

MATERIAL SAFETY DATA SHEET
MFX1200 / MFX1600/MFX1300/MFX1700/F-320/F-360

Issue Date 6-Oct-00

[1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION]

Product Name: TUFTONE MT (Toner for MFX1200/MFX1600/MFX1300/MFX1700/F320/F360)

Company	Murata Machinery LTD. 136. Takeda-Mukaisiro-cho, Fushimiku, Kyoto 612 Japan
Telephone	81-75-662-7719 (Communications Equipment Division)
Emergency Telephone	81-75-662-7719 (Communications Equipment Division)

[2. COMPOSITION/INFORMATION ON INGREDIENTS]

Substance/Mixture	Mixture
Chemical Name (Generic Name)	Black Toner
Chemical Formula	Not Specified
CAS RN	Confidential
UN No.	Not Applicable
EINECS	No
TSCA	Yes
Other Information	None

[3. HAZARDS IDENTIFICATION]

Fire and Explosion Hazard	May Cause risk of dust explosion
Potential Health Effects	To the best of our investigation, no special hazards have to be mentioned
Environmental Effects	To the best of our investigation, no information is available

[4. FIRST AID MEASURES]

In case of eye contact:	Immediately hold eyelids open and flush with a stream of water for at least 15 minutes. If necessary seek medical attention.
In case of skin contact:	Wash material off the skin with plenty of water and soap. If necessary seek medical attention.
In case of inhalation:	Remove person to fresh air. If necessary, see medical attention.
In case of ingestion:	Seek medical attention. Never give anything by mouth to an unconscious person. If possible, rinse out mouth and give one or two glasses of water or milk to drink.

[5. FIRE FIGHTING MEASURES]

Extinguishing Measures	Risk of producing harmful gases such as carbon monoxide and nitrogen oxides. Avoid inhalation of smoke or gases.
Extinguishing Agents	In case of small fire use powder, carbon dioxide. In case of large fire, shut off air by spraying with water or foam.

[6. ACCIDENTAL RELEASE MEASURES]

In case of spill, vacuum material immediately. Then wipe up remainder in waste cloth.

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[7. HANDLING AND STORAGE]

Handling	Fight fire from upwind position. Avoid inhalation of dust.
Storage	Keep it free from moisture. Keep away from sources of ignition. Keep container tightly closed. Store in a dark and cool place.

[8. EXPOSURE CONTROLS / PERSONAL PROTECTION]

ACHIH (TLV)	TWA (1998) (carbon black) 3.5 ma/m ³
OSHA (PEL)	Not established
Ventilation	Use local exhaust ventilation or general ventilation
Protective Measures	
Respiratory:	Dust respirator
Eye Protection:	Safety goggles
Hand Protection:	Rubber gloves
Protective Clothing:	Use as appropriate to the situation

[9. PHYSICAL AND CHEMICAL PROPERTIES]

Appearance	Black powder
Odor	Odorless
Boiling Point	No data available
Vapor Pressure	No data available
Volatility	No
Melting/Freezing Point	No data available
Specific Gravity	1.2 (20.0°C) 1.2 (68.0°F)
Solubility	
Water solubility:	Soluble
Solvent solubility:	A part of component is soluble in toluene, chloroform, tetrahydrofuran
pH	No data available
Viscosity	No data available
Octanol/Water	
Partition Coefficient:	No data available
Other Information	None

[10. REACTIVITY AND STABILITY]

Flash Point	Not applicable
Autolgnition Temperature	No data available
Explosive limit in air (LEC)	No data available
Explosive limit in air (UEC)	No data available
Combustibility	Yes
Oxidizability	No
Self-Reactivity/Explosivity	This material may cause risk of dust explosion
Reactivity and Stability	Stable in general
Hazardous Combustion or Decomposition Products	No information available
Other Information	None

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[11. TOXICOLOGICAL INFORMATION]

Corrosivity	No data available
Skin Irritation	Guinea pig, Guinea pig Maximization Test: Negative
Eye Irritation	No data available
Sensitization	No data available
Acute Toxicity	Oral, rat, LD ₅₀ : > 2000 mg/kg (male, female) (Data on similar product)
Subchronic Effects	No data available
Chronic Effects	No data available
Carcinogenicity	
IARC:	Carbon black, Group 2B, the Agent is possibly carcinogenic to humans. Hydrophobic silica, Group 3. The agent is not classifiable as to its carcinogenicity to humans.
NTP:	None of this product's components are listed
OSHA:	None of this product's components are listed
Mutagenicity:	Ames test (Salmonella typhimurium) TA98, TA100, TA1535, TA1537, TA1538, Escherichia coli WP2uvrA: Negative Data on similar product
Reproductive Effects:	No data available
Teratogenicity:	No data available
Other Information:	None

[12. ECOLOGICAL INFORMATION]

Biodegradability	No data available
Bioaccumulation	No data available
Fish Toxicity	No data available
Other Information	None

