



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. *** |
| Name of the substance or mixture (trade name) | 51645 Series |
| Major recommended uses for the substance or mixture | Inkjet printing |
| Specific restrictions for use of the substance or mixture | Not available. |
| Manufacturer/Importer/Distributor information | |
| Company identification | HP Colombia SAS Carrera 7 No 99-53 Torre B Pisos 7 Bogota, Colombia |
| Telephone | (57) 1 639 0000 |
| 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. Hazards identification

Classification of the substance or mixture

| | |
|------------------------------|-----------------|
| Physical hazards | Not classified. |
| Health hazards | Not classified. |
| Environmental hazards | Not classified. |

GHS labeling elements, including precautionary statements

| | |
|-----------------------------------|----------------|
| Hazard symbol(s) | None. |
| Signal word | None. |
| Hazard statement(s) | Not available. |
| Precautionary statement(s) | |
| 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

| Common chemical name or technical name | CAS number | Concentration or concentration range |
|--|-------------|--------------------------------------|
| 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 |

Composition comments 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.

This ink supply contains an aqueous ink formulation.

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

4. First-aid measures

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.

Notes to physician Not available.

5. Fire-fighting measures

Means of fire extinguishing

| | |
|---------------------------------------|-----------------------------------|
| Suitable extinguishing media | CO2, water, dry chemical, or foam |
| Unsuitable extinguishing media | None known. |

Specific hazards arising from the chemical Not available.

Protective measures taken by firefighting crews None established.

Specific methods None established.

General fire hazards Contact with skin and eyes may result in irritation.

6. Control measures for spills and leaks

Personal precautions, protective equipment and emergency procedures

To be taken by those who are not involved in rendering emergency services Wear appropriate personal protective equipment.

To be taken by those who are involved in rendering emergency services Not available.

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

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.

Other issues relating to spills and releases Soak up with inert absorbent material. Slowly vacuum or sweep the material into a bag or other sealed container. Dispose of in compliance with federal, state, and local regulations. See also section 13 Disposal considerations.

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

Control parameters

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 | |
| | TWA | 200 ppm | |

Colombia. OELs. Resolution No. 02400: Norms Concerning Working Conditions, Health and Safety in the Workplace

| Components | Type | Value | Form |
|---------------------------------|------|---------|---------------------|
| Black Pigment | TWA | 3 mg/m3 | Inhalable fraction. |
| Isopropyl alcohol (CAS 67-63-0) | STEL | 400 ppm | |
| | TWA | 200 ppm | |

Ecuador. OELs (INEN 2266:2013, 2013-01 2nd rev.: Transport, storage and handling of hazardous materials. Requirements. 1st ed., 1/29, 2013)

| Components | Type | Value | Form |
|---------------------------------|------|---------|---------------------|
| Black Pigment | TWA | 3 mg/m3 | Inhalable fraction. |
| Isopropyl alcohol (CAS 67-63-0) | STEL | 400 ppm | |
| | TWA | 200 ppm | |

Paraguay. Decree No. 14.390/92 that approves the General Technical Regulation of Safety, Hygiene and Medicine in the Workplace

| Components | Type | Value | Form |
|---------------------------------|------|---------|---------------------|
| Black Pigment | TWA | 3 mg/m3 | Inhalable fraction. |
| Isopropyl alcohol (CAS 67-63-0) | STEL | 400 ppm | |
| | TWA | 200 ppm | |

Peru. OELs. Decreto Supremo 015-2005-SA (Reglamento sobre Valores Límites Permisibles para Agentes Químicos en el Ambiente de Trabajo)

| Components | Type | Value |
|---------------------------------|------|-----------|
| Black Pigment | TWA | 3.5 mg/m3 |
| Isopropyl alcohol (CAS 67-63-0) | STEL | 983 mg/m3 |
| | | 400 ppm |
| | TWA | 491 mg/m3 |
| | | 200 ppm |

Biological limit values

ACGIH Biological Exposure Indices

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

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

Venezuela. Biological Exposure Indices (IBEs), Table 2, COVENIN 2253

| Components | Value | Determinant | Specimen | Sampling Time |
|---------------------------------|---------|-------------|----------|---------------|
| Isopropyl alcohol (CAS 67-63-0) | 40 mg/l | Acetona | 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. |
| Personal protective measures | |
| Eyes and 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. |
| Hygiene measures | 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 temperature 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 physical and chemical parameters

| | |
|-----------------------------|-----------------|
| 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 Not available.

