



# SAFETY DATA SHEET

## 1. Identification

<b>Important information</b>	*** This Safety Data Sheet is only authorised for use by HP for HP Original products. Any unauthorised use of this Safety Data Sheet is strictly prohibited and may result in legal action being taken by HP. ***	
<b>Product identifier</b>	51645 Series	
<b>Other means of identification</b>	None.	
<b>Recommended use</b>	Inkjet printing	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>	HP Inc. 1501 Page Mill Road Palo Alto, CA 94304-1112 United States	
<b>Telephone</b>	650-857-1501	
<b>HP Inc. health effects line (Toll-free within the US)</b>	1-800-457-4209	
<b>(Direct)</b>	1-760-710-0048	
<b>HP Inc. Customer Care Line</b>		
<b>(Toll-free within the US)</b>	1-800-474-6836	
<b>(Direct)</b>	1-208-323-2551	
<b>Email:</b>	hpcustomer.inquiries@hp.com	

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable liquids	Category 3
<b>Health hazards</b>	Not classified.	
<b>Environmental hazards</b>	Not classified.	
<b>OSHA defined hazards</b>	Not classified.	

### Label elements



<b>Signal word</b>	Warning
<b>Hazard statement</b>	Flammable liquid and vapor.
<b>Precautionary statement</b>	
<b>Prevention</b>	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response</b>	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. In case of fire: Use CO2 to extinguish.
<b>Storage</b>	Store in a well-ventilated place. Keep cool.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)**

The flammability hazard classification required by OSHA CFR 1910.1200 (HazCom 2012) is specific to the industrial and commercial use of the product. A hazard label is not required for consumer products under the Federal Hazardous Substances Act.

Complete toxicity data are not available for this specific formulation.

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.

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.

**Supplemental information**

2-pyrrolidone: OSHA Hazard Communication Standard cut-off value, Reproductive toxicity Category 1B, fertility or the unborn child 3%. Mixture classification threshold based on data related to developmental toxicity in animals. No adverse effects on sexual function or damage to fertility have been observed in an animal study. See Section 11.

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### 3. Composition/information on ingredients

**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
Water		7732-18-5	75-85
Hydroxy alkylated lactam*		Proprietary*	<7.5
Black Pigment*		Proprietary*	<5
2-pyrrolidone		616-45-5	<3
Isopropyl alcohol		67-63-0	<2.5
RCP 18589 (Nemesis Binder)		Proprietary	<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.

2-pyrrolidone: OSHA Hazard Communication Standard cut-off value 3%. Mixture classification threshold based on data related to developmental toxicity in animals. No adverse effects on sexual function or damage to fertility have been observed in an animal study. See Section 11.

\*Proprietary

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### 4. 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.

**Most important symptoms/effects, acute and delayed**

Contact with skin and eyes may result in irritation.

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### 5. Fire-fighting measures

**Suitable extinguishing media**

CO2, water, dry chemical, or foam

**Unsuitable extinguishing media**

None known.

**Specific hazards arising from the chemical**

Not applicable.

**Special protective equipment and precautions for firefighters**

None established.

**Specific methods**

None established.

**General fire hazards**

Contact with skin and eyes may result in irritation.

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## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Wear appropriate personal protective equipment.

### Methods and materials for containment and cleaning up

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. Slowly vacuum or sweep the material into a bag or other sealed container.  
Dispose of in compliance with federal, state, and local regulations.

### Environmental precautions

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

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## 7. Handling and storage

### Precautions for safe handling

Avoid contact with skin, eyes and clothing.

### Conditions for safe storage, including any incompatibilities

Keep out of the reach of children. Keep away from excessive heat or cold.

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## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Black Pigment	PEL	3.5 mg/m <sup>3</sup>
Isopropyl alcohol (CAS 67-63-0)	PEL	980 mg/m <sup>3</sup> 400 ppm

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Black Pigment	TWA	3 mg/m <sup>3</sup>	Inhalable fraction.
Isopropyl alcohol (CAS 67-63-0)	STEL	400 ppm	
	TWA	200 ppm	

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Black Pigment	TWA	0.1 mg/m <sup>3</sup>
Isopropyl alcohol (CAS 67-63-0)	STEL	1225 mg/m <sup>3</sup> 500 ppm
	TWA	980 mg/m <sup>3</sup> 400 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.

### Exposure guidelines

Exposure limits have not been established for this product.

### Appropriate engineering controls

Use in a well ventilated area.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Not available.

#### Skin protection

##### Hand protection

Recommended gloves: Nitrile 4 mil minimum thickness.

##### Other

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

#### Respiratory protection

Not available.

#### Thermal hazards

Not available.

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## 9. Physical and chemical properties

### Appearance

Physical state	Liquid.
Form	Not available.
Color	Black.