[13. DISPOSAL CONSIDERATIONS]

Review "HANDLING AND STORAGE (Section 7)"
Dispose of waste in accordance with local state and federal regulations
Pass to a licensed waste contractor
Incinerate in small quantities
Risk of producing harmful gases such as carbon monoxide and nitrogen oxides

[14. TRANSPORTATION INFORMATION]

	Follow all regulations in your country or region
Precautions:	Review "ACCIDENTAL RELEASE MEASURES (Section 8)" Review "HANDLING AND STORAGE (Section 7)" Ensure containers are not leaking or broken Handle container careful to avoid shock. Do not drop or break Pack, label and transport according to regulations
Proper Shipping Label	Non hazardous

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Hazard Class:	Not applicable
UN No.:	Not applicable
Packing Group:	Not applicable
Hazard Labels:	Not applicable

[15. REGULATOR INFORMATION]

	Follow all regulations in your country or region
EINECS	No
TSCA	Yes

[16. INFORMATION]

References	None
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MURATEC MODEL MFX-1200, MFX-1600, F-320, F-360, MFX1300, MFX1700

Material Safety Data Sheet

May be used to comply with
 OSHA's Hazard Communication Standard
 29 CFR 1910.1200. Standard must be
 consulted for specific requirements

U.S. Department of Labor

Occupational Safety and Health Administration
 (Non-Mandatory Form)
 Form Approved
 OMB No. 1218-0072

IDENTITY (As Used on Label and List) Organic photoconductor for MFX1200/MFX1600/MFX1300/MFX1700/F320/F-360 Section I	Note: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.
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Distributor's Name Mitsubishi Chemical Corporation	Emergency Telephone Number 81-3-3283-6547 Facsimile: 81-3-383-6965
Address (Number, Street, City, State, and ZIP Code) 5-2, Marunouchi 2-chome, chiyoda-ku, Tokyo 100, Japan	Telephone Number for Information 81-3-3283-6547 Facsimile: 81-3-383-6965
Manufacturer's Name Mitsubishi Chemical Corporation	Date Prepared September 7, 2000
Address (Number, Street, City, State, and ZIP Code) 5-2, Marunouchi 2-chome, chiyoda-ku, Tokyo 100, Japan	Signature of Preparer (optional)

Section II - Hazardous Ingredients/Identity Information

Other limits Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Recommended	% (optional)
Non-hazardous ingredients:				
Aluminum cylinder	-	Not listed	None	> 97%
Binder resin	-	Not listed	None	< 1%
Photosensitive material	-	Not listed	None	< 1%
Pigment	-	Not listed	None	< 1%

Section III - Physical/Chemical Characteristics

Boiling Point	N.A.	Specific Gravity (H ₂ O - 1)	N.A.
Vapor Pressure (mm Hg)	N.A.	Melting Point	N.A.
Vapor Density (AIR - 1)	N.A.	Evaporation Rate (Butyl acetate = 1)	N.A.
Solubility in Water	Insoluble		
Appearance and Odor	Green, odorless, and solid cylinder		

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used) N.A.	Flammable Limits	LEL N.A.	UEL N.A.
Extinguishing Media CO ₂ , dry chemical, foam or water			
Special Fire Fighting Procedures	This material will be scorched in case of fire		
Unusual Fire and Explosion Hazards	This material has no unusual fire or explosion hazards		

(Reproduce locally) OSHA 174, Sept. 1985

*N.A. = not applicable

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Section V - Reactivity Data					
Stability	Unstable		Conditions to Avoid	NONE	
	Stable	X			
Incompatibility (Materials to Avoid)					
Hazardous Decomposition or Byproducts					
Hazardous Polymerization	May Occur		Conditions to Avoid	NONE	
	Will Not Occur	X			
Section VI - Health Hazard Data					
Routes of Entry:		Inhalation?	NO	Skin?	NO
		Ingestion?	NO		
Health Hazards (Acute and Chronic)					
Carcinogenicity:		NTP?	NO	IARC Monographs?	NO
		OSHA Regulated	NO		
Signs and Symptoms of Exposure:		NONE			
Medical Conditions		Generally Aggravated by Exposure			
		NONE			
Emergency and First Aid Procedures		No treatment is required			
Section VII - Precautions for Safe Handling and Use					
Steps to be Taken in Case Material is Released or Spilled			No special precautions		
Waste Disposal Method		Waste material may be dumped or incinerated under conditons which meet all			
federal, state and local environmental regulations					
Precautions to be Taken in Handling and Storing			No special storage requirements for safety reasons		
Other Precautions		NONE			
Section VIII - Control Measures					
Respiratory Protection (Specify Type)		None required under normal use			
Ventilation	Local Exhaust	NO	Special	NO	
	Mechanical (General)	NO	Other	NO	

Protective Gloves None required under normal use	Eye Protection None required under normal use
Other Protective Clothing or Equipment	None required under normal use
Work/Hygenic Practices	NONE