1. Product and Company Identification

Material name: CN794Series
Version #: 01
Issue date: 15-Nov-2013
Synonym(s): HP MF12 Cleaner
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. Hazards Identification

Potential health effects

Skin: Harmful in contact with skin. Prolonged and/or repeated skin contact may result in mild irritation or redness and Contact with skin may result in irritation and Harmful if absorbed through the skin.

Inhalation: Harmful by inhalation. Inhalation may result in respiratory irritation. Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene Glycol, Monobutyl Ether Acetate</td>
<td>112-07-2</td>
<td>&lt;50</td>
</tr>
<tr>
<td>Cyclohexanone</td>
<td>108-94-1</td>
<td>&lt;10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-hazardous components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>diethylene glycol monobutyl ether acetate</td>
<td>124-17-4</td>
<td>&lt;50</td>
</tr>
</tbody>
</table>

4. First Aid Measures

General advice: No information

First aid procedures

Eye contact: Immediately flush eye(s) with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If irritation persists get medical attention.

Skin contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing separately before reuse. Contaminated leather articles, including shoes, that cannot be decontaminated should be discarded.

Inhalation: Move person to fresh air immediately. If not breathing, give artificial respiration or give oxygen by trained personnel. For breathing difficulties, oxygen may be necessary. Call a physician or Poison Control Centre immediately.

Ingestion: If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. If material is ingested, immediately contact a physician or poison control center.

Notes to physician: Effects of contact or inhalation may be delayed. Keep victim under observation.
5. Fire Fighting Measures

**Extinguishing media**
- Suitable extinguishing media
  - Dry chemical, CO2, water spray or alcohol resistant foam.

**Protection of firefighters**
- Protective equipment and precautions for firefighters
  - Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.

**Fire fighting equipment/instructions**
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Do not scatter spilled material with high pressure water streams. Move containers from fire area if you can do so without risk.

**Hazardous combustion products**
- Irritating and toxic gases or fumes may be released during a fire. Combustion will produce carbon dioxide, carbon monoxide and smoke (Toner & Imaging drum).

6. Accidental Release Measures

**Personal precautions**
- Isolate area. Keep unnecessary personnel away. Ventilate enclosed areas. Wear appropriate personal protective equipment.

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

**Other information**
- Soak up with inert absorbent material. Slowly vacuum or sweep the material into a bag or other sealed container.

7. Handling and Storage

**Handling**
- Avoid prolonged or repeated skin contact with this material. Avoid breathing vapors or mists of this product. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

**Storage**
- carbon steel stainless steel

8. Exposure Controls / Personal Protection

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values</th>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexanone (CAS 108-94-1)</td>
<td>STEL</td>
<td></td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td></td>
<td>20 ppm</td>
</tr>
<tr>
<td>Ethylene Glycol, Monobutyl</td>
<td>TWA</td>
<td></td>
<td>20 ppm</td>
</tr>
<tr>
<td>Ether Acetate (CAS 112-07-2)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<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>Cyclohexanone (CAS 108-94-1)</td>
<td>PEL</td>
<td></td>
<td>200 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>50 ppm</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>Cyclohexanone (CAS 108-94-1)</td>
<td>TWA</td>
<td>100 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25 ppm</td>
</tr>
<tr>
<td>Ethylene Glycol, Monobutyl Ether Acetate (CAS 112-07-2)</td>
<td>TWA</td>
<td>33 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexanone (CAS 108-94-1)</td>
<td>TWA</td>
<td>100 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25 ppm</td>
</tr>
</tbody>
</table>
Exposure guidelines

US. ACGIH Threshold Limit Values
Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

Engineering controls
Good general ventilation should be sufficient to control airborne levels.

Personal protective equipment

Eye / face protection
Safety glasses with side-shields.

Skin protection
Where contact is likely, wear chemical-resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

Respiratory protection
Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

9. Physical & Chemical Properties

Appearance
Not available.

Physical state
Not available.

Form
Liquid.

Color
Colorless.

Odor
Mild.

pH
Not available.