**Odor** Not available.

**Odor threshold** Not available.

**pH** 7.8 - 8.4

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** 200 °F (93.33 °C)

**Flash point** 131.0 - 136.0 °F (55.0 - 57.8 °C) Pensky-Martens Closed Cup

**Evaporation rate** Not determined

**Flammability (solid, gas)** Not available.

### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** Not determined

**Vapor density** Not available.

### Solubility(ies)

**Solubility (water)** Soluble in water

**Partition coefficient (n-octanol/water)** Not determined

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** > 2 cp

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

No ignition, sustained combustion or flashing detected using the Sustained Combustibility Test (method in US 49CFR173, Appendix H).

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.

**Bulk density** 1 - 1.2 gm/ml

**Oxidizing properties** Not determined

**Specific gravity** 1 - 1.2

**VOC** < 116.6 g/l

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## 10. Stability and reactivity

**Reactivity** Not available.

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

**Possibility of hazardous reactions** Will not occur.

**Conditions to avoid** Not available.

**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.

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## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
<b>Skin contact</b>	Contact with skin may result in mild irritation.
<b>Eye contact</b>	Contact with eyes may result in mild irritation.
<b>Ingestion</b>	Health injuries are not known or expected under normal use.

**Symptoms related to the physical, chemical and toxicological characteristics** Not available.

### Information on toxicological effects

**Acute toxicity** Based on available data, the classification criteria are not met.

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
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2-pyrrolidone (CAS 616-45-5)

**Acute**

**Oral**

LD50	Rat	> 5000 mg/kg
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Black Pigment

**Acute**

**Oral**

LD50	Rat	> 10000 mg/kg
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**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met. Not classified as an irritant according to, OECD 405.

### Respiratory or skin sensitization

**Respiratory sensitization** Based on available data, the classification criteria are not met.

**Skin sensitization** Based on available data, the classification criteria are not met.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** 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

Not listed.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

### US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

**Reproductive toxicity** Based on available data, the classification criteria are not met.

2-pyrrolidone: This component showed developmental effects only at high doses that were toxic to pregnant test animals (OECD Testing Guideline 414: Prenatal Developmental Toxicity Study). Uptake by people of small doses is not expected to cause developmental toxicity. This component has not caused adverse effects on sexual function or damage to fertility in an animal study (OECD Testing Guideline 443: Extended One-Generation Reproductive Toxicity Study).

**Specific target organ toxicity - single exposure** Based on available data, the classification criteria are not met.

**Specific target organ toxicity - repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** Based on available data, the classification criteria are not met.

**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.

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## 12. Ecological information

**Aquatic toxicity** Not expected to be harmful to aquatic organisms.

### Ecotoxicity

Product	Species	Test Results
51645 Series		
<b>Aquatic</b>		
<i>Acute</i>		
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> ) > 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 ( <i>Daphnia pulex</i> ) 13.21 mg/l, 48 hours
Isopropyl alcohol (CAS 67-63-0)		
<b>Aquatic</b>		
<i>Acute</i>		
Algae	EC50	Algae > 1000 mg/l, 72 hours
Crustacea	EC50	Daphnia 13299 mg/l, 48 hours
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> ) 9460 mg/l, 96 hours

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** Not available.

#### Partition coefficient n-octanol / water (log Kow)

2-pyrrolidone	-0.85
Isopropyl alcohol	0.05

**Mobility in soil** Not available.

**Other adverse effects** Not available.

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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>.

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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

**US federal regulations** US TSCA 12(b): Does not contain listed chemicals.

### Toxic Substances Control Act (TSCA)

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**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No (Exempt)

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

No intentionally added HAP substances.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

Isopropyl alcohol (CAS 67-63-0)

Low priority

**US state regulations**

**California Proposition 65**

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Isopropyl alcohol (CAS 67-63-0)

**Other information**

VOC content (less water, less exempt compounds) = <592.5 g/L (U.S. requirement, not for emissions)

VOC data based on formulation (Organic compounds minus solids)

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

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**16. Other information, including date of preparation or last revision**

**Issue date** 01-Apr-2015

**Revision date** 03-Sep-2020

**Version #** 13

**Other information** This SDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).

**Disclaimer**

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This safety data sheet is meant to convey information about HP inks (toners) provided in HP Original ink (toner) supplies. If our Safety Data Sheet has been provided to you with a refilled, remanufactured, compatible or other non-HP Original supply please be aware that the information contained herein was not meant to convey information about such products and there could be considerable differences from information in this document and the safety information for the product you purchased. Please contact the seller of the refilled, remanufactured or compatible supplies for applicable information, including information on personal protective equipment, exposure risks and safe handling guidance. HP does not accept refilled, remanufactured or compatible supplies in our recycling programs.

**Revision information**

1. Product and Company Identification: Alternate Trade Names  
GHS: Classification

## 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