

**SAFETY DATA SHEET**

Product name: ML-D3477Series

Version #: 03

Issue date: 01-Jun-2018

Revision date: 31-Aug-2018

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Section II

1. Identification of the substance/mixture and of the company/undertaking**1.1. Substance/Mixture identifier**

ML-D3477Series

Other means of identification None.**1.2. Relevant identified uses of the substance or mixture and uses advised against****Identified uses** This product is a toner mixture that is used in printing systems.**Uses advised against** Do not use with non compatible printer.**1.3. Details of the supplier of the safety data sheet**HP Computer and Printing Technologies Limited Liability Company
Saray Mahallesi Dr. Adan Buyukdeniz Caddesi No:4 Umraniye, Pt. 8th Floor
Istanbul, TURKEY 34752**Telephone** +90 212 224 5925**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. Hazards identification****2.1. Classification of the substance or mixture****Physical hazards** Not classified.**Health hazards** Not classified.**Environmental hazards** Not classified.**2.2. Label elements****Hazard pictograms** None.**Signal word** None.**Hazard statements** The mixture does not meet the criteria for classification.**Precautionary statements****Prevention** Not available.**Response** Not available.**Storage** Not available.**Disposal** Not available.**2.3. 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****Mixture**

The components are not hazardous or are below required disclosure limits.

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4. First aid measures

4.1. Description of 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. DO NOT induce vomiting. Get medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed Difficulty in breathing. Coughing.

4.3. Indication of any immediate medical attention and special treatment needed Treat symptomatically.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Special fire fighting procedures	Move containers from fire area if you can do so without risk.

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. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	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.
For emergency responders	Not available.

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

6.3. Methods and material 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.

6.4. Reference to other sections See Section 8 of the SDS for Personal Protective Equipment. See also section 13 Disposal considerations.

7. Handling and storage

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

7.2. 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).

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7.3. Specific end use(s) Not available.

8. Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits No exposure limits noted for ingredient(s).
Biological limit values No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures Not available.

8.2. Exposure controls

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.

Individual protection measures, such as personal protective equipment

General information No personal respiratory protective equipment required under normal conditions of use.

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 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.

Environmental exposure controls Do not allow the spilled product to enter public drainage system or open water courses.

9. Physical and chemical properties

9.1. Information on basic 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 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.

Vapor pressure Not available.

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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.
Explosive properties	Not available.
Oxidizing properties	No information available.
9.2. Other information	Not available.

10. Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Stable under normal storage conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials.
10.5. Incompatible materials	This product may react with strong oxidizing agents.
10.6. Hazardous decomposition products	Carbon monoxide and carbon dioxide.

11. Toxicological information

General information	Not available.
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.
11.1. Information on toxicological effects	
Acute toxicity	Based on available data, the classification criteria are not met. LD50/oral/rat >5000 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	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).

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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.
Reproductive toxicity	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.
Mixture versus substance information	Not available.
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/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. 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.

12. Ecological information

12.1. Toxicity	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.
12.2. Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.
12.3. Bioaccumulative potential	Not available.
Partition coefficient n-octanol/water (log Kow)	Not available.
Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	Not available.
12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.
12.6. Other adverse effects	This product has not been tested for ecological effects.

13. Disposal information

13.1. Waste treatment methods	
Residual waste	Not available.
Contaminated packaging	Not available.
EU waste code	Not available.

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Disposal methods/information 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

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Annexes I, III, IV, Restrictions on Use, Placing on Market and Production of Dangerous Substances

Not listed.

List of Priority Substances, By-Law on Inventory and Control of Chemicals, No 27092

Not listed.

Prohibited Chemicals at Work. Regulation on Protection of Health and Safety Measures from Risks related to Chemical Agents at Work, Annex III

Not listed.

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

References Not available.

Information on evaluation method leading to the classification of mixture The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any H-statements not written out in full under Sections 2 to 15 None.

Revision information 1. Product and Company Identification: Alternate Trade Names

Training information Follow training instructions when handling this material.

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Compiler of the Safety Data Sheet	HP Inc.
Competency certificate number	Not available.
Competency certificate date	Not available.
Disclaimer	<p>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.</p>

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