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## ***MATERIAL SAFETY DATA SHEET***

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### **Section 1: Chemical Product and Company Information**

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Identity: **Toner for 1210, 1240, 1260**  
Product ID: 491-0282

MSDS No. **FX-071**  
Issued: 12/10/2000  
Supersedes: **1/28/98**  
Date: **12/10/2000**

Synonyms  
& Common

Names: Toner, Black Toner

Prepared by: **Lanier QA/EH&S Department**

Uses: 1210, 1240, 1260 Fax

European **Lanier Worldwide**, WSM Europe,  
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Chemical  
Formula: Mixture

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### **Section 2: Composition / Information on Ingredients**

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	<b>PERCENT</b>		<b>CAS No.</b>	<b>EXPOSURE LIMITS</b>	<b>SOURCE</b>
Polyester resin	> 85	┌ └	confidential	not listed	n/a
Carbon black	1 ~ 5		1333-86-4	3.5mg/m <sup>3</sup> 3.5mg/m <sup>3</sup>	OSHA PEL ACGIH TLV
Polyolefin wax	1 ~ 5		confidential	not listed	n/a
Organic pigment	1 ~ 5		confidential	not listed	n/a
Quaternary ammonium salt	< 1		confidential	not listed	n/a

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### **Section 3: Hazards Identification**

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### Hazard Rating: HMIS / NFPA

FLAMMABILITY = 1

HEALTH = 1

REACTIVITY = 0

SPECIAL = none

### Emergency Overview

Product is stable. If used as intended, the product does not present an acute or chronic health hazard.

### Physical Hazards

#### Routes of Exposure

##### Inhalation

##### Eye Contact

##### Dermal Contact

##### Ingestion

Dust explosion (like most finely divided organic powders)

Inhalation, eye contact, incidental ingestion.

Excessive inhalation may cause irritation of the nose, throat and respiratory tract.

Not an irritant.

Not an irritant; not a sensitizer.

None currently known.

### Chronic Effects/ Carcinogenicity :

#### Reproductive/Developmental

#### Target Organs

See Section 11.

None identified.

Prolonged breathing of high concentrations may cause adverse effects on the respiratory system.

Prolonged exposure to this product may irritate the respiratory system.

### Signs & symptoms of exposure

#### Medical conditions aggravated by exposure

Respiratory disorders, such as asthma, may be aggravated by prolonged exposure to high concentrations of this product.

## Section 4: First Aid Measures

**Inhalation:** Remove to fresh air if effects occur. Contact a physician if there is any difficulty in breathing or other signs of distress.

**Skin Contact:** Wash with soap and water. Wash clothing before reuse. If irritation occurs or is persistent, seek medical attention.

**Eye Contact:** In case of contact, immediately flush eyes with water for 15 minutes. If irritation persists, call a physician.

**Ingestion:** Dilute stomach contents with several glasses of water. Call a physician.

## Section 5: Fire Fighting Measures

**Suitable extinguishing media:** CO<sub>2</sub>, dry chemical, foam or water spray

**Extinguishing media which may not be used for safety reasons:** full water jet

**Unusual Fire & Explosion Hazard:** Combustible powder. Dust of this product at sufficient concentrations can form explosive mixtures with air.

This material will burn in case of fire. The decomposition products are CO, CO<sub>2</sub>, and smoke.

**Special protective equipment for fire fighters:** Use self-contained breathing apparatus

**UEL:** n/a

**LEL:** n/a

## Section 6: Accidental Release Measures

Sweep up or clean up with an approved toner vacuum. Carefully transfer into a sealable waste container. Residue can be removed with soap and cold water.

## Section 7: Handling and Storage

**Special Handling:** Avoid dust, keep away from ignition sources.

**Special Storage:** No special storage requirements for safety reasons. Store in a cool dry place.

## Section 8: Exposure Control and Personal Protection Information:

**Respiratory Protection:** none required under normal use.

**Hand Protection:** none required under normal use.

**Eye Protection:** none required under normal use.

**Skin Protection:** none required under normal use.

**Exposure Limits:** OSHA (TWA/PEL as the product) 15mg/m<sup>3</sup> (total dust), 5mg/m<sup>3</sup> (respirable dust)

ACGIH (TWA/TLV as the product) 10mg/m<sup>3</sup> (total dust)

DFG-MAK 6mg/m<sup>3</sup> (total dust)

Worksafe-TWA (Australia) 10mg/m<sup>3</sup> (total dust)

*Information on this data sheet represents our current data and best opinion as to the proper use in handling of this product under normal conditions.*

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### Section 9: Physical and Chemical Properties

#### CHARACTERISTICS:

Appearance:	Black	Softening point:	120 - 130 °C
Form:	Fine powder	Vapor pressure:	n/a
Odor:	Faint odor	Vapor density:	n/a
Solubility in Water:	Negligible	Evaporation rate:	n/a
Specific gravity:	1.2	Boiling point:	n/a
Particle size	5 ~ 15 µ m	Ignition temp	450°C

### Section 10: Stability and Reactivity

**Conditions to avoid:** Electronic discharge, throwing into fire

**Materials to avoid:** Oxidizing materials

**Stability:** Stable

**Hazardous decomposition products:** CO and CO<sub>2</sub> when burned.

### Section 11: Toxicological Information:

**Acute oral toxicity** (rat) LD<sub>50</sub>: Over 5.0 g/kg

**Acute Inhalation:** LC<sub>50</sub> (4H) is in excess of 0.74 g/m<sup>3</sup> (rat)

**Mutagenicity:** Ames Test result: Negative

**Dermal:** LD50 Over 2.0 g/kg (rat)

**Skin sensitizer:** None indicated (Guinea-pig)

**Eye Irritation:** Not an irritant (rabbit)

**Carcinogenicity:** 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 development of lung tumors in rats receiving chronic inhalation exposures to free carbon black at a level that induce particle overload of the lungs. Studies performed in mice 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 and tumor development in rats.

