



# SAFETY DATA SHEET

## 1. Identification

<b>Important information</b>	*** 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. ***
<b>Name of the substance or mixture (trade name)</b>	ML-D3470Series
<b>Major recommended uses for the substance or mixture</b>	This product is a toner mixture that is used in printing systems.
<b>Specific restrictions for use of the substance or mixture</b>	Not available.
<b>Manufacturer/Importer/Distributor information</b>	
<b>Company identification</b>	HP Colombia SAS Carrera 7 No 99-53 Torre B Pisos 7 Bogota, Colombia
<b>Telephone</b>	(57) 1 639 0000
<b>HP Inc. health effects line (Toll-free within the US)</b>	1-800-457-4209
<b>(Direct)</b>	1-760-710-0048
<b>HP Inc. Customer Care Line (Toll-free within the US)</b>	1-800-474-6836
<b>(Direct)</b>	1-208-323-2551
<b>Email:</b>	hpcustomer.inquiries@hp.com

## 2. Hazards identification

<b>Classification of the substance or mixture</b>	
<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Not classified.
<b>Environmental hazards</b>	Not classified.
<b>GHS labeling elements, including precautionary statements</b>	
<b>Hazard symbol(s)</b>	None.
<b>Signal word</b>	None.
<b>Hazard statement(s)</b>	Not available.
<b>Precautionary statement(s)</b>	
<b>Prevention</b>	Not available.
<b>Response</b>	Not available.
<b>Storage</b>	Not available.
<b>Disposal</b>	Not available.
<b>Other hazards which do not result in classification</b>	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.
<b>Supplemental information</b>	None.

## 3. Composition/information on ingredients

Mixture

Common chemical name or technical name	CAS number	Concentration or concentration range
Polyester resin Polyester resin	Trade Secret	<90%
Black Pigment	Proprietary	<5%
Silica	Trade Secret	<5%
Wax	Trade Secret	<5%

#### 4. First-aid measures

##### First-aid measures

<b>Inhalation</b>	Move person to fresh air immediately. If irritation persists, consult a physician.
<b>Skin contact</b>	Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.
<b>Eye contact</b>	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.
<b>Ingestion</b>	Rinse mouth with water. Drink one to two glasses of water. DO NOT induce vomiting. Get medical attention immediately.

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

**Personal protection for first-aid responders** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

**Notes to physician** Treat symptomatically.

#### 5. Fire-fighting measures

##### Means of fire extinguishing

<b>Suitable extinguishing media</b>	Dry chemical, foam, carbon dioxide, water fog.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical** During fire, gases hazardous to health may be formed.

**Special fire fighting procedures** Move containers from fire area if you can do so without risk.

**Protective measures taken by firefighting crews** Firefighters should wear full protective clothing including self contained breathing apparatus.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards** No unusual fire or explosion hazards noted.

#### 6. Control measures for spills and leaks

##### Personal precautions, protective equipment and emergency procedures

**To be taken by those who are not involved in rendering emergency services** Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. See Section 8 of the SDS for Personal Protective Equipment.

**To be taken by those who are involved in rendering emergency services** Not available.

**Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

**Methods and materials for containment and cleaning up** Avoid the generation of dusts during clean-up. Use explosion proof electric equipment. Collect dust using a vacuum cleaner equipped with HEPA filter. The product is immiscible with water and will spread on the water surface. Stop the flow of material, if this is without risk. Sweep up or vacuum up spillage and collect in suitable container for disposal.

**Other issues relating to spills and releases** Fine powder can form explosive dust-air mixtures. Take up mechanically and collect in suitable container for disposal. Dispose of in compliance with federal, state, and local regulations.

#### 7. Handling and storage

**Precautions for safe handling** Minimize dust generation and accumulation. Use local exhaust ventilation. Avoid prolonged exposure. Practice good housekeeping.

**Conditions for safe storage, including any incompatibilities** Store in tightly closed original container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

##### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Black Pigment	TWA	3 mg/m3	Inhalable fraction.

##### Colombia. OELs. Resolution No. 02400: Norms Concerning Working Conditions, Health and Safety in the Workplace

Components	Type	Value	Form
Black Pigment	TWA	3 mg/m3	Inhalable fraction.

##### Ecuador. OELs (INEN 2266:2013, 2013-01 2nd rev.: Transport, storage and handling of hazardous materials. Requirements. 1st ed., 1/29, 2013)

Components	Type	Value	Form
Black Pigment	TWA	3 mg/m3	Inhalable fraction.

##### Paraguay. Decree No. 14.390/92 that approves the General Technical Regulation of Safety, Hygiene and Medicine in the Workplace

Components	Type	Value	Form
Black Pigment	TWA	3 mg/m3	Inhalable fraction.

