

C6657 Series[M]-SDS_UK-English-11.pdf

C6657 Series[Y]-SDS_UK-English-11.pdf



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	C6657 Series[M]
Registration number	N/A
Synonyms	None.
Issue date	13-Jun-2013
Version number	02
Revision date	18-Sep-2013
Supersedes date	13-Jun-2013

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.
Cain Road, Amen Corner
Bracknell, Berkshire, RG12 1HN
Telephone 44 (0) 879 013 0790

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
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.

Causes skin irritation.

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: 1,5-pentanediol, 2-pyrrolidone, Alkyldiol ethoxylate, Amino alkyldiol, Ammonium nitrate, Ethyl alkyldiol, Metal nitrate # 2, Substituted naphthalenesulfonate salt #8, Water

R-phrases(s) Not available.

S-phrases(s) Not available.

Authorization number Not available.

Supplemental label information Not applicable.

2.3. 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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Water	> 60	7732-18-5 231-791-2	-	-	
Classification:	DSD: - CLP: -				
1,5-pentanediol	< 10	111-29-5 203-854-4	-	-	
Classification:	DSD: - CLP: -				
Ethyl alkyldiol	< 10	Proprietary 201-074-9	-	-	
Classification:	DSD: - CLP: -				
2-pyrrolidone	< 7.5	616-45-5 210-483-1	-	-	
Classification:	DSD: Xi;R36 CLP: Eye Irrit. 2;H319				
Metal nitrate # 2	< 7.5	Proprietary 233-826-7	-	-	
Classification:	DSD: Xi;R36 CLP: Eye Irrit. 2;H319				
Substituted naphthalenesulfonate salt #8	< 5	Proprietary -	-	-	
Classification:	DSD: - CLP: -				
Alkyldiol ethoxylate	< 2.5	Proprietary -	-	-	
Classification:	DSD: Xn;R21/22, Xi;R38-41, N;R51/53 CLP: Acute Tox. 4;H302, Acute Tox. 4;H312, Skin Irrit. 2;H315, Eye Dam. 1;H318, Aquatic Chronic 2;H411				
Amino alkyldiol	< 2.5	Proprietary 201-064-4	-	-	
Classification:	DSD: - CLP: -				
Ammonium nitrate	< 2.5	6484-52-2 229-347-8	-	-	
Classification:	DSD: O;R7-R8, Xi;R36/37/38 CLP: Skin Irrit. 2;H315, Eye Irrit. 2;H319, STOT SE 3;H335				

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 ingestion of a large amount does occur, seek medical attention.

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 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.

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.

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits No exposure limits noted for ingredient(s).

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	Not available.
Physical state	Liquid.
Form	Not available.
Color	Magenta
Odor	Not available.
Odor threshold	Not available.
pH	6.2 - 6.8
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.
Decomposition temperature	Not available.
Viscosity	>= 2 cp
Explosive properties	Not available.
Oxidizing properties	Not determined.

9.2. Other information

Specific gravity	1 - 1.2
VOC (Weight %)	< 349 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.

SECTION 11: Toxicological information

General information Refer to Section 2 for potential health effects and Section 4 for first aid measures.

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

Acute toxicity

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Acute		
<i>Oral</i>		
LD50	Guinea pig	6500 mg/kg
	Rat	6500 mg/kg
Amino alkyldiol (CAS Proprietary)		
Acute		
<i>Oral</i>		
LD50	Rat	5900 mg/kg
<i>Other</i>		
LD50	Mouse	3500 mg/kg
	Rat	2300 mg/kg
Ammonium nitrate (CAS 6484-52-2)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 88.8 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	2217 mg/kg
Skin corrosion/irritation	No data available.	
Serious eye damage/eye irritation	Not available.	
Respiratory sensitization	Not available.	
Skin sensitization	Not available.	
Germ cell mutagenicity	No information 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

