

# MATERIAL SAFETY DATA SHEET

## [1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION]

PRODUCT NAME : ML-D1630A, D2850A, D2850B, SF-D560RA,  
MLT-D109S, D1092D, D106S, D1062S, D209S, D2092S,  
D209L, D2092L

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. HAZARDS IDENTIFICATION]

### MOST IMPORTANT HAZARDS AND EFFECTS

#### GHS CLASSIFICATION

PHYSICAL AND CHEMICAL HAZARDS : Not classified

HEALTH HAZARDS

ACUTE TOXICITY (Oral) : Not classified

ACUTE TOXICITY (Dermal)

ACUTE TOXICITY (Inhalation) : Not applicable (Vapours)

SKIN CORROSION / IRRITATION : Classification not possible

SERIOUS EYE DAMAGE / EYE IRRITATION : Classification not possible

RESPIRATORY SENSITIZATION : Classification not possible

SKIN SENSITIZATION : Classification not possible

GERM CELL MUTAGENICITY : Classification not possible

CARCINOGENICITY : Category 2

REPRODUCTIVE TOXICITY : Classification not possible

SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY

- SINGLE EXPOSURE : Classification not possible

- REPEATED EXPOSURE : Category 1 (lung)

ASPIRATION HAZARD : Classification not possible

ENVIRONMENTAL HAZARDS

HAZARDOUS TO THE AQUATIC ENVIRONMENT

- ACUTE TOXICITY : Classification not possible

- CHRONIC TOXICITY : Classification not possible

GHS LABEL ELEMENTS

PICTOGRAMS OR SYMBOLS :



SIGNAL WORD : Danger

HAZARD STATEMENTS : Suspected of causing cancer  
Causes damage to organs through prolonged or repeated exposure (lung)



PRECAUTIONARY STATEMENTS

PREVENTION : Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Do not breathe dust/fume/gas/mist/vapours/spray.  
 Do not eat, drink or smoke when using this product.  
 Wash thoroughly after handling.  
 if needed, use personal protective equipment as required.

RESPONSE : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, If present and easy to do. Continue rinsing.  
 IF ON SKIN: Gently wash with plenty of soap and water.  
 IF exposed or concerned: Get medical attention/advice.

STORAGE : Store locked up.  
 Protect from sun. Store in a well-ventilated room (under 40 C)

DISPOSAL : Passed to a licensed waste contractor.

SAFE HANDLING ADVICE

[3.COMPOSITION / INFORMATION ON INGREDIENTS]

SUBSTANCE OR MIXTURE : Mixture

INGREDIENTS AND CONCENTRATION RANGE

Ingredients	Concentration Range(%)	CAS RN
Non-linear type polyester resin from DSA	Confidential	Confidential
Carbon black	Confidential	1333-86-4
Paraffin waxes and Hydrocarbon waxes	Confidential	8002-74-2
Other components	Confidential	

[4.FIRST-AID MEASURES]

IN CASE OF INHALATION : Remove to fresh air and keep at rest in a position comfortable for breathing.  
 IF exposed or concerned: Get medical attention/advice.

IN CASE OF SKIN CONTACT : Gently wash with plenty of soap and water.  
 IF exposed or concerned: Get medical attention/advice.

IN CASE OF EYE CONTACT : IF exposed or concerned: Get medical attention/advice.  
 Get medical attention/advice if you feel unwell.

IN CASE OF INGESTION : Call a POISON CENTER or doctor/physician if you feel unwell.  
 IF exposed or concerned: Get medical attention/advice.

[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.

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**[6.ACCIDENTAL RELEASE MEASURES]**

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

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**[7.HANDLING AND STORAGE]**

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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	: Use an adequate ventilation. Wash thoroughly after handling. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. This material may cause risk of dust explosion.
STORAGE STORAGE CONDITIONS	: Store locked up. Keep container tightly closed. Protect from sun. Store in a well-ventilated room(under 40 )
PACKAGINH MATERIALS	: No information available

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**[8.EXPOSURE CONTROLS / PERSONAL PROTECTION]**

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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)	: 3.5mg/m3 TWA Carbon black TWA 2mg/m3 Paraffin wax fume 10mg/m3 TWA (inhalable particles, recommended);3mg/m3 TWA (respirable particles, recommended)(Particulates (insoluble or poorly soluble) not otherwise specified (PNOS))
OSHA(PEL)	: 3.5mg/m3 TWA Carbon black



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15mg/m<sup>3</sup> TWA (total dust);5mg/m<sup>3</sup> TWA(respirable fraction)  
(Particulates not otherwise regulated)

