



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Material name** CZ628Series  
**Version #** 05  
**Issue date** 04-Jan-2013  
**Revision date** 04-Oct-2013  
**Product use** Inkjet printing. For use only in 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.  
**Other hazards** 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. Cobalt is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans).

## 3. Composition / Information on Ingredients

<b>Hazardous components</b>	<b>CAS #</b>	<b>Percent</b>
2-pyrrolidone	616-45-5	<15
<b>Non-hazardous components</b>	<b>CAS #</b>	<b>Percent</b>
Water	7732-18-5	>40
Cobalt Pigment	Proprietary	<40
Cyclo Amide	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).

## 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.

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## 5. Fire Fighting Measures

### Extinguishing media

**Suitable extinguishing media** CO<sub>2</sub>, water, dry chemical, or foam

**Unsuitable extinguishing media** None known.

**Fire fighting equipment/instructions** Not available.

**Specific methods** None established.

**Hazardous combustion products** Refer to section 10.

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## 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.

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## 7. Handling and Storage

**Handling** Avoid contact with skin, eyes and clothing.

**Storage** Keep away from excessive heat or cold.

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## 8. Exposure Controls / Personal Protection

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

### Personal protective equipment

**General** Use personal protective equipment to minimize exposure to skin and eye.

**Eye / face protection** Wear safety glasses with side shields (or goggles).

**Skin protection** Wear appropriate chemical resistant clothing.

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

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## 9. Physical & Chemical Properties

**Appearance** Not available.

**Physical state** Liquid.

**Form** Not available.

**Color** Black.

**Odor** Not available.

**pH** 6.5 - 7.5  
9

**Vapor pressure** Not available.

**Boiling point** Not available.

**Melting point/Freezing point** Not available.

**Solubility (water)** Not available.

**Specific gravity** 1.38 - 1.42

**Flash point** 200.00 °F (93.33 °C) Pinsky-Martens Closed Cup

**Viscosity** 5.6 - 6.7 cP

**VOC** 159.3 g/l US EPA Method 24

**Other information** For other VOC regulatory data/information see Section 15.

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## 10. Chemical Stability & Reactivity Information

**Chemical stability** Stable under recommended storage conditions.

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<b>Conditions to avoid</b>	No information available
<b>Incompatible materials</b>	Not available.
<b>Hazardous decomposition products</b>	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
<b>Possibility of hazardous reactions</b>	None known.

## 11. Toxicological Information

### Toxicological data

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Guinea pig	6500 mg/kg
	Rat	6500 mg/kg
<b>Carcinogenicity</b>	Cobalt is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans).	
<b>Serious eye damage/eye irritation</b>	Not available.	
<b>Further information</b>	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

### Ecotoxicological data

Product	Species	Test Results
CZ628Series (CAS Mixture)		
<b>Aquatic</b>		
<i>Acute</i>		
Crustacea	LC50	Fairy shrimp ( <i>Streptocephalus dichotomus</i> ) > 750 mg/l, 96 hours
Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea ( <i>Daphnia pulex</i> ) 13.21 mg/l, 48 hours
<b>Ecotoxicity</b>	No information available.	
<b>Persistence and degradability</b>	Not available.	
<b>Bioaccumulation / Accumulation</b>		
<b>Bioaccumulative potential</b>		
<b>Octanol/water partition coefficient log Kow</b>		
2-pyrrolidone		-0.85
<b>Partition coefficient</b>		
2-pyrrolidone		-0.85

## 13. Disposal Considerations

<b>Disposal instructions</b>	Dispose of in compliance with federal, state, and local regulations.
	Disposal by thermal decomposition (includes incineration or energy recovery) or secure landfill only. Release to ground or surface water is prohibited.

## 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.

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**15. Regulatory Information****US federal regulations**

US EPA TSCA Inventory: All chemical substances in this product comply with all rules or orders under TSCA.

US TSCA 12(b): Contains Cobalt Pigment, subject to export notification requirements.

A substance in this product is the subject of a Significant New Use Rule (SNUR) at 40CFR721.1059. The Significant New Uses for this substance with PMN number P12-0035 are 1. domestic manufacture, 2. use other than described in the PMN, 3. use as a consumer product, 4. processing or use of the product in solid form, 5. manufacturing, processing or use without an MSDS that warns to not release to water, and 6. any use of the substance that results in releases to surface water..

**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)****Hazard categories**

Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - Yes  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

No

**SARA 311/312 Hazardous chemical**

No

**Other information**

VOC content (less water, less exempt compounds) = < 473.9 g/L (U.S. requirement, not for emissions)

VOC data based on formulation (Organic compounds minus solids)

**Other regulations**

The components of this product are reported in the following inventories: United States of America, European Union, Switzerland, Canada.

**State regulations****US. Massachusetts RTK - Substance List**

2-pyrrolidone (CAS 616-45-5)

**US. Pennsylvania RTK - Hazardous Substances**

2-pyrrolidone (CAS 616-45-5)

Listed.

**US. Rhode Island RTK**

Not regulated.

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**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-2013

**This data sheet contains changes from the previous version in section(s):** Hazards Identification: Other hazards  
9. Physical & Chemical Properties: Other information  
Ecological Information: Ecotoxicity  
12. Ecological Information: Aquatic toxicity

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**Explanation of abbreviations**

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CAS</b>	Chemical Abstracts Service
<b>CERCLA</b>	Comprehensive Environmental Response Compensation and Liability Act
<b>CFR</b>	Code of Federal Regulations
<b>COC</b>	Cleveland Open Cup
<b>DOT</b>	Department of Transportation
<b>EPCRA</b>	Emergency Planning and Community Right-to-Know Act (aka SARA)
<b>IARC</b>	International Agency for Research on Cancer
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>NTP</b>	National Toxicology Program
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>REC</b>	Recommended
<b>REL</b>	Recommended Exposure Limit
<b>SARA</b>	Superfund Amendments and Reauthorization Act of 1986
<b>STEL</b>	Short-Term Exposure Limit
<b>TCLP</b>	Toxicity Characteristics Leaching Procedure
<b>TLV</b>	Threshold Limit Value
<b>TSCA</b>	Toxic Substances Control Act
<b>VOC</b>	Volatile Organic Compounds