Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Manufacturer Dell Computer Corporation
One Dell Way
Round Rock,TX 78682
Information 1-800-W W W-DELL
Emergency 1-800-551-8553

Product Name:

Dell Color Laser Printer 5110cn
Toner Cartridge(Black) (B)JD746

2. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Nature:

Chemical Name	Ingredients (% by wt.)	CAS Registry Number
Polyester	60 – 80	—
Mn-Mg-Sr ferrite powder	1 – 20	—
Carbon black	1 – 10	1333-86-4
Amorphous silica	1 – 10	—
Paraffin waxes	<5	—

UN Hazard Class : None UN Number : None

3.HAZARDOUS IDENTIFICATION

Physical and Chemical Hazard: None
Adverse Human Health Effects: None
Environmental Effects: None

4.FIRST-AID MEASURES

Eye contact : Flush with a large amount of water for at least 15 minutes. Seek medical advice.
Skin contact: Wash with soap and water.
Inhalation: Remove from exposure and provide fresh air. Rinse mouth with water.
Ingestion: Rinse mouth with water. Give several glasses of water to drink and seek medical advice.

5.FIRE-FIGHTING MEASURES

Specifid method: In case of fire use extinguishing media.
When in a machine, treat as an electrical fire.

Extingishing media: Water spray, Foam, Dry chemicals

6.ACCIDENTAL RELEASE MEASURES

Shut off ignition sources. For small spills, sweep up or soak up with damp cloth.
For large spills, wear proper protective equipment and place waste material in closed container.
Dispose of in accordance with national and local regulations.

7.HANDLING AND STORAGE

Handling: Do not incinerate toner or a toner cartridge. Do not dissemble a cartridge.

Storage: Keep in cool, dry and well-ventilated area. Keep out of reach of children.

8.EXPOSURE CONTROL /PERSONAL PROTECTION

Control Parameter
ACGIH TLV (2005): 10 mg/m^3 (Total)
3 mg/m^3 (Respirable)

Precautionary Measures: None required when used as intended in Dell equipment.
For use other than normal customer operating procedures(such as in bulk toner processing facilities), local exhaust ventilation may be required.

Personal Protective Equipment: None required when used as intended in Dell equipment.
For use other than normal customer operating procedures(such as in bulk toner processing facilities), protective glove, goggles and respirators may be required.

9.PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor:	Black Powder / Faint Odor		
Boiling Point(OC):	Not applicable	Vapour Pressure:	Not applicable
Volatile (%):	Not applicable	Softening Point:	Not available
Specific Gravity(H_2O=1):	Not available	Initial Boiling Point:	Not applicable
Solubility in water:	Negligible	Other Data:	None

10.STABILITY AND REACTIVITY

Flash Point(OC): Not applicable Auto-Ignition Temperature:Not applicable

Explosion Limit: Not applicable

Flammability: Not flammable under conditions of use

Spontaneous Combustibility / Reactivity with water: None

Self-reactivity / Explosive: None

Dust Explosive: Like most organic materials in powder form, it can form explosive mixtures when dispersed in air.

Stability and Reactivity: Stable

Other Data: None

11.TOXICOLOGICAL INFORMATION

Skin Corrosive:	None		
Skin Irritant (rabbit):	Not an irritant [1)]	Eye Irritant (rabbit): Not an irritant [1)]	
Human Patch:	Not available		
Sensitization:	Skin (guinea-pig)	: Not a sensitizer [1)]	
Acute Toxicity:	Swallowed→LD50 (rat)	: > 5000 mg/kg[1)]	(practically non-toxic)
	Skin→LD50 (rabbit)	: > 5000mg/ kg[1)]	(practically non-toxic)
	Inhaled→LC50 (rat)	: > 5mg/L/4hr[1)]	(practically non-toxic)

Chronic Toxicity : The results obtained from a supplyer sponsored, Chronic Toner Inhalation Study, demonstrated no lung change in rats for the lowest (1mg/m3) exposure level (i.e. the level most relevant to potential human exposure). A very slight degree of fibrosis was noted in 25% of the animals at the middle (4mg/m3) exposure level, while a slight degree of fibrosis was noted in all the animals at the highest (16 mg/m3) exposure level. These findings are attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lungs for a prolonged period. This study was conducted using a special test toner to comply with EPA testing protocol. The test toner was ten times more respirable than commercially available supplyer toner, and would not be functionally suitable for Dell equipment.[1)]

Carcinogenicity : Carbon Black is classified as “Group 2B(possibly carcinogenic to humans) ” by IARC. But we obtained the results from a Chronic Toner Inhalation Study, that commercially available supplyer toner has no evidence of human carcinogens. All other ingredients are not classified as “Carcinogens [ref.1]”.

Mutagenicity: Ames Assay: Negative[1)]

Reproduction and Development: Not classified as “ Reproductive and Development chemicals [ref.2]”.

1) This information is based on toxicity data for similar materials and ingredients.

12.ECOLOGICAL INFORMATION

Biodegradability: Not available.

Bioaccumulation: Not available.

Acute Toxicity:

Fish 96hr LC 50 (Oryzias latipes): > 500mg/L

Daphnia 48hr EC50 (Daphnia magna): >100mg/L

Algae 72hr IC50 (Selenastrum capricornutum): >100mg/L

Other Information: None

13.DISPOSAL CONSIDERATION

Dispose of in accordance with national and local regulations.

14.TRANSPORT INFORMATION

Transport in accordance with national, and local regulations.

15.REGULATORY INFORMATION

Ensure this product in compliance with national requirements and ensure conformity to local regulations.

16.OTHER INFORMATION

The above mentioned data correspond to our present state of knowledge and experience, but no warranty is made. Users should consider these data only as a supplement to other information and must make independent determination of the suitability and completeness of information from all sources to ensure proper use and disposal of the materials and safety and health of employees and customers.

References

1:
- IARC Monographs on the Evaluation Carcinogenic Risks to Humans (WHO.International Agency for Research on Cancer)
- National Toxicology Program(NTP) Report on Carcinogens (NTP)
- TLVs and BEIs (American Conference of Governmental Industrial Hygienists)
- Council Directive 67/548/EEC on the approximation of the laws, regulations, and administratives provisions relating to the classification, packing and labelling of dangerous substances; Annex 1 (EU)
- Journal of Occupational Health(Japan Society for Occupational Heatth)

2:
- Council Directive 67/548/EEC on the approximation of the laws, regulations, and administratives provision s relating to the classification, packing and labelling of dangerous substaces; Annex 1 (EU)