

## 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. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE / MIXTURE	: Mixture	
CHEMICAL NAME	: Cyan Toner	
INGREDIENTS AND CONCENTRATION RANGE		
Ingredients	Concentration Range(%)	CAS RN
Polyester resin	75 - 90	Trade Secret
Wax	1 - 10	Trade Secret
Cyan pigment	2 - 10	Trade Secret
Silica	1 - 5	Trade Secret

## 3. HAZARDS IDENTIFICATION

FIRE AND EXPLOSION HAZARD : May cause risk of dust explosion.  
POTENTIAL 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 available.

## 4. FIRST-AID MEASURES

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 SKIN CONTACT : Wash material off the skin with plenty seek medical attention.  
IN CASE OF INHALATION : Remove person to fresh air. If necessary  
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 MEASURES : Risk of producing harmful gases such as carbon monoxide and nitrogen oxides. Avoid inhalation of smoke or gases.  
EXTINGUISHING AGENTS : In case of small fire use powder, carbon dioxide.  
In case of large fire shut off air by spraying with water or foam.

## 6. ACCIDENTAL RELEASE MEASURES

: In case of spill vacuum material immediately. Then wipe up remainder in waste cloth.

## 7. HANDLING AND STORAGE

HANDLING	: Fight fire from upwind position. Avoid inhalation of dust. Prevent generation of dust
STORAGE	: Avoid inhalation of fine dust . : Protect from sun. Store in a cool room.(under 40 C)

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ACGIH(TLV)	: Not established
OSHA(PEL)	: Not established
VENTILATION	: Use local exhaust ventilation or general ventilation
PROTECTIVE MEASURES	
RESPIRATORY PROTECTIVE EQUIPMENTS	: Dust respirator
EYE PROTECTIVE EQUIPMENTS	: Safety goggles
HAND PROTECTIVE EQUIPMENTS	: Rubber gloves
PROTECTIVE CLOTHINGS	: Use as appropriate to situation.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	: Cyan powder
ODOUR	: Odourless
BOILING POINT	: No data available
VAPOUR PRESSURE	: No data available
VAPOUR DENSITY	: No data available
VOLATILITY	: No data available
MELTING / FREEZING POINT	: No data available
SPECIFIC GRAVITY	: 1.2 ( 20.0 °C)
SOLUBILITY	
WATER SOLUBILITY	: No data available
SOLVENT SOLUBILITY	: A part of component is soluble in toluene, chloroform and tetrahydrofuran
pH	: No data available
VISCOSITY	: No data available
OCTANOL / WATER	: No data available
PARTITION COEFFICIENT	
OTHER INFORMATION	: None

## 10. REACTIVITY AND STABILITY

FLASH POINT	: Not applicable
AUTOIGNITION TEMPERATURE	: No data available
EXPLOSIVE LIMIT IN AIR(LEC)	: No data available
EXPLOSIVE LIMIT IN AIR(UEC)	: No data available
COMBUSTIBILITY	: Yes
OXIDIZABILITY	: No
SELF-REACTIVITY / EXPLOSIVITY	: This material may cause risk of dust explosion.
REACTIVITY AND STABILITY	: Stable in general.
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS	: No information available
OTHER INFORMATION	: None

## 11. TOXICOLOGICAL INFORMATION

CORROSIVITY	: No data available
SKIN IRRITATION	: No data available
EYE IRRITATION	: No data available
SENSITIZATION	: No data available
ACUTE TOXICITY	: No data available
SUBCHRONIC EFFECTS	: No data available
CHRONIC EFFECTS	: No data available
CARCINOGENICITY	: No data available
IARC	: Group 3. The agent is not classifiable as to its carcinogenicity to humans. (Silica) Group 2B. The agent is possibly carcinogenic to humans. (Carbon)
NTP	: None of this product's components are listed
OSHA	: None of this product's components are listed
MUTAGENICITY	: Ames test (TA98, TA100, TA1535, TA1537, TA1538, WP2urvA) : Negative
REPRODUCTIVE EFFECTS	: No data available
TERATOGENICITY	: No data available
OTHER INFORMATION	: None.

