Black Toner Cartridge **PN: 39V2211, 39V2215**

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEMICAL PRODUCT NAME: InfoPrint Color 1767 Black Toner Cartridge
InfoPrint Color 1759 MFP or 1769 MFP Black Toner Cartridge

IBM Field Use Number: None
IBM Material Reference Number: 940296230

TRADE NAMES/SYNOMYMS:
CHEMICAL FAMILY: Toner for Printers
PRODUCT USE: Black High Yield Toner Cartridge for
InfoPrint Color 1759 MFP, 1767, 1769 Laser Printers

IBM Corporation
New Orchard Road
Armonk, New York 10504
U.S.A.
INTERNATIONAL EMERGENCY NUMBER **1-303-739-1111**
24-Hour Emergency Source Information: 1-800-426-4333

In U.S.A. Call: 1-800-IBM-4333 **In Canada Call:** 1-800-IBM-4YOU.

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CHEMICAL MANUFACTURER:

IBM Part Number(s)

Description	**Part Number**
Black High Yield Cartridge	39V2211
Black High Yield Cartridge	39V2215

Creation Date: 2007-Jun-04
Revision Date: 2007-Jun-25

Section 2 - Hazards Identification

The following information is based on testing of the product as a whole and/or characteristics of components.

Emergency Overview: Black powder with a slight odor. Carbon black has been classified as an IARC 2B carcinogen. May cause respiratory tract or skin irritation. May form flammable or explosive dust-air mixtures. Avoid chronic pulmonary exposures to dust. Avoid exposure to eyes, skin or clothing (will stain). Keep container closed. Use with adequate ventilation.

Hazard Classification: None

Routes of Entry and Potential Health Effects:

Inhalation: Short Term Effects: Respiratory tract irritation may occur with exposure to large amounts of dust.
Long Term Effects: Potential risk of irreversible pulmonary effects. Chronic exposure is not expected when this product is used as intended.

Skin Contact: Not known as and dermal irritant or a dermal sensitizer

Eye Contact: May cause irritation.

Ingestion: Ingestion in not applicable route of entry for intended use.

Carcinogen Status:
IARC: Y (Carbon Black)
NTP: N
OSHA: N
ACGIH: N

Section 3 – Composition, Information on Ingredients

Component	Percent (wt.) Classification	CAS Number Symbol Letters	EINECS/ELINCS Number Risk Phrases
Styrene/Acrylate Copolymer	60-70 None	Trade Secret None	 None
Mn-Mg-Sr Ferrite Powder	10-20 None	Trade Secret None	 None
Polyolefin Wax	1-10 None	Trade Secret None	 None
Carbon Black	1-10 None	1333-86-4 None	2156099 None
Amorphous Silica	1-5 None	Trade Secret None	 None
Total	100 Percent		

Section 4 - First Aid Measures

Inhalation:	If symptoms, such as shortness of breath or persistent coughing are experienced, remove source of contamination and move individual to fresh air. If symptoms persist, seek medical attention.
Skin Contact:	Wash with soap and water. Should irritation occur, seek medical attention.
Eye Contact:	Do not rub eyes. Flush immediately with plenty of water. Remove contact lenses and continue flushing for at least 15 minutes. If irritation develops and persists, seek medical attention.
Ingestion:	Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.
Aggravated Conditions:	Exposure to high airborne dust concentrations, including toner, may aggravate existing respiratory conditions.
Notes to Physician:	No specific antidote.

Section 5 – Fire Fighting Measures

Flash Point/Range (^{o}C):	Not determined
Auto ignition Temperature (^{o}C):	Not Applicable
Flammable Limits in Air UEL:	Not determined
Flammable Limits in Air LEL:	Not determined
Suitable Extinguishing Media:	Carbon dioxide, water spray or fog, dry chemical or foam
NOT Suitable Extinguishing Media:	
Hazardous Combustion Products:	Carbon monoxide, carbon dioxide, unidentified organics
Special Exposure Hazards:	Like many finely divided materials, toner dust, in high concentrations can form an explosive mixture in air which, if ignited, could result in a dust explosion.
Special Protective Equipment:	Fire fighters should wear full protective clothing, including self-contained breathing apparatus, if a large number of cartridges are involved.

