SAFETY DATA SHEET

1. Identification of the substance or mixture and of the supplier

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. ***

1.1 GHS product identifier ML-1710Series

1.2 Other means of identification Not available.

1.3 Recommendations and restrictions on the use of substances or mixtures

Recommended use This product is a toner mixture that is used in printing systems.

Recommended restrictions Not available.

1.4 Supplier's details

HP Inc (Thailand) Ltd.
968 U Chu Liang Building, 3rd Floor, Rama IV Rd., Silom, Bangrak, BKK 10500
Bangkok, Bangkok, Thailand 10500

Telephone 66 2353 0888

Main Fax 66 2353 9555

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 GHS classification of substance or mixture, and national or regional information

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

2.2 GHS label elements

Hazard symbol(s) None.

Signal word None.

Hazard statement(s) Not available.

Precautionary statement(s)

Not available.

2.3 Other hazards which do not result in GHS 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. 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

3.2 Mixture

Chemical identity	Common name and synonym	CAS number and other unique identifiers	Concentration or concentration range
Black Pigment*		Proprietary*	<5
Paraffin waxes and Hydrocarbon waxes		8002-74-2	<2.5

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/effects, acute and delayed	Difficulty in breathing. Coughing.
4.3 Indication of immediate medical considerations and important specific treatment that should be performed	Treat symptomatically.
General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

5.1 Prohibited extinguishing media and suitable 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 Specific hazards arising from chemicals	During fire, gases hazardous to health may be formed.
5.3 Special protective equipment and precautions for fire-fighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
General fire hazards	No unusual fire or explosion hazards noted.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures	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.
6.2 Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
6.3 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

7.1 Precautions for safe handling, use and storage	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).

8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Black Pigment	TWA	3 mg/m3	Inhalable fraction.
Paraffin waxes and Hydrocarbon waxes (CAS 8002-74-2)	TWA	2 mg/m3	Fume.

Biological limit values	No biological exposure limits noted for the ingredient(s).
8.2 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.

8.3 Personal protective measures

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.
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

Physical state	Not available.
Form	Solid. Fine powder
Color	Black.
9.2 Odor	Odorless
9.3 Odor threshold limit	Not available.
9.4 pH	Not available.
9.5 Melting point/freezing point	Not available.
9.6 Initial boiling point and boiling range	Not available.
9.7 Flash point	Not available.
9.8 Evaporation rate	Not available.
9.9 Flammability (solid, gas)	Not available.

9.10 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.
9.11 Vapor pressure	Not available.
9.12 Vapor density	Not available.

9.14 Solubility(ies)

Solubility (water)	Insoluble in water.
Solubility (other)	Partially soluble in toluene, chloroform and tetrahydrofuran
9.15 Partition coefficient: n-octanol/water	Not available.
9.16 Auto-ignition temperature	Not available.
9.17 Decomposition temperature	> 392 °F (> 200 °C)
9.18 Viscosity	Not available.
Other information	Not available.
Oxidizing properties	No information 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

11.1 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.
11.2 Symptoms related to physical, chemical and toxicological characteristics	Not available.
11.3 Delayed and immediate effects, including chronic effects from short- and long-term exposure	Not available.

11.4 Numerical values of toxicity

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

Components	Species	Test Results
Black Pigment		
Acute		
Oral		
LD50	Rat	> 10000 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).

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.

IARC. Monographs on the evaluation of carcinogenic risks to humans

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

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.

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.

In 1996, the IARC revaluated 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 Ecological 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.

12.4 Mobility in soil

Not available.

12.5 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.

Local disposal regulations

Not available.

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 regulation/legislation specific for the substance or mixture

Hazardous substances in the work place (DLPW Notification Re: List of Hazardous Chemicals, Royal Gazette, Vol. 130 Part 185 Ngor, issued December 20, B.E.2556 (2013))

Not listed.

Thailand. Explosive Substances & Precursors (Ministry of Defense Notification Re: Arms Subject to Imports License)

Not regulated.

Thailand. Reportable Hazardous Substances (Notification of Ministry of Industry Re: Bases respecting report of quantity of hazardous materials under Department of Industrial Works, B.E. 2547)

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.

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

Issue date	09-Jan-2019
Revision date	21-Oct-2020
Version #	03
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. 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