



SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation of the mixture C9452Series
Registration number N/A
Synonyms None.
Issue date 24-Jun-2013
Version number 01

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Inkjet printing

Uses advised against None known.

Company identification

Hewlett-Packard, Ltd.
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Hewlett-Packard health effects line
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(Direct) 1-503-494-7199
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(Toll-free within the US) 1-800-474-6836
(Direct) 1-208-323-2551
Email: hpcustomer.inquiries@hp.com
Poison Information Center 0207771 5307

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Emergency overview Contact with skin and eyes may result in irritation. Ingestion may result in nausea, vomiting and diarrhea. May cause sensitization of susceptible persons.

Hazard summary

Physical hazards Not classified for physical hazards.
Health hazards Not classified as a health hazard.
Environmental hazards Not classified for hazards to the environment.
Specific hazards Not available.
Main symptoms Not available.

2.2. Label elements

Label according to Directive 67/548/EEC or 1999/45/EC as amended

Contains: 2-pyrrolidone, Alkyldiol, Diethylene glycol, Polymer 683-K salt, Triethanolamine, Water

R-phrases(s) Not available.

S-phrases(s) Not available.

Authorization number Not available.

Supplemental label information Not applicable.

2.3. Other hazards

This cyan ink is not classified according to EU Directive 1999/45/EC. 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.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Water	<80	7732-18-5 231-791-2	-	-	
Classification:					DSD: - CLP: -
2-pyrrolidone	<7.5	616-45-5 210-483-1	-	-	
Classification:					DSD: Xi;R36 CLP: Eye Irrit. 2;H319
Diethylene glycol	<7.5	111-46-6 203-872-2	-	603-140-00-6	
Classification:					DSD: Xn;R22 CLP: Acute Tox. 4;H302
Alkyldiol	<5	Proprietary 230-029-6	-	-	
Classification:					DSD: Xi;R36/37/38 CLP: Skin Irrit. 2;H315, Eye Irrit. 2;H319, STOT SE 3;H335
Polymer 683-K salt	< 2.5		-	-	
Classification:					DSD: - CLP: -
Triethanolamine	<1.5	102-71-6 203-049-8	-	-	
Classification:					DSD: - CLP: -

Composition comments

This ink supply contains an aqueous ink formulation.
This product has been evaluated using criteria specified in the EU Directives 67/548/EEC and 1999/45/EC, as amended.
For the full text of the R phrases mentioned in this Section, see Section 16.

SECTION 4: First aid measures**General information**

Not available.

4.1. Description of first aid measures**Inhalation**

Move to fresh air. If symptoms persist, get medical attention.

Skin contact

Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.

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.

Ingestion

If material is ingested, immediately contact a physician or poison control center.

4.2. Most important symptoms and effects, both acute and delayed

Not available.

4.3. Indication of any immediate medical attention and special treatment needed

No notes to physicians.

SECTION 5: Firefighting measures**General fire hazards**

Not available.

5.1. Extinguishing media	
Suitable extinguishing media	CO2, water, dry chemical, or foam
Unsuitable extinguishing media	None known.
5.2. Special hazards arising from the substance or mixture	Not available.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Not available.
Special fire fighting procedures	Not available.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Wear appropriate personal protective equipment.
For emergency responders	Not available.

6.2. Environmental precautions Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up Not available.

6.4. Reference to other sections Not available.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Avoid contact with skin, eyes and clothing.

7.2. Conditions for safe storage, including any incompatibilities Keep out of the reach of children. Keep away from excessive heat or cold. Store away from strong oxidizers.

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Diethylene glycol (CAS 111-46-6)	TWA	101 mg/m3
		23 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Not available.

Derived no-effect level (DNEL) Not available.

Predicted no effect concentrations (PNECs) Not available.

8.2. Exposure controls

Appropriate engineering controls Use in a well ventilated area.

Individual protection measures, such as personal protective equipment

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

Eye/face protection Not available.

Skin protection

- **Hand protection** Not available.

- **Other** Not available.

