



# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Identification of the substance/preparation** 51645 Series

**Issue date** 31-Mar-2015

**Revision date** 14-Aug-2015

**Version #** 02

**Recommended use** Inkjet printing

**Chemical family** ink

**CAS #** Mixture

**Company identification** HP Inc (Thailand) Ltd.  
968 U Chu Liang Building, 3rd Floor, Rama IV Rd., Silom, Bangrak, BKK 10500  
Bangkok, Bangkok, Thailand 10500  
Telephone: 66 2353 0888  
Main Fax: 66 2353 9555

HP health effects line  
(Toll-free within the US) 1-800-457-4209  
(Direct) 1-760-710-0048  
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

### GHS classification

**Physical hazards** Not Classified

**Health hazards** Not Classified

**Environmental hazards** Not Classified

**2.3 Other hazards which do not result in GHS classification** Not Classified

### GHS label elements

**Signal word** None.

**Hazard symbols** None.

**Hazard statement** None.

### Precautionary statement

**Prevention** None.

**Response** None.

**Storage** None.

**Disposal** None.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS #	Percent
Water	7732-18-5	75-85
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.

Carbon black is present only in a bound form in this preparation.

## 4. FIRST AID MEASURES

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

<b>Skin contact</b>	Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.
<b>Eye contact</b>	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.
<b>Ingestion</b>	If ingestion of a large amount does occur, seek medical attention.

## 5. FIRE-FIGHTING MEASURES

<b>Flash point</b>	131.0 - 136.0 °F (55.0 - 57.8 °C)
<b>Notes</b>	No ignition, sustained combustion or flashing detected using the Sustained Combustibility Test (method in US 49CFR173, Appendix H).
<b>Suitable extinguishing media</b>	CO2, water, dry chemical, or foam
<b>Extinguishing media which must not be used for safety reasons</b>	None known.
<b>Unusual fire &amp; explosion hazards</b>	None known.
<b>Special protective equipment for fire-fighters</b>	None established.
<b>Specific methods</b>	None established.
<b>Hazardous combustion products</b>	Refer to section 10.
<b>General fire hazards</b>	Contact with skin and eyes may result in irritation.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Wear appropriate personal protective equipment.
<b>Environmental precautions</b>	Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Avoid contact with skin, eyes and clothing.
<b>Storage</b>	Keep out of the reach of children. Keep away from excessive heat or cold.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Carbon black (CAS 1333-86-4)	TWA	3 mg/m3	Inhalable fraction.
Isopropyl alcohol (CAS 67-63-0)	STEL	400 ppm	
	TWA	200 ppm	

### Biological limit values

#### ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Isopropyl alcohol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*

\* - For sampling details, please see the source document.

### Recommended monitoring procedures

**Additional exposure data** Exposure limits have not been established for this product.

**Engineering measures to reduce exposure** Use in a well ventilated area.

### Personal protective equipment

**Skin and body protection** Not available.

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

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

<b>Physical state</b>	Liquid.
<b>Color</b>	Black.

**Odor** Not available.

<b>Odor threshold</b>	Not available.
<b>pH</b>	7.8 - 8.4
<b>Vapor pressure</b>	Not determined
<b>Boiling point</b>	200 °F (93.33 °C)
<b>Melting point/Freezing point</b>	Not available.
<b>Solubility (water)</b>	Soluble in water
<b>Flash point</b>	131.0 - 136.0 °F (55.0 - 57.8 °C)
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>VOC</b>	< 116.6 g/l
<b>Evaporation rate</b>	Not determined
<b>Viscosity</b>	> 2 cp
<b>Partition coefficient (n-octanol/water)</b>	Not determined
<b>Other data</b>	
<b>Oxidizing properties</b>	Not determined
<b>Specific gravity</b>	1 - 1.2

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## 10. STABILITY AND REACTIVITY

<b>Conditions to avoid</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>Stability</b>	Stable under recommended storage conditions.
<b>Materials to avoid</b>	Incompatible with strong bases and oxidizing agents.
<b>Hazardous polymerization</b>	Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity</b>	Based on available data, the classification criteria are not met.
<b>Skin corrosion/irritation</b>	Based on available data, the classification criteria are not met.
<b>Serious eye damage/eye irritation</b>	Based on available data, the classification criteria are not met.
<b>Respiratory or skin sensitization</b>	
<b>Skin sensitization</b>	Based on available data, the classification criteria are not met.
<b>Respiratory sensitization</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.