## 12. ECOLOGICAL INFORMATION

BIODEGRADABILITY	: No data available
BIOACCUMULATION	: No data available
FISH TOXICITY	: No data available
OTHER INFORMATION	: None

## 13. DISPOSAL CONSIDERATIONS

Review "HANDLING AND STORAGE(Section7)"  
 Dispose of waste in accordance with local, state and federal regulations.  
 Passed to a licensed waste contractor.  
 Incinerate with little portions.  
 Risk of producing harmful gases such as carbon monoxide and nitrogen oxides

## 14. TRANSPORTATION INFORMATION

PRECAUTIONS	Follow all regulations in your country or region. : Review "ACCIDENTAL RELEASE MEASURES (Section6)" Review "HANDLING AND STORAGE (Section7)" Handle container carefully to avoid shock. Do not fall or crash Keep dry
PROPER SHIPPING NAME	: Non hazardous
HAZARD CLASS	: Not applicable
UN NO.	: Not applicable
PACKING GROUP	: Not applicable
HAZARD LABELS	: Not applicable

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**15. REGULATORY INFORMATION**

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EINECS  
TSCAFollow all regulations in your country or region.  
: No (ELINCS)  
: Yes

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**16. OTHER INFORMATION**

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REFERENCES : None

To the best of the manufacturer's knowledge, the information contained herein is accurate. However, neither the manufacturer, nor any of its affiliates, make any representations or warranties (expressed or implied), nor assumes any liability (including liability for any direct, incidental, consequential, or other damages) with respect to the accuracy or completeness of the information contained herein. Such information may be (without limitation) invalid if the specified material is used in combination with another, in a particular process, or under unusual conditions. Determination of suitability of any material for any given purpose is the sole responsibility of the user who assumes all risk and responsibility therefore. All materials may present unknown hazards and should be used with appropriate caution. The manufacturer cannot and does not guarantee that the hazards described herein are the only ones that exist.

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 EMERGENCY TELEPHONE NO. : 82-31-200-8311

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE / MIXTURE	: Mixture	
CHEMICAL NAME	: Magenta Toner	
INGREDIENTS AND CONCENTRATION RANGE		
Ingredients	Concentration Range(%)	CAS RN
Polyester resin	75 - 90	Trade Secret
Wax	1 - 10	Trade Secret
Magenta pigment	0.5 - 10	Trade Secret
Silica	1 - 5	Trade Secret

## 3. HAZARDS IDENTIFICATION

FIRE AND EXPLOSION HAZARD : May cause risk of dust explosion.  
 POTENTIAL 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 available.

## 4. FIRST-AID MEASURES

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 SKIN CONTACT : Wash material off the skin with plenty seek medical attention.  
 IN CASE OF INHALATION : Remove person to fresh air. If necessary  
 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 MEASURES : Risk of producing harmful gases such as carbon monoxide and nitrogen oxides. Avoid inhalation of smoke or gases.  
 EXTINGUISHING AGENTS : In case of small fire use powder, carbon dioxide.  
 In case of large fire shut off air by spraying with water or foam.

## 6. ACCIDENTAL RELEASE MEASURES

: In case of spill vacuum material immediately. Then wipe up remainder in waste cloth.

## 7. HANDLING AND STORAGE

HANDLING	: Fight fire from upwind position. Avoid inhalation of dust. Prevent generation of dust
STORAGE	: Avoid inhalation of fine dust . : Protect from sun. Store in a cool room.(under 40 C)

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ACGIH(TLV)	: Not established
OSHA(PEL)	: Not established
VENTILATION	: Use local exhaust ventilation or general ventilation
PROTECTIVE MEASURES	
RESPIRATORY PROTECTIVE EQUIPMENTS	: Dust respirator
EYE PROTECTIVE EQUIPMENTS	: Safety goggles
HAND PROTECTIVE EQUIPMENTS	: Rubber gloves
PROTECTIVE CLOTHINGS	: Use as appropriate to situation.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	: Magenta powder
ODOUR	: Odourless
BOILING POINT	: No data available
VAPOUR PRESSURE	: No data available
VAPOUR DENSITY	: No data available
VOLATILITY	: No data available
MELTING / FREEZING POINT	: No data available
SPECIFIC GRAVITY	: 1.2 ( 20.0 °C)
SOLUBILITY	
WATER SOLUBILITY	: No data available
SOLVENT SOLUBILITY	: A part of component is soluble in toluene, chloroform and tetrahydrofuran
pH	: No data available
VISCOSITY	: No data available
OCTANOL / WATER	: No data available
PARTITION COEFFICIENT	
OTHER INFORMATION	: None

