
1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: TUFTONE YS-4-2
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 (GENERIC NAME) | : Black Toner |
| CHEMICAL FORMULA | : Not specified |
| CAS RN | : Confidential |
| UN No. | : Not applicable |
| EINECS | : No(ELINCS) |
| TSCA | : Yes |
| OTHER INFORMATION | : Contains: Silica dioxide about 2% . Carbon Black about 4% |

3. HAZARDS IDENTIFICATION

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|---------------------------|---|
| 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 |
| ENVIRONMENTAL EFFECTS | : To the best of our investigation, No special hazards have to be |

4. FIRST-AID MEASURES]

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| 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 of water and soap. If necessary seek medical attention. |
| IN CASE OF INHALATION | : Remove person to fresh air. 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

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| 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

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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

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|--------------------------|---|
| APPEARANCE | : Black 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 data available |
| OTHER INFORMATION | : None |

11. TOXICOLOGICAL INFORMATION

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|----------------------|--|
| 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 | : No data available |
| REPRODUCTIVE EFFECTS | : No data available |
| TERATOGENICITY | : No data available |
| OTHER INFORMATION | : None |

12. ECOLOGICAL INFORMATION

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

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

15. REGULATORY INFORMATION

Follow all regulations in your country or region.
 EINECS : No (ELINCS)
 TSCA : Yes
 KAO Corporation is not able to check up the regulatory information in regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.

16. OTHER INFORMATION

REFERENCES : None

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