



A RICOH COMPANY

MATERIAL SAFETY DATA SHEET

Lanier Worldwide, Inc.
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2979

Emergency Telephone: 800-526-4371

Section 1: Chemical Product and Company Information

Identity:	LF310 Toner	MSDS No.	CP- 352
Product ID:	491-0317	Issued:	03/05/2002
Synonyms & Common Names:	Toner for Lanier LF310	Supersedes:	None
Uses:	Lanier LF310	Date:	03/05/2002
Chemical Formula:	Mixture	Prepared by:	EH&S Department 770-496-9500
		Approved by:	Larry Choskey, Manager, CEH&S
		European Contact:	Walter Fricke, Manager, Safety & Environment, Lanier Worldwide, Inc. Im Taubental D-41468 Neuss, Germany +49-2131-387-177

Section 2: Composition / Information on Ingredients

	PERCENT	CAS No.	EXPOSURE LIMITS	SOURCE
Polyester resin	50 – 80	Confidential	8 mg/m ³ 10 mg/m ³	ACGIH TWA ACGIH STEL
Styrene acrylic polymer	10 – 40	25767-47-9	Not listed	N/a
Carbon black	< 15	1333-86-4	3.5 mg/m ³ 3.5 mg/m ³	OSHA PEL ACGIH TWA
Wax	< 5	8015-86-9	Not listed	N/a
Dye	< 5	31714-55-3	Not listed	N/a

*PEL as the product: 15mg/m³ (total dust), 5mg/m³ (respirable dust)

*TLV as the product: 10mg/m³ (total dust), 5mg/m³ (respirable dust)

Section 3: Hazards Identification

HMIS Rating:
FLAMMABILITY = 1
REACTIVITY = 0
HEALTH = 1
SPECIAL = none

Health Hazards (Acute, Chronic, Immediate and Potential): Minimum irritation to respiratory tract may occur as with exposure to any non-toxic dust. May cause gasping if inhaled. Inhalation should be avoided. May cause temporary eye discomfort.

Health Hazards of Long Term exposure (Chronic): Prolonged inhalation of excessive dust may cause lung damage. It is attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lungs for a prolonged interval. Use of this product, as intended, does not result in inhalation of excessive dust.

Carcinogenicity: Carbon Black was reclassified as a Group 2B by the IARC in 1996 based upon the result of only the inhalation study in rats. However, there was not observed the incidence of tumors on the test results on dermal or oral studies. Also, 2-years inhalation study using a typical toner containing carbon black showed no association between toner exposure and animal tumors.

Section 4: First Aid Measures

Inhalation:	Gargle with water. Remove to fresh air if effects occur. Get medical attention if needed.	Eye Contact:	In case of contact, immediately flush eyes with water for 15 minutes. Get medical attention if needed.
Skin Contact:	Wash with soap and water.	Ingestion:	Dilute stomach contents with several glasses of water. Get medical attention.

Section 5: Fire Fighting Measures

Suitable extinguishing media: CO₂, dry chemical, foam or water. Extinguishing media which may not be used for safety reasons: none

Special protective equipment for fire fighters: none
UEL: n/a LEL: n/a

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Section 6: Accidental Release Measures

Spill / leak Procedures: If spilled, sweep up using an approved toner vacuum with a 0.5 micron filter or smaller, such as the Atrix AAA Toner Vacuum or 3M Toner Vacuum. Use of a vacuum cleaner not rated for toner particles, could result in a fire or personal injury. Remove residue with soap and cold water.

Miscellaneous: Keep product out of sewers and watercourses.

Personal protection: Avoid inhalation of dust.

Section 7: Handling and Storage

Special Handling: Cleanse skin after contact before breaks or meals, and end of workday.
Do not handle in areas where the wind blows.

Special Storage: Minimize the breathing of dust.
Avoid direct sunlight. Keep out of reach of children. Store in a cool, dry place. Below 35C (95F)

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.

Section 9: Physical and Chemical Properties

CHARACTERISTICS:

Appearance:	Black	Melting point:	N/a
Form:	Powder	Vapor pressure:	N/a
Odor:	Slight plastic odor	Vapor density:	N/a
Solubility in Water:	Insoluble	Evaporation rate:	N/a
Specific gravity:	N/a	Boiling point:	N/a
Bulk Density:	1.2 g/cm ³		

Section 10: Stability and Reactivity

Conditions to avoid: none

Materials to avoid: none

Stability: Stable

Hazardous decomposition products: Styrene

Section 11: Toxicological Information:

Ames test negative

Acute skin irritation: Non-irritant

Acute oral toxicity: 5000mg/kg (rat)

Acute allergic effects: non-skin sensitive

Special effects: Carcinogenicity: In 1996 the IARC reclassified 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 levels 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, 2-years cancer bioassay using a typical toner preparation containing carbon black did not demonstrate an association between toner exposure and tumor development in rats.

Section 12: Environmental / Ecological Information

Acute toxicity to fish: >500 (mg/kg/96hr)

Bioaccumulation: Not known in bioaccumulation

Persistence/Degradability: Not known

Acute toxicity to daphnia: Not available

Algae inhibition test: Not available

Section 13: Disposal Consideration

Used Toner should be disposed of under conditions that meet all federal, state and local environmental regulations. Disposal regulations vary from locality to locality; therefore consult your local Lanier office or the EPA to determine the proper method for disposal. Do not incinerate loose or spilled Toner.

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

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Section 14: Transportation Information

International regulations:

RID/ADR	Not applicable	ICAO-TI/ATA-DGR	Not applicable
DOT 49 CFR	Not applicable	UN Classification Number	Not applicable
ADNR	Not applicable	IMDG Code	Not applicable

Specific precautionary transport measures: Avoid direct sunlight. Do not keep over 35°C (95°F).

Specific material to avoid: None in normal use.

Section 15: Regulatory Information

Regulation: Not known

Section 16: Miscellaneous Information

Judgment as to the suitability of information contained herein for user's purposes is the responsibility of the purchaser. Therefore, although reasonable care has been taken in the preparation of this 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 user'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 herein, we do not guarantee that these are the only hazards that exist.

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