



MATERIAL SAFETY DATA SHEET

[1.CHEMICAL PRODUCT AND COMPANY IDENTIFICATION]

PRODUCT NAME : ML-1710D3
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 : Preparation

INGREDIENTS AND :

CONCENTRATION RANGE

Ingredients

Concentration Range(%)

CAS RN

Black toner

INGREDIENTS CONTRIBUTING TO : None

THE HAZARD

[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 available.

PHYSICAL AND CHEMICAL : This material is not dangerous in case of usual handling.

HAZARDS May cause risk of dust explosion

CLASS NAME FOR MSDS : Not applicable

[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 a stream of water for at
least 15 minutes. 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 : No information available
MEDIA

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 protections as
appropriate to situation.

[6.ACCIDENTAL RELEASE MEASURES]

PERSONAL PRECAUTIONS	: 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	: Sweep or vacuum spills. Prevent dispersion of dust.
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.
STORAGE STORAGE CONDITIONS	: Keep container tightly closed. Protect from sun. Store in a well-ventilated room (under 40 C).
PACKAGING 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 ,(2000 year edition) Carbon black
OSHA(PEL)	: PEL 3.5mg/m ³ ,(2000 year edition) Carbon black
PERSONAL PROTECTIVE EQUIPMENT	
RESPIRATORY PROTECTION	: Dust respirator
HAND PROTECTION	: Rubber gloves
EYE PROTECTION	: Safety goggles
SKIN AND BODY PROTECTION	: Full-body suit
HYGIENE MEASURES	: No information available

[9.PHYSICAL AND CHEMICAL PROPERTIES]

PHYSICAL STATES

FORM : Powder
COLOUR : Black
ODOUR : Odourless
pH : Not applicable

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 : Not applicable

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 (20.0°C) (68°F)

SOLUBILITY

WATER SOLUBILITY : Insoluble

SOLVENT SOLUBILITY : Partially soluble in toluene, chloroform and tetrahydrofuran.

OCTANOL/WATER PARTITION COEFFICIENT : No data available

OTHER DATA

OTHER DATA : No data available

[10.REACTIVITY AND STABILITY]

STABILITY : Stable in general.

HAZARDOUS REACTIONS : This material may cause risk of dust explosion.

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

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 : Group 2B, (2000 year edition)

Carbon black

NTP : Not established

OSHA : Not established

MUTAGENICITY : Ames test (Salmonella typhimurium TA98, TA100, TA1535, TA1537, TA1538, Escherichia coli WP2uvrA) : Negative

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 (Section 7)".
Dispose of waste(after vacuuming) 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) No
DSL(Canada) No
ECL(Korea) Yes
PICCS(Philippines) Yes

[16.OTHER INFORMATION]

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



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