## 10. REACTIVITY AND STABILITY

FLASH POINT	: Not applicable
AUTOIGNITION TEMPERATURE	: No data available
EXPLOSIVE LIMIT IN AIR(LEC)	: No data available
EXPLOSIVE LIMIT IN AIR(UEC)	: No data available
COMBUSTIBILITY	: Yes
OXIDIZABILITY	: No
SELF-REACTIVITY / EXPLOSIVITY	: This material may cause risk of dust explosion.
REACTIVITY AND STABILITY	: Stable in general.
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS	: No information available
OTHER INFORMATION	: None

## 11. TOXICOLOGICAL INFORMATION

CORROSIVITY	: No data available
SKIN IRRITATION	: No data available
EYE IRRITATION	: No data available
SENSITIZATION	: No data available
ACUTE TOXICITY	: No data available
SUBCHRONIC EFFECTS	: No data available
CHRONIC EFFECTS	: No data available
CARCINOGENICITY	: No data available
IARC	: Group 3. The agent is not classifiable as to its carcinogenicity to humans. (Silica) Group 2B. The agent is possibly carcinogenic to humans. (Carbon)
NTP	: None of this product's components are listed
OSHA	: None of this product's components are listed
MUTAGENICITY	: Ames test (TA98, TA100, TA1535, TA1537, TA1538, WP2urvA) : Negative
REPRODUCTIVE EFFECTS	: No data available
TERATOGENICITY	: No data available
OTHER INFORMATION	: None.

## 12. ECOLOGICAL INFORMATION

BIODEGRADABILITY	: No data available
BIOACCUMULATION	: No data available
FISH TOXICITY	: No data available
OTHER INFORMATION	: None

## 13. DISPOSAL CONSIDERATIONS

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 Passed to a licensed waste contractor.  
 Incinerate with little portions.  
 Risk of producing harmful gases such as carbon monoxide and nitrogen oxides

## 14. TRANSPORTATION INFORMATION

PRECAUTIONS	Follow all regulations in your country or region. : Review "ACCIDENTAL RELEASE MEASURES (Section6)" Review "HANDLING AND STORAGE (Section7)" Handle container carefully to avoid shock. Do not fall or crash Keep dry
PROPER SHIPPING NAME	: Non hazardous
HAZARD CLASS	: Not applicable
UN NO.	: Not applicable
PACKING GROUP	: Not applicable
HAZARD LABELS	: Not applicable

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**15. REGULATORY INFORMATION**

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EINECS	Follow all regulations in your country or region.
TSCA	: No (ELINCS)
	: Yes

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**16. OTHER INFORMATION**

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REFERENCES : None

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## 2. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE / MIXTURE	: Mixture	
CHEMICAL NAME	: Yellow Toner	
INGREDIENTS AND CONCENTRATION RANGE		
Ingredients	Concentration Range(%)	CAS RN
Polyester resin	75 - 90	Trade Secret
Wax	1 - 10	Trade Secret
Yellow pigment	0.5 - 10	Trade Secret
Silica	1 - 5	Trade Secret

## 3. HAZARDS IDENTIFICATION

FIRE AND EXPLOSION HAZARD : May cause risk of dust explosion.  
 POTENTIAL 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 available.

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 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 MEASURES : Risk of producing harmful gases such as carbon monoxide and nitrogen oxides. Avoid inhalation of smoke or gases.  
 EXTINGUISHING AGENTS : In case of small fire use powder, carbon dioxide.  
 In case of large fire shut off air by spraying with water or foam.

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: In case of spill vacuum material immediately. Then wipe up remainder in waste cloth.

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HANDLING	: Fight fire from upwind position. Avoid inhalation of dust. Prevent generation of dust Avoid inhalation of fine dust .
STORAGE	: Protect from sun. Store in a cool room.(under 40 C)

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ACGIH(TLV)	: Not established
OSHA(PEL)	: Not established
VENTILATION	: Use local exhaust ventilation or general ventilation
PROTECTIVE MEASURES	
RESPIRATORY PROTECTIVE EQUIPMENTS	: Dust respirator
EYE PROTECTIVE EQUIPMENTS	: Safety goggles
HAND PROTECTIVE EQUIPMENTS	: Rubber gloves
PROTECTIVE CLOTHINGS	: Use as appropriate to situation.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	: Yellow powder
ODOUR	: Odourless
BOILING POINT	: No data available
VAPOUR PRESSURE	: No data available
VAPOUR DENSITY	: No data available
VOLATILITY	: No data available
MELTING / FREEZING POINT	: No data available
SPECIFIC GRAVITY	: 1.2 ( 20.0 °C)
SOLUBILITY	
WATER SOLUBILITY	: No data available
SOLVENT SOLUBILITY	: A part of component is soluble in toluene, chloroform and tetrahydrofuran
pH	: No data available
VISCOSITY	: No data available
OCTANOL / WATER	: No data available
PARTITION COEFFICIENT	
OTHER INFORMATION	: None

