustion or flashing detected using the Sustained Combustibility Test (method in US 49CFR173, Appendix H).

Evaporation rate Not determined

Flammability limits in air, upper, % by volume Not available.

Flammability limits in air, lower, % by volume Not available.

Vapor pressure Not determined

Vapor density Not available.

Specific gravity 1

Relative density Not available.

Solubility (water) Soluble in water

Auto-ignition temperature Not available.

Decomposition temperature Not available.

| | |
|--------------------------|---|
| Viscosity | 2 cp |
| Bulk density | 1 gm/ml |
| VOC | Not available. |
| Other information | For other VOC regulatory data/information see section 15. |

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.

ACGIH Carcinogens

| | |
|---------------------------------|--|
| Carbon black (CAS 1333-86-4) | A3 Confirmed animal carcinogen with unknown relevance to humans. |
| Isopropyl Alcohol (CAS 67-63-0) | 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. |
|------------------------------|------------------|

Serious eye damage/eye irritation Not available.

Symptoms and target organs

Target Organs (NIOSH)

| | |
|---------------------------------|------------------------------------|
| Carbon black (CAS 1333-86-4) | Eyes Respiratory system |
| Isopropyl Alcohol (CAS 67-63-0) | Eyes Respiratory system Skin |

Further information Complete toxicity data are not available for this specific formulation. 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. |
| Partition coefficient | Not determined |

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. No ignition, sustained combustion, or flashing detected, using the Sustained Combustibility Test prescribed in the UN Manual of Tests and Criteria, Part III subsection 32.5.2. Refer to Dangerous Goods Regulations Section 3.3.1.3. No ignition, sustained combustion or flashing detected using the sustained combustibility test (method in US CFR173, Appendix H).

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.

DEA Exempt Chemical Mixtures Code Number

Not regulated.

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

Not regulated.

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

Not listed.

CERCLA (Superfund) reportable quantity

None

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

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 - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

Carbon black (CAS 1333-86-4) Listed: February 21, 2003 Carcinogenic.

US - New Jersey RTK - Substances: Listed substance

Carbon black (CAS 1333-86-4) Listed.
Isopropyl Alcohol (CAS 67-63-0) Listed.

US. Massachusetts RTK - Substance List

2-pyrrolidone (CAS 616-45-5)
Carbon black (CAS 1333-86-4)
Isopropyl Alcohol (CAS 67-63-0)

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

2-pyrrolidone (CAS 616-45-5) Listed.
Carbon black (CAS 1333-86-4) Listed.
Isopropyl Alcohol (CAS 67-63-0) Listed.

US. Rhode Island RTK

Carbon black (CAS 1333-86-4)
Isopropyl Alcohol (CAS 67-63-0)

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/NDL), 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).

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: 2
Physical hazard: 0

NFPA ratings

Health: 1
Flammability: 2
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

12-Nov-2012

Manufacturer information

Hewlett-Packard Company
3000 Hanover Street
Palo Alto, California 94304-1112 US
(Direct) 1-503-494-7199
(Toll-free within the US) 1-800-457-4209

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 |