**Chronic Effects:** In a chronic inhalation study in rats using a special test toner revealed there were no lung changes at all in the lowest exposure level (1mg/m<sup>3</sup>), the most relevant level to potential human exposures. A very slight degree of fibrosis was noted in 25% of the animals at the middle

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exposure level (4mg/m<sup>3</sup>), while a slight degree of fibrosis was observed at the highest exposure level (16mg/m<sup>3</sup>) in all animals. These findings are attributed to "Lung Overloading", a generic response to excessive amount of any dust retained in the lungs for a prolonged interval. The special test toner was ten times more respirable than commercially available toner to comply with EPA testing protocol and would not function properly in xerographic equipment.

### Section 12: Environmental / Ecological Information

Mobility: No data is available on the adverse effects of this material on the environment.  
Persistence/Degradability: No data is available on the adverse effects of this material on the environment.  
Bioaccumulation: No data is available on the adverse effects of this material on the environment.  
Ecotoxicity: Behavior in Sewage works: No data is available on the adverse effects of this material on the environment.  
Aquatic Toxicity: No data is available on the adverse effects of this material on the environment.  
Ecological Data (EC) Csb Value (EC): No data is available on the adverse effects of this material on the environment.  
AOX-Remark (EC): No data is available on the adverse effects of this material on the environment.  
BsB5 Value (EC): No data is available on the adverse effects of this material on the environment.  
Significant Components(EC): Not applicable

### Section 13: Disposal Consideration

Waste material may be disposed or incinerated under conditions which meet all federal, state and local environmental regulations.  
Empty plastic container may be recycled.

### Section 14: Transportation Information

**Special Precautions:** None  
**International Transport Information:** UN Classification number: None DOT Identification number: None  
Domestic Transportation : n/a Land RID(EC): None ADR(EC): None Inland Waterways ADNR (Rhine R.): None Sea: IMDG: None  
Air: ICAO-TI: None IATA-DGR: None

### Section 15: Regulatory Information

**OSHA Hazard Communication Standard, 29 CFR 1910.1200:** Not regulated  
**TSCA:** All chemical substances in this product comply with all applicable rules or orders under TSCA  
**RCRA, 40 CFR 261:** Not regulated  
**NTP Annual Report on Carcinogens:** Not listed as a NTP carcinogen  
**IARC:** See Section 11  
**California Proposition 65:** Neither toner, nor any of its components, are listed as chemicals known to the state of California to cause cancer.  
**Controlled Products Regulations (Canada):** This product has been classified in accordance with the hazard criteria of the CPR.  
**Other State Regulations:** Carbon Black is listed in the New Jersey Right To Know List, Pennsylvania Hazardous Substance List and Massachusetts Substance List.  
**U.S. / Canada Label Standards:** LOW HAZARD FOR RECOMMENDED HANDLING. Minimize dust generation and accumulation.  
Use with adequate ventilation.  
**EU Information**  
**Label Information according to Directives 67/548 EEC & 88/379 EEC:**  
Symbol & Indication: Not required Risk Phase: Not required Safety Advice Phase: Not required  
**EEC Directive (76/548 EEC, 79/831, 92/32 EEC):** All chemical substances in this product comply with all applicable rules or order under EEC Directive.

### Section 16: Miscellaneous Information

**Notice:** Judgments as to the suitability of information contained herein for purchaser's purposes are the purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, Lanier Worldwide, Inc. extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use. All materials may present unknown hazards and should be used with caution. Although certain hazards are described within, we do not guarantee that these are the only hazards which exist.

**References:** IARC (1996) IARC Monographs on the Evaluation of the Carcinogenic Risks of Chemical to Humans, Vol. 65, Printing Processes and Printing Inks, Carbon Black and Some Nitro Compounds, Lyon, pp. 149-261.  
H. Muhle, B. Bellmann, O. Creutzenberg, C. Dasenbrock, H. Ernst, R. Kilpper, J.C. MacKenzie, P. Morrow, U. Mohr, S. Takenaka, and R. Mermelstein (1991).  
Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats, Fundamental and Applied Toxicology 17, pp 280-299.

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### Abbreviations:

- (1) OSHA PEL ; Permissible Exposure Limit under Occupational Safety and Health Administration. (USA)
- (2) ACGIH TLV; Threshold Limit Value under American Conference of Governmental Industrial Hygienists. (USA)
- (3) DFG-MAK; Maximale Arbeitsplatzkonzentrationen under Deutsche Forschungsgemeinschaft.
- (4) TWA; Time Weighted Average.
- (5) IARC; International Agency for Research on Cancer.
- (6) NTP; National Toxicology Program. (USA)
- (7) NIOSH; National Institute for Occupational Safety and Health. (USA)
- (8) DOT; Department of Transportation. (USA)

On the basis of the data available to us, this toner is not a dangerous substance. One should, however , observe the usual precautionary measures for dealing with chemicals.