SAFETY DATA SHEET

1. Identification

Product identifier
HP Z7Y68A Black Developer

Other means of identification
None.

Recommended use
This product is a black developer preparation that is used in HP Color LaserJet Managed MFP E87640, HP Color LaserJet Managed MFP E87650, HP Color LaserJet Managed MFP E87660 series multifunction products.

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. 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>
</tbody>
</table>

Material name: Z7Y68A
Version #: 02 Revision date: 04-Aug-2018 Issue date: 22-Apr-2017

SDS US 1 / 7
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.

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.

Specific methods
None established.

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
Slowly vacuum or sweep the material into a bag or other sealed container. Clean remainder with a damp cloth or vacuum cleaner. If a vacuum is used, the motor must be rated as dust explosion-proof. Fine powder can form explosive dust-air mixtures. Dispose of in compliance with federal, state, and local regulations.

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
This mixture has no ingredients that have PEL, TLV, or other recommended exposure limit.

<table>
<thead>
<tr>
<th>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) 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>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>
<tr>
<td>Paraffin Wax</td>
<td>TWA</td>
<td>2 mg/m3</td>
<td>Fume.</td>
</tr>
<tr>
<td>Components</td>
<td>Type</td>
<td>Value</td>
<td>Form</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------</td>
<td>---------</td>
<td>---------</td>
</tr>
<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</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>Fume.</td>
</tr>
<tr>
<td>Silica</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 respiratory 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.

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### 9. Physical and chemical properties

**Appearance**

Fine powder

**Physical state**

Solid.

**Form**

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

**Vapor density**

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

**Other information**

Not available.
### Oxidizing properties
No information available.

### Specific gravity
4.4 g/ml (20C, 68F)

### 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

#### Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Route</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Under normal conditions of intended use, this material is not expected to be an inhalation hazard.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Contact with skin may result in mild irritation.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Contact with eyes may result in mild irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Ingestion is not a likely route of exposure.</td>
</tr>
</tbody>
</table>

#### 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

#### Components

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS 1333-86-4)</td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat &gt; 10000 mg/kg</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td>Based on available data, the classification criteria are not met. Not a known irritant. (OECD 404)</td>
</tr>
<tr>
<td><strong>Serious eye damage/eye irritation</strong></td>
<td>Based on available data, the classification criteria are not met. Not a known irritant. (OECD 405)</td>
</tr>
<tr>
<td><strong>Respiratory or skin sensitization</strong></td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td><strong>Respiratory sensitization</strong></td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td><strong>Skin sensitization</strong></td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td><strong>Germ cell mutagenicity</strong></td>
<td>Negative, does not indicate mutagenic potential (Ames Test: Salmonella typhimurium)</td>
</tr>
<tr>
<td><strong>Carcinogenicity</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

#### IARC Monographs. Overall Evaluation of Carcinogenicity
- Carbon black (CAS 1333-86-4) 2B Possibly carcinogenic to humans.
- Silica (CAS Trade Secret) 3 Not classifiable as to carcinogenicity 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.
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 the concentration (16mg/m3) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m3) exposure group. But no pulmonary changes was reported in the lowest (1mg/m3) exposure group, the most relevant level to potential human exposures.

12. Ecological information
Ecotoxicity
Not available.

Persistence and degradability
Not available.

Bioaccumulative potential
Not available.

Mobility in soil
Not available.

Other adverse effects
Not available.

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.

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.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
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

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)

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 04-Aug-2018
Version # 02
Other information This SDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).

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.

This safety data sheet is meant to convey information about HP inks (toners) provided in HP Original ink (toner) supplies. If our Safety Data Sheet has been provided to you with a refilled, remanufactured, compatible or other non-HP Original supply please be aware that the information contained herein was not meant to convey information about such products and there could be considerable differences from information in this document and the safety information for the product you purchased. Please contact the seller of the refilled, remanufactured or compatible supplies for applicable information, including information on personal protective equipment, exposure risks and safe handling guidance. HP does not accept refilled, remanufactured or compatible supplies in our recycling programs.

Revision information
Fire-fighting measures: Specific hazards arising from the chemical
Accidental release measures: Methods and materials for containment and cleaning up
Toxicological information: Further information
Toxicological information: Eye contact
Toxicological information: Ingestion
Toxicological information: Inhalation
Toxicological information: Skin contact
Regulatory information: Regulatory information
Other information, including date of preparation or last revision: Disclaimer
### 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>REC</td>
<td>Recommended</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>