



MATERIAL SAFETY DATA SHEET

[1.CHEMICAL PRODUCT AND COMPANY IDENTIFICATION]

PRODUCT NAME : ML-3560DB
COMPANY : Samsung Electronics Company
416, Maetan-3Dong, Yeongtong-Gu, Suwon-City, Gyeonggi-Do, Korea 443-742
TELEPHONE NO. : 82-31-200-8311
EMERGENCY TELEPHONE NO. : 82-31-200-8311

[2.COMPOSITION / INFORMATION ON INGREDIENTS]

SUBSTANCE OR PREPARATION : Prepatation

INGREDIENTS AND CONCENTRATION RANGE

Ingredients	Concentration Rande(%)	CAS RN
Black Toner	Confidential	

INGREDIRNTS CONTRIBUTING TO : None

THE HAZARD(JAPAN)

[3.HAZARDS IDENTIFICATION]

MOST IMPORTANT HAZARDS :
ADVERSE HUMAN HEALTH : To the best of our Investigation, no special hazards have to be
EFFECTS mentioned.
ENVIRONMENTAL EFFECTS : To the best of our Investigation, no information about adverse effect in
the environment available.
PHYSICAL AND CHEMICAL : May cause risk of dust explotion.
HAZARDS
CLASS NAME FOR MSDS IN : Not applicable
JAPAN

[4.FIRST-AID MEASURES]

IN CASE OF INHALATION : Remove person to fresh air. 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 EYE CONTACT : Immediately hold eyelids open and flush with plenty of water and soap. If
necessary seek 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 MEDIA	: Water Spray, powder
NOT SUITABLE EXTINGUISHING MEDIA	: No information available
SPECIFIC HAZARDS	: May produce irritating or toxic gases in a fire.
SPECIFIC METHODS	: Keep away from sources of ignition and use appropriate extinguishing Media. Fight fire from upwind position if possible.
PROTECTION OF FIREFIGHTERS	: Use goggles in combination with dust mask, and another protection as Appropriate to situation.

[6.ACCIDENTAL RELEASE MEASURES]

PERSONAL PREAUTIONS	: Use mask, goggles and protective gloves. Large spills : Remove person to safety. Ensure adequate ventilation. Treat from upwind position.
ENVIRONMENTAL PRECAUTIONS	: Do not discharge into the drains, surface waters or ground water directly.
METHODS FOR CLEANING UP	: Prevent dispersion of dust. Sweep or vacuum by dust-explosion-proof type cleaner.
PREVENTION OF SECONDARY HAZARDS	: No information available

[7.HANDLING AND STORAGE]

HANDLING	
TECHNICAL MEASURES	: Facilities Storing or utilizing this material should be equipped with an Eyewash facility and a safety shower.
PRECAUTIONS	: Avoid inhalation of fine dust .
SAFE HANDLING ADVICE	: Handle in well-ventilated areas. Use safety glasses and protective gloves as appropriate to situation. Wash hands and face and gargle after handling. Prevent generation of dust. This material may cause risk of dust explosion.
STORAGE	
STORAGE CONDITIONS	: Keep container tightly closed. Protect from sun. Store in a well-ventilated room(under 40 C)
PACKAGINH MATERIALS	: No information available

[8.EXPOSURE CONTROLS / PERSONAL PROTECTION]

ENGINEERING MEASURES	: Facilities storing or utilizing this material should be equipped with an Eyewash facility and a safety shower. Use local exhaust ventilation, in case of generation of dust.
LIMIT VALUES	:
ACGIH(TLV)	: TWA 3.5mg/m ³ ,(2003 year edition) Carbon black TWA 2mg/m ³ ,(2003 year edition) Paraffin wax fume
OSHA(PEL)	: PEL 3.5mg/m ³ ,(2002 year edition) Carbon black
PERSONAL PROTECTIVE EQUIPMENT	
RESPIRATORY PROTECTION	: Use dust mask, as appropriate to situation.
HAND PROTECTION	: Rubber gloves
EYE PROTECTION	: Safety glasses with side shield(Safety goggles or Face shield)
SKIN AND BODY PROTECTION	: Full-body suit
HYGIENE MEASURES	: No information available

