

SAFETY DATA SHEET

1. Identification

| Product identifier | CN636Series |
|---------------------------------|--|
| Other means of identification | Not available. |
| Recommended use | Inkjet printing |
| Recommended restrictions | None known. |
| Company identification | Hewlett-Packard Company 3000 Hanover Street Palo Alto, CA 94304-1185 United States Telephone 650-857-5020 |
| | Hewlett-Packard 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 | 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) | 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 |
| Supplemental information | None. |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|-------------------|--------------------------|-------------|-------|
| Water | | 7732-18-5 | 70-80 |
| 2-pyrrolidone | | 616-45-5 | <7.5 |
| Diethylene glycol | | 111-46-6 | <7.5 |
| Alkyldiol | | Proprietary | <5 |
| Glycerol | | 56-81-5 | <5 |
| Pigment blue | | Proprietary | <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). |
|-----------------------|--|
| 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 Unsuitable extinguishing media | Dry chemical, CO2, water spray or regular foam. 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, | Wear appropriate personal protective equipment. |

| 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. |
| Personal precautions, protective equipment and emergency procedures | Wear appropriate personal protective equipment. |

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 | Туре | Value | Form |
|-------------------------------------|---|-------------------------|----------------------|
| Glycerol (CAS 56-81-5) | PEL | 5 mg/m3 | Respirable fraction. |
| | | 15 mg/m3 | Total dust. |
| US. Workplace Environn | nental Exposure Level (WEEL) Guide | S | |
| Components | Туре | Value | |
| Diethylene glycol (CAS 111-46-6) | TWA | 10 mg/m3 | |
| iological limit values | No biological exposure limits noted for | or the ingredient(s). | |
| xposure guidelines | Exposure limits have not been establ | ished for this product. | |
| ppropriate engineering ontrols | Use in a well ventilated area. | | |
| ndividual protection measu | res, such as personal protective equ | ipment | |
| 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 | Not available. | |
| Color | Cyan | |
| Odor | Not available. | |
| Odor threshold | Not available. | |
| рН | 9.4 | |
| Melting point/freezing point | Not available. | |
| Initial boiling point and boiling range | Not determined | |
| Flash point | > 200.0 °F (> 93.3 °C) Pensky-Martens 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 determined | |
| Solubility(ies) | | |
| Solubility (water) | Soluble in water | |
| Partition coefficient (n-octanol/water) | Not available. | |
| Auto-ignition temperature | Not determined | |
| Decomposition temperature | Not available. | |
| Viscosity | Not available. | |
| Other information | | |
| Specific gravity | 1 - 1.1 | |
| Other information | For other VOC regulatory data/information see Section 15. | |
| VOC (Weight %) | < 180 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. |

Toxicological information .

