



Lanier Worldwide, Inc.
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MATERIAL SAFETY DATA SHEET

Section 1: Chemical Product and Company Information

Identity:	Developer for M3800	MSDS No.	FX-048
Product ID:	491-0249	Issued:	2/16/98
Synonyms & Common Names:	Developer for Lanier M3800, 4500, 6500	Supersedes:	10/1/92
Uses:	M3800, 4500, 6500 FAX	Date:	2/16/98
Chemical Formula:	Mixture	Prepared by:	Lanier QA/EH&S Department
		European Contact:	Lanier Worldwide, WSM Europe, Walter Fricke, Im Taubental D-41468 Neuss, Germany +49-2131-387-177

Section 2: Composition / Information on Ingredients

	CAS No.	PERCENT	EXPOSURE LIMITS	SOURCE
Carbon black	1333-86-4	0.3	3.5mg/m ³ 3.5mg/m ³	OSHA PEL ACGIH TLV
Ferrite	1309-37-1 1317-38-0 1314-13-2	95	not listed not listed not listed	n/a n/a n/a
Styrene acrylate copolymer	27136-15-8	4.7	not listed	n/a
Polypropylene	25085-53-4		not listed	n/a
Iron oxide	1317-61-9		not listed	n/a
Organic pigment	84179-66-8		not listed	n/a
	109125-50-0 109125-51-1		not listed not listed	n/a 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

Hazard Rating:

FIRE = 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): A manufacturer sponsored chronic inhalation study in rats using a special test toner revealed there were no lung changes at all in the lowest exposure level (1mg/m³), the most relevant level to potential human exposures. A very slight degree of fibrosis was noted in 25% of the animals at the middle exposure level (4mg/m³), while a slight degree of fibrosis was observed at the highest exposure level (16mg/m³) 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 4: First Aid Measures

Inhalation:	Remove to fresh air if effects occur. Consult local medical personnel	Eye Contact:	In case of contact, immediately flush eyes with water for 15 minutes.
Skin Contact:	Wash with soap and water.	Ingestion:	Dilute stomach contents with water. Call a physician

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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

This material will burn in case of fire. The decomposition products are CO, CO₂, and No_x. Avoid inhalation of smoke.

Special protective equipment for fire fighters: Wear SCBA and full protective gear.

UEL: n/a LEL: n/a

Section 6: Accidental Release Measures

Sweep up or clean up with an approved toner vacuum.

Section 7: Handling and Storage

Special Handling: Cleanse skin after contact before breaks or meals, and end of work day. Avoid inhalation.

Special Storage: Keep out of reach of children. 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.

Section 9: Physical and Chemical Properties

CHARACTERISTICS:

Appearance:	Black	Melting point:	n/a
Form:	Fine powder	Vapor pressure:	n/a
Odor:	Odorless	Vapor density:	n/a
Solubility in Water:	Negligible	Evaporation rate:	n/a
Specific gravity:	4.13	Boiling point:	n/a

Section 10: Stability and Reactivity

Conditions to avoid: none

Materials to avoid: none

Stability: Stable

Hazardous decomposition products: CO, CO₂, and NO_x when burned.

Section 11: Toxicological Information:

Acute oral toxicity (rat) LD₅₀: Over 5.0 g/kg Ames Test result: Negative

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.

Section 12: Environmental / Ecological Information

None

Section 13: Disposal Consideration

Waste material may be dumped or incinerated under conditions which meet all federal, state and local environmental regulations.

Section 14: Transportation Information

None. This is not a hazardous product.

Section 15: Regulatory Information

None.

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.

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 toner is not a dangerous substance. One should, however, observe the usual precautionary measures for dealing with chemicals.