



SAFETY DATA SHEET

1. Identification

Important information *** 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. ***

Product identifier 51645 Series

Other means of identification None.

Recommended use of the chemical and restrictions on use

Recommended use Inkjet printing

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

HP Computing and Printing Middle East FZ-LLC,
Dubai Internet City 14 - 3rd Floor (DIC04),
Dubai
United Arab Emirates

HP Inc. health effect line

(Toll-free within US) 1-800-457-4209

(Direct) 1-760-710-0048

HP Inc. Customer Care Line

(Toll-free within the US) 1-800-474-6836

(Direct) 1-208-323-2551

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2. Hazards identification

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement Not available.

Precautionary statement

Prevention Not available.

Response Not available.

Storage Not available.

Disposal Not available.

Other hazards which do not result in classification 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: Specific Concentration Limits, 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.

3. Composition/information on ingredients

Mixture

Hazardous components

Chemical name	Common name and synonyms	CAS number	%
2-pyrrolidone		616-45-5	<3

Non-hazardous components

Chemical name	Common name and synonyms	CAS number	%
Water		7732-18-5	75-85
Hydroxy alkylated lactam		Proprietary	<7.5
Black Pigment		Proprietary	<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.

2-pyrrolidone: Specific Concentration Limit 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.

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.

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.

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.

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.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Black Pigment	TWA	3 mg/m3	Inhalable fraction.
Isopropyl alcohol (CAS 67-63-0)	STEL	400 ppm	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
	TWA	200 ppm	

Bahrain. TLVs. Resolution No. 4 Regarding the Management of Hazardous Chemicals, Exposure Limits for Dangerous and Poisonous Chemicals, Annex. 3, as amended

Components	Type	Value
Black Pigment	TWA	3.5 mg/m ³
Isopropyl alcohol (CAS 67-63-0)	STEL	1230 mg/m ³
		500 ppm
	TWA	983 mg/m ³
		400 ppm

Egypt. OELs. Threshold limits of air pollutants in the workplace (Decree No. 388, Annex 8), as amended

Components	Type	Value	Form
Black Pigment	TWA	3.5 mg/m ³	Total dust.
Isopropyl alcohol (CAS 67-63-0)	STEL	1230 mg/m ³	
		500 ppm	
	TWA	983 mg/m ³	
		400 ppm	

GCC. TLVs. Exposure Limits for Hazardous Chemical Substances (Common System for the Management of Hazardous Chemicals in the Gulf Cooperation Council for the Arab States of the Gulf, Annex 3), as amended

Components	Type	Value
Black Pigment	TWA	3.5 mg/m ³
Isopropyl alcohol (CAS 67-63-0)	STEL	1230 mg/m ³
		500 ppm
	TWA	983 mg/m ³
		400 ppm

Jordan. Resolution No. 43 (1998) Safety and Protection from Industrial Equipment, Machinery and Workplaces (TLVs List), as amended

Components	Type	Value
Isopropyl alcohol (CAS 67-63-0)	STEL	1225 mg/m ³
		500 ppm
	TWA	980 mg/m ³
		400 ppm

Kuwait. OELs. Maximum Limits Allowance for Occupational Exposure to Chemical Substances (TLVs) (Decision No. 210/2001 Appendix No. (3-1)), as amended

Components	Type	Value
Isopropyl alcohol (CAS 67-63-0)	STEL	1225 mg/m ³
		500 ppm
	TWA	980 mg/m ³
		400 ppm

UAE. OELs. Maximum Allowable Limits for Air Pollutants in Working Areas [Law to Protect the Air from Pollution, Resolution of the Cabinet of Ministers No. 12 of 2006], as amended

Components	Type	Value
Black Pigment	TWA	3.5 mg/m ³
Isopropyl alcohol (CAS 67-63-0)	STEL	1230 mg/m ³
		500 ppm

UAE. OELs. Maximum Allowable Limits for Air Pollutants in Working Areas [Law to Protect the Air from Pollution, Resolution of the Cabinet of Ministers No. 12 of 2006], as amended

Components	Type	Value
	TWA	983 mg/m ³
		400 ppm

UAE. Abu Dhabi. TLVs. Maximum Allowable Limits for Air Pollutants in Working Areas (AD EHSMS RF - Occupational Standards and Guideline Values, Schedule A), as amended

Components	Type	Value
Black Pigment	TWA	3.5 mg/m ³
Isopropyl alcohol (CAS 67-63-0)	STEL	984 mg/m ³
		400 ppm
	TWA	492 mg/m ³
		200 ppm

UAE. Dubai. OELs. Maximum Allowable Limits for Indoor Air Pollutants. Industrial Operation Regulation IO-11.0: Appendix, Tables 2 & 2A, as amended

Components	Type	Value
Black Pigment	STEL	7 mg/m ³
	TWA	3.5 mg/m ³
Isopropyl alcohol (CAS 67-63-0)	STEL	1250 mg/m ³
		500 ppm
	TWA	999 mg/m ³
		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.