Other LD50

| 11. Toxicological information | | | | |
|--|---|--|--|--|
| Symptoms related to the physical, chemical and toxicological characteristics | Not available. | | | |
| Information on toxicological e | ffects | | | |
| Acute toxicity | Based on available data, the classification criteria ar | e not met. | | |
| Skin corrosion/irritation | Based on available data, the classification criteria ar | e not met. | | |
| Serious eye damage/eye irritation | Based on available data, the classification criteria ar | e not met. | | |
| Respiratory or skin sensitizati | on | | | |
| Respiratory sensitization | Based on available data, the classification criteria are not met. | | | |
| Skin sensitization | Based on available data, the classification criteria ar | e not met. | | |
| Germ cell mutagenicity | Based on available data, the classification criteria ar | e not met. | | |
| Carcinogenicity | Based on available data, the classification criteria ar | e not met. | | |
| Reproductive toxicity | Based on available data, the classification criteria ar | e not met. | | |
| Specific target organ toxicity - single exposure | Based on available data, the classification criteria ar | e not met. | | |
| Specific target organ toxicity - repeated exposure | Based on available data, the classification criteria ar | e not met. | | |
| Aspiration hazard | Based on available data, the classification criteria ar | e 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. | | | |
| Further information | | | | |
| Components | | | | |
| | Refer to Section 2 for potential health effects and S | ection 4 for first aid measures. | | |
| Components | Refer to Section 2 for potential health effects and S | ection 4 for first aid measures. | | |
| Components 2-pyrrolidone (CAS 616-45-5) | Refer to Section 2 for potential health effects and S | ection 4 for first aid measures. | | |
| Components 2-pyrrolidone (CAS 616-45-5) Acute | Refer to Section 2 for potential health effects and S | ection 4 for first aid measures. | | |
| Components 2-pyrrolidone (CAS 616-45-5) Acute Oral | Refer to Section 2 for potential health effects and S Species | ection 4 for first aid measures. Test Results | | |
| Components 2-pyrrolidone (CAS 616-45-5) Acute Oral | Refer to Section 2 for potential health effects and S Species Guinea pig | ection 4 for first aid measures. Test Results 6500 mg/kg | | |
| Components 2-pyrrolidone (CAS 616-45-5) Acute Oral LD50 | Refer to Section 2 for potential health effects and S Species Guinea pig | ection 4 for first aid measures. Test Results 6500 mg/kg | | |
| Components 2-pyrrolidone (CAS 616-45-5) Acute Ora/ LD50 Diethylene glycol (CAS 111-46-6) | Refer to Section 2 for potential health effects and S Species Guinea pig | ection 4 for first aid measures. Test Results 6500 mg/kg | | |
| Components 2-pyrrolidone (CAS 616-45-5) Acute Ora/ LD50 Diethylene glycol (CAS 111-46-6) Acute | Refer to Section 2 for potential health effects and S Species Guinea pig | ection 4 for first aid measures. Test Results 6500 mg/kg | | |
| Components 2-pyrrolidone (CAS 616-45-5) Acute Ora/ LD50 Diethylene glycol (CAS 111-46-6) Acute Derma/ LD50 Ora/ | Refer to Section 2 for potential health effects and S Species Guinea pig Rat | ection 4 for first aid measures. Test Results 6500 mg/kg 6500 mg/kg 11890 mg/kg | | |
| Components 2-pyrrolidone (CAS 616-45-5) Acute Ora/ LD50 Diethylene glycol (CAS 111-46-6) Acute Dermal LD50 | Refer to Section 2 for potential health effects and S Species Guinea pig Rat | ection 4 for first aid measures. Test Results 6500 mg/kg 6500 mg/kg | | |
| Components 2-pyrrolidone (CAS 616-45-5) Acute Ora/ LD50 Diethylene glycol (CAS 111-46-6) Acute Derma/ LD50 Ora/ | Refer to Section 2 for potential health effects and S Species Guinea pig Rat Rabbit | ection 4 for first aid measures. Test Results 6500 mg/kg 6500 mg/kg 11890 mg/kg | | |
| Components 2-pyrrolidone (CAS 616-45-5) Acute Ora/ LD50 Diethylene glycol (CAS 111-46-6) Acute Derma/ LD50 Ora/ | Refer to Section 2 for potential health effects and S Species Guinea pig Rat Rabbit Cat | ection 4 for first aid measures. Test Results 6500 mg/kg 6500 mg/kg 11890 mg/kg 3300 mg/kg | | |
| Components 2-pyrrolidone (CAS 616-45-5) Acute Ora/ LD50 Diethylene glycol (CAS 111-46-6) Acute Derma/ LD50 Ora/ | Refer to Section 2 for potential health effects and S Species Guinea pig Rat Rabbit Cat Dog | ection 4 for first aid measures. Test Results 6500 mg/kg 6500 mg/kg 11890 mg/kg 3300 mg/kg 9000 mg/kg | | |
| Components 2-pyrrolidone (CAS 616-45-5) Acute Ora/ LD50 Diethylene glycol (CAS 111-46-6) Acute Derma/ LD50 Ora/ | Refer to Section 2 for potential health effects and S Species Guinea pig Rat Rabbit Cat Dog Guinea pig Guinea pig | ection 4 for first aid measures. Test Results 6500 mg/kg 6500 mg/kg 11890 mg/kg 3300 mg/kg 9000 mg/kg 8700 mg/kg 13.3 g/kg | | |
| Components 2-pyrrolidone (CAS 616-45-5) Acute Ora/ LD50 Diethylene glycol (CAS 111-46-6) Acute Derma/ LD50 Ora/ | Refer to Section 2 for potential health effects and S Species Guinea pig Rat Rabbit Cat Dog Guinea pig Mouse | ection 4 for first aid measures. Test Results 6500 mg/kg 6500 mg/kg 11890 mg/kg 3300 mg/kg 9000 mg/kg 8700 mg/kg | | |

