

Supersedes: 6/MAY/2010

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Material Safety Data Sheet

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Toner in toner cartridge

User For : MFX-2550/2570/2590 Item Code : TS2550AUS

Manufacturer:

Murata Machinery,Ltd.

Contact Point :
Quality Assurance Department

Address:

136,Takeda-Mukaishiro-cho,
Fushimi-ku,Kyoto 612-8686,Japan

Telephone Number:

+81-75-662-7717

Fax Number:

+81-75-662-7790

General Use:

Black toner for electrophotographic printer

Product Description:

Polimerized toner

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	CAS #	Amount	Exposure Limits	
			OSHA PEL	ACGIH TLV
Carbon black	1333-86-4	5-7 %	3.5 ppm TWA	3.5 ppm TWA
Styrene	100-42-5	<50 ppm	50 ppm TWA 100 ppm STEL	20 ppm TWA 40 ppm STEL, A4

Other Ingredients	CAS #	Amount	Notes
Styrene acrylate copolymer	25767-47-9	83-84 %	TWA = Time Weighted Average TLV = Threshold Limit Value AL = Action Level RD = Respirable Dust TD = Total Dust
Fatty acid ester	75587-84-7	4-6 %	STEL = Short Term Exposure Limit Skin = Skin contact may be a significant route of exposure
PMMA	9011-14-7	<1 %	A1 = Confirmed Human Carcinogen A2 = ACGIH Suspected Human Carcinogen A3 = ACGIH Animal Carcinogen
Silicon Dioxide (amorphous)	7631-86-9	1-3 %	A4 = ACGIH Not Classifiable as a Human Carcinogen PNOC = Particulates Not Otherwise Classified

SECTION 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This product is the black colored toner with an odorless. As supplied, these products are not expected to cause any adverse health or physical effects in how to use usual. Processing operations may produce vapors or dust that may cause eye, skin, and respiratory tract irritation. Toxic combustion products may be released under fire conditions.

This product is not classified according to EU Directive 1999/45/EC

POTENTIAL HEALTH EFFECTS:

- Inhalation** : Minimal respiratory tract irritation may occur as with exposure to large amounts of any non-toxic dust.
- Eye** : May cause transient slight irritation.
- Skin** : May cause transient slight irritation.
- Ingestion** : Low acute toxicity. Ingestion is a minor route of entry for intended use of this product.

POTENTIAL ENVIRONMENTAL EFFECTS: Not available

SECTION 4 – FIRST AID MEASURES

- INHALATION** : Lung irritation, difficult breathing, sneezing, coughing, will be caused. If inhaled, move person to fresh air and consult a physician immediately.
- EYE** : Eye irritation will be caused. If contacted, do not rub immediately flush with large amounts of clean, warm water (low pressure) for at least 15 minutes or until particles are removed. If irritation persists, consult a physician.
- SKIN** : Wash affected areas thoroughly with mild soap and water. If irritation persists, consult a physician.
- INGESTION** : Rinse mouth with water. Drink one or two glasses of water. If irritation or discomfort occurs, consult a physician immediately.
- PROTECTION TO FIRST AIDERS:** Treatment may vary with condition of victim and specifics of incident.

SECTION 5 – FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Explosion Limits : Lower = 40g/m³ (for powder)

EXTINGUISHING MEDIA : Dry chemicals, CO₂, water spray or foam are recommended media.

FIRE FIGHTING INSTRUCTIONS: Do not use straight water, high-pressure water or water steam in order to prevent creating a dust cloud and spreading fire dust. Use appropriate respirator for carbon monoxide and carbon dioxide. Wear positive pressure self-contained breathing apparatus (SCBA) during the attack phase of firefighting operations and during cleanup in enclosed or poorly ventilated areas immediately after a fire. Personnel not having suitable respiratory protection must leave the area to prevent significant exposure to toxic combustion gases from any source.

Unusual Fire and Explosion Hazards: Thermal decomposition of organic components may result in occurrence of oxides of carbon. Special precautions must be taken if like most organic materials in powder form, it can form explosive mixtures when dispersed in air. Toxic gases may be formed upon combustion and represents a hazard to firefighters. See Section 10 for additional information on combustion products.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

LAND SPILL: Sweep the spilt toner or remove it with a vacuum cleaner, and transfer into the sealed container carefully. Sweep slowly to minimize generation of dust during clean-up. If the vacuum cleaner is used, the motor must be rated as dust explosion-proof. A conductive hose bonded to the machine should be used to reduce static build-up. Residue can be removed with soap and cold water. Clothes may be washed or dry cleaned after removal of loose toner.

WATER SPILL: Not available

SECTION 7 – HANDLING AND STORAGE

HANDLING: Keep out of the reach of children. Avoid prolonged inhalation of excessive dust and contact eyes. Use with adequate ventilation. Use the mask, which recommended preventing dust and coarse particulate.

STORAGE: Keep out of the reach of children. Keep container tightly closed and Store in a cool and dry place. Wash a hand well after handling a toner. Keep away from contact with oxidizing materials. Store in a cool and dry place away from direct light to maintain quality.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES:

USA OSHA(TWA/PEL) :15mg/m3(Total dust), 5mg/m3(Respirable fraction)

ACGIH(TWA/TLV) :10mg/m3(Inhalable fraction), 3mg/m3(Respirable fraction)

EXPOSURE CONTROLS:

Occupational Exposure Controls

Engineering Controls: Effective general and, if necessary, local exhaust ventilation must always be provided to draw fumes or vapors away from workers to prevent routine inhalation. Ventilation must be adequate to maintain the ambient workplace atmosphere below the limits listed in Section 2.