12.1. Toxicity

Product		Species	Test Results
Magenta ink (CAS Mixture)			
Aquatic			
<i>Acute</i>			
Fish	LC50	Fathead minnow (Pimephales promelas)	< 400 mg/l, 96 hours
Components		Species	Test Results
2-pyrrolidone (CAS 616-45-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	13.21 mg/l, 48 hours
Ammonium nitrate (CAS 6484-52-2)			
Crustacea	EC50	Daphnia	100, 48 Hours
Fish	LC50	Fish	100, 96 Hours
Ethyl alkylidol (CAS Proprietary)			
Crustacea	EC50	Daphnia	102, 48 Hours
Fish	LC50	Fish	1000, 96 Hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	10330 - 16360 mg/l, 48 hours
Fish	LC50	Bleak (Alburnus alburnus)	> 10000 mg/l, 96 hours

12.2. Persistence and degradability

Not available.

12.3. Bioaccumulative potential

No data available on bioaccumulation.

Partition coefficient n-octanol/water (log Kow)

2-pyrrolidone -0.85

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 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>.

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

AMMONIUM NITRATE (AN) (CAS 6484-52-2)

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

Not regulated.

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

Not regulated.

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/NDL), Australia, Japan, Philippines, South Korea, New Zealand, and China.

National regulations

Not available.

15.2. Chemical Safety Assessment

Not available.

SECTION 16: Other information

References

Not available.

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

R7 May cause fire.
R8 Contact with combustible material may cause fire.
R21/22 Harmful in contact with skin and if swallowed.
R36 Irritating to eyes.
R36/37/38 Irritating to eyes, respiratory system and skin.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects.

Revision information

SECTION 11: Toxicological information: Mutagenicity
SECTION 11: Toxicological information: Corrosivity
SECTION 11: Toxicological information: Aspiration hazard
Ecological Information: Ecotoxicity
SECTION 12: Ecological information: Aquatic toxicity
SECTION 12: Ecological information: 12.3. Bioaccumulative potential
GHS: Classification

Training information

Not available.

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.

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



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	C6657 Series[Y]
Registration number	N/A
Synonyms	None.
Issue date	13-Jun-2013
Version number	02
Revision date	18-Sep-2013
Supersedes date	13-Jun-2013

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

Identified uses Not available.

Uses advised against None known.

Company identification Hewlett-Packard, Ltd.
Cain Road, Amen Corner
Bracknell, Berkshire, RG12 1HN
Telephone 44 (0) 879 013 0790

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
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.

Causes skin irritation.

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: 1,5-pentanediol, 2-pyrrolidone, Alkyldiol ethoxylate, Ammonium nitrate, Arylazopyrazolesulfonate salt # 3, Ethyl alkyldiol, Metal nitrate # 2, Substituted naphthalenesulfonate salt #12, Water

R-phrases(s) Not available.

S-phrases(s) Not available.

Authorization number Not available.

Supplemental label information Not applicable.

2.3. 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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Water	> 60	7732-18-5 231-791-2	-	-	
Classification:	DSD: - CLP: -				
1,5-pentanediol	< 10	111-29-5 203-854-4	-	-	
Classification:	DSD: - CLP: -				
Ethyl alkyldiol	< 10	Proprietary 201-074-9	-	-	
Classification:	DSD: - CLP: -				
2-pyrrolidone	< 7.5	616-45-5 210-483-1	-	-	
Classification:	DSD: Xi;R36 CLP: Eye Irrit. 2;H319				
Metal nitrate # 2	< 7.5	Proprietary 233-826-7	-	-	
Classification:	DSD: Xi;R36 CLP: Eye Irrit. 2;H319				
Substituted naphthalenesulfonate salt #12	< 5	Proprietary 421-950-6	-	-	
Classification:	DSD: - CLP: -				
Alkyldiol ethoxylate	< 2.5	Proprietary -	-	-	
Classification:	DSD: Xn;R21/22, Xi;R38-41, N;R51/53 CLP: Acute Tox. 4;H302, Acute Tox. 4;H312, Skin Irrit. 2;H315, Eye Dam. 1;H318, Aquatic Chronic 2;H411				
Ammonium nitrate	< 2.5	6484-52-2 229-347-8	-	-	
Classification:	DSD: O;R7-R8, Xi;R36/37/38 CLP: Skin Irrit. 2;H315, Eye Irrit. 2;H319, STOT SE 3;H335				
Arylazopyrazolesulfonate salt # 3	< 2.5	Proprietary 228-819-0	-	-	
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 ingestion of a large amount does occur, seek medical attention.