##### Peru. OELs. Decreto Supremo 015-2005-SA (Reglamento sobre Valores Límites Permisibles para Agentes Químicos en el Ambiente de Trabajo)

Components	Type	Value
Black Pigment	TWA	3.5 mg/m3

### Biological limit values

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

### Exposure guidelines

5 mg/m3 (Respirable Fraction) 3 mg/m3 (Respirable Particulate)

### Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

### Personal protective measures

#### Eyes and 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

Wear appropriate thermal protective clothing, when necessary.

### Hygiene measures

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

Not available.

#### Form

Solid. Fine powder

#### Color

Black.

### Odor

Odorless

### Odor threshold

Not available.

### pH

Not available.

### Melting point/freezing point

Not available.

### Initial boiling point and boiling temperature range

Not available.

**Flash point** Not available.

**Evaporation rate** Not available.

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

**Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** Not available.

**Vapor density** Not available.

**Solubility(ies)**

**Solubility (water)** Insoluble in water.

**Solubility (other)** Partially soluble in toluene, chloroform and tetrahydrofuran

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

**Auto-ignition temperature** Not available.

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

**Viscosity** Not available.

**Other physical and chemical parameters**

**Oxidizing properties** No information available.

**Solubility (other)** Partially soluble in toluene, chloroform and tetrahydrofuran

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## 10. Stability and reactivity

**Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability** Stable under normal storage conditions.

**Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**Conditions to avoid** Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials.

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

**Hazardous decomposition products** Carbon monoxide and carbon dioxide.

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## 11. Toxicological information

**Information on likely routes of exposure**

**Inhalation** Dust may irritate respiratory system. Prolonged inhalation may be harmful.

**Skin contact** Dust or powder may irritate the skin.

**Eye contact** Dust may irritate the eyes.

**Ingestion** Expected to be a low ingestion hazard.

**Symptoms** Not available.

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

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Components	Species	Test Results
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Black Pigment

**Acute**

**Oral**

LD50

Rat

> 10000 mg/kg

**Skin irritation and corrosion** 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** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.  
Negative Ames Test (Test strains: 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.

### ACGIH Carcinogens

Black Pigment (CAS Proprietary) A3 Confirmed animal carcinogen with unknown relevance to humans.

### Colombia. OELs. Resolution No. 02400: Norms Concerning Working Conditions, Health and Safety in the Workplace

Black Pigment (CAS Proprietary) A3 Animal carcinogen.

### Ecuador. OELs (INEN 2266:2013, 2013-01 2nd rev.: Transport, storage and handling of hazardous materials. Requirements. 1st ed., 1/29, 2013)

Black Pigment (CAS Proprietary) Group A3 Confirmed animal carcinogen with unknown relevance to humans.

### IARC Monographs. Overall Evaluation of Carcinogenicity

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

### Paraguay. Decree No. 14.390/92 that approves the General Technical Regulation of Safety, Hygiene and Medicine in the Workplace

Black Pigment (CAS Proprietary) A3 Confirmed animal carcinogen with unknown relevance to humans.

**Toxic to reproduction** This product is not expected to cause reproductive or developmental effects.

**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.

**Other 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/m<sup>3</sup>) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m<sup>3</sup>) exposure group. But no pulmonary changes was reported in the lowest (1mg/m<sup>3</sup>) exposure group, the most relevant level to potential human exposures.

In 1996, the IARC reevaluated carbon black as a GROUP 2B carcinogen (possible human carcinogen). This evaluation is given to carbon black for which there is inadequate human evidence, but sufficient animal evidence. The latter is based upon the developer of lung tumors in rat receiving chronic inhalation exposures to free carbon black at level that induce particle overload of the lung. Studies performed in animal models other than rats have not demonstrated an association between carbon black and lung tumors. Moreover, a two-year cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.

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## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Persistence and degradability** No data is available on the degradability of any ingredients in the mixture.

### Bioaccumulative potential

**Partition coefficient n-octanol / water (log K<sub>ow</sub>)** Not available.

**Bioconcentration factor (BCF)** Not available.

**Mobility in soil** Not available.

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

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## 13. Considerations on final disposal

### Recommended methods for final destination

<b>Residual waste</b>	Not available.
<b>Contaminated packaging</b>	Not available.
<b>Local disposal regulations</b>	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>.

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## 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.

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## 15. Regulatory information

### Federal regulations

**Colombia. Controlled Substances (Resolution No. 009 of 1987 nationally regulating the transport & use of substances in subparagraph. f) of article 20 of Law 30 of 1986, as amended)**

Not listed.

**Venezuela. Chemical Precursors (Official Gazette No. 34.741, List I & II)**

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.

#### Montreal Protocol

Not applicable.

#### Stockholm Convention

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Kyoto protocol

Not applicable.

#### Basel Convention

Not applicable.

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## 16. Other information

**Significant information, yet not specifically related to the previous sections** Not available.

## Disclaimer

This Safety Data Sheet document is provided without charge to customers of HP. Data is the most current known to HP at the time of preparation of this document 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 document was prepared to the requirements of the jurisdiction specified in Section 1 above and may not meet regulatory requirements in other countries.

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## 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