



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** 51645 Series  
**Other means of identification** None.  
**Recommended use** Inkjet printing  
**Recommended restrictions** None known.  
**Manufacturer/Importer/Supplier/Distributor information**  
HP Inc.  
1501 Page Mill Road  
Palo Alto, CA 94304-1112  
United States  
**Telephone** 650-857-5020

**HP Inc. health effects line**  
**(Toll-free within the 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  
**Email:** hpcustomer.inquiries@hp.com

## 2. Hazard(s) identification

**Physical hazards** Flammable liquids Category 3  
**Health hazards** Not classified.  
**Environmental hazards** Not classified.  
**OSHA defined hazards** Not classified.  
**Label elements**



**Signal word** Warning  
**Hazard statement** Flammable liquid and vapor.  
**Precautionary statement**  
**Prevention** 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.  
**Response** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. In case of fire: Use CO2 to extinguish.  
**Storage** Store in a well-ventilated place. Keep cool.  
**Disposal** 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**

None.

---

**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   |
| 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****Suitable extinguishing media**

CO2, water, dry chemical, or foam

**Unsuitable extinguishing media**

None known.

**Specific hazards arising from the chemical**

None known.

**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

|                                                                     |                                                                           |
|---------------------------------------------------------------------|---------------------------------------------------------------------------|
| <b>Precautions for safe handling</b>                                | Avoid contact with skin, eyes and clothing.                               |
| <b>Conditions for safe storage, including any incompatibilities</b> | Keep out of the reach of children. Keep away from excessive heat or cold. |

## 8. Exposure controls/personal protection

**Occupational exposure limits** This mixture has no ingredients that have PEL, TLV, or other recommended exposure limit.

### 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/m3            |
| Isopropyl alcohol (CAS 67-63-0) | PEL  | 980 mg/m3<br>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<br>500 ppm |
|                                 | TWA  | 980 mg/m3<br>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** 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

|                       |                |
|-----------------------|----------------|
| <b>Physical state</b> | Liquid.        |
| <b>Form</b>           | Not available. |
| <b>Color</b>          | Black.         |

**Odor** Not available.

**Odor threshold** Not available.

|                                                     |                                                           |
|-----------------------------------------------------|-----------------------------------------------------------|
| <b>pH</b>                                           | 7.8 - 8.4                                                 |
| <b>Melting point/freezing point</b>                 | Not available.                                            |
| <b>Initial boiling point and boiling range</b>      | 200 °F (93.33 °C)                                         |
| <b>Flash point</b>                                  | 131.0 - 136.0 °F (55.0 - 57.8 °C)                         |
| <b>Evaporation rate</b>                             | Not determined                                            |
| <b>Flammability (solid, gas)</b>                    | Not available.                                            |
| <b>Upper/lower flammability or explosive limits</b> |                                                           |
| <b>Flammability limit - lower (%)</b>               | Not available.                                            |
| <b>Flammability limit - upper (%)</b>               | Not available.                                            |
| <b>Explosive limit - lower (%)</b>                  | Not available.                                            |
| <b>Explosive limit - upper (%)</b>                  | Not available.                                            |
| <b>Vapor pressure</b>                               | Not determined                                            |
| <b>Vapor density</b>                                | Not available.                                            |
| <b>Solubility(ies)</b>                              |                                                           |
| <b>Solubility (water)</b>                           | Soluble in water                                          |
| <b>Partition coefficient (n-octanol/water)</b>      | Not determined                                            |
| <b>Auto-ignition temperature</b>                    | Not available.                                            |
| <b>Decomposition temperature</b>                    | Not available.                                            |
| <b>Viscosity</b>                                    | > 2 cp                                                    |
| <b>Other information</b>                            | For other VOC regulatory data/information see Section 15. |
| <b>Bulk density</b>                                 | 1 - 1.2 gm/ml                                             |
| <b>Oxidizing properties</b>                         | Not determined                                            |
| <b>Specific gravity</b>                             | 1 - 1.2                                                   |
| <b>VOC</b>                                          | < 116.6 g/l                                               |

---

## 10. Stability and reactivity

|                                           |                                                                                                                                               |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | Not available.                                                                                                                                |
| <b>Chemical stability</b>                 | Stable under recommended storage conditions.                                                                                                  |
| <b>Possibility of hazardous reactions</b> | Will not occur.                                                                                                                               |
| <b>Conditions to avoid</b>                | Not available.                                                                                                                                |
| <b>Incompatible materials</b>             | Incompatible with strong bases and oxidizing agents.                                                                                          |
| <b>Hazardous decomposition products</b>   | 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

|                                                                                     |                                                                                                    |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <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.                                        |
| <b>Symptoms related to the physical, chemical and toxicological characteristics</b> | Not available.                                                                                     |

