MATERIAL SAFETY DATA SHEET

MAY BE USED TO COMPLY WITH OSHA'S HAZARD COMMUNICATION STANDARD 29CFR 1910.1200

MSE MICRO SOLUTIONS ENTERPRISES Choose Quality®

EMERGENCY TELEPHONE NUMBER 1-(800)-424-9300

DATE PREPARED 02.10.11

SIGNATURE OF PREPARER (OPTIONAL)

SECTION 1 CHEMICAL PRODUCT / NAME

Product/chemical name:	**Lexmark E320; IBM 1116**	**02-25-3216**
CAS number:	Mixture	
Other designations:	N/A	
General use:	Laser printer	

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient name:	**CAS NUMBER**	**%**	**OSHA PEL**		**ACGIH TLV**		**OTHER LIMITS**
Carbon Black	1333-86-4	< 8.0	3.5mg/m^3		3.5mg/m^3		3.5mg/m^3
Polyester	Trade Secret	>86.0	Not Listed		Not Listed		Not Listed
Polypropylene	9010-79-1	<3.0	Not Listed		Not Listed		Not Listed
Organic pigment*	31714-55-3	<3.0	Not Listed		Not Listed		Not Listed

SECTION 3 HAZARDOUS IDENTIFICATION

Physical Hazards:	This material has no usual fire or explosion hazards but will burn if involved in a fire.
Human Health Effects:	Carbon Black is reclassified as a group 2B by IARC, but inhalation test using a typical toner showed no association between toner exposure and animal tumors.
Inhalation:	Minimum irritation to the respiratory tract may occur as with exposure to any non-toxic dust.
Skin:	Powder may cause drying of the skin with repeated or prolonged contact.
Ingestion:	No adverse effects expected
Eyes:	High dust concentrations may cause irritation.

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SECTION 4 FIRST AID MEASURES

Inhalation:	Remove to fresh air. If effects occur, consult medical personnel.
Eye contact:	Flush eyes with water to remove dust.
Skin contact:	Wash exposed skin with water & soap.
Ingestion:	Symptomatic treatment is recommended.

SECTION 5 FIRE FIGHTING MEASURES

Flash point:	N.A.
Lower Explosive Limit:	N.A.
Upper Explosive Limit:	N.A.
Extinguishing Media:	Water fog, foam, CO_2, dry chemical.
Protective Equipment:	Wear self-contained breathing apparatus and full protective gear.
Personal Precautions:	Wear appropriate respiratory protection.
Spill Cleanup Measures:	Sweep up or vacuum spilled toner and carefully transfer into a sealed container. Sweep slowly to minimize generation of dust during cleanup. If a vacuum is used, the motor should be rated as dust tight. Residue can be removed with soap & water.
Environmental Precautions:	Waste material may be dumped or incinerated under conditions, which meet all nation and local laws and regulations.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Wear appropriate respiratory protection.
Spill Cleanup Measures:	Sweep up or vacuum up spilled toner and carefully transfer into a sealed container. Sweep slowly to minimize generation of dust during cleanup. If a vacuum is used, the motor should be rated as dust tight. Residue can be removed with soap and water.
Environmental Precautions:	Waste material may be dumped or incinerated under conditions, which meet all nation and local laws and regulations.

SECTION 7 HANDLING AND STORAGE

Handling and Storage:	Avoid creating dust. Clean up all spills promptly. Provide general ventilation. Prevent exposure to high temperatures, flames and spark-producing equipment. Store in a cool place.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters:	
OSHA PEL:TWA	5.0 mg/m^3 (Inert of Nuisance Dust: Respirable fraction)
	15.0 mg/m^3 (Inert of Nuisance Dust: Total dust)
ACGIH TLV:TWA(2004)	3.0mg/m^3 (Particulates Not Otherwise Classified:Respirable Particle Mass)
	10.0mg/m^3 (Particulates Not Otherwise Classified:Inhalable Particle Mass)
Respiratory Protection:	None required under normal use. *However in dusty atmospheres, use an approved dust respirator.
Skin Protection:	None required under normal use.
Eye Protection:	None required under normal use.
Hand Protection:	None required under normal use.
Protective Clothing:	None required under normal use.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Fine black powder	**Odor:**	Odorless
PH:	N.A.	**Boiling Point:**	N.A.
Melting Point:	No data	**Flash Point:**	N.A.
Evaporation:	N.A.	**Vapor Pressure:**	N.A.
Vapor Density:	N.A.	**Solubility in water:**	Negligible
Specific Gravity	ca. 1.20 (H_2O=1)	**Freezing Point:**	N.A.

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability:	Stable
Hazardous Polymerization:	None
Materials to avoid:	Oxidizing Materials
Conditions to avoid:	None
Hazardous decomposition :	CO, CO_2 and NOx

SECTION 11 TOXICOLOGICAL INFORMATION

Routes of Exposure:	Inhalation, Ingestion, Eyes and Skin contact
Acute Effects:	See “SECTION 3”.
Chronic Effects :	In a study in rats (H.Muhle) by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in the concentration(16mg/m^3) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m^3) exposure group. But no pulmonary changes was reported in the lowest (1mg/m^3) exposure group, the most relevant level to potential human exposures
Ingestion:	No data available
Mutagenic Effects (Ames test):	Negative (Estimated from the data of constituent components.)
Carcinogenic Effects:	In 1996, the IARC revaluated 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 developer of lung tumors in rat receiving chronic inhalation exposures to free carbon black at level 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, a two-year cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.
*** See NIOSH,RTECS for additional toxicity data**	

SECTION 12 ECOLOGICAL INFORMATION

See "SECTION 15"	

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal:	Waste material may be dumped or incinerated under conditions, which meet all nation and local laws and regulations.

SECTION 14 TRANSPORT INFORMATION

Transport Information:	This is not a hazardous product.
UN No.:	None allocated.

SECTION 15 REGULATORY INFORMATION

TSCA:	All chemical substances in this product comply with all applicable rules or order under TSCA. SARA Title III Section313: Organic pigment is regarded as Chromium compounds (category codes: NO9O). Containing less than 0.20wt% as Cr in our product.
EU:	None

SECTION 16 OTHER INFORMATION

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