



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
Company identification	HP Inc. Hong Kong Limited 25th Floor, Cityplaza One, 1111 King's Road Taikoo Shing, Hong Kong
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(Toll-free within the US)	1-800-474-6836
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Email:	hpcustomer.inquiries@hp.com
Telephone	+85230772688
Other means of identification	None.
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 E87640, HP Color LaserJet Managed MFP E87650, HP Color LaserJet Managed MFP E87660 series printers.
Restrictions on use	Not available.

2. Hazards identification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental 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.
Other hazards which do not result in classification	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.
GHS Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Non-hazardous components

Chemical name	Common name and synonyms	CAS number	%
Ceramic Materials And Wares, Chemicals		Trade Secret	<80%
Polyester resin	Polyester resin	Trade Secret	<20%
Paraffin waxes and Hydrocarbon waxes		Trade Secret	<5%
Amorphous silica		Trade Secret	<1%
Carbon black		1333-86-4	<1%
Titanium dioxide		13463-67-7	<1%

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

Exposure limit values

Hong Kong. OELs. (Occupational Exposure Limits for Chemical Substances in the Work Environment)

Components	Type	Value	Form
Carbon black (CAS 1333-86-4)	TWA	3.5 mg/m3	
Paraffin waxes and Hydrocarbon waxes	TWA	2 mg/m3	Fume.
Titanium dioxide (CAS 13463-67-7)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Inhalable dust.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Carbon black (CAS 1333-86-4)	TWA	3 mg/m ³	Inhalable fraction.
Paraffin waxes and Hydrocarbon waxes	TWA	2 mg/m ³	Fume.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m ³	
Biological limit values	No biological exposure limits noted for the ingredient(s).		
Exposure guidelines	5 mg/m ³ (Respirable Fraction)		
	3 mg/m ³ (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	Fine powder
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
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

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

Components	Species	Test Results
Carbon black (CAS 1333-86-4)		
Acute		
Oral		
LD50	Rat	> 10000 mg/kg
Ceramic Materials And Wares, Chemicals		
Acute		
Dermal		
LD50	Rabbit	> 2500 mg/kg
Inhalation		
LC50	Rat	> 2.3 mg/l, 4 Hours > 0.888 mg/l
Oral		
LD50	Rat	> 2000 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)
Based on available data, the classification criteria are not met.

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.

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.

ACGIH Carcinogens

Carbon black (CAS 1333-86-4)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Titanium dioxide (CAS 13463-67-7)	A4 Not classifiable as a human carcinogen.

Controlled and Prohibited Carcinogens List

Not available.

IARC Monographs. Overall Evaluation of Carcinogenicity

Carbon black (CAS 1333-86-4)

2B Possibly carcinogenic to humans.

Titanium dioxide (CAS 13463-67-7)

2B Possibly carcinogenic to humans.

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.

Components		Species	Test Results
Ceramic Materials And Wares, Chemicals (CAS Trade Secret)			
Aquatic			
<i>Acute</i>			
Algae	ErC50	Algae	184.6 mg/l, 72 h
Crustacea	EC50	Invertebrates (Invertebrates)	1.9 mg/l, 48 h
Fish	LC50	Fish	457 mg/l, 96 h
<i>Chronic</i>			
Fish	EC50	Fish	0.151 mg/l, 7 d
	LC50	Fish	1.94 mg/l, 16 d

Persistence and degradability Not available.

Bioaccumulative potential Not available.

Mobility in soil Not available.

Other adverse effects This product has not been tested for ecological effects.

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>.

Waste from residues / unused products Not available.

Contaminated packaging 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. Regulatory information

Safety, health and environmental regulations specific for the product in question

Controlled and Prohibited Carcinogens: Listed substance

Not regulated.

CWC. Chemical Weapons (Convention) Ordinance, Schedules of Chemicals 1-3 (L.N. 62 of 2004, as amended)

Not regulated.

Drug Precursors for Imports and Exports

Not regulated.

Drug Precursors Subject to Conditional Exports

Not regulated.

Listed Substances (Factories and Industrial Undertakings (Dangerous Substances) Regulations, First Schedule, as amended)

Not regulated.

Narcotics and Psychotropic Substances

Not regulated.

Ozone Depleting Substances (ODS) (Ozone Layer Protection Ordinance, Cap. 403, July 1989)

Not regulated.

International 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.

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Montreal Protocol

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

16. Other information, including date of preparation or last revision

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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 Identification: Important information

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