



1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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 : Not classified SERIOUS EYE DAMAGE / EYE IRRITATION : Not classified

RESPIRATORY SENSITIZATION : Classification not possible

SKIN SENSITIZATION : Not classified

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- CHRONIC TOXICITY: Classification not possible: 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.

Material Safety Data Sheet

RESPONSE

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.

: IF IN EYES: Rinse cautiously with water for Remove contact lenses. If present and easy to do. several minutes.

Continue rinsina.

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 INGERDIENTS

SUBSTANCE OR MIXTURE: Mixture

INGREDIENTS AND CONCENTRATION RANGE

Ingredients Concentration Range(%) CAS RN Polyester resin 75 - 90 Trade Secret **Trade Secret** Wax 1 - 10Carbon black 2 - 10 1333-86-4 Silica Trade Secret 1 - 5

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.

: Get medical attention/advice. IF exposed or concerned

IN CASE OF EYE CONTACT : Rinse cautiously with water for several minutes. Remove contact lenses.

If present and easy to do. Continue rinsing.

: Get medical attention/advice. IF exposed or concerned

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 MEASUARES

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 protection

as

appropriate to situation.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PREAUTIONS. : Use mask, goggles and protective gloves. PROTECTIVE EQUIPMENT AND Large spills: Remove person to safety.

Ensure adequate ventilation. Treat from upwind position. **EMERGENCY PROCEDURE**

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 : 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

SUITABLE STORAGE CONDITIONS: Keep container tightly closed.

Protect from sun. Store in a well-ventilated room(under 40 ℃)

Store locked up.

SAFE 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

: Safety glasses with side shield(Safety goggles or Face shield) **EYE PROTECTION**

SKIN AND BODY PROTECTION : Full-body suit

Material Safety Data Sheet

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 : Rat, LD50 : > 5000mg/kg

Dermal

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

Inhalation

INFORMATION ON PRODUCT : No information available

Material Safety Data Sheet

INFORMATION ON INGREDIENTS

SKIN CORROSION / IRRITATION

: No information available

INFORMATION ON PRODUCT : Rabbit, undiluted, 4 hours semi-occluded application test

(OECD404): Not classified

SERIOUS EYE DAMAGE/IRRITATION

INFORMATION ON PRODUCT : Rabbit, undiluted, OECD405 : Not classified

RESPIRATORY OR SKIN SENSITIZATION

RESPIRATORY

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

SKIN

INFORMATION ON PRODUCT : Guinea pig, Guinea Pig Maximization Test : Negative

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 3: Not classifiable as to its carcinogenicity to humans

Silica, amorphous

Group 2B: Possibly carcinogenic to humans.

Carbon black

Group 2B: Possibly carcinogenic to humans.

Titanium dioxide

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 TOCICITY

- 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 "HANDING AND SRORAGE(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.

INTERNATIONAL REGULATIONS

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.

Avoid heating(keep under 40 C).

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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