Section 6 - Accidental Release Measures

Personal Precautions:	None required for intended use in printer.
Environmental Precautions:	Disposal is subject to national, state, regional, or provincial regulations.
Small Spill and Leak	Sweep up and discard to a waste container.
Large Spill and Leak	If a dust cloud is possible due to a spill, remove all sources of ignition such as open sparks, flames, or static discharge to prevent the ignition of the dust. Minimize dust generation during clean up. Sweep up spill with non-metallic broom and dustpan. Contain for disposal. Oil permeated sweeping compound may be useful in cleaning up spills.

Section 7 - Handling and Storage

Safe Handling:	To avoid damage to cartridge and accidental contact with toner **KEEP OUT OF REACH OF CHILDREN.**
Safe Storage:	Store in a cool, dry place. Store away from oxidizing material.

Section 8 - Exposure Controls / Personal Protection

Exposure Limits Carbon Black

3.5 mg/m3	OSHA TWA PEL
3.5 mg/m3	ACGIH TWA TLV - ACGIH A4 - Not classifiable as a human carcinogen
3.5 mg/m3	NIOSH recommended 10 hour TWA
0.1 mg/m3	NIOSH recommended 10 hour TWA (in the presence of polycyclic aromatic hydrocarbons)
Measurement Method:	Particulate filter; gravimetric; (NIOSH III # 5000).

European Union and Member State Occupational Exposure Limit Values:

Measurement Method:

Biological Limit Values: None

Recommended Monitoring Procedures: None

Occupational Exposure Controls

Engineering Controls:	Use of local exhaust ventilation.
Ventilation:	Provide adequate ventilation.
Respiratory Protection:	No respirator is required under normal conditions of use. Under conditions of frequent or heavy exposure, protection may be needed.
Eye Protection:	If significant eye exposure is anticipated, the use of chemical splash goggles is recommended.
Emergency Eye Wash:	Where there is a potential for eye exposure to this substance, an eye wash fountain should be provided within the immediate work area for emergency use.
Protective Clothing:	Protective clothing is not required under normal conditions.
Protective Gloves:	If significant skin exposure is anticipated, appropriate gloves should be worn to prevent skin contact with this substance.
Other Protective Equipment:	None

Environmental Exposure Controls:

Section 9 - Physical and Chemical Properties

Physical State:	Solid powder	**Melting Point/Range (°C):**	Not determined
Color:	Black	**Boiling Point/Range (°C):**	Not applicable
Odor:	Faint plastic-like odor	**Freezing Point/Range (°C):**	Not applicable
Pressurized (Yes/No):	No	**Evaporation Rate:**	Not applicable
Specific Gravity:	Not determined	**pH:**	Not applicable
Solubility in Water:	Insoluble	**% Volatiles (by weight):**	Not determined
Solubility in Other:	No Data	**Vapor Density (Air=1):**	Not applicable
Explosive Properties:	Not determined	**Vapor Pressure:**	Not applicable
Oxidizing Properties	Not determined	**Relative Density:**	Not determined
Viscosity:	Not applicable	**Flammability (solid,gas)**	Not determined
Partition Coefficient (n-octanol/water):	Not applicable	**Flash Point (°C) (Closed Cup or Open Cup):**	Not determined

Section 10 - Stability and Reactivity

Chemical Stability:	Stable
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	None
Incompatibilities with Other Materials:	Strong oxidizers
Hazardous Decomposition Byproducts:	None

Section 11 - Toxicological Information

Routes of Entry and Potential Health Effects:

Inhalation:	Short Term Effects: Respiratory tract irritation may occur with exposure to large amounts of dust. Long Term Effects: Potential risk of irreversible pulmonary effects. Chronic exposure is not expected when this product is used as intended.
Skin Contact:	Not known as a dermal irritant or dermal sensitizer
Eye Contact:	May cause irritation.
Ingestion:	Ingestion in not applicable route of entry for intended use.

