Lanier Worldwide, Inc.
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Atlanta, GA 30345-2979
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MATERIAL SAFETY DATA SHEET

Section 1: Chemical Product and Company Information

Identity:	**Developer for 5635 / 5645**	MSDS No.	**CP- 719**
Product ID:	480-0054	Issued:	04/23/01
		Supersedes:	**None**
Synonyms & Common Names:	Black Developer for Lanier 5635, 5645	**Date:**	**04/23/01**
		Prepared by:	**EH&S Department 770-496-9500**
		Approved by:	Larry Choskey, Manager, CEH&S
Uses:	Lanier 5635, 5645 Digital Copier	**European Contact:**	Walter Fricke, Manager, Safety & Environment, Lanier Worldwide, Inc. Im Taubental D-41468 Neuss, Germany +49-2131-387-177
Chemical Formula:	Mixture		

Section 2: Composition / Information on Ingredients

	PERCENT	CAS No.	EXPOSURE LIMITS	SOURCE
Ferrite powder	5 – 20	1317-38-0	10mg/m^3	ACGIH TWA
Ferrite powder	5 – 20	1314-13-2	5mg/m^3	ACGIH TWA
Ferrite powder	60 – 80	1309-37-1	N/a	N/a
Polyester resin	< 5	117581-13-2	N/a	N/a
Polyester resin	< 5	116736-81-3	N/a	N/a
Polyester resin	< 1	149367-99-7	N/a	N/a
Carbon black	< 1	1333-86-4	3.5mg/m^3 3.5mg/m^3	OSHA PEL ACGIH TLV

*PEL as the product: 15mg/m^3 (total dust), 5mg/m^3 (respirable dust)
*TLV as the product: 10mg/m^3 (total dust), 5mg/m^3 (respirable dust)

Section 3: Hazards Identification

HMIS Rating:

HEALTH = 1	FLAMMABILITY = 1
REACTIVITY = 0	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 of excessive amounts of manganese may cause pneumonitis. May cause eye irritation.
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/m^3), 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/m^3), while a slight degree of fibrosis was observed at the highest exposure level (16mg/m^3) 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.
Carbon Black is listed on the IARC Monograph and the Massachusetts Substance List. The IARC has evaluated the evidence for the carcinogenicity of Carbon Black as inadequate to determine a carcinogenic risk for humans.
Prolonged inhalation of excessive amounts of manganese may cause lung damage and nervous system effects. Use of this product does not result in inhalation of excessive amounts of manganese.

Section 4: First Aid Measures

Inhalation:	Remove to fresh air if effects occur. Gargle with water. 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 if needed.

Section 5: Fire Fighting Measures

Suitable extinguishing media: CO_2, dry chemical, foam or water.
Extinguishing media which may not be used for safety reasons: none
Unusual Fire and Explosion Hazards: Toner material, like most organic material in powdered form, is capable of creating a dust explosion.
Flammability: Non-flammable solid The decomposition products are CO, CO_2, and No_x. Avoid inhalation of smoke.
Special protective equipment for fire fighters: none

UEL: n/a LEL: n/a

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.
Special Storage:	Store in a cool, dry place. Below 35C (95F). Avoid direct sunlight. Keep out of reach of children. Keep from contact with oxidizing materials.
Miscellaneous:	Do not handle in windy areas. Flying powder may enter eyes. Minimize inhalation of dust. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work periods.

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.
Ventilation: Local exhaust equipment is needed. Skin Protection: none required under normal use.
Exposure Guidelines: USA OSHA (TWA/PEL) : 15mg/m^3 (Total Dust); 5mg/m^3 (Respirable fraction)
ACGIH (TWA/TLV) : 10mg/m^3 (Total dust); 3mg/m^3 (Respirable fraction)
DFG (MAK) : 6mg/m^3 (Total dust)

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:	Negligible	Evaporation rate:	N/a
Density:	5	Boiling point:	N/a
Flammability:	Non-flammable solid (according to test methods of USA 16 CFR 1500.44 and annex V of EU Directive 84/449/EEC)		

Section 10: Stability and Reactivity

Conditions to avoid: none Materials to avoid: none Stability: Stable
Hazardous decomposition products: CO and CO2 and other decomposition products when burned.

Section 11: Toxicological Information:

Acute Toxicity:
Mutagenicity: Negative (Ames Test)
Acute Oral Effects: 5000mg/kg – rat (main ingredients)
Carcinogenicity: Carbon Black: IARC 2B (Possible human carcinogen based on animal testing). Not listed in NTP, OSHA(USA) regulation, California Proposition 65 and Annex I of EU Directive 67/548/EEC.

Section 12: Environmental / Ecological Information

No information indicating any adverse ecological effects.

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.

Section 14: Transportation Information

None. This is not a hazardous product.

Section 15: Regulatory Information

SARA Title III, 313:n/a
Carbon Black is listed on the New Jersey Right to Know List, Pennsylvania Hazardous Substance List and Massachusetts Substance List.
USA Label Information: Low hazard for recommended handling. Minimize dust generation and accumulation. Use with adequate ventilation.
Canadian Disclosure List: Ferrite powder 1314-13-2

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.*

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.