

MATERIAL SAFETY DATA SHEET

[1.CHEMICAL PRODUCT AND COMPANY IDENTIFICATION]

PRODUCT NAME : Muratec DKT114

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.

[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 | : 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 |

[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 tetrahydrofuran. |
| 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 |

[10.REACTIVITY AND STABILITY]

| | |
|---------------------------------------|----------------------------|
| 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



[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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