PRODUCT DATA (Toner Composition including Carbon Black)

Chronic Toxicity:	Industry tests on similar toner formulations showed no signs of overt toxicity. Microscopic examination of the lungs of rats exposed to high levels of toner showed a chronic inflammatory response and a mild to moderate degree of lung fibrosis. At airborne concentrations more relevant to potential human exposure, no evidence of toxicity to the respiratory tract was found.
Acute Toxicity:	Low acute inhalation toxicity. As with exposure to high concentrations of any dust, irritation of the respiratory tract may occur. Pure carbon black, a minor component of this product, has been listed by IARC as a group 2B (possible carcinogen). This classification is based on rat "lung particulate overload" studies performed with airborne particulate carbon black. Toner is not listed by IARC, NTP, or OSHA.
Repeated Dose Toxicity:	No data available.
Reproductive Toxicity:	No data available.
Sensitization to Product:	Not known as a dermal irritant or dermal sensitizer
Irritancy of Product:	Not known as a dermal irritant or dermal sensitizer
Carcinogenicity:	Neither this product nor any of its components present above 0.1% are listed by IARC, NTP, or OSHA as known carcinogens. Toner is negative in the Ames Assay.
Mutagenicity:	Similar toner formulations were not mutagenic in a battery of *in vitro* genotoxicity assays including the Ames Salmonella/mammalian microsome mutation assay.
Teratogenicity:	No data available.
Toxicologically Synergistic Products:	No data available.
Toxicokinetics, Metabolism, and Distribution:	No data available.

Toxicity Data:

LD_{50} (rat, oral): Not available; Predicted to be > 10 g/kg based on test results of similar toner formulations
LD_{50} (rabbit, skin): Not available; Predicted to be > 2 g/kg based on test results of similar toner formulations.
LC_{50} (rat, inhalation): Not available; Predicted to be > 4.9 g/m^3 based on test results of similar toner formulations.

CARBON BLACK (Alone)

Chronic Toxicity: Industry tests on similar toner formulations showed no signs of overt toxicity. Microscopic examination of the lungs of rats exposed to high levels of toner showed a chronic inflammatory response and a mild to moderate degree of lung fibrosis. At airborne concentrations more relevant to potential human exposure, no evidence of toxicity to the respiratory tract was found.

Acute Toxicity: Low acute inhalation toxicity. As with exposure to high concentrations of any dust, irritation of the respiratory tract may occur. Pure carbon black, a minor component of this product, has been listed by IARC as a group 2B (possible carcinogen). This classification is based on rat "lung particulate overload" studies performed with airborne particulate carbon black. Toner is not listed by IARC, NTP, or OSHA.

Repeated Dose Toxicity: Toxic overexposure may affect the respiratory system, skin, and mucous membranes.

Reproductive Toxicity: No data available.

Sensitization to Product: Not known as a dermal irritant or dermal sensitizer.

Irritancy of Product: Not known as a dermal irritant or dermal sensitizer.

Carcinogenicity: In 1996 the International Agency for Research on Cancer (IARC) reevaluated carbon black as a Group 2B carcinogen based upon the development of lung tumors in rats receiving chronic inhalation exposures of free carbon black. The effects were observed only in rats exposed to high concentrations of carbon black at levels that induce particle overload of the lung. Studies performed in animal models other than rats (i.e., mice, hamsters) 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 exposure and tumor development in rats.

In contrast to the IARC assessment, neither the Occupational Safety and Health Administration (OSHA) nor the American Conference of Governmental Industrial Hygienists (ACGIH) nor the National Toxicology Program (NTP) has listed carbon black as a carcinogen.

Epidemiology studies of workers in the carbon black producing industries of North America and Western Europe do not demonstrate an association between carbon black and cancer, even in high exposure occupational settings. In addition, in its reevaluation of carbon black, IARC concluded that "there is inadequate evidence in humans for the carcinogenicity of carbon black". Chronic overexposure to many dusts, including carbon black dust, may result in respiratory tract irritation and slight changes in pulmonary function.