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 |
|------|-----|--------------|

Black Pigment

Acute

Oral

| | | |
|------|-----|---------------|
| LD50 | Rat | > 10000 mg/kg |
|------|-----|---------------|

Skin irritation and corrosion Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Not classified as an irritant according to, OECD 405. 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.

ACGIH Carcinogens

| | |
|---------------------------------|--|
| Isopropyl alcohol (CAS 67-63-0) | A4 Not classifiable as a human carcinogen. |
|---------------------------------|--|

Colombia. OELs. Resolution No. 02400: Norms Concerning Working Conditions, Health and Safety in the Workplace

| | |
|---------------------------------|-----------------------|
| Black Pigment (CAS Proprietary) | A3 Animal carcinogen. |
|---------------------------------|-----------------------|

| | |
|---------------------------------|--|
| Isopropyl alcohol (CAS 67-63-0) | A4 Not classifiable as a human carcinogen. |
|---------------------------------|--|

Ecuador. OELs (INEN 2266:2013, 2013-01 2nd rev.: Transport, storage and handling of hazardous materials. Requirements. 1st ed., 1/29, 2013)

| | |
|---------------------------------|--|
| Black Pigment (CAS Proprietary) | Group A3 Confirmed animal carcinogen with unknown relevance to humans. |
|---------------------------------|--|

| | |
|---------------------------------|--|
| Isopropyl alcohol (CAS 67-63-0) | Group A4 Not classifiable as a human carcinogen. |
|---------------------------------|--|

Paraguay. Decree No. 14.390/92 that approves the General Technical Regulation of Safety, Hygiene and Medicine in the Workplace

| | |
|---------------------------------|--|
| Black Pigment (CAS Proprietary) | A3 Confirmed animal carcinogen with unknown relevance to humans. |
|---------------------------------|--|

| | |
|---------------------------------|--|
| Isopropyl alcohol (CAS 67-63-0) | A4 Not classifiable as a human carcinogen. |
|---------------------------------|--|

| | |
|---|---|
| Toxic to reproduction | 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. |
| Other 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 | | |
| Partition coefficient n-octanol / water (log Kow) | | |
| 2-pyrrolidone | | -0.85 |
| Isopropyl alcohol | | 0.05 |
| Bioconcentration factor (BCF) | Not available. | |
| Mobility in soil | Not available. | |
| Other adverse effects | Not available. | |

13. Considerations on final disposal

Recommended methods for final destination

- Residual waste** Not available.
- Contaminated packaging** No special precautions.
- Local disposal regulations** 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>.

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

| | |
|---|--|
| Federal regulations | |
| Colombia. Controlled Substances (Resolution No. 009 of 1987 nationally regulating the transport & use of substances in subparag. f) of article 20 of Law 30 of 1986, as amended) | |
| Isopropyl alcohol (CAS 67-63-0) | |
| Venezuela. Chemical Precursors (Official Gazette No. 34.741, List I & II) | |
| Not regulated. | |
| International regulations | All chemical substances in this HP product have been notified or are exempt from notification under chemical substances notification laws in the following countries: US (TSCA), EU (EINECS/ELINCS), Switzerland, Canada (DSL/NDSL), Australia, Japan, Philippines, South Korea, New Zealand, and China. |
| Montreal Protocol | Not applicable. |
| Stockholm Convention | Not applicable. |
| Rotterdam Convention | Not applicable. |
| Kyoto protocol | Not applicable. |
| Basel Convention | Not applicable. |

16. Other information

| | |
|---|--|
| Significant information, yet not specifically related to the previous sections | Not available. |
| Revision information | 1. Product and Company Identification: Product and Company Identification Hazards identification: Supplemental information Composition/information on ingredients: Composition comments Toxicological information: Reproductivity |
| Disclaimer | 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. 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. |

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 |