Local Exhaust: Recommended Mechanical (General): Recommended

Personal Protection

Respiratory Protection: Respiratory protection is not typically required during normal use and handling operations where general dilution or local exhaust ventilation is adequate

to control exposures. Not required under normal conditions. For use other than in normal operating procedures (such as in the event of large spill) , goggles and respirators may be required.

Hand Protection: Protective gloves

Eye Protection: Safety goggles

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Black Powder
Odor	: Odorless
pH	: Not applicable
Boiling Point/Boiling Range	: Not applicable
Melting Point/Melting Range	: 120°C
Decomposition Temperature	: Not available
Flash Point	: Not applicable
Auto Ignition Temperature	: Not available
Flammability	: Not available

Explosive Properties	
Explosion Limits	: Lower = 40g/m ³ (for powder)
Oxidizing Properties	: Not available
Vapor Pressure	: Not applicable
Specific Gravity (H₂O=1)	: 1.15.
Solubility	: Negligible in water.
Partition Coefficient(n-octanol/water)	: Not applicable
Viscosity	: Not applicable
Vapor Density	: Not applicable
Evaporation Rate	: Not applicable

SECTION 10 – STABILITY AND REACTIVITY

CONDITIONS TO AVOID	: Overheating by heat accumulation under the condition of transportation, storage or any similar situation and contact with ignition sources such as open flames, sparks, electrical arcs and static discharge sources.
STABILITY	: Stable under normal storage conditions.
MATERIALS TO AVOID	: Avoid exposure to strong oxidizers or reducing agents.
HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS:	The gas generated by heat decomposition may contain carbon monoxide, carbon dioxide and Nitrogen.
HAZARDOUS POLYMERIZATION	: Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity:

Acute Oral Toxicity	: LD ₅₀ >2000mg/Kg (rat) (OECD423)
Acute Inhalation Toxicity	: LC ₅₀ >5mg/l (rat) (OECD403)
Eye Irritation	: Very slight irritant (rabbit) (OECD405)
Skin Irritation	: Non-irritant (rabbit) (OECD404)
Sensitization	: Not available
Mutagenicity	: Negative (Ames test)

Carbon black

Carcinogenicity:

In 1996, the IARC reevaluated carbon black as a Group 2B carcinogen (possible human carcinogen). This classification is given to chemicals for which there is inadequate human evidence, but sufficient animal evidence on which to base an opinion of carcinogenicity. The classification is based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black at levels that induce particle overload of the lung. Studies performed in animal models other than rats did not show any 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.

SECTION 12 – ECOLOGICAL INFORMATION

ECOTOXICITY	: Not available
MOBILITY	: Not available
PERSISTENCE AND BIODEGRADABILITY	: Not available
BIOACCUMULATIVE POTENTIAL	: Not available
OTHER ADVERSE EFFECTS	: Not available

SECTION 13 – DISPOSAL CONSIDERATIONS

Do not put toner into fire. Heated toner may cause severe burns. Finely dispersed particles may form explosive mixtures in air, unless dust-explosion preventing measures are taken.

Comply with all EU, national and local regulations.

Do not dump this product into sewers, on the ground or into any body of water.

SECTION 14 – TRANSPORT INFORMATION

Not a regulated article under United States DOT, IATA, IMDG, ADR, or RID.

For U.S.A transportation purposes, this product is not defined or designated as a hazardous material by the U.S. Department of Transportation under Title 49 of the Code of Federal Regulations.

Packing Group(PG) :None
UN Number :None
Proper Shipping Name:None
Marine Pollutant :No

SECTION 15 – REGULATORY INFORMATION

Inventories : **JCSCL (Japan) Yes**
 TSCA (USA) Yes
 EINECS/ELINCS (EU) Yes

Please refer to any other EU, national and local regulations.

SECTION 16 – OTHER INFORMATION

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Murata Machinery. It relates only to the specific product designated herein, and does not relate to use in combination with any other material or in any process. Murata Machinery assumes no legal responsibility for use of or reliance upon this information.

Hazard Rating System Classifications:

	NFPA	HMIS	
Health	1	1	Key: 0=least; 1=slight; 2=moderate; 3=high; 4=extreme National Fire Protection Association rating identifies hazards during a fire emergency. Hazardous Materials Identification System rating applies to products as packaged.
Flammability	1	1	
Reactivity	0	0	

Appendix A – Carbon black

This product contains trace Carbon black. Carbon black is listed by the International Agency for Research on Cancer (IARC) as a Group 2B carcinogen (possibly carcinogenic to humans).

User's Responsibility

This bulletin cannot cover all possible situations which the user may experience during processing. Each aspect of your operation must be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin must be provided to your employees or customers. It is your responsibility to use this information to develop appropriate work practice guidelines and employee instructional programs for your operation.

This product is for general industrial use. If you use it for food, medical care and an another special use, please use under your confirmation of safety for that use, or please talk with us beforehand.

Disclaimer of Liability

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