

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
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TELEPHONE NO. : 82-31-200-8311

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[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
Polyester resin	70 - 95	Trade Secret
Ethylen/propylen copolymer	1 - 5	Trade Secret
Wax	1 - 10	Trade Secret
Carbon blak	1 - 10	1333-86-4
Silica	1 - 5	Trade Secret

[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 fell 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.

[6.ACCIDENTAL RELEASE MEASURES]

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

[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 SAFE HANDLING ADVICE	: Avoid inhalation of fine dust . : 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

[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)	: 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
15mg/m³ TWA (total dust);5mg/m³ 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

[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 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

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- : No information available
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

[10.REACTIVITY AND STABILITY]

CHEMICAL STABILITY : Stable in general.

POSSIBILITY OF HAZARDOUS : Stable.

REACTIONS

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



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

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