



# SAFETY DATA SHEET

## 1. Identification of the chemical and information about the manufacturer or supplier

### 1.1 Identification of the chemical products

1.1.1 Technical name HP Z9M02A Cyan Developer

Other means of identification None.

### 1.1.2 Recommended use of the chemical and restrictions on use

**Recommended use** This product is a cyan developer preparation that is used in HP Color LaserJet Managed MFP E77822, HP Color LaserJet Managed MFP E77825, HP Color LaserJet Managed MFP E77830 series printers.

**Limitations on use** None known.

### 1.2 Manufacturer/Importer/Supplier/Distributor information

#### 1.2.1 Manufacturer

ZAO Hewlett-Packard A.O.  
Highway Leningradskoe, House 16A, Building 3,  
125171, Moscow

**Telephone** 7 495 797-3500

#### 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

### 2.1. Hazard identification of chemical product as a whole (classification according to GOST 12.1.007-76 and GHS)

**Classification according to GOST 12.1.007-76** Not available.

#### GHS classification

**Physical hazards** Not classified.

**Health hazards** Not classified.

**Environmental hazards** Not classified.

### 2.2 Labeling elements in compliance with GOST 31340-2013

2.2.1 Signal word None.

2.2.2 Symbols None.

2.2.3 Hazard statement Not available.

#### Precautionary statement

**Prevention** Not available.

**Response** Not available.

**Storage** Not available.

**Disposal** Not available.

#### Other hazards

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** None.

## 3. Composition/information on ingredients

### 3.1 Information on product as a whole

3.1.1 Chemical name (IUPAC) Z9M02A

3.1.2 Chemical formula O<sub>2</sub>Si (Trade Secret), O<sub>2</sub>Si (Trade Secret)

**3.1.3 General description of the composition (taking into account the brand assortment; preparation method)** Not applicable.

### 3.2 Components

Components	Concentration by weight (%)	Hygienic standards in the working area			CAS-No.	EC No.
		MAC, mg/m <sup>3</sup>	TSEL, mg/m <sup>3</sup>	Hazard classification		
Ferrite	<95				Trade Secret	-
Styrene-Acrylic Resin	<10				Trade Secret	-
Cyan Pigment	<2				Trade Secret	-
Paraffin wax	<2				Trade Secret	-
Silica	<1	3	1	3	Trade Secret	231-545-4

## 4. First-aid measures

### 4.1. Observed symptoms

- 4.1.1 In case of exposure via inhalation** Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
- 4.1.2 In contact with skin** Contact with skin may result in mild irritation.
- 4.1.3 In contact with eyes** Contact with eyes may result in mild irritation.
- 4.1.4 In case of exposure via ingestion** Ingestion is not a likely route of exposure.

### 4.2 First-aid measures to be provided to victims

- 4.2.1 In case of exposure via inhalation** Move person to fresh air immediately. If irritation persists, consult a physician.
- 4.2.2 In contact with skin** Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.
- 4.2.3 In contact with eyes** 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.
- 4.2.4 In case of exposure via ingestion** Rinse mouth with water. Drink one to two glasses of water. If symptoms occur, consult a physician.
- 4.2.5 Contraindications** Not available.

## 5. Fire-fighting and explosion safety measures and means

- 5.1 General characteristics of fire-explosion properties** Not available.
- 5.2 Fire-explosion indicators** Not available.
- 5.3 Combustion and/or thermal destruction products and hazards arising from these** Like most organic material in powder form, toner can form explosive dust-air mixtures when finely dispersed in air.
- 5.4 Recommended extinguishing media** Dry chemical, CO<sub>2</sub>, water spray or regular foam.
- 5.5 Forbidden extinguishing media** None known.
- 5.6 Special protective equipment for firefighters** Wear self-contained breathing apparatus and protective clothing. Wear full set of protective equipment including chemical goggles and gloves.
- 5.7 Specific extinguishing methods** None established.
- Special fire fighting procedures** If fire occurs in the printer, treat as an electrical fire.