## 10. REACTIVITY AND STABILITY

FLASH POINT	: Not applicable
AUTOIGNITION TEMPERATURE	: No data available
EXPLOSIVE LIMIT IN AIR(LEC)	: No data available
EXPLOSIVE LIMIT IN AIR(UEC)	: No data available
COMBUSTIBILITY	: Yes
OXIDIZABILITY	: No
SELF-REACTIVITY / EXPLOSIVITY	: This material may cause risk of dust explosion.
REACTIVITY AND STABILITY	: Stable in general.
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS	: No information available
OTHER INFORMATION	: None

## 11. TOXICOLOGICAL INFORMATION

CORROSIVITY	: No data available
SKIN IRRITATION	: No data available
EYE IRRITATION	: No data available
SENSITIZATION	: No data available
ACUTE TOXICITY	: No data available
SUBCHRONIC EFFECTS	: No data available
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CARCINOGENICITY	: No data available
IARC	: Group 3. The agent is not classifiable as to its carcinogenicity to humans. (Silica) Group 2B. The agent is possibly carcinogenic to humans. (Carbon)
NTP	: None of this product's components are listed
OSHA	: None of this product's components are listed
MUTAGENICITY	: Ames test (TA98, TA100, TA1535, TA1537, TA1538, WP2urvA) : Negative
REPRODUCTIVE EFFECTS	: No data available
TERATOGENICITY	: No data available
OTHER INFORMATION	: None.

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BIODEGRADABILITY	: No data available
BIOACCUMULATION	: No data available
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OTHER INFORMATION	: None

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 Passed to a licensed waste contractor.  
 Incinerate with little portions.  
 Risk of producing harmful gases such as carbon monoxide and nitrogen oxides

## 14. TRANSPORTATION INFORMATION

PRECAUTIONS	Follow all regulations in your country or region. : Review "ACCIDENTAL RELEASE MEASURES (Section6)" Review "HANDLING AND STORAGE (Section7)" Handle container carefully to avoid shock. Do not fall or crash Keep dry
PROPER SHIPPING NAME	: Non hazardous
HAZARD CLASS	: Not applicable
UN NO.	: Not applicable
PACKING GROUP	: Not applicable
HAZARD LABELS	: Not applicable

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**15. REGULATORY INFORMATION**

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EINECS	Follow all regulations in your country or region.
TSCA	: No (ELINCS)
	: Yes

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**16. OTHER INFORMATION**

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REFERENCES : None

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 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	: 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.

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 several minutes.  
 Remove contact lenses, If present and easy to do.  
 Continue rinsing.

STORAGE

IF ON SKIN: Gently wash with plenty of soap and water.  
 IF exposed or concerned: Get medical attention/advice.  
 : Store locked up.

DISPOSAL

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

SAFE HANDLING ADVICE

: Passed to a licensed waste contractor.

3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE OR MIXTURE : Mixture

INGREDIENTS AND CONCENTRATION RANGE

Ingredients	Concentration Range(%)	CAS RN
Polyester resin	75 - 90	Trade Secret
Wax	1 - 10	Trade Secret
Carbon black	2 - 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 : Rinse cautiously with water for several minutes. Remove contact lenses.  
 If present and easy to do. Continue rinsing.  
 IF exposed or concerned : Get medical attention/advice.  
 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	: 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 °C) 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/m <sup>3</sup> TWA Carbon black TWA 2mg/m <sup>3</sup> Paraffin wax fume 10mg/m <sup>3</sup> TWA (inhalable particles, recommended);3mg/m <sup>3</sup> TWA (respirable particles, recommended)(Particulates (insoluble or poorly soluble) not otherwise specified (PNOS))
OSHA(PEL)	: 3.5mg/m <sup>3</sup> TWA Carbon black 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

## 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
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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-	: 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 REACTIONS	: Stable.
CONDITIONS TO AVOID	: No information available
INCOMPATIBLE MATERIALS	: No information available
HAZARDOUS DECOMPOSITION PRODUCTS	: No information available
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

INFORMATION ON INGREDIENTS	: No information available
SKIN CORROSION / IRRITATION	
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 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.

### 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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