SAFETY DATA SHEET

1. Identification

Product identifier            CH591Series
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                     650-857-5020
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                 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) Carbon black is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans). Carbon black in this preparation, due to its bound form, does not present this carcinogenic risk. 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. None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.

Supplemental information      This product is not classified as hazardous according to OSHA CFR 1910.1200 (HazCom 2012).

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>80-90</td>
</tr>
<tr>
<td>Cyclo Amide*</td>
<td>Proprietary*</td>
<td></td>
<td>&lt; 10</td>
</tr>
</tbody>
</table>

Material name: CH591Series
### Chemical name and synonyms

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black</td>
<td></td>
<td>1333-86-4</td>
<td>&lt;5</td>
</tr>
<tr>
<td>2,4,7,9-Tetramethyl-5-decyne-4,7-diol</td>
<td></td>
<td>126-86-3</td>
<td>&lt;1</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).

Carbon black is present only in a bound form in this preparation.

### 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. If irritation persists get medical attention.

#### 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
CO2, water, dry chemical, or foam

#### Unsuitable extinguishing media
None known.

#### Specific hazards arising from the chemical
None known.

#### Special protective equipment and precautions for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

### 6. Accidental release measures

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

#### Methods and materials for containment and cleaning up
Not available.

#### 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

<table>
<thead>
<tr>
<th>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)</th>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS 1333-86-4)</td>
<td>PEL</td>
<td></td>
<td>3.5 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS 1333-86-4)</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td>Inhalable fraction.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. NIOSH: Pocket Guide to Chemical Hazards Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS 1333-86-4)</td>
<td>TWA</td>
<td>0.1 mg/m³</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
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.

Form
Not available.

Color
Black.

Odor
Not available.

Odor threshold
Not available.

pH
8.8 - 9.1

Melting point/freezing point
Not available.

Initial boiling point and boiling range
Not available.

Flash point
> 230.0 °F (> 110.0 °C) Pensky-Martens Closed Cup

Evaporation rate
Not available.

Flammability (solid, gas)
Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)
Not available.

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)
Not available.

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

Auto-ignition temperature
Not available.

Decomposition temperature
Not available.

Viscosity
3.2 - 3.3 cP

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

VOC
42 g/L US EPA Method 24

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 with strong bases and oxidizing agents.

Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Decomposition of this product may yield oxides of phosphorus.

11. Toxicological information

Information on likely routes of exposure

- **Inhalation**: Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
- **Skin contact**: Contact with skin may result in mild irritation.
- **Eye contact**: Contact with eyes may result in mild irritation.
- **Ingestion**: Health injuries are not known or expected under normal use.

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.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS 1333-86-4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral LD50</td>
<td>Rat</td>
<td>&gt; 10000 mg/kg</td>
</tr>
</tbody>
</table>

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**: Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity**: Based on available data, the classification criteria are not met.
- **Carcinogenicity**: Carbon black is classified as a carcinogen by the IARC (possibly carcinogenic to humans, Group 2B) and by the State of California under Proposition 65. In their evaluations of carbon black, both organizations indicate that exposure to carbon black, per se, does not occur when it remains bound within a product matrix, specifically, rubber, ink, or paint. Carbon black is present only in a bound form in this preparation.

IARC Monographs. Overall Evaluation of Carcinogenicity

Carbon black (CAS 1333-86-4) 2B Possibly carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

- Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

- Not listed.

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

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

Further information: Complete toxicity data are not available for this specific formulation.
12. Ecological information

Ecotoxicity

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH591Series</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fathead minnow (Pimephales promelas) &gt; 750 mg/l, 96 hr</td>
</tr>
</tbody>
</table>

Persistence and degradability Not available.
Bioaccumulative potential Not available.
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.

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) Not listed.
SARA 304 Emergency release notification Not regulated.

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 Hazardous chemical No

Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated.
Safe Drinking Water Act (SDWA)  
US state regulations  
US - California Proposition 65 - CRT: Listed date/Carcinogenic substance  
CARBON BLACK (AIRBORNE, UNBOUND PARTICLES OF RESPIRABLE SIZE \[<= 10 MICROMETERS\]) (CAS 1333-86-4) 
Listed: February 21, 2003  
US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))  
Carbon black (CAS 1333-86-4)  
Other information  
VOC content (less water, less exempt compounds) = 276 g/L (U.S. requirement, not for emissions)  
VOC data based on formulation (Organic compounds minus solids)  
US EPA Method 24  
Regulatory information  
All chemical substances in this product are notified or exempt from notification under chemical substance notification laws in the following countries: Australia, Canada, China, European Union, Japan, Korea, Switzerland, USA.  
16. Other information, including date of preparation or last revision  
Issue date 14-Jun-2015  
Revision date 17-Oct-2017  
Version # 06  
Other information  
This SDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).  
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.  
Revision information  
Composition / Information on Ingredients: Ingredients  
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