

# MURATEC MODEL F-85 (page 1 of 6)

## 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)	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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### Section I

Manufacturer's Name <b>YAMANASHI ELECTRIC CO., LTD</b>	Emergency Telephone Number <b>0552-41-2221</b>
Address (Number, Street, City, State, and ZIP Code) <b>462 OSATO-CHO KOFU-SHI</b>	Telephone Number for Information <b>0552-41-2221</b>
<b>YAMANASHI JAPAN</b>	Date Prepared <b>3/11/1988</b>
	Signature of Preparer (optional)

### Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL ACGIH TLV	Other limits Recommended	% (optional)
<u>BINDER RESIN</u> CasNo. 25134-45-6	N A	N A	N A 0.5
<u>CHARGE CARRIER TRANSPORT MATERIAL</u> Cas No. 103079-11-4	N A	N A	N A 0.4
<u>PIGMENT</u> Cas No. 26201-32-1	N A	N A	N A 0.1
<u>ALUMINUM</u> Cas No. 7429-90-5	N A	N A	N A 99.0

### Section III - Physical/Chemical Characteristics

Boiling Point	N.A.	Specific Gravity (H <sub>2</sub> O - 1)	1.2
Vapor Pressure (mm Hg)	N.A.	Melting Point	N.A.
Vapor Density (AIR - 1)	N.A.	Evaporation Rate	N.A.
Solubility in Water	INSOLUBLE		
Appearance and Odor	GREENISH-BLUE, SOLID CYLINDER AND ODORLESS		

### Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used) N.A.	Flammable Limits	LEL N.A.	UEL N.A.
Extinguishing Media	WATER; FOAM; CO <sub>2</sub> ; DRY CHEMICALS		
Special Fire Fighting Procedures	NO SPECIAL EXTINGUISHING MEDIA IS REQUIRED BUT AVOID INHALATION OF SMOKE		
Unusual Fire and Explosion Hazards	THIS MATERIAL DOES NOT HAVE UNUSUAL FIRE AND EXPLOSION HAZARDS		

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Section V - Reactivity Data			
Stability	Unstable		Conditions to Avoid N.A..
	Stable	0	
Incompatibility (Materials to Avoid)		NONE	
Hazardous Decomposition or Byproducts		NONE	
Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	0	
Section VI - Health Hazard Data			
Routes of Entry:		Inhalation? NONE	Skin? NONE      Ingestion? NONE
Health Hazards (Acute and Chronic)		THE COATED COMPOUND OF THE OPC DRUM (SY-B001) PASSED THE ACUTE TOXICITY TEST SATISFACTORILY. THE DOSAGE RANGE WAS 100-400 KG. THEY ARE NOT MUTAGENIC.	
Carcinogenicity:		NTP? NONE	IARC Monographs? NONE      OSHA Regulated NONE
Signs and Symptoms of Exposure:		NOTHING	
Medical Conditions Generally Aggravated by Exposure		NOTHING	
Emergency and First Aid Procedures		NO STEPS REQUIRED	
Section VII - Precautions for Safe Handling and Use			
Steps to be Taken in Case Material is Released or Spilled			
IF BROKEN INTO PIECES OR SPILLED, SWEEP UP OR VACUUM			
Waste Disposal Method		NO SPECIAL DISPOSAL TECHNIQUE REQUIRED	
DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS			
Precautions to be Taken in Handling and Storing			
NOT NECESSARY			
Other Precautions			
NOT NECESSARY			
Section VIII - Control Measures			
Respiratory Protection (Specify Type)		NOT NECESSARY	
Ventilation	Local Exhaust	NOT NECESSARY	Special NOT NECESSARY
	Mechanical (General)	NOT NECESSARY	Other NOT NECESSARY
Protective Gloves	NOT NECESSARY	Eye Protection	NOT NECESSARY

Other Protective Clothing or Equipment	NOT NECESSARY
Work/Hygenic Practices	NOT NECESSARY

**MURATEC MODEL F-85 (page 3 of 6)**

**Material Safety Data Sheet**

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Section I

Manufacturer's Name TDK CORPORATION	Emergency Telephone Number 03-278-5244
Address (Number, Street, City, State, and ZIP Code) 13-1, NIHONBASHI 1-CHOME, CHUO-KU TOKYO 103, JAPAN	Telephone Number for Information 03-278-5244  Date Prepared MAY 20, 1988  Signature of Preparer (optional)

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL ACGIH TLV	Other limits Recommended & (optional)
<b>INGREDIENTS</b>	<b>WT%</b>	
IRON OXIDE	79	
MAGNESIUM OXIDE	3	
ZINC OXIDE	13	
COPPER OXIDE	5	

Section III - Physical/Chemical Characteristics

Boiling Point	N.A.	Specific Gravity (H <sub>2</sub> O - 1)	5.0
Vapor Pressure (mm Hg)	N.A.	Melting Point (°C)	1400
Vapor Density (AIR - 1)	N.A.	Evaporation Rate (Butyl Acetate - 1)	N.A.
Solubility in Water	NEGLECTIBLE		
Appearance and Odor	GRAY, FINE BEADS, ODORLESS		

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	N.A.	Flammable Limits	N.A.	LEL	UEL
Extinguishing Media	WATER, FOAM, DRY CHEMICAL				
Special Fire Fighting Procedures	N.A.				

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Unusual Fire and Explosion Hazards    N.A.

