



MATERIAL SAFETY DATA SHEET

[1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION]

PRODUCT NAME : CLP-510D3K
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	Confidential	

INGREDIENTS CONTRIBUTING TO THE HAZARD(JAPAN) : None

[3. HAZARDS IDENTIFICATION]

MOST IMPORTANT HAZARDS :
ADVERSE HUMAN HEALTH EFFECTS : To the best of our investigation, no special hazards have to be mentioned.
ENVIRONMENTAL EFFECTS : To the best of our investigation, no information about adverse effect in the environment available.
PHYSICAL AND CHEMICAL HAZARDS : This material is not dangerous in case of usual handling.
CLASS NAME FOR MSDS IN JAPAN : 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 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 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 an adequate ventilation. Use local exhaust ventilation, in case of generation of dust.
LIMIT VALUES :	
ACGIH(TLV)	: TWA 3.5mg/m3,(2002 year edition) Carbon black TWA 3mg/m3(respirable particulate) TWA 10mg/m3(inhalable particulate)(Particulates Not Otherwise Classified)
OSHA(PEL)	: PEL 3.5mg/m3,(2002 year edition) Carbon black
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 : Not applicable

SPECIFIC TEMPERATURES/TEMPERATURE RANGES AT WHICH CHANGES IN PHYSICAL STATE OCCUR

BOILING POINT : No data available
MELTING POINT : No data available
DECOMPOSITION TEMPERATURE : No data available
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 °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 : No data available

[10.REACTIVITY AND STABILITY]

STABILITY : Stable in general
HAZARDOUS REACTIONS : Stable.
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 : No information available
LOCAL EFFECTS
CORROSIVITY : No information available
SKIN IRRITATION : No information available
EYE IRRITATION : No information available
SENSITIZATION : No information available
ICITY : No information available
IARC : Group2B,(2002 year edition)
Carbon black
Group3,(2002 year edition)
Titanium dioxide
Group 3,(2002 year edition)
Amorphous Silica
NTP : Not established
OSHA : Not established
MUTAGENICITY : No information available
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(Section7)"

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) Yes
 DSL(Canada) No(NDSL)
 ECL(Korea) Yes
 PICCS(Philippines) Yes

[16.OTHER INFORMATION]

REFERENCES : -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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