**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

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**[9.PHYSICAL AND CHEMICAL PROPERTIES]**

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**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 information available
MELTING POINT	: No information available
FLASH POINT	: No data available

**FLAMMABILITY OR EXPLOSIVE PROPERTIES**

FLAMMABILITY OR EXPLOSIVE	: UPPER LIMIT: No information available LOWER LIMIT : No information available
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**LIMITS**

VAPOUR PRESSURE	: No information available
VAPOUR DENSITY	: No information available
SPECIFIC GRAVITY(DENSITY)	: 1.2 g/mL ( 20 °C ) ( 68 °F )

**SOLUBILITY**

WATER SOLUBILITY	: Insoluble
SOLVENT SOLUBILITY	: Partially soluble in toluene, chloroform and tetrahydrofurane.
PARTITION COEFFICIENT :n- OCTANOL/WATER (log Pow)	: No information available
AUTOIGNITION TEMPERATURE	: No information available
DECOMPOSITION TEMPERATURE	: No information available
ODOUR THRESHOLD	: No information available
EVAPORATION RATE	: No information available
FLAMMABILITY (SOLID, GAS)	: No information available
VISCOSITY	: No information available
OTHER DATA	: No information available

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**[10.REACTIVITY AND STABILITY]**

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CHEMICAL STABILITY	: Stable in general.
POSSIBILITY OF HAZARDOUS REACTIONS	: Stable.
CONDITIONS TO AVOID	: No information available
INCOMPATIBLE MATERIALS	: No information available
HAZARDOUS DECOMPOSITION	: No information available



## PRODUCTS

OTHERS : No information available

## [11. TOXICOLOGICAL INFORMATION]

## ACUTE TOXICITY

## Oral

INFORMATION ON PRODUCT : No information available

INFORMATION ON INGREDIENTS : No information available

## Dermal

INFORMATION ON PRODUCT : No information available

INFORMATION ON INGREDIENTS : No information available

## Inhalation

INFORMATION ON PRODUCT : No information available

INFORMATION ON INGREDIENTS : No information available

## SKIN CORROSION / IRRITATION

INFORMATION ON PRODUCT : No information available

INFORMATION ON INGREDIENTS : No information available

## SERIOUS EYE DAMAGE/IRRITATION

INFORMATION ON PRODUCT : No information available

INFORMATION ON INGREDIENTS : Paraffin waxes and Hydrocarbon waxes: Category 2B;Ref.(1)

## RESPIRATORY OR SKIN SENSITIZATION

## RESPIRATORY

INFORMATION ON PRODUCT : No information available

INFORMATION ON INGREDIENTS : No information available

## SKIN

INFORMATION ON PRODUCT : No information available

INFORMATION ON INGREDIENTS : No information available

## MUTAGENICITY (GERM CELL MUTAGENICITY)

INFORMATION ON PRODUCT : Ames test (TA98, TA100, TA1535, TA1537, TA1538, WP2uvrA) : Negative

INFORMATION ON INGREDIENTS : No information available

## CARCINOGENICITY

INFORMATION ON PRODUCT : No information available

INFORMATION ON INGREDIENTS : Carbon black : Category 2;Ref.(1)

IARC : Group 2B : Possibly carcinogenic to humans.

Carbon black

NTP : Not listed

EU : Not listed

OSHA : Not listed

## REPRODUCTION TOXICITY

INFORMATION ON PRODUCT : No information available

INFORMATION ON INGREDIENTS : No information available

## SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY

## - SINGLE EXPOSURE

INFORMATION ON PRODUCT : No information available

INFORMATION ON INGREDIENTS : No information available



- REPEATED EXPOSURE

INFORMATION ON PRODUCT : No information available  
INFORMATION ON INGREDIENTS : Carbon black : Category 1 (lung); Ref.(1)

ASPIRATION HAZARD

INFORMATION ON PRODUCT : No information available  
INFORMATION ON INGREDIENTS : No information available

OTHER INFORMATION : No information available

[12.ECOLOGICAL INFORMATION]

ECOTOXICITY : No information available  
PERSISTENCE / DEGRADABILITY : No information available  
MOBILITY IN SOIL : No information available  
BIOACCUMULATION POTENTIAL : No information available  
OTHER ADVERSE EFFECTS : 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.

[14.TRANSPORTATION INFORMATION]

Follow all regulations in your country or region.

UN CLASS / UN NUMBER : Not applicable  
SPECIAL PRECAUTIONS FOR USER : 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  
IECSC(China) Yes



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**[16.OTHER INFORMATION]**

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**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)
- (1) GHS Classification Database, National Institute of Technology and Evaluation (NITE)

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