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(Reproduce locally)    OSHA 174, Sept. 1985

**MURATEC MODEL F-85 (page 4 of 6)**

Section V - Reactivity Data			
Stability	Unstable	X	Conditions to Avoid
	Stable	O	
Incompatability (Materials to Avoid)		NONE	
Hazardous Decomposition or Byproducts		NONE	
Hazardous	May Occur	X	Conditions to Avoid
	Will Not Occur	O	
Section VI - Health Hazard Data			
Routes of Entry:		Inhalation? O	Skin? X      Ingestion? O
Health Hazards (Acute and Chronic)			
Carcinogenicity:		NTP? N.A.	IARC Monographs? N.A.      OSHA Regulated N.A.
Signs and Symptoms of Exposure:		NONE	
Medical Conditions Generally Aggravated by Exposure		N.A.	
Emergency and First Aid Procedures		INHALATION: REMOVE FROM EXPOSURE      EYES: FLUSH WITH WATER	
SKIN: WASH WITH WATER			
Section VII - Precautions for Safe Handling and Use			
Steps to be Taken in Case Material is Released or Spilled			
SWEEP UP FOR VACUUM			
Waste Disposal Method		DUMP OR INCINERATE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS	
Precautions to be Taken in Handling and Storing		STORE IN A COOL, DRY PLACE	
Other Precautions		NONE	
Section VIII - Control Measures			
Respiratory Protection (Specify Type)		RESPIRATORS ARE PREFERABLE	
Ventilation	Local Exhaust	PREFERABLE	Special
	Mechanical (General)		Other
Protective Gloves		PREFERABLE	Eye Protection      PROTECTIVE GOGGLES ARE PREFERABLE
Other Protective Clothing or Equipment		NONE	

Work/Hygenic Practices

NONE

**MURATEC MODEL F-85 (page 5 of 6)****Material Safety Data Sheet**

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IDENTITY (As Used on Label and List)

TS85

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## Section I

Manufacturer's Name

TDK CORPORATION

Emergency Telephone Number

Address (Number, Street, City, State, and ZIP Code)

13-1, NIHONBASHI, 1-CHOME, CHUO-KU

Telephone Number for Information

03-278-5244

Date Prepared

03-278-5244

TOKYO 103, JAPAN

Signature of Preparer (optional)

## Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))

OSHA PEL ACGIH TLV

Other limits  
Recommended % (optional)

NONE

## INGREDIENTS

WT% ACGIH TLV

STYRENE BUTYL ACRYLATE COPOLYMER

40 N.A.

POLYPROPYLENE

3.10mg/m<sup>3</sup> total 5mg/m<sup>3</sup> respirable

MAGNETITE

56 10mg/m<sup>3</sup>

SILICA

<1 10mg/m<sup>3</sup> total 5mg/m<sup>3</sup> respirable

METALLIC SOAP

<1 10mg/m<sup>3</sup>

## Section III - Physical/Chemical Characteristics

Boiling Point

N.A.

Specific Gravity (H<sub>2</sub>O - 1)

1.8

Vapor Pressure (mm Hg)

N.A.

Melting Point

(°C)

140

Vapor Density (AIR - 1)

N.A.

Evaporation Rate

N.A.

Solubility in Water

NEGLIGIBLE

Appearance and Odor

BLACK POWDER, ALMOST ODORLESS

## Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)

N.A.

Flammable Limits

N.A.

LEL

UEL

Extinguishing Media

WATER FOG, CHEMICAL FOAM, CO<sub>2</sub>

Special Fire Fighting Procedures

N.A.

Unusual Fire and Explosion Hazards

N.A.



**MURATEC MODEL F-85 (page 6 of 6)**

Section V - Reactivity Data			
Stability	Unstable	X	Conditions to Avoid
	Stable	0	
Incompatability (Materials to Avoid)			
Hazardous Decomposition or Byproducts		CO, CO2	
Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur		
Section VI - Health Hazard Data			
Routes of Entry:	Inhalation?	0	Skin? X Ingestion?0
Health Hazards (Acute and Chronic)		NONE	
Carcinogenicity:	NTP? N.A.	IARC Monographs? N.A.	OSHA Regulated N.A.
Signs and Symptoms of Exposure:	NONE		
Medical Conditions Generally Aggravated by Exposure	N.A.		
Emergency and First Aid Procedures	INHALATION: REMOVE FROM EXPOSURE		
	SKIN: WASH WITH WATER		EYES: FLUSH WITH WATER
Section VII - Precautions for Safe Handling and Use			
Steps to be Taken in Case Material is Released or Spilled			
CLEAN WITH A VACUUM CLEANER			
Waste Disposal Method	DUMP OR INCINERATE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL		
REGULATIONS			
Precautions to be Taken in Handling and Storing	KEEP IN CLOSED PACKAGES		
	AVOID HIGH TEMPERATURE AND FIRE		
Other Precautions	NONE		
Section VIII - Control Measures			
Respiratory Protection (Specify Type)	WEAR A RESPIRATOR TO AVOID INHALATION OF POWDER		
Ventilation	Local Exhaust	PREFERABLE	Special NONE
	Mechanical (General)	ACCEPTABLE	Other NONE
Protective Gloves	PREFERABLE	Eye Protection	SPLASHPROOF GOGGLES
Other Protective Clothing or Equipment	NONE		



Work/Hygenic Practices

NONE