### Information on toxicological effects

|                       |                                                                   |
|-----------------------|-------------------------------------------------------------------|
| <b>Acute toxicity</b> | Based on available data, the classification criteria are not met. |
|-----------------------|-------------------------------------------------------------------|

| Components                               | Species                                                                                                                    | Test Results  |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------|
| 2-pyrrolidone (CAS 616-45-5)             |                                                                                                                            |               |
| <b>Acute</b>                             |                                                                                                                            |               |
| <b>Oral</b>                              |                                                                                                                            |               |
| LD50                                     | Rat                                                                                                                        | > 5000 mg/kg  |
| Carbon black (CAS 1333-86-4)             |                                                                                                                            |               |
| <b>Acute</b>                             |                                                                                                                            |               |
| <b>Oral</b>                              |                                                                                                                            |               |
| LD50                                     | Rat                                                                                                                        | > 10000 mg/kg |
| <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.<br>Not classified as an irritant according to, OECD 405. |               |
| <b>Respiratory or skin sensitization</b> |                                                                                                                            |               |
| <b>Respiratory sensitization</b>         | Based on available data, the classification criteria are not met.                                                          |               |
| <b>Skin sensitization</b>                | Based on available data, the classification criteria are not met.                                                          |               |
| <b>Germ cell mutagenicity</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.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

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

Not listed.

|                                                           |                                                                                                                                                                 |  |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Reproductive toxicity</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<br>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                    |         |                                                           |
| <b>Aquatic</b>                  |         |                                                           |
| <i>Acute</i>                    |         |                                                           |
| Fish                            | LC50    | Fathead minnow (Pimephales promelas) > 750 mg/l, 96 hours |
| Components                      | Species | Test Results                                              |
| 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      |

| Components                                        | Species                                                    |                                      | Test Results          |
|---------------------------------------------------|------------------------------------------------------------|--------------------------------------|-----------------------|
| Acute                                             |                                                            |                                      |                       |
| 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   |
| 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

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Disposal instructions</b> | Do not allow this material to drain into sewers/water supplies.<br>Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.<br><br>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 <a href="http://www.hp.com/recycle">http://www.hp.com/recycle</a> . |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 14. Transport information

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DOT</b>                 | Not regulated as dangerous goods.                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>IATA</b>                | Not regulated as dangerous goods.                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>IMDG</b>                | Not regulated as dangerous goods.                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>ADR</b>                 | Not regulated as dangerous goods.                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Further information</b> | Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.<br><br>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.<br>No ignition, sustained combustion or flashing detected using the sustained combustibility test (method in US CFR173, Appendix H). |

### 15. Regulatory information

|                                                                       |                                                                                                                     |
|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>US federal regulations</b>                                         | US TSCA 12(b): Does not contain listed chemicals.                                                                   |
| <b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>  |                                                                                                                     |
|                                                                       | Not regulated.                                                                                                      |
| <b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>                 |                                                                                                                     |
|                                                                       | Not listed.                                                                                                         |
| <b>SARA 304 Emergency release notification</b>                        |                                                                                                                     |
|                                                                       | Not regulated.                                                                                                      |
| <b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b> |                                                                                                                     |
|                                                                       | Not regulated.                                                                                                      |
| <b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>    |                                                                                                                     |
| <b>Hazard categories</b>                                              | Immediate Hazard - No<br>Delayed Hazard - No<br>Fire Hazard - Yes<br>Pressure Hazard - No<br>Reactivity Hazard - No |

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**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****US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**CARBON BLACK (AIRBORNE, UNBOUND PARTICLES OF RESPIRABLE SIZE [ $\leq 10$  MICROMETERS]) (CAS 1333-86-4) Listed: February 21, 2003**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Carbon black (CAS 1333-86-4)

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/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**

19-May-2018

**Version #**

03

**Other information**

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

**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.

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**

Hazard(s) identification: Hazard statement

Hazard(s) identification: Disposal

Hazard(s) identification: Prevention

Hazard(s) identification: Response

Hazard(s) identification: Storage

Hazard(s) identification: GHS Signal Words

Hazard(s) identification: GHS Symbols

Hazard(s) identification: Hazard(s) not otherwise classified (HNOC)

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                                          |