1. Identification

Product identifier: HP Z8W52A Black Developer

Recommended use: This product is a black developer preparation that is used in HP LaserJet Managed MFP E82540, HP LaserJet Managed MFP E82550, HP LaserJet Managed MFP E82560 series multifunction products.

Company identification: 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. 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>Ferrite</td>
<td>Trade Secret</td>
<td>&lt;95</td>
<td></td>
</tr>
<tr>
<td>Polyester resin</td>
<td>Polyester resin</td>
<td>Trade Secret</td>
<td>&lt;10</td>
</tr>
<tr>
<td>Carbon black</td>
<td>1333-86-4</td>
<td>&lt;2</td>
<td></td>
</tr>
<tr>
<td>Paraffin wax</td>
<td>Trade Secret</td>
<td>&lt;2</td>
<td></td>
</tr>
<tr>
<td>Silica</td>
<td>Amorphous silica</td>
<td>Trade Secret</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

Material name: Z8W52A

14317    Version #: 02    Revision date: 22-Apr-2017    Issue date: 22-Apr-2017
4. First-aid measures

Inhalation
Move person to fresh air immediately. If irritation persists, consult a physician.

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, consult a physician.

Ingestion
Rinse mouth with water. Drink one to two glasses of water. If symptoms occur, consult a physician.

Most important symptoms/effects, acute and delayed
Difficulty in breathing. Coughing.

5. Fire-fighting measures

Suitable extinguishing media
Dry chemical, CO2, water spray or regular foam.

Unsuitable extinguishing media
None known.

Specific hazards arising from the chemical
Like most organic material in powder form, toner can form explosive dust-air mixtures when finely dispersed in air. Carbon monoxide and carbon dioxide.

Special protective equipment and precautions for firefighters
Wear self-contained breathing apparatus and protective clothing. Wear full set of protective equipment including chemical goggles and gloves.

Fire-fighting equipment/instructions
If fire occurs in the printer, treat as an electrical fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Avoid inhalation of dust. Wash thoroughly after dealing with a spillage. See Section 8 of the SDS for Personal Protective Equipment. Ensure adequate ventilation.

Methods and materials for containment and cleaning up
Small Spills: Remove sources of ignition. Wipe up with absorbent material (e.g. cloth, fleece). Avoid inhalation of dust.

Large Spills: Wear appropriate protective equipment and clothing during clean-up. Sweep up or gather material and place in appropriate container for disposal.

Environmental precautions
Avoid spreading dust or contaminated materials. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling
Avoid inhalation of dust and contact with skin and eyes. Use with adequate ventilation. Keep away from excessive heat, sparks, and open flames.

Conditions for safe storage, including any incompatibilities
Keep out of the reach of children. Keep tightly closed and dry. Store at room temperature. Store away from strong oxidizers.

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<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>3.5 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>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>
<tr>
<td>Paraffin wax (CAS Trade Secret)</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>Fume.</td>
</tr>
</tbody>
</table>
US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>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>0.1 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Paraffin wax (CAS Trade Secret)</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>Fume.</td>
</tr>
<tr>
<td>Silica (CAS Trade Secret)</td>
<td>TWA</td>
<td>6 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

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

**Exposure guidelines**
USA OSHA (TWA/PEL): 10 mg/m³ (Total Dust)
ACGIH (TWA/TLV): 15 mg/m³ (Inhalable Particulate)

**Appropriate engineering controls**
Use in a well ventilated area.

**Individual protection measures, such as personal protective equipment**

- **Eye/face protection**
  Wear safety glasses with side shields (or goggles).

- **Skin protection**
  - **Hand protection**
    Rubber gloves are recommended. Wash hands after handling.
  - **Other**
    Protection suit must be worn.

- **Respiratory protection**
  No personal respirator protective equipment required under normal conditions of use.

- **Thermal hazards**
  Not available.

**General hygiene considerations**
Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

- **Appearance**
  Fine powder

- **Physical state**
  Solid.

- **Color**
  Black.

- **Odor**
  Odorless

- **Odor threshold**
  No information available

- **pH**
  Not applicable

- **Melting point/freezing point**
  No information available

- **Initial boiling point and boiling range**
  Not applicable

- **Flash point**
  Not applicable

- **Evaporation rate**
  Not available.

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

- **Upper/lower flammability or explosive limits**
  - **Flammability limit - lower (%)**
    Not flammable
  - **Flammability limit - upper (%)**
    Not available.
  - **Explosive limit - lower (%)**
    Not available.
  - **Explosive limit - upper (%)**
    Not available.

- **Vapor pressure**
  Not applicable

- **Solubility(ies)**
  - **Solubility (water)**
    Not available.