Respiratory protection	Not available.
Thermal hazards	Not available.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Not available.
Form	Not available.
Color	Cyan
Odor	Not available.
Odor threshold	Not available.
pH	9.4
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not determined
Flash point	> 200.00 °F (> 93.33 °C) Pensky-Martens Closed Cup
Evaporation rate	Not determined
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not determined
Flammability limit - upper (%)	Not available.
Vapor pressure	Not determined
Relative density	Not available.
Solubility(ies)	Soluble in water
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not determined
Decomposition temperature	Not available.
Viscosity	Not applicable.
Explosive properties	Not available.
Oxidizing properties	Not determined

9.2. Other information

Specific gravity	1 - 1.1
VOC (Weight %)	< 236 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity	Not available.
10.2. Chemical stability	Stable under recommended storage conditions.
10.3. Possibility of hazardous reactions	Will not occur.
10.4. Conditions to avoid	Not available.
10.5. Incompatible materials	Incompatible with strong bases and oxidizing agents.
10.6. Hazardous decomposition products	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. hydrogen fluoride, fluorinated hydrocarbons, aldehydes, ketones

SECTION 11: Toxicological information

General information	Not available.
Information on likely routes of exposure	
Ingestion	Not available.
Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.

Symptoms Not available.

11.1. Information on toxicological effects

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Acute		
<i>Oral</i>		
LD50	Guinea pig	6500 mg/kg
	Rat	6500 mg/kg
Diethylene glycol (CAS 111-46-6)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	11890 mg/kg
<i>Oral</i>		
LD50	Cat	3300 mg/kg
	Dog	9000 mg/kg
	Guinea pig	8700 mg/kg
		14 g/kg
	Mouse	23700 mg/kg
		13.3 g/kg
	Rabbit	26.9 g/kg
	Rat	12565 mg/kg
		15.6 g/kg
<i>Other</i>		
LD50	Mouse	22500 mg/kg
		9.6 g/kg
	Rabbit	2000 mg/kg
	Rat	7700 mg/kg
		7.7 g/kg
Triethanolamine (CAS 102-71-6)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 20000 mg/kg
<i>Oral</i>		
LD50	Guinea pig	5300 mg/kg
	Rat	8 g/kg
<i>Other</i>		
LD50	Mouse	1450 mg/kg
Skin corrosion/irritation	Not available.	
Serious eye damage/eye irritation	Not available.	
Respiratory sensitization	Not available.	
Skin sensitization	Not available.	
Germ cell mutagenicity	Not available.	
Carcinogenicity	Not available.	
Reproductive toxicity	Not available.	
Specific target organ toxicity - single exposure	Not available.	
Specific target organ toxicity - repeated exposure	Not available.	
Aspiration hazard	Not available.	
Mixture versus substance information	Not available.	

Other 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.

SECTION 12: Ecological information

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

12.1. Toxicity**Components****Species****Test Results**

2-pyrrolidone (CAS 616-45-5)

Aquatic

Crustacea	EC50	Water flea (Daphnia pulex)	13.21 mg/l, 48 hours
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Diethylene glycol (CAS 111-46-6)

Aquatic

Fish	LC50	Western mosquitofish (Gambusia affinis)	> 32000 mg/l, 96 hours
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Triethanolamine (CAS 102-71-6)

Aquatic

Crustacea	EC50	Water flea (Ceriodaphnia dubia)	565.2 - 658.3 mg/l, 48 hours
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Fish	LC50	Fathead minnow (Pimephales promelas)	10610 - 13010 mg/l, 96 hours
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12.2. Persistence and degradability Not available.

12.3. Bioaccumulative potential Not available.

Partition coefficient n-octanol/water (log Kow)

2-pyrrolidone	-0.85
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Triethanolamine	-1
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Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil Not available.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects Not available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Residual waste Not available.

Contaminated packaging Not available.

EU waste code Not available.

Disposal methods/information 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>.

SECTION 14: Transport information**ADR**

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations**

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA

Not listed.

Authorizations

Regulation (EC) No. 143/2011 Annex XIV Substances Subject to Authorization

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work

Not regulated.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not regulated.

Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances

Not regulated.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Diethylene glycol (CAS 111-46-6)

Directive 94/33/EC on the protection of young people at work

Not regulated.

Other regulations

All chemical substances in this product are notified or exempt from notification under chemical substance notification laws in the following countries: Australia, Canada, European Union, Japan, New Zealand, Switzerland, and USA..

National regulations

Not available.

15.2. Chemical Safety Assessment

Not available.

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).

SECTION 16: Other information

References

Not available.

Material name: C9452Series

Version No.: 01 Print date: 24-Jun-2013

SDS UK

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Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R22 Harmful if swallowed.
R36 Irritating to eyes.
R36/37/38 Irritating to eyes, respiratory system and skin.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Revision information

Product and Company Identification: Product and Company Identification
Composition / Information on Ingredients: Ingredients
Fire Fighting Measures: Fire & Explosion Properties
Physical & Chemical Properties: Physical & Chemical Properties
14. Transport Information: Material Transportation Information
15. Regulatory Information: United States

Training information

Not available.

Disclaimer

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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