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

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	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
Percent volatile	3.1 % estimated
Specific gravity	1 - 1.2
VOC	< 116.6 g/l

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.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Skin contact	Contact with skin may result in mild irritation.
Eye contact	Contact with eyes may result in mild irritation.
Ingestion	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.

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Acute		
Oral		
LD50	Rat	> 5000 mg/kg

Components	Species	Test Results
Black Pigment		
Acute		
Oral		
LD50	Rat	> 10000 mg/kg
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.	
UAE - Abu Dhabi TLVs: Carcinogen Category		
Black Pigment (CAS Proprietary)	GROUP A4 Not classifiable as a human carcinogen.	
Isopropyl alcohol (CAS 67-63-0)	GROUP A4 Not classifiable as a human carcinogen.	
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.	

12. Ecological information

Aquatic toxicity Not expected to be harmful to aquatic organisms.

Ecotoxicity

Product	Species	Test Results
51645 Series		
Aquatic		
<i>Acute</i>		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) > 750 mg/l, 96 hours
Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Aquatic		
Crustacea	EC50	Water flea (<i>Daphnia pulex</i>) 13.21 mg/l, 48 hours
Isopropyl alcohol (CAS 67-63-0)		
Aquatic		
<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.

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>.

Waste from residues / unused products Not available.

Contaminated packaging No special precautions.

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).

15. Regulatory information**Safety, health and environmental regulations specific for the product in question****Bahrain. Chemicals Subject to the Prior Informed Consent Procedure under the Rotterdam Convention (Law No. 14 of 2012, Annex III)**

Not applicable.

Bahrain. CWC Chemical Substances (Decree No. 6 of 1997, Schedules 1, 2 and 3; Law No. 51 of 2009)

Not listed.

Bahrain. Prohibited Chemicals (Ministry of State for Municipal & Environmental Affairs, Resolution No 7 of 2002, On Control of Importing & Use of Prohibited & Restricted Chemicals, Table 1)

Not listed.

Bahrain. Severely Restricted Chemicals (Ministry of State for Municipal & Environmental Affairs, Resolution No 7 of 2002, On Control of Importing & Use of Prohibited & Restricted Chemicals, Table 2)

Not listed.

Egypt. Non-Restricted Substances (Unified list of hazardous substances, List C)

Not listed.

Egypt. Substances Requiring Permits (Unified list of hazardous substances, List B)

Isopropyl alcohol (CAS 67-63-0)

Oman. List of Prohibited Chemical Substances (MD 25/2009. Annex 2)

Not listed.

Oman. List of Restricted Chemical Substances (MD 25/2009. Annex 1)

Not listed.

Saudi Arabia. Jubail & Yanbu. Hazardous Air Pollutants (Royal Commission for Jubail & Yanbu Environmental Regulations, V.1. 2004, Table 2C)

Not listed.

UAE. Abu Dhabi. CWC (Chemicals Weapons Convention) Banned from Entry/Import (Standard Operating Procedures for Permitting of Chemicals and Hazardous Materials)

Not listed.

UAE. Abu Dhabi. Narcotic Precursors Banned from Entry/Import (Standard Operating Procedures for Permitting of Chemicals and Hazardous Materials)

Not listed.

UAE. Ban on Importing and Circulation of Harmful Pesticides for Health and Environment (Ministerial Decree No. 193)

Not listed.

UAE. Dubai. CWC (Chemicals Weapons Convention) Federal Environmental Agency, Code of Practice

Not listed.

UAE. Dubai. Illicit Drug Traffic, scheduled substances (UN Convention against illicit traffic in narcotic drugs and psychotropic substances), Ministry of Health, Code of Practice

Not listed.

UAE. Dubai. Prohibited and restricted imports. Ministry of Environmental and Water, Code of Practice

Not listed.

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

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Montreal Protocol

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

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

Issue date 18-May-2018

Revision date 04-Jul-2020

Version # 10

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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: Product and Company Identification
Hazards identification: Supplemental information
Composition/information on ingredients: Composition comments
Toxicological information: Reproductivity

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