



# MATERIAL SAFETY DATA SHEET

## 1. Chemical product and company identification

**A. Product name** CH116Series  
**Synonym(s)** HP Designjet 788 Cyan Ink

**B. Recommended use and Limitations on use**  
**Recommended use** Inkjet printing

**Company identification** HP Korea House  
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**Revision date** 13-May-2016  
**Version #** 07

## 2. Hazards identification

### A. Hazard category/Classification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Skin sensitizer	Category 1
	Toxic to reproduction (fertility)	Category 2
	Specific target organ toxicity - repeated exposure	Category 1 (liver, respiratory system)
<b>Environmental hazards</b>	Hazardous to the aquatic environment	Category Chronic 2

### B. Warning label items including precautionary statement

- **Pictogram**



- **Signal word**

Danger

- **Hazard statement**

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H361	Suspected of damaging fertility.
H372	Causes damage to organs (liver, respiratory system) through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects.

- **Precautionary statement**

**Prevention**

P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.  
P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P270 - Do not eat, drink or smoke when using this product.  
P264 - Wash hands thoroughly after handling.  
P273 - Avoid release to the environment.

**Response** P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 - If eye irritation persists: Get medical advice/attention.  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.  
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P308 + P313 - IF exposed or concerned: Get medical attention/advice.  
P391 - Collect spillage.  
P362 - Take off contaminated clothing and wash before reuse.

**Storage** P405 - Store locked up.

**Disposal**

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**C. Other hazards not included in the hazard category criteria (e.g. dust explosion hazard)** Not available.

**Other hazards** Potential routes of exposure to this product are skin and eye contact, ingestion, and inhalation.

Benzophenone is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans).

Proprietary initiator - In animal testing, risk of impaired fertility was shown only after repeated ingestion of very high doses of this substance.

**3. Composition/information on ingredients**

Chemical identity	Common and alternative names	CAS number	ID number	Content in percent (%)
2-Phenoxy-ethyl acrylate		48145-04-6	KE-29624	<40
Carboxylic Acids, Esters		3076-04-8	KE-29731	<25
N-vinylcaprolactam		2235-00-9	KE-13281, 97-3-88	<25
Aliphatic Urethane Acrylate		Proprietary	Proprietary	<10
Multi-Functional Acrylate Ester		Proprietary	Proprietary	<5
Proprietary initiator		Proprietary*	Proprietary*	<5
Alkyl Acrylate Ester #1		Proprietary	Proprietary	<2.5
Benzophenone		119-61-9	KE-02716	<2.5
Difunctional acrylic monomer		Proprietary	Proprietary	<2.5
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone		119313-12-1	97-3-470	<1
Vinylester resin				<1
	Propionic acid, 2-methyl-3,3'-(phenylphosphinylidene)di-, diallyl ester			

**4. First aid measures**

- A. In case of 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.
- B. In case of skin contact** Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.
- C. In case of inhalation** Move to fresh air. If symptoms persist, get medical attention.
- D. In case of swallowing** If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. Never give anything by mouth to an unconscious person.
- E. Note to physician** Not available.

**5. Fire-fighting measures**

**A. Suitable (and unsuitable) extinguishing media**

- Suitable extinguishing media** Dry powder. Carbon dioxide (CO2). Water may be ineffective.
- Unsuitable extinguishing media** Water may be ineffective. Do not use a solid water stream as it may scatter and spread fire.

**B. Specific hazards arising from the chemical (example: hazardous combustion products)** Not available.

**C. Specific methods of fire-fighting**

**Special fire fighting procedures** Avoid runoff into storm sewers and ditches which lead to waterways.

**C. Specific methods of fire-fighting** Not available.

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**6. Accidental release measures**

**A. Personal precautions, protective equipment and emergency measures** Wear appropriate personal protective equipment. Do not touch or walk through spilled material.

**B. Environmental precautions** Do not let product enter drains. Do not flush into surface water or sanitary sewer system. See also section 13 Disposal considerations.