## 6. Accident and emergency prevention and response measures and their consequences

### 6.1 Measures to prevent harmful effects on people, environment, buildings, constructions, etc. in case of accidents and emergencies

- 6.1.1 General required actions in case of an accident or emergency** Avoid inhalation of dust. Wash thoroughly after dealing with a spillage. See Section 8 of the SDS for Personal Protective Equipment. Ensure adequate ventilation.

**6.1.2 Personal protection equipment in case of the accident** Not available.

## 6.2 Procedures for the elimination of accidents and emergencies

**6.2.1 Procedures in case of leaks, spills, splashes** Not available.

**6.2.2 Actions in case of fire** Not available.

**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. Storage and handling requirements of chemicals during loading and unloading

### 7.1 Safety precautions when handling chemical products

**7.1.1 Technical safety measures** Not available.

**7.1.2 Environmental protection measures** Not available.

**7.1.3 Recommended safe handling and transportation advice** Avoid inhalation of dust and contact with skin and eyes. Use with adequate ventilation. Wash thoroughly after handling. Keep away from excessive heat, sparks, and open flames.

### 7.2 Chemical storage requirements

**7.2.1 Terms and conditions for safe storage** Not available.

**7.2.2 Packaging** Not available.

**7.3 Safety measures and storage requirements at domestic use** Keep out of the reach of children. Keep tightly closed and dry. Store at room temperature. Store away from strong oxidizers.

---

## 8. Equipment for monitoring exposure and personal protective equipment

**8.1 Parameters of the working area that require monitoring** No exposure limits noted for ingredient(s).

### Occupational exposure limits

Russian Federation. Hygiene Norm GN 2.2.5.1313-03. Executive No. 76 of 30 April 2003. Maximum allowable concentration (MAC) of harmful substances in the air of working zones, as amended.

Components	Type	Value	Form
Silica	Ceiling	3 mg/m <sup>3</sup>	Aerosol.
	TWA	1 mg/m <sup>3</sup>	Aerosol.

**8.2 Measures to ensure the content of harmful substances in the working area below the exposure level concentration** Not available.

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

### 8.3 Worker personal protective equipment

**8.3.1 General recommendations** No personal respiratory protective equipment required under normal conditions of use.

**8.3.2 Respiratory protection** No personal respiratory protective equipment required under normal conditions of use.

#### 8.3.3 Protective equipment

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

**Hand protection** Rubber gloves are recommended. Wash hands after handling.

**Other** Protection suit must be worn.

**Thermal hazards** Not available.

**8.3.4 Personal protection equipment in case of domestic use** Not applicable.

**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

<b>9.1 Physical appearance</b>	Fine powder
<b>Physical state</b>	Solid.
<b>Form</b>	solid
<b>Color</b>	Cyan
<b>Odor</b>	Odorless
<b>Odor threshold</b>	No information available

### 9.2 Parameters characterizing basic properties of the product

<b>pH</b>	Not applicable
<b>Melting point/freezing point</b>	No information available
<b>Initial boiling point and boiling range</b>	Not applicable
<b>Flash point</b>	Not applicable
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	> 392 °F (> 200 °C)
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not flammable
<b>Flammability limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not applicable
<b>Vapor density</b>	Not applicable
<b>Viscosity</b>	Not applicable
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Other data</b>	
<b>Oxidizing properties</b>	No information available.
<b>Specific gravity</b>	4.4 g/ml (20C, 68F)
<b>Other information</b>	Not available.

---

## 10. Stability and reactivity

<b>10.1 Chemical stability</b>	Stable under normal storage conditions.
<b>Hazardous decomposition products</b>	Carbon monoxide and carbon dioxide. Hydrogen.
<b>10.2 Reactivity</b>	Not available.
<b>10.3 Conditions to avoid</b>	Heat, sparks, flames. Sunlight. Avoid dust close to ignition sources.
<b>Possibility of hazardous reactions</b>	Stable
<b>Incompatible materials</b>	This product may react with strong oxidizing agents. This product may react with strong acids.