Collectively, the available data from animal and human epidemiology studies suggest that carbon black, as contained in this product, does not present a cancer risk to the end user if the handling and personal protective measures contained within this MSDS are understood and followed.

Mutagenicity: Similar toner formulations were not mutagenic in a battery of *in vitro* genotoxicity assays including the Ames Salmonella/mammalian microsome mutation assay.

Teratogenicity: No data available.

Toxicologically Synergistic Products: No data available.

Toxicokinetics, Metabolism, and Distribution: No data available.

At Increased Risk From Exposure: Persons with certain pre-existing upper respiratory disorders, such as bronchitis or asthma.

Toxicity Data:

LD_{50} (rat, oral): 15,400 mg/kg
LD_{50} (rabbit, skin): 3,000 mg/kg (NIOSH RTECS #: FF5800000)
LC_{50} (rat, inhalation): Not available; Predicted to be > 4.9 g/m^3 based on test results of similar toner formulations.

Section 12 - Ecological Information

Ecotoxicity: Not determined
Aquatic toxicity: Not determined
Mobility: Not determined
Persistence and Degradability: Not determined
Bioaccumulative Potential: Not determined
Persistence, Bioaccumulative, and Toxicity Assessment Results: Not determined

Other Adverse Effects

Ozone Depletion Potential:
Photochemical Ozone Creative Potential:
Endocrine Disruption Potential:
Global Warming Potential:

Section 13 - Disposal Considerations

Waste Disposal: This product is not a listed hazardous waste in accordance with Federal Regulation 40 CFR Part 261. If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material has been contaminated and should be classified as a hazardous waste. Disposal is subject to local, state and federal regulations.

Appropriate Disposal Method:
Waste Management Measures:

Section 14 - Transport Information

Special Precautions: Not classified as a hazardous material or substance under US DOT.

UN Number:
ICAO Number:
ICAO/IATA Classification: Not applicable
ICAO Subrisks:
ICAO Packaging Group: Not applicable
ICAO Labels:
Proper Shipping Name: Not applicable

ADR/RID Class:
ADR/RID Item:
ADR/RID Labels:
Hazard Code: Not applicable
IMO Class:
IMDG Page:
IMO Subrisks:
IMO Packaging Group: Not applicable

Section 15 - Regulatory Information

NFPA Rating: Health: 1 Flammability: 1 Reactivity: 0
HMIS Classification: Health:1 Flammability:1 Reactivity: 0

Chemical Safety Assessment Availability:

Label Information
Danger Symbol:
Risk Phrases:
Safety Phrases:

TSCA (USA): All ingredients are listed on the Toxic Substances Control Act (TSCA) inventory, have been registered, or are exempt.

SARA / EPCRA (USA): None of the ingredients in this product has a final reportable quantity (RQ) under Emergency Planning and Community Right-to Know Act (EPCRA) - Section 302: Extremely Hazardous Substances (EHS) or notification requirements for EHS under Section 304.

California Proposition 65: This product contains no known materials at levels that the State of California has found to cause cancer, birth defects or other reproductive harm - California Proposition 65.

DSL (Canada): All ingredients are listed on the Canadian Domestic Substances List (DSL), have been registered on the Non-Domestic Substances List (NDSL), or are exempt.

EINECS (Europe): All ingredients are listed on the European Inventory of Existing Commercial Substances (EINECS) list, have been registered on the European List of New Chemical Substances (ELINCS), or are exempt.

ENCS (Japan): All ingredients are listed on the Japanese Existing and New Chemical Substances (ENCS) list, have been registered, or are exempt.

AICS (Australia): All ingredients are listed in Australian Inventory of Commercial Substances (AICS), have been registered, or are exempt.

ECL (Korea): All ingredients are listed on the Korean Existing Chemicals List (ECL), have been registered, or are exempt.

WHMIS Hazard Class (Canada): Not a WHMIS controlled product.

Section 16 - Other Information

Reason for revision:	Add Products 1759 MFP & 1769 MFP
Additional advice:	None
Prepared By:	InfoPrint Solutions Company, LLC
Preparer's Address:	Boulder, Colorado, USA

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