



SAFETY DATA SHEET

1. Identification

Product identifier 51645 Series
Other means of identification Not available.
Recommended use Inkjet printing
Recommended restrictions None known.
Company identification HP
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United States
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2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.
OSHA defined 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.

Hazard(s) not otherwise classified (HNOC) 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 This product is not classified as hazardous according to OSHA CFR 1910.1200 (HazCom 2012).

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Water		7732-18-5	75-85
2-pyrrolidone		616-45-5	<15

Chemical name	Common name and synonyms	CAS number	%
Carbon black		1333-86-4	<5
Isopropyl alcohol		67-63-0	<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.

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

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

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

Components	Type	Value
Carbon black (CAS 1333-86-4)	PEL	3.5 mg/m ³
Isopropyl alcohol (CAS 67-63-0)	PEL	980 mg/m ³

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

Components	Type	Value
		400 ppm

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	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Carbon black (CAS 1333-86-4)	TWA	0.1 mg/m3
Isopropyl alcohol (CAS 67-63-0)	STEL	1225 mg/m3
	TWA	500 ppm 980 mg/m3 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 Not available.

Other Not available.

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.

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)

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

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

Specific gravity 1 - 1.2

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

VOC (Weight %) < 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

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.

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.

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

Carbon black (CAS 1333-86-4)

2B Possibly carcinogenic to humans.

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

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.

Components	Species	Test Results
2-pyrrolidone (CAS 616-45-5)		
Acute		
<i>Oral</i>		
LD50	Guinea pig	6500 mg/kg
	Rat	6500 mg/kg
Carbon black (CAS 1333-86-4)		
Acute		
<i>Oral</i>		
LD50	Rat	> 8000 mg/kg
Isopropyl alcohol (CAS 67-63-0)		
Acute		
<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

Aquatic toxicity Not expected to be harmful to aquatic organisms.

Ecotoxicity

Product	Species	Test Results
51645 Series (CAS Mixture)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) > 750 mg/l, 96 hours
Components		
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		
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>) > 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 (<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 .
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

US federal regulations	US TSCA 12(b): Does not contain listed chemicals.
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 1910.1001-1050)	Not listed.
Superfund Amendments and Reauthorization Act of 1986 (SARA)	
Hazard categories	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
SARA 302 Extremely hazardous substance	Not listed.
SARA 311/312 Hazardous chemical	No

Other federal regulations

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations**US. Massachusetts RTK - Substance List**

2-pyrrolidone (CAS 616-45-5)
Carbon black (CAS 1333-86-4)
Isopropyl alcohol (CAS 67-63-0)

US. New Jersey Worker and Community Right-to-Know Act

Carbon black (CAS 1333-86-4)
Isopropyl alcohol (CAS 67-63-0)

US. Pennsylvania Worker and Community Right-to-Know Law

2-pyrrolidone (CAS 616-45-5)
Carbon black (CAS 1333-86-4)
Isopropyl alcohol (CAS 67-63-0)

US. Rhode Island RTK

Isopropyl alcohol (CAS 67-63-0)

US. California Proposition 65**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

CARBON BLACK (AIRBORNE, UNBOUND PARTICLES OF RESPIRABLE SIZE [≤ 10 MICROMETERS]) (CAS 1333-86-4) Listed: February 21, 2003

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

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

Issue date 01-Apr-2015

Revision date 14-Aug-2015

Version # 02

Disclaimer

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Revision Information

1. Product and Company Identification: Alternate Trade Names
Other information, including date of preparation or last revision: Disclaimer

Manufacturer information

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Direct 1-650-857-5020

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