



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** CH645Series  
**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** 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** This product is not classified as hazardous according to OSHA CFR 1910.1200 (HazCom 2012).

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Water		7732-18-5	70-85
1-(2-hydroxyethyl)-2-pyrrolidone		3445-11-2	< 10
2-pyrrolidone		616-45-5	< 7.5
Substituted naphthalenesulfonate salt # 13		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).

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## 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. If symptoms persist, get medical attention.
<b>Skin contact</b>	Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.
<b>Eye contact</b>	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.
<b>Ingestion</b>	If ingestion of a large amount does occur, seek medical attention.
<b>Most important symptoms/effects, acute and delayed</b>	Not available.

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## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	CO2, water, dry chemical, or foam
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	Not applicable.
<b>Special protective equipment and precautions for firefighters</b>	Not available.
<b>Specific methods</b>	None established.

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## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Wear appropriate personal protective equipment.
<b>Methods and materials for containment and cleaning up</b>	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.
<b>Environmental precautions</b>	Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

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## 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.

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## 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Exposure guidelines</b>	Exposure limits have not been established for this product.
<b>Appropriate engineering controls</b>	Use in a well ventilated area.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Not available.
<b>Skin protection</b>	
<b>Hand protection</b>	Not available.
<b>Other</b>	Not available.
<b>Respiratory protection</b>	Not available.
<b>Thermal hazards</b>	Not available.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

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## 9. Physical and chemical properties

<b>Appearance</b>	
<b>Physical state</b>	Not available.
<b>Color</b>	Yellow

<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>pH</b>	7.1 - 7.7
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not determined
<b>Flash point</b>	> 200.0 °F (> 93.3 °C) Setaflash Closed Tester
<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 determined
<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>Solubility(ies)</b>	
<b>Solubility (water)</b>	Soluble in water
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<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>VOC (Weight %)</b>	< 245 g/L

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## 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.

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## 11. Toxicological information

<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Not available.
<b>Information on toxicological effects</b>	
<b>Acute toxicity</b>	Based on available data, the classification criteria are not met.
<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.
<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.

<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 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)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Guinea pig	6500 mg/kg
	Rat	6500 mg/kg

## 12. Ecological information

**Aquatic toxicity** Not expected to be harmful to aquatic organisms.

### Ecotoxicity

Product	Species	Test Results
CH645Series (CAS Mixture)		
<b>Aquatic</b>		
<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)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea ( <i>Daphnia pulex</i> ) 13.21 mg/l, 48 hours

**Persistence and degradability** Not available.

**Bioaccumulative potential** Not available.

**Partition coefficient n-octanol / water (log Kow)**  
2-pyrrolidone -0.85

**Mobility in soil** Not available.

**Other adverse effects** Not available.

## 13. Disposal considerations

**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'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.

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## 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.

**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 - No  
Delayed Hazard - No  
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)

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

2-pyrrolidone (CAS 616-45-5)

**US. California Proposition 65**

Not Listed.

**Other information** VOC content (less water, less exempt compounds) = < 950 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.

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

**Issue date** 14-May-2015

**Revision date** 02-Sep-2015

**Version #** 02

**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.

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## 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