[9.PHYSICAL AND CHEMICAL PROPERTIES]

PHYSICAL STATES	
FORM	: Pulverizing powder
COLOUR	: Black
ODOUR	: Odourless
pH	: No data available
SPECIFIC TEMPERATURES/TEMPERATURE RANGES AT WHICH CHANGES IN PHYSICAL STATE OCCUR	
BOILING POINT	: No data available
MELTING POINT	: No data available
DECOMPOSITION	: No data available
TEMPERATURE	
FLASH POINT	: No data available
AUTOIGNITION TEMPERATURE	: No data available
EXPLOSION PROPERTIES	
EXPLOSION	: UPPER LIMIT: No data available LOWER LIMIT : No data available
VAPOUR PRESSURE	: No data available
VAPOUR DENSITY	: No data available
DENSITY	: 1.2 g/mL (20 °C) (68 °F)
SOLUBILITY	
WATER SOLUBILITY	: Insoluble
SOLVENT SOLUBILITY	: Partially soluble in toluene, chloroform and tetrahydrofurane.
OCTANOL/WATER PARTITION COEFFICIENT	: No data available
OTHER DATA	: No data available

[10.REACTIVITY AND STABILITY]

STABILITY	: Stable in general.
HAZARDOUS REACTIONS	: Stable.
CONDITIONS TO AVOID	: No information available
MATERIALS TO AVOID	: No information available
HAZARDOUS DECOMPOSITION PRODUCTS	: No information available
OTHERS	: No information available

[11.TOXICOLOGICAL INFORMATION]

ACUTE TOXICITY	: Oral, rat, LD50 : > 2000 mg/kg (Data on similar product)
LOCAL EFFECTS	
CORROSIVITY	: No information available
SKIN IRRITATION	: No information available
EYE IRRITATION	: No information available
SENSITIZATION	: No information available
CHRONIC TOXICITY/LONG TERM TOXICITY	: No information available
CARCINOGENICITY	: No information available
IARC	: Group2B,(2003 year edition) Carbon black Group3,(2003 year edition) Titanium dioxide Group 3, Unclassifiable as to carcinogenicity to humans Amorphous Silica
NTP	: Not established
OSHA	: Not established
MUTAGENICITY	: Ames test(TA98, TA100, TA1535, TA1537, TA1538, WP2uvrA) : Negative (Data on similar product)
TERATOGENICITY	: No information available
REPRODUCTION TOXICITY	: No information available
OTHER DATA	: No information available

[12.ECOLOGICAL INFORMATION]

MOBILITY	: No information available
PERSISTENCE/ DEGRADABILITY	: No information available
BIOACCUMULATION	: No information available
ECOTOXICITY	
AQUATIC TOXICITY	: No information available
OTHER DATA	: No information available



[13.DISPOSAL CONSIDERATIONS]

Review "HANDLING AND STORAGE(Section7)"
Passed to a licensed waste contractor.
This product may cause risk of dust explosion.
Dispose of waste in accordance with local, state, and federal regulations.

Dispose of waste in accordance with local, state and federal regulations.

[14.TRANSPORTATION INFORMATION]

Follow all regulations in your country or region.

UN CLASS/UN NUMBER : Not applicable
PRECAUTIONS : Review "ACCIDENTAL RELEASE MEASURES(Section 6)".
Review "HANDLING AND STORAGE (Section 7)".
Ensure containers without breakage or leakage.
Ensure containers tightly fixed.
Follow all regulations in your country or region.

[15.REGULATORY INFORMATION]

Follow all regulations in your country or region.

INVENTORIES : ENCS(Japan) Yes
TSCA(USA) Yes
EINECS(EU) No(ELINCS)
AICS(Australia) Yes
DSL(Canada) No(NDSL)
ECL(Korea) Yes
PICCS(Philippines) Yes

[16.OTHER INFORMATION]

REFERENCES : -Safety data sheet for chemical product – Part 1 : Content and order of sections(ISO 11014-1)
-International Chemical Safety Cards(ICSC) (Compiler's Guide) (1994)

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