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 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.

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.

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits No exposure limits noted for ingredient(s).

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	Not available.
Physical state	Liquid.
Form	Not available.
Color	Yellow
Odor	Not available.
Odor threshold	Not available.
pH	6.2 - 6.8
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.
Decomposition temperature	Not available.
Viscosity	>= 2 cp
Explosive properties	Not available.
Oxidizing properties	Not determined.

9.2. Other information

Specific gravity	1 - 1.2
VOC (Weight %)	< 340 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.

SECTION 11: Toxicological information

General information Refer to Section 2 for potential health effects and Section 4 for first aid measures.

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

Acute toxicity

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Acute		
<i>Oral</i>		
LD50	Guinea pig	6500 mg/kg
	Rat	6500 mg/kg
Ammonium nitrate (CAS 6484-52-2)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 88.8 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	2217 mg/kg

Skin corrosion/irritation No data available.

Serious eye damage/eye irritation Not available.

Respiratory sensitization Not available.

Skin sensitization Not available.

Germ cell mutagenicity No information 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

12.1. Toxicity

Product	Species	Test Results
Yellow ink (CAS Mixture)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Fathead minnow (Pimephales promelas) < 400 mg/l, 96 hours

Components	Species		Test Results
2-pyrrolidone (CAS 616-45-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	13.21 mg/l, 48 hours
Ammonium nitrate (CAS 6484-52-2)			
Crustacea	EC50	Daphnia	100, 48 Hours
Fish	LC50	Fish	100, 96 Hours
Arylazopyrazolesulfonate salt # 3 (CAS Proprietary)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	> 180 mg/l, 96 hours
Crustacea	EC50	Daphnia	102, 48 Hours
Fish	LC50	Fish	1000, 96 Hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	10330 - 16360 mg/l, 48 hours
Fish	LC50	Bleak (Alburnus alburnus)	> 10000 mg/l, 96 hours
12.2. Persistence and degradability	Not available.		
12.3. Bioaccumulative potential	No data available on bioaccumulation.		
Partition coefficient n-octanol/water (log Kow)			
2-pyrrolidone	-0.85		
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	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 .

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**

AMMONIUM NITRATE (AN) (CAS 6484-52-2)

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

Not regulated.

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

Not regulated.

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.

National regulations

Not available.

15.2. Chemical Safety Assessment

Not available.

SECTION 16: Other information**References**

Not available.

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

R7 May cause fire.
R8 Contact with combustible material may cause fire.
R21/22 Harmful in contact with skin and if swallowed.
R36 Irritating to eyes.
R36/37/38 Irritating to eyes, respiratory system and skin.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
H302 Harmful if swallowed.

	<p>H312 Harmful in contact with skin.</p> <p>H315 Causes skin irritation.</p> <p>H318 Causes serious eye damage.</p> <p>H319 Causes serious eye irritation.</p> <p>H335 May cause respiratory irritation.</p> <p>H411 Toxic to aquatic life with long lasting effects.</p>
Revision information	<p>SECTION 11: Toxicological information: Mutagenicity</p> <p>SECTION 11: Toxicological information: Corrosivity</p> <p>SECTION 11: Toxicological information: Aspiration hazard</p> <p>Ecological Information: Ecotoxicity</p> <p>SECTION 12: Ecological information: Aquatic toxicity</p> <p>SECTION 12: Ecological information: 12.3. Bioaccumulative potential</p> <p>GHS: Classification</p>
Training information	Not available.
Disclaimer	<p>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.</p>
Manufacturer information	<p>Hewlett-Packard Company</p> <p>3000 Hanover Street</p> <p>Palo Alto, California 94304-1112 US</p> <p>(Direct) 1-503-494-7199</p> <p>(Toll-free within the US) 1-800-457-4209</p>
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