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. Carbon black is present only in a bound form in this preparation.

### IARC Monographs. Overall Evaluation of Carcinogenicity

Carbon black (CAS 1333-86-4)

2B Possibly carcinogenic to humans.

<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Toxic to reproduction</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - single exposure</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.
<b>Further information</b>	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.

**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
Carbon black (CAS 1333-86-4)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	> 8000 mg/kg
Isopropyl alcohol (CAS 67-63-0)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	12800 mg/kg
<i>Oral</i>		
LD50	Dog	4797 mg/kg
	Mouse	3600 mg/kg
	Rabbit	5.03 g/kg
	Rat	4.7 g/kg
<i>Other</i>		
LD50	Mouse	1509 mg/kg
	Rat	1099 mg/kg

**12. ECOLOGICAL INFORMATION****Ecotoxicological data**

Product	Species	Test Results
51645 Series (CAS Mixture)		
<b>Aquatic</b>		
<i>Acute</i>		
Fish	LC50	Fathead minnow (Pimephales promelas) > 750 mg/l, 96 hours
<b>Components</b>		
<b>Species</b>		
<b>Test Results</b>		
2-pyrrolidone (CAS 616-45-5)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Daphnia pulex) 13.21 mg/l, 48 hours
Isopropyl alcohol (CAS 67-63-0)		
<b>Aquatic</b>		
Fish	LC50	Bluegill (Lepomis macrochirus) > 1400 mg/l, 96 hours
<i>Acute</i>		
Algae	EC50	Algae > 1000 mg/l, 72 hours
Crustacea	EC50	Daphnia 13299 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 9460 mg/l, 96 hours
<b>Environmental effects</b>		
Not available.		
<b>Persistence / degradability</b>		
No data is available on the degradability of this product.		
<b>Bioaccumulation</b>		
<b>Bioaccumulative potential</b>		
<b>Octanol/water partition coefficient log Kow</b>		
2-pyrrolidone		-0.85
Isopropyl alcohol		0.05
<b>Aquatic toxicity</b>		
Not expected to be harmful to aquatic organisms.		

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## 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>.

### Contaminated packaging

No special precautions.

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## 14. TRANSPORT INFORMATION

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

### ADR

Not regulated as dangerous goods.

### 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).

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## 15. REGULATORY INFORMATION

### Federal regulations

#### Thailand. Notification of the Ministry of Interior, Re: Work Safety Relating to Dangerous Chemicals

Isopropyl alcohol (CAS 67-63-0)

#### Thailand. Notification of the Ministry of Interior, Re: Work Safety Relating to More Dangerous Chemicals

Not regulated.

#### Thailand. Reportable Hazardous Substances (Notification of Ministry of Industry Re: Bases respecting report of quantity of hazardous materials under Department of Industrial Works, B.E. 2547)

Not regulated.

### International 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.

#### Montreal Protocol

Not applicable.

#### Stockholm Convention

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Kyoto protocol

Not applicable.

#### Basel Convention

Not applicable.

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## 16. OTHER INFORMATION

### Disclaimer

This Safety Data Sheet document is provided without charge to customers of HP. Data is the most current known to HP 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.

### Prepared by

HP

### Issue date

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**Version #** 02  
**This data sheet contains changes from the previous version in section(s):** 1. Product and Company Identification: Alternate Trade Names  
OTHER INFORMATION: Disclaimer  
**Manufacturer information** HP  
1501 Page Mill Road  
Palo Alto, CA 94304-1112 US  
Direct 1-650-857-5020

**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