---

## 11. Toxicological information

<b>11.1 General exposure characteristics</b>	Not available.
<b>11.2 Routes of exposure</b>	Not available.
<b>11.3 Affected/target organs, tissues and systems of humans</b>	
<b>Specific target organ toxicity - single exposure</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>11.4 Information on health hazards in case of direct exposure to the product and its effect</b>	
<b>Effect on upper respiratory tract irritation</b>	Not available.
<b>Respiratory or skin sensitization</b>	

**Hygiene Norm GN 2.2.5.1313-03. Executive No. 76 of 30 April 2003. Maximum allowable concentration (MAC) of harmful substances in the air of working zones, as amended.**

Not listed.

<b>Respiratory sensitization</b>	Based on available data, the classification criteria are not met.
<b>Skin sensitization</b>	Based on available data, the classification criteria are not met.
<b>Skin corrosion/irritation</b>	Based on available data, the classification criteria are not met. Not a known irritant. (OECD 404)
<b>Serious eye damage/eye irritation</b>	Based on available data, the classification criteria are not met. Not a known irritant. (OECD 405)
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.

**11.5 Information on long-term hazardous health effects**

**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**

Silica (CAS Trade Secret)

3 Not classifiable as to carcinogenicity to humans.

<b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met.
<b>Mutagenicity</b>	Negative, does not indicate mutagenic potential (Ames Test: Salmonella typhimurium) Based on available data, the classification criteria are not met.
<b>Cumulativeness</b>	Not available.
<b>Chronic effects</b>	Not available.

**11.6 Acute toxicity data**

Based on available data, the classification criteria are not met. LD50/oral/rat >5000 mg/kg

**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. Environmental impact information**

**12.1 General description of the impact on the environment** Not available.

**12.2 Routes of exposure to environment** Not available.

**12.3 The most important characteristics of the environmental impact**

**12.3.1 Hygienic standards** Not available.

**12.3.2 Ecotoxicity** Not available.

**12.3.3 Biomigration and transformation of the environment due to the biodegradation or other processes**

**Persistence and degradability** Not available.

**Bioaccumulative potential** Not available.

**Mobility in soil** Not available.

**Other adverse effects** Not available.

---

**13. Recommendations for waste (residues) disposal**

**13.1 Safety precautions when handling the waste generated during use, storage, transportation** 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>.

**13.2 Information on the location and disposal methods, recycling or disposal of product waste, including packaging** Not available.

**13.3 Recommendation on the waste disposal generated during its domestic use** Not available.

---

## 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. National and international regulatory information

### 15.1 National legislation

**15.1.1 Laws of the Russian Federation** Not available.

**15.1.2 Information about the documentation, regulatory requirements for the protection of human health and environment**

**Sanitary-Epidemiological Rules, 1.2.2353-08, Chemical substances, mixtures and products which are carcinogenic factors, 21 April 2008**

Not listed.

**Hygiene Norm GN 2.2.5.1313-03. Executive No. 76 of 30 April 2003. Maximum allowable concentration (MAC) of harmful substances in the air of working zones, as amended.**

Silica (CAS Trade Secret)

Aerosol with fibrogenic action.  
Midrange hazardous.

**15.2 International Conventions and Agreements** 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.

#### Stockholm Convention

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Montreal Protocol

Not applicable.

#### Kyoto protocol

Not applicable.

#### Basel Convention

Not applicable.

---

## 16. Other information

### 16.1 Information on revision of the SDS

<b>Issue date</b>	24-Jan-2018
<b>Revision date</b>	04-Sep-2018
<b>Version #</b>	02
<b>Previous SDS number</b>	Not applicable.

**16.2 List of references used in compiling the safety data sheet** Not available.

**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**

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