Vapor pressure
0.4 mm Hg @ 20°C

Boiling point
Not available.

Melting point/Freezing point
Not available.

Solubility (water)
Not available.

Specific gravity
Not available.

Flash point
Not available.

VOC
< 970 g/L

Other information
No information available

10. Chemical Stability & Reactivity Information

Chemical stability
Stable under normal storage conditions.

Conditions to avoid
Avoid high temperatures.

Incompatible materials
Incompatible with strong acids and oxidizing agents.

Hazardous decomposition products
aldehydes ketones organic acids

Possibility of hazardous reactions
Will not occur.

11. Toxicological Information

Toxicological data

Components
Species
Test Results

diethylene glycol monobutyl ether acetate (CAS 124-17-4)

Acute

Dermal
LD50
Rabbit
5500 mg/kg
14.8 ml/kg

Inhalation
LC50
Rat
73.7 mg/l, 4 Hours

Oral
LD50
Guinea pig
2340 mg/kg
Mouse
6500 mg/kg
Rabbit
2260 mg/kg

Material name: CN794Series
11293 Version #: 01 Issue date: 15-Nov-2013
Components | Species | Test Results
--- | --- | ---
Ethylene Glycol, Monobutyl Ether Acetate (CAS 112-07-2)

**Acute**

*Dermal*

- **LD50** | *Rabbit* | 1500 mg/kg

*Oral*

- **LD50** | *Rat* | 2400 mg/kg

*Other*

- **LD50** | *Mouse* | 754 mg/kg

**Carcinogenicity**

**ACGIH Carcinogens**

- 2-BUTOXYETHYL ACETATE (EGBEA) (CAS 112-07-2) | A3 Confirmed animal carcinogen with unknown relevance to humans.
- CYCLOHEXANONE (CAS 108-94-1) | A3 Confirmed animal carcinogen with unknown relevance to humans.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

- Cyclohexanone (CAS 108-94-1) | 3 Not classifiable as to carcinogenicity to humans.

**Serious eye damage/eye irritation**

- Not available.

**Further information**

- Complete toxicity data are not available for this specific formulation.

### 12. Ecological Information

**Ecotoxicological data**

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexanone (CAS 108-94-1)</td>
<td>Aquatic</td>
<td></td>
</tr>
</tbody>
</table>
- **Fish** | **LC50** | Fathead minnow (*Pimephales promelas*) | 481 - 578 mg/l, 96 hours |

**Ecotoxicity**

- No information available.

**Persistence and degradability**

- Not available.

**Bioaccumulation / Accumulation**

**Bioaccumulative potential**

- **Octanol/water partition coefficient log Kow**
  - Cyclohexanone | 0.81

**Partition coefficient**

- Cyclohexanone | 0.81

### 13. Disposal Considerations

**Waste codes**

**US RCRA Hazardous Waste U List: Reference**

- Cyclohexanone (CAS 108-94-1) | U057

**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.

RID
Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations
All ingredients are listed or exempt

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number
Not listed.

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))
Not regulated.

DEA Exempt Chemical Mixtures Code Number
Not regulated.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA (Superfund) reportable quantity
Cyclohexanone: 5000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - No
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance
No

SARA 311/312 Hazardous chemical
No

VOC content (less water, less exempt compounds) = < 970 g/L (U.S. requirement, not for emissions) VOC data based on formulation (Organic compounds minus solids)

Other information

Other regulations
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.

State regulations

US - New Jersey RTK - Substances: Listed substance
Cyclohexanone (CAS 108-94-1) Listed.
Ethylene Glycol, Monobutyl Ether Acetate (CAS 112-07-2) Listed.

US. Massachusetts RTK - Substance List
Cyclohexanone (CAS 108-94-1)

US. Pennsylvania RTK - Hazardous Substances
Cyclohexanone (CAS 108-94-1) Listed.

US. Rhode Island RTK
Cyclohexanone (CAS 108-94-1)

16. Other Information

HMIS® ratings
Health: 2
Flammability: 1
Physical hazard: 1

NFPA ratings
Health: 2
Flammability: 1
Instability: 1