



***Tally***<sup>®</sup>

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# Material Safety Data Sheet

T8x04 & T8x06

Black Toner

044956/083235 & 044997/083205

MATERIAL SAFETY DATA SHEET

Black toner      083235      083205

Date of preparation : October 10, 1997

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 IDENTIFICATION OF THE SUBSTANCE OR PREPARATION

PRODUCT NAME : HK-12

DESCRIPTION: Toner powder for Laser Beam Printer.

1.2 COMPANY/UNDERTAKING IDENTIFICATION

MANUFACTURER: Hitachi, Ltd. Toyokawa Works  
9-5 Noguchimae, Shiratori-cho,  
Toyokawa-shi, Aichi, JAPAN 442-0848  
Phone 0533-89-8020

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS OF TONER

<u>Principal Components (CAS No.)</u>	<u>wt%</u>	<u>EU<sup>1)</sup></u>	<u>OSHA<sup>2)</sup></u>	<u>ACGIH<sup>3)</sup></u>	<u>DFG<sup>4)</sup></u>
Polyester Resin (41259-36-3)	>79%	—	—	—	—
Polypropylene Wax (9003-07-0)	0.5-5%	—	—	—	—
Organic Boron Compound (114803-11-1)	0.1-3%	—	—	—	—
Carbon Black (1333-86-4)	3-10%	—	3.5mg/m <sup>3</sup>	3.5mg/m <sup>3</sup>	—
Silica (68909-20-6)	<3%	—	—	—	—

—: Not designated.

SECTION 3 HAZARDS IDENTIFICATION OF TONER

POTENTIAL HEARTS EFFECTS:

INGESTION: Ingestion is not applicable route of entry for intended use.

**INHALATION:** Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.

**EYE CONTACT:** May cause eye irritation.

**SKIN CONTACT:** Unlikely to cause skin irritation.

#### SECTION 4 FIRST AID MEASURES ON TONER

**INGESTION:** If swallowed, do not induce vomiting. Call a physician.

**INHARATION:** Remove to fresh air. Treat any irritation symptomatically. Call a physician.

**EYE CONTACT:** In case of contact, immediately flush with plenty of low pressure water for at least 15 minutes. Call a physician.

**SKIN CONTACT:** Wash with soap and running water.

#### SECTION 5 FIRE FIGHTING MEASURES ON TONER

**FLASH POINT (Method used):** No data available

**IGNITION TEMPERATURE:** No data available

**FLAMMABILITY:** No data available

**FLAMMABLE LIMIT:** No data available

**EXTINGUISHING MEDIA:** CO<sub>2</sub>, Form, Water, Dry Chemicals

**SPECIAL FIRE FIGHTING PROCEDURES:** None. Keep sources of ignition at a distance.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Toner is combustible. Explosive limits of toner particles suspended in air approximately equal to that of coal dust.

#### SECTION 6 ACCIDENTAL RELEASE MEASURES

Loose toner can be removed using vacuum cleaner. Residue can be removed with soap and water.

#### SECTION 7 HANDLING AND STORAGE

- a) Storage; Store container in a dry / cool place.
- b) Handling; Open and handle container with care.

#### SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

##### EXPOSURE LIMITS FOR TONER:

USA OSHA (TWA<sup>9</sup>/PEL): No data available

ACGIH (TWA/TLV): No data available

DFG (MAK): No data available

(Also refer to SECTION 2.)

RESPIRATORY PROTECTION: None (under normal use)  
VENTILATION: Good general ventilation should be sufficient under intended use.  
PROTECTIVE GLOVES: Not necessary.  
EYE PROTECTION: Not required under intended use.  
OTHER PROTECTIVE EQUIPMENT: Not required under intended use.

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES OF TONER

BOILING POINT: N.A. (Not applicable)  
SOFTNING POINT: 95-110 °C  
VAPOR PRESSURE (mmHg): N.A.  
VAPOR DENSITY (AIR=1): N.A.  
SOLUBILITY IN WATER: Negligible  
SOLUBILITY IN ORGANIC SOLVENTS: Soluble in toluene and methyl ethyl ketone.  
SPECIFIC GRAVITY (H<sub>2</sub>O=1): 1.1  
PERCENT VOLATILE BY VOLUME: N.A.  
EVAPORATION RATE (BUTHYL ACETON=1): N.A.  
PH: N.A.  
APPEARANCE AND ODOR: Black fine powder, slight plastic oder.

### SECTION 10 STABILITY AND REACTIVITY OF TONER

STABILITY: Stable  
INCOMPATIBILITY: Strong oxidizers  
HAZARDOUS DECOMPOSITION PRODUCTS:  
Combustion will produce carbon dioxide and, possibly toxic chemicals such as carbon monoxide.  
HAZARDOUS POLYMERIZATION: Will not occur

### SECTION 11 TOXICOLOGICAL INFORMATION ON TONER

ACUTE TOXICITY:  
INGESTION: No data available  
EYE CONTACT: No data available  
SKIN CONTACT: No data available  
CHRONIC TOXICITY: No data available  
OTHER TOXIC DATA:  
MUTAGENEICITY: Negative (Ames Test: Salmonella typhimurium and Escherichia coli)

CARCINOGENECITY:

No carcinogen or potential carcinogen, according to IARC Monographs<sup>6)</sup>, NTP<sup>7)</sup>, OSHA (USA) regulation.

IARC's overall evaluation is that

"carbon black is possibly carcinogenic to humans (Group 2B) "

SECTION 12 ECOLOGICAL INFORMATION

No data are available as to its effects on the environment.

SECTION 13 DISPOSAL CONSIDERATIONS

Taking into consideration the local authority regulation, it must undergo a special treatment, e.g. suitable disposal site.

SECTION 14 TRANSPORT INFORMATION ON TONER

INTERNATIONAL TRANSPORT INFORMATION:

UN NO.: None  
HAZARD CLASS: None  
PACKING GROUP: None  
SPECIAL PRECAUTIONS: None

SECTION 15 REGULATORY INFORMATION

CHEMICALS REQUIRED TO REPORT UNDER SARA TITLE III § 313 (USA):

None

LABEL INFORMATION ACCORDING TO THE DIRECTIVE 88/379EEC AND 67/548/EEC (EU):

SYMBOL AND INDICATIONS: None  
R PHRASES: None  
S PHRASES: None  
DANGEROUS COMPONENT (CAS No.) wt%  
None  
OTHER: None

SPECIFIC PROVISIONS IN RELATION TO PROTECTION OF MAN  
OR THE ENVIRONMENT (EU):

REGULATION (EEC) 2455/92: None  
DIRECTIVE 76/769/EEC: None  
OTHER: None

SECTION 16 OTHER INFORMATION

This information relates only to the specific material designated and may not be valid for such material used in combination with any other material or any other process. It is based on the level of our knowledge as of the date of preparation.

Abbreviations

- 1) "EU" stands for ILV (Indication Limit Value) under EU Directive 91/322/EEC.
- 2) "OSHA" stands for PEL (Permissible Exposure Limit) under Occupational Safety and Health Administration.
- 3) "ACGIH" stands for TLV (Threshold Limit Value) under American Conference of Governmental Industrial Hygienists.
- 4) "DFG" stands for MAK (Maximale Arbeitsplatzkonzentrationen) under Deutsche Forschungsgemeinschaft.
- 5) "TWA" stands for Time Weighted Average.
- 6) "IARC" stands for International Agency for Research on Cancer.
- 7) "NTP" stands for National Toxicology Program (USA).