**C. Methods and materials for containment and cleaning up** Not available.

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**7. Handling and storage**

**A. Precautions for safe handling** Avoid contact with skin, eyes and clothing.

**B. Conditions for safe storage (including any incompatibilities)** Keep away from excessive heat or cold. Do not store in direct sunlight. Do not handle or store near an open flame, heat or other sources of ignition. Opaque, high density polyethylene (HDPE) containers are recommended for shipping and storage.

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**8. Exposure controls/personal protection**

**A. Exposure limit values, biological limit values, etc**

No exposure limits noted for ingredient(s).

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

**Exposure guidelines** Exposure limits have not been established for this product.

**B. Appropriate engineering controls** Not available.

**C. Personal protective equipment**

- **Respiratory protection** Provide adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment.
- **Eye protection** Wear safety glasses; chemical goggles (if splashing is possible). Eye wash fountain and emergency showers are recommended.
- **Hand protection** Wear appropriate chemical resistant gloves.
- **Body protection** Wear appropriate chemical resistant clothing.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice. Do not get this material in your eyes, on your skin, or on your clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Launder contaminated clothing before reuse. Keep away from food and drink.

**Recommended monitoring procedures**

**Additional exposure data** Exposure limits have not been established for this product.

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**9. Physical and chemical properties**

**A. Appearance**

**Physical state** Liquid.

**Color** Cyan

**B. Odor** Characteristic.

**C. Odor threshold** Not available.

**D. pH** Not available.

**E. Melting point/freezing point** Not available.

**F. Boiling point, initial boiling point, and boiling range** Not available.

**G. Flash point** > 230.0 °F (> 110.0 °C) Closed Cup

**H. Evaporation rate** Not available.

**I. Flammability (solid, gas)** Not available.

## J. Upper/lower limit on flammability or explosive limits

<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.

**K. Vapor pressure** Not available.

## L. Solubility

**Solubility (water)** Not available.

**M. Vapor density** Not available.

**N. Specific gravity** Not available.

**O. n-octanol/water partition coefficient** Not available.

**P. Auto-ignition temperature** Not available.

**Q. Decomposition temperature** Not available.

**R. Viscosity** Not available.

**S. Molecular weight** Not available.

## Other data

<b>Chemical family</b>	Acrylate/Polymer/Pigment Blend
<b>VOC (Weight %)</b>	< 95 g/L

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## 10. Stability and reactivity

### A. Stability and hazardous reaction potential

<b>Stability</b>	Stable under normal storage conditions.
<b>Hazardous reaction potential</b>	Hazardous polymerization can occur with decreased inhibitor content.

**B. Conditions to avoid (e.g. static discharge, shock or vibration, etc)** Exposure to sunlight.

**C. Incompatible materials** Incompatible with strong bases and oxidizing agents. alkaline metals

**D. Hazardous decomposition products** 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

### A. Information on likely routes of exposure

- **Respiratory organs** Not available.
- **Mouth** Not available.
- **Eyes** Not available.
- **Skin** Not available.

### B. Information on health hazards

- **Acute toxicity (list all possible routes of exposure)** Based on available data, the classification criteria are not met.
- **Corrosivity or irritation to the skin** Causes skin irritation.
- **Serious eye damage/eye irritation** Causes serious eye irritation.
- **Respiratory sensitization** Based on available data, the classification criteria are not met.
- **Skin sensitization** May cause sensitization by skin contact.
- **Carcinogenic properties /Carcinogenicity** Based on available data, the classification criteria are not met.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Benzophenone (CAS 119-61-9)

2B Possibly carcinogenic to humans.

- **Mutagenic properties /Mutagenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Suspected of damaging fertility.
- **Specific target organ toxicity - single exposure** Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - repeated exposure** Causes damage to organs (liver, respiratory system) through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

Components	Species	Test Results
Benzophenone (CAS 119-61-9)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Mouse	2895 mg/kg
<i>Other</i>		
LD50	Mouse	727 mg/kg

**Further information** Complete toxicity data are not available for this specific formulation

## 12. Ecological information

### A. Ecotoxicity

Components	Species	Test Results
Benzophenone (CAS 119-61-9)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> ) 9.64 - 12.31 mg/l, 96 hours
<b>Hazardous to the aquatic environment, acute hazard</b>	Not available.	
<b>Hazardous to the aquatic environment, long-term hazard</b>	Not available.	

