



SAFETY DATA SHEET

1. Identification

| | | |
|--------------------------------------|---|---------------------|
| Product identifier | 51604A Rev B | I T E M 0 9 1 8 0 9 |
| Other means of identification | Not available. | |
| Recommended use | Inkjet printing | |
| Recommended restrictions | None known. | |
| Company identification | HP 1501 Page Mill Road Palo Alto, CA 94304-1112 United States Telephone 650-857-5020 HP health effects line (Toll-free within the US) 1-800-457-4209 (Direct) 1-760-710-0048 HP 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 |
| | Specific target organ toxicity, repeated exposure (oral) | Category 2 (kidney) |
| Environmental hazards | Not classified. | |
| OSHA defined hazards | Not classified. | |
| Label elements | | |



| | | |
|--|--|--|
| Signal word | Warning | |
| Hazard statement | May cause an allergic skin reaction. May cause damage to organs (Kidney) through prolonged or repeated exposure. | |
| Precautionary statement | | |
| Prevention | P280 - Wear protective gloves/protective clothing/eye protection/face protection. P260 - Do not breathe dust/fume/gas/mist/vapors/spray. | |
| Response | P302 + P352 - IF ON SKIN: Wash with plenty of soap and water. P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention. P314 - Get medical attention/advice if you feel unwell. P363 - 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. Contains Food Black 2 acid salt. | |
| Supplemental information | None. | |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|----------------------------|--------------------------|-------------|-------|
| Water | | 7732-18-5 | 30-40 |
| 2-pyrrolidone | | 616-45-5 | <30 |
| Ethylene glycol | | 107-21-1 | <25 |
| Alkyldiol | | Proprietary | <7.5 |
| Food Black 2 Acid Salt # 3 | | Proprietary | <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).

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 Not applicable.

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

| Components | Type | Value | Form |
|--------------------------------|---------|-----------------------|----------|
| Ethylene glycol (CAS 107-21-1) | Ceiling | 100 mg/m ³ | Aerosol. |

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 | 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 - 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 |
| 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. |
| 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. |
| VOC (Weight %) | < 578 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 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.

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

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 |
| Ethylene glycol (CAS 107-21-1) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | 9530 mg/kg |
| <i>Oral</i> | | |
| LD50 | Cat | 1650 mg/kg |
| | Dog | 5500 mg/kg |
| | Guinea pig | 8.2 g/kg |
| | Mouse | 14.6 g/kg |
| | Rat | 5.89 g/kg |
| <i>Other</i> | | |
| LD50 | Mouse | 5.8 g/kg |
| | Rat | 2800 mg/kg |

12. Ecological information

Ecotoxicity

| Product | | Species | Test Results |
|--------------------------------|------|---|----------------------|
| 51604A Rev B (CAS Mixture) | | | |
| 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 |
| Ethylene glycol (CAS 107-21-1) | | | |
| Aquatic | | | |
| Fish | LC50 | Fathead minnow (<i>Pimephales promelas</i>) | 8050 mg/l, 96 hours |

Persistence and degradability Not available.

Bioaccumulative potential Not available.

Partition coefficient n-octanol / water (log Kow)

| | |
|-----------------|-------|
| 2-pyrrolidone | -0.85 |
| Ethylene glycol | -1.36 |

Mobility in soil Not available.

Other adverse effects Not available.

13. Disposal considerations

Disposal instructions 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

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.

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.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

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 No
Hazardous chemical

Other federal regulations

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

2-pyrrolidone (CAS 616-45-5)
Ethylene glycol (CAS 107-21-1)

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

Ethylene glycol (CAS 107-21-1)

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

2-pyrrolidone (CAS 616-45-5)
Ethylene glycol (CAS 107-21-1)

US. Rhode Island RTK

Ethylene glycol (CAS 107-21-1)

US. California Proposition 65

Not Listed.

Other information 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)

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/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

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Version # 02

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Revision Information Hazard(s) identification: Hazard(s) not otherwise classified (HNOC)
Other information, including date of preparation or last revision: Disclaimer

Manufacturer information HP
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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 |