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

- **Auto-ignition temperature**
  No data available

- **Decomposition temperature**
  > 392 °F (> 200 °C)

- **Viscosity**
  Not applicable
10. Stability and reactivity

Reactivity
Not available.

Chemical stability
Stable under normal storage conditions.

Possibility of hazardous reactions
Stable

Conditions to avoid
Heat, sparks, flames. Sunlight. Avoid dust close to ignition sources.

Incompatible materials
This product may react with strong oxidizing agents. This product may react with strong acids.

Hazardous decomposition products
Carbon monoxide and carbon dioxide. Hydrogen.

11. Toxicological information

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. LD50/oral/rat >5000 mg/kg

Skin corrosion/irritation
Based on available data, the classification criteria are not met. Not a known irritant. (OECD 404)

Serious eye damage/eye irritation
Based on available data, the classification criteria are not met. Not a known irritant. (OECD 405)

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
Negative, does not indicate mutagenic potential (Ames Test: Salmonella typhimurium)

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

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS 1333-86-4)</td>
<td>2B Possibly carcinogenic to humans.</td>
</tr>
<tr>
<td>Silica (CAS Trade Secret)</td>
<td>3 Not classifiable as to carcinogenicity to humans.</td>
</tr>
</tbody>
</table>

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
Complete toxicity data are not available for this specific formulation.

Further information
Refer to Section 2 for potential health effects and Section 4 for first aid measures.

In a study in rats (H.Muhle) by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in theconcentration(16mg/m3) exposure group, and a minimal to mild degree of fibrosis was notedin 22% of the animals in the middle (4mg/m3) exposure group. But no pulmonarychanges was reported in the lowest (1mg/m3) exposure group, the most relevant level to potential human exposures.
## Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
</table>
| Carbon black (CAS 1333-86-4) | **Acute**  
**Oral**  
LD50 | Rat | $> 8000 \text{ mg/kg}$ |
| Silica (CAS Trade Secret) | **Acute**  
**Oral**  
LD50 | Mouse  
Rat | $> 15000 \text{ mg/kg}$  
$> 22500 \text{ mg/kg}$ |

### 12. Ecological information

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>Not available.</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Not available.</td>
</tr>
<tr>
<td>Mobility in soil</td>
<td>Not available.</td>
</tr>
<tr>
<td>Other adverse effects</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

### 13. Disposal considerations

**Disposal instructions**  
Dispose of in compliance with federal, state, and local regulations. Do not shred toner cartridge, unless dust-explosion prevention measures are taken. Do not put toner container into fire; heated toner may cause severe burns. Do not incinerate. Do not allow this material to drain into sewers/water supplies.  
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](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 EPA TSCA Inventory: All chemical substances in this product comply with all rules or orders under TSCA.  
**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.  
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 Hazardous chemical
No

Other federal regulations
Safe Drinking Water Act (SDWA) Not regulated.

US state regulations
US. Massachusetts RTK - Substance List
Carbon black (CAS 1333-86-4)
Paraffin wax (CAS Trade Secret)
Silica (CAS Trade Secret)

US. New Jersey Worker and Community Right-to-Know Act
Carbon black (CAS 1333-86-4)
Paraffin wax (CAS Trade Secret)

US. Pennsylvania Worker and Community Right-to-Know Law
Carbon black (CAS 1333-86-4)
Paraffin wax (CAS Trade Secret)
Silica (CAS Trade Secret)

US. Rhode Island RTK
Not regulated.

US. California Proposition 65
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

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, including date of preparation or last revision

Issue date 22-Apr-2017
Revision date 22-Apr-2017
Version # 02

Disclaimer
This [Material] Safety Data Sheet 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 (M)SDS 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.

Manufacturer information
HP Inc.
11311 Chinden Boulevard
Boise, ID 83714 USA
(Direct) 1-503-494-7199
(Toll-free within the US) 1-800-457-4209
## Explanation of abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service</td>
</tr>
<tr>
<td>CERCLA</td>
<td>Comprehensive Environmental Response Compensation and Liability Act</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>COC</td>
<td>Cleveland Open Cup</td>
</tr>
<tr>
<td>DOT</td>
<td>Department of Transportation</td>
</tr>
<tr>
<td>EPCRA</td>
<td>Emergency Planning and Community Right-to-Know Act (aka SARA)</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety and Health</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation and Recovery Act</td>
</tr>
<tr>
<td>REL</td>
<td>Recommended Exposure Limit</td>
</tr>
<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act of 1986</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-Term Exposure Limit</td>
</tr>
<tr>
<td>TCLP</td>
<td>Toxicity Characteristics Leaching Procedure</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substances Control Act</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compounds</td>
</tr>
</tbody>
</table>