**B. Persistence/degradability** Not available.

**C. Bioaccumulative potential** Not available.

**D. Mobility in soil** Not available.

**E. Other adverse effects** Not available.

**Aquatic toxicity** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. This product has not been tested for ecological effects.

## 13. Disposal considerations

**A. Method of disposal** 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.

**B. Disposal considerations (including disposal of contaminated containers or packaging)** Not available.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

**DOT supplemental information** DOT Classification only applies to shipments within the US and Puerto Rico.

### IATA

<b>UN number</b>	UN3082
<b>UN proper shipping name</b>	Environmentally Hazardous Substance, Liquid, N.O.S. (Acrylates)
<b>Transport hazard class(es)</b>	
<b>Class</b>	9
<b>Subsidiary risk</b>	-
<b>Packing group</b>	III

**Environmental hazards** Yes  
**Special precautions for user** Not available.

**IATA supplemental information** When shipping ≤ 5L inner packaging, Special Provision A197 may apply.

**IMDG**

**UN number** UN3082  
**UN proper shipping name** Environmentally Hazardous Substance, Liquid, N.O.S. (Acrylates), MARINE POLLUTANT  
**Transport hazard class(es)**  
**Class** 9  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** Yes  
**EmS** F-A, S-F  
**Special precautions for user** Not available.

**IMDG supplemental information** When shipping ≤ 5L containers, IMDG 2.10.2.7 may apply.

**ADR**

**Basic shipping requirements:**

**Proper shipping name** Environmentally Hazardous Substance, Liquid, N.O.S. (Acrylates)  
**Hazard class** 9  
**UN number** 3082  
**Packing group** III  
**Marine pollutant** Yes

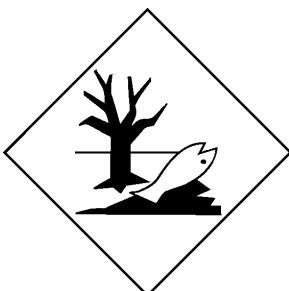
**ADR supplemental information** When shipping ≤ 5L containers, ADR 375 may apply.

**IATA; IMDG**



**ADR**

**Marine pollutant**



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## 15. Regulatory information

### A. Restrictions under the Industrial Safety and Health Law

#### Harmful Substances Prohibited from Manufacturing

Not regulated.

#### Harmful Substances Requiring Permission for Manufacture or Use

Not regulated.

#### Controlled Hazardous Substances

Not regulated.

#### Harmful Substances Requiring Special Medical Examination

Not regulated.

#### Workplace Environmental Monitoring Harmful Materials

Not regulated.

#### Occupational Exposure Limit

Not regulated.

### B. Restrictions under the Toxic Chemicals Control Law

#### Accidental Release Prevention Substances

Not regulated.

#### Banned Toxic Chemicals

Not regulated.

#### Observational Chemicals

Not regulated.

#### Restricted Chemical Substances

Not regulated.

#### Toxic Chemicals

Not regulated.

### C. Restrictions under the Dangerous Substance Safety Management Act

### D. Restrictions under the Wastes Control Act

#### Halogenated Materials in Waste Organic Solvents

Not regulated.

#### Hazardous Substances

Not regulated.

### E. Restrictions under other foreign or domestic laws

#### Clean Air Conservation Act

##### Air Pollutants

Not regulated.

##### Specific Air Pollutants

Not regulated.

#### Regulatory information

The components of this product are reported in the following inventories: USA, European Union, Canada, New Zealand, Japan, Philippines, China, Australia, Korea.

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## 16. Other information

### A. Source of information

Not available.

### B. Issue date

02-Jun-2013

### Revision date

13-May-2016

### C. Number of revisions and date of most recent revision

13-May-2016 (07 revision)

### D. Other

Not available.

### 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.

### This data sheet contains changes from the previous version in section(s):

1. Product and Company Identification: Alternate Trade Names  
Composition/Information on Ingredients  
Other information: Disclaimer  
GHS: Qualifiers

**Manufacturer information**

HP Inc.  
1501 Page Mill Road  
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Product Information 1-800-925-0563

**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