1. Identification

Product identifier 51604A Rev B
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 650-857-1501

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 Not classified.

Health hazards
- Sensitization, skin Category 1
- Reproductive toxicity (fertility, the unborn child) Category 1B
- Specific target organ toxicity, repeated exposure Category 2 (kidney)

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement May cause an allergic skin reaction. May cause damage to organs (kidney) through prolonged or repeated exposure. May damage fertility or the unborn child.

Precautionary statement

Prevention Wear protective gloves/protective clothing/eye protection. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Do not breathe mist or vapor.

Response IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Get medical attention/advice if you feel unwell. IF exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

Storage Not available.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
### Hazard(s) not otherwise classified (HNOC)

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.

Complete toxicity data are not available for this specific formulation.

### GHS Supplemental information

2-pyrrolidone: OSHA Hazard Communication Standard cut-off value, Reproductive toxicity Category 1B, fertility or the unborn child 3%. Cut-off value based on data.

### 3. Composition/information on ingredients

#### Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td></td>
<td>7732-18-5</td>
<td>30-40</td>
</tr>
<tr>
<td>2-pyrrolidone</td>
<td></td>
<td>616-45-5</td>
<td>&lt;30</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td></td>
<td>107-21-1</td>
<td>&lt;25</td>
</tr>
<tr>
<td>Alkyldiol</td>
<td>Proprietary</td>
<td></td>
<td>&lt;7.5</td>
</tr>
<tr>
<td>Food Black 2 acid salt # 3</td>
<td>Food Black 2 acid salt # 3</td>
<td>Proprietary</td>
<td>&lt;5</td>
</tr>
</tbody>
</table>

**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).


*Proprietary

### 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. Get medical attention if irritation develops or persists.

**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**

Not available.

### 5. Fire-fighting measures

**Suitable extinguishing media**

Dry chemical, CO2, water spray or regular foam.

**Unsuitable extinguishing media**

None known.

**Specific hazards arising from the chemical**

None known.

**Special protective equipment and precautions for firefighters**

Not available.

**Specific methods**

None established.

### 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.

**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

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol (CAS 107-21-1)</td>
<td>Ceiling</td>
<td>100 mg/m³</td>
<td>Aerosol</td>
</tr>
</tbody>
</table>

Biological limit values
No biological exposure limits noted for the ingredient(s).

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 - 7.4

Melting point/freezing point
Not available.

Initial boiling point and boiling range
Not determined

Flash point
> 200.0 °F (> 93.3 °C) Closed Cup EPA Method 1020

Evaporation rate
Not determined

Flammability (solid, gas)
Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)
Not determined

Flammability limit - upper (%)
Not available.

Explosive limit - lower (%)
Not available.

Explosive limit - upper (%)
Not available.

Vapor pressure
Not available.

Vapor density
Not available.

Solubility(ies)

Solubility (water)
Soluble in water

Partition coefficient (n-octanol/water)
Not available.

Auto-ignition temperature
Not available.

Decomposition temperature
Not available.

Viscosity
Not available.

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

Percent volatile
25 % estimated
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**: Inhalation may result in mild irritation to the respiratory system.
- **Skin contact**: May cause sensitization by skin contact.
- **Eye contact**: Contact with eyes may result in mild irritation.
- **Ingestion**: Ingestion is not a likely route of exposure.

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. LD50/oral/rat > 2500 mg/kg (OECD 401).

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-pyrrolidone (CAS 616-45-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ethylene glycol (CAS 107-21-1)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>9530 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aerosol</td>
<td>Rat</td>
<td>&gt; 2.5 mg/l, 6 Hours</td>
</tr>
<tr>
<td>LC50</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>2800 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Based on available data, the classification criteria are not met. Non irritant in rabbit (OECD 404)

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**: May cause sensitization by skin contact.

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

Carcinogenicity: Based on available data, the classification criteria are not met.

IARC Monographs. Overall Evaluation of Carcinogenicity
Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens
Not listed.
May damage fertility or the unborn child.

2-pyrrolidone: This component showed developmental effects only at high, maternally toxic doses in test animals. Uptake by people of small doses is not expected to cause developmental toxicity.

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

May cause damage to organs (kidney) through prolonged or repeated exposure by ingestion.

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

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>51604A Rev B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td>LC50 Fathead minnow (Pimephales promelas)</td>
<td>&gt; 750 mg/l, 96 hours</td>
</tr>
<tr>
<td>Acute Fish</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-pyrrolidone</td>
<td>EC50 Water flea (Daphnia pulex)</td>
<td>13.21 mg/l, 48 hours</td>
</tr>
<tr>
<td>(CAS 616-45-5)</td>
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</tbody>
</table>

### Persistence and degradability

Not available.

### Bioaccumulative potential

Not available.

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

<table>
<thead>
<tr>
<th>Material</th>
<th>log Kow</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-pyrrolidone</td>
<td>-0.85</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>-1.36</td>
</tr>
</tbody>
</table>

### Mobility in soil

Not available.

### Other adverse effects

Not available.

### 13. Disposal considerations

Do not dispose of together with general office waste. Do not allow this material to drain into sewers/water supplies. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. Ensure collection and disposal with an appropriately licensed waste contractor.

### 14. Transport information

<table>
<thead>
<tr>
<th>DOT</th>
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<tbody>
<tr>
<td>UN number</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Marine pollutant</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IATA</th>
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<tr>
<td>UN proper shipping name</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Special precautions for user</td>
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</tr>
</tbody>
</table>
### IMDG

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<tbody>
<tr>
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<td>Not Regulated</td>
</tr>
<tr>
<td><strong>Transport hazard class(es)</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Class</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Subsidiary risk</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Packing group</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Transport hazard class(es)</strong></td>
<td>Marine pollutant: No</td>
</tr>
<tr>
<td><strong>EmS</strong></td>
<td>Not available.</td>
</tr>
</tbody>
</table>

#### Special precautions for user

Not available.

### ADR

<table>
<thead>
<tr>
<th><strong>UN number</strong></th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UN proper shipping name</strong></td>
<td>Not Regulated</td>
</tr>
<tr>
<td><strong>Transport hazard class(es)</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Class</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Subsidiary risk</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Hazard No. (ADR)</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Tunnel restriction code</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Packing group</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Environmental hazards</strong></td>
<td>Not available.</td>
</tr>
</tbody>
</table>

#### Special precautions for user

Not available.

### Further information

Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC code: Not applicable.

### 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):**
- Ethylene glycol (CAS 107-21-1): Listed.

**SARA 304 Emergency release notification:** Not regulated.


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

**Hazard categories**
- Immediate Hazard - Yes
- Delayed Hazard - Yes
- 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

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List:**
- Ethylene glycol (CAS 107-21-1)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):** Not regulated.

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

#### US state regulations

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**
Ethylene glycol (CAS 107-21-1)

VOC content (less water, less exempt compounds) = < 982 g/L (U.S. requirement, not for emissions) VOC data based on formulation (Organic compounds minus solids)

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.

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

Issue date: 26-May-2015
Revision date: 12-Jan-2020
Version #: 05

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

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.

Disclaimer

Material name: 51604A Rev B
9429 Version #: 05 Revision date: 12-Jan-2020 Issue date: 26-May-2015
SDS US
7 / 8
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