SAFETY DATA SHEET

1. Identification

Important information
*** This Safety Data Sheet is only authorised for use by HP for HP Original products. Any unauthorised use of this Safety Data Sheet is strictly prohibited and may result in legal action being taken by HP. ***

Product identifier
HP Z7Y69A Cyan Developer

Other means of identification
None.

Recommended use
This product is a cyan 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 printers.

Recommended restrictions
None known.

Manufacturer/Importer/Supplier/Distributor information
HP Inc.
1501 Page Mill Road
Palo Alto, CA 94304-1112
United States

Telephone
650-857-1501

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. Titanium dioxide is classified by IARC as a Group 2B carcinogen, meaning there is inadequate evidence in humans for the carcinogenicity of titanium dioxide, but there is sufficient evidence in experimental animals for the carcinogenicity of titanium dioxide. Titanium dioxide 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

<table>
<thead>
<tr>
<th>Mixtures</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramic Materials And Wares, Chemicals</td>
<td>Trade Secret</td>
<td>&lt;80%</td>
</tr>
<tr>
<td>Polyester resin</td>
<td>Trade Secret</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>Paraffin waxes and Hydrocarbon waxes</td>
<td>Trade Secret</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Amorphous silica</td>
<td>Trade Secret</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Black Pigment*</td>
<td>Proprietary*</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

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**

| US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) |
|-----------------------------|-----------------|-------|
| Components | Type | Value | Form |
| Black Pigment | PEL | 3.5 mg/m3 | |

### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>PEL</td>
<td>15 mg/m³</td>
<td>Total dust.</td>
</tr>
</tbody>
</table>

### US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Pigment</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td>Inhalable fraction.</td>
</tr>
<tr>
<td>Paraffin waxes and Hydrocarbon waxes</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>Fume.</td>
</tr>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td></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>Black Pigment</td>
<td>TWA</td>
<td>0.1 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Paraffin waxes and Hydrocarbon waxes</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>Fume.</td>
</tr>
</tbody>
</table>

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Exposure guidelines**

USA OSHA (TWA/PEL): 15 mg/m³ (Total Dust) 5 mg/m³ (Respirable Fraction)

ACGIH (TWA/TLV): 10 mg/m³ (Inhalable Particulate) 3 mg/m³ (Respirable 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.

### 9. Physical and chemical properties

**Appearance**

- **Physical state**: Solid.
- **Form**: solid
- **Color**: Blue

**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
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive limit - lower (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive limit - upper (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>Not available</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>&gt; 392 °F (&gt; 200 °C)</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Other information</td>
<td>Not available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>4.4 g/ml (20°C, 68°F)</td>
</tr>
</tbody>
</table>

### 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**

- **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**
  Ingestion is not a likely route of exposure.

**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

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 10000 mg/kg</td>
</tr>
<tr>
<td><strong>Ceramic Materials And Wares, Chemicals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>&gt; 2500 mg/kg</td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>&gt; 2.3 mg/l, 4 Hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 0.888 mg/l</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>
Based on available data, the classification criteria are not met. Not a known irritant. (OECD 404)

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

Respiratory or skin sensitization

Respiratory sensitization

Skin sensitization

Germ cell mutagenicity

Skin sensitization

Serious eye damage/eye irritation

Respiratory or skin sensitization

Respiratory sensitization

Skin sensitization

Germ cell mutagenicity

Respiratory or skin sensitization

Respiratory sensitization

Skin sensitization

Germ cell mutagenicity

Respiratory or skin sensitization

Respiratory sensitization

Skin sensitization

Germ cell mutagenicity

Respiratory or skin sensitization

Respiratory sensitization

Skin sensitization

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.

Titanium dioxide is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans). The IARC classification was based on high concentrations of titanium dioxide particles in animal lungs. Under intended use of this toner product, exposure to titanium dioxide is much lower.

None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Black Pigment (CAS Proprietary) 2B Possibly carcinogenic to humans.

Titanium dioxide (CAS 13463-67-7) 2B Possibly carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity

Specific target organ toxicity - single exposure

Specific target organ toxicity - repeated exposure

Aspiration hazard

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramic Materials And Wares, Chemicals</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>Algae</td>
<td>ErC50</td>
<td>Algae 184.6 mg/l, 72 h</td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Invertebrates (Invertebrates) 1.9 mg/l, 48 h</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fish 457 mg/l, 96 h</td>
</tr>
<tr>
<td>Chronic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>EC50</td>
<td>Fish 0.151 mg/l, 7 d</td>
</tr>
<tr>
<td></td>
<td>LC50</td>
<td>Fish 1.94 mg/l, 16 d</td>
</tr>
</tbody>
</table>

Persistence and degradability

Bioaccumulative potential

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.

Toxic Substances Control Act (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 1910.1001-1053)
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance
Not listed.

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

California Proposition 65

California Proposition 65 - CRT: Listed date/Carcinogenic substance
Black Pigment (CAS Proprietary)  Listed: February 21, 2003
Titanium dioxide (CAS 13463-67-7)  Listed: September 2, 2011

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))
Black Pigment (CAS Proprietary)
Titanium dioxide (CAS 13463-67-7)

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 07-Apr-2020
Version # 07
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.

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