9.6 g/kg

7.7 g/kg

2000 mg/kg 7700 mg/kg

Mouse Rabbit

Rat

| 12. Ecological information | on | | | |
|--|---|---|------------------------------|--|
| Ecotoxicity | | | | |
| Product | | Species | Test Results | |
| CN636Series (CAS Mixture) | | | | |
| Aquatic | | | | |
| Acute | | | | |
| | LC50 | Fathead minnow (Pimephales promelas) | | |
| Components | | Species | Test Results | |
| 2-pyrrolidone (CAS 616-45-5) | | | | |
| Aquatic | | | | |
| Crustacea | EC50 | Water flea (Daphnia pulex) | 13.21 mg/l, 48 hours | |
| Diethylene glycol (CAS 111-46 | 5-6) | | | |
| Aquatic | | | | |
| Fish | LC50 | Western mosquitofish (Gambusia affinis) | > 32000 mg/l, 96 hours | |
| Glycerol (CAS 56-81-5) | | | | |
| Aquatic | | | | |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) | 51000 - 57000 mg/l, 96 hours | |
| Persistence and degradability | Not available. | | | |
| Bioaccumulative potential | Not available. | | | |
| Partition coefficient n-octa 2-pyrrolidone | anol / water (le | og Kow) -0.85 | | |
| Glycerol | | -1.76 | | |
| Mobility in soil | Not available. | | | |
| Other adverse effects | Not available. | | | |
| 13. Disposal consideration | ons | | | |
| 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 original ink | rtners (trademark) supplies recycling prog jet and LaserJet supplies. For more inforu ur location, please visit http://www.hp.cor | | |
| 14. Transport informatio | n | | | |
| DOT | | | | |
| Not regulated as dangerous g | oods. | | | |
| ΙΑΤΑ | | | | |
| Not regulated as dangerous g | oods. | | | |
| IMDG | | | | |
| Not regulated as dangerous g | oods. | | | |
| ADR | | | | |
| Not regulated as dangerous goods | i. | | | |
| Further information | Not a dangero | us good under DOT, IATA, ADR, IMDG, or | RID. | |
| 15. Regulatory informati | on | | | |
| US federal regulations | US TSCA 12(b) |): Does not contain listed chemicals. | | |
| TSCA Section 12(b) Export | | | | |
| Not regulated. CERCLA Hazardous Substance List (40 CFR 302.4) | | | | |
| Not listed. | | | | |

| SARA 304 Emergency rele | ease notification |
|--|--|
| Not regulated. | |
| OSHA Specifically Regula Not listed. | ted Substances (29 CFR 1910.1001-1050) |
| 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 haza | ardous 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- Glycerol (CAS 56-81-5) US. New Jersey Worker a | 45-5) nd Community Right-to-Know Act |
| Glycerol (CAS 56-81-5) | |
| - | and Community Right-to-Know Law |
| 2-pyrrolidone (CAS 616- Diethylene glycol (CAS 1 Glycerol (CAS 56-81-5) US. Rhode Island RTK | • |
| Not regulated. | |
| US. California Proposition Not Listed. | ı 65 |
| Other information | VOC content (less water, less exempt compounds) = <692 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, i | ncluding date of preparation or last revision |
| Issue date | 14-Apr-2015 |
| Revision date | 17-Apr-2015 |
| Version # | 02 |
| Disclaimer | This Safety Data Sheet document is provided without charge to customers of Hewlett-Packard Company. Data is the most current known to Hewlett-Packard Company 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. |
| Manufacturer information | Hewlett-Packard Company |

Manufacturer informationHewlett-Packard Company
3000 Hanover Street
Palo Alto, California 94304-1112 US
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 |
| | |