

Material Safety Data Sheet

Date of Issue 3rd July 2012

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In accordance with REACH Regulation 1907/2006/EC

Section 1: Product and company identification

Company Name:

Address:

City, County, Postcode:

Country:

Telephone:

Fax:

Email:

Website:

Product Code:

Description:

See Product Catalogue

Dry Thermoplastic Powder

Name of Substance:

Replacement Samsung Universal Toner

CAS #:

See Section 3

EC #:

EC No 1272/2008

Registrations #:

See Section 3

Primary / Common Uses

Recommended use:

This preparation is a black toner used in printers/copiers

Restrictions on use:

Use for recommended use only

Section 2: Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Regulation 67/548/EEC (DSD) or 1999/45/EC (DPD):

Mixture is not classified as dangerous according to Directive 1999/45/EC

Classification according to Regulation (EC) 1272/2008 (CLP/GHS):

Mixture is not classified as dangerous according to Regulation (EC) No 1272/2008

Hazard Statements:

None

The product is required to be labelled in accordance with EC-Directives

2.2 Label elements

Labelling according to Regulation (EC) 1272/2008 (CLP/GHS)

Hazard Pictogram(s)

None used

Signal Word(s)

None used

Hazard Statement(s)

None used

Precautionary Statements

None used

Supplemental Information

No information available

2.3 Other hazards

Physicochemical hazards

Accumulation of fine dust particles may entail the risk of a dust explosion in the presence of air (only in the circumstances of an uncontrolled release of dust particles from the product)

Skin contact

Unlikely to cause skin irritation

Eye contact

May cause transient slight irritation or corneal injury

Inhalation

Minimal respiratory tract irritation may occur with exposure to large amounts of toner dust.

Ingestion

Use of this product as intended does not result in inhalation of excessive amounts of dust

Routes of exposure

Low acute toxicity, Ingestion is a minor route of entry for intended use of this product

Potential routes of exposure under normal use conditions are skin, eye contact and inhalation.

Ingestion is not expected to be a primary exposure for this product under normal use conditions

Chronic health effects

Prolonged inhalation of excessive amounts of any dust may cause lung damage. Use of this product as intended does not result in inhalation of excessive amounts of dust

Environmental hazards

Does not contain any PBT or vPvB substances

Other hazards (Acute)

Further hazards were not determined with current level of knowledge

Section 3: Composition / Information on Ingredients

3.1 Substances

This product is a mixture

3.2 Mixture

Component	Conc ⁿ / %	CAS #	EC #	Classification *1
Styrene Acrylic Resin	85 ~ 95	25767-47-9	-	-
Carbon Black	4 ~ 6	1333-86-4	215-609-9	See Section 15
Polypropylene Wax	1 ~ 3	9003-07-0	-	-
Charge Control Agent	< 1.0	865668-08-2	485-120-5	-
Silicones and Siloxanes, dimethyl-reaction products with silica	< 1.0	67762-90-7	-	See Section 15
Methyl methacrylates	< 1.0	9011-14-7	-	-

Section 4: First Aid Measures (Emergency overview)

4.1 Description of first aid measures

Skin Contact:	Unlikely to cause skin irritation In case of contact with substance, immediately flush skin or eyes with running water For minor skin contact, avoid spreading material on unaffected skin For major skin contact call emergency service
Skin Absorption:	Unlikely to be absorb due to physical properties
Eye Contact:	May cause slight irritation In case of contact, Immediately flush skin or eyes with running water. Call emergency medical service if irritation persists
Ingestion:	Low toxicity. Ingestion is a minor route of entry for intended use Do not allow him/her to eat anything contaminated with substance
Inhalation:	Low respiratory tract irritation may occur with exposure to large amounts of toner dust. Move victim to fresh air
Other information:	Ensure that medical personnel are aware of the material(s) involved and take adequate precautions to protect themselves

4.2 Most important symptoms and effects, both acute and delayed

Inhaled:	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting
Ingestion:	Although ingestion is not thought to produce harmful effects (as classified under EC Directives), the material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health).
Skin contact:	Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.
Eye:	Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctiva redness (as with windburn).
Chronic:	Long-term exposure to the product is not thought to produce chronic effects adverse to health (as classified by EC Directives using animal models); Nevertheless exposure by all routes should be minimised as a matter of course.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment:	Get immediate attention and treat symptomatically
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4.4 Additional information

Fire and Explosion:	Toner dust is a combustible powder the formation of an explosive dust-air mixture is possible.
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Section 5: Fire fighting measures

5.1 Extinguishing Media

Media:	Carbon Dioxide, Foam, Water, Water Spray (fog), Dry Chemical Use dry sand or earth to smother fire
Unsuitable Extinguishing Media:	Not available

5.2 Special hazards arising from the product

Hazard:	No data available
Hazardous products of Combustion:	CO ₂ , CO, AlO _x
Flash point:	N/A
Hazardous products of decomposition:	May decompose at high temperatures into a forming toxic gases Sealed containers may explode when heated vigorously Some materials may burn, but none will readily ignite Non-combustible, substance does not burn but may decompose upon heating, then produce corrosive and/or toxic fumes

5.3 Advice for fire-fighters

Special Fire Fighting Procedures:	Dike fire-control waters for later disposal; do not scatter in open waterways Move containers from fire area if possible without risk Do not smoke
Fire involving Tanks:	Fight fire from maximum safe distance or use unmanned hose holders or monitor nozzles Cool containers with flooding quantities of water until well after fire is out Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank ALWAYS stay away from tanks engulfed in fire
Unusual Fire and Explosion Hazards:	Toner is a combustible powder; formation of an explosive dust-air mixture is possible. Avoid all ignite sources.

5.4 Additional information

No data

Section 6: Accidental release measures

6.1 Personal Precautions, protective equipment and emergency procedures

Precautions: Avoid dust formation. Do not breathe dust. Wear personal protective equipment
Ignition Sources: Eliminate all ignition sources
Stop leak if you can do it without risk

6.2 Environmental precautions

Spill Procedures: Collect material without dusting; Spills can be cleaned using explosion proof vacuum cleaner, or damp cloths. Sweep material into a sealable container

6.3 Methods and material for containment and cleaning up

Waste Disposal Methods: Dispose of the material in accordance with EU/local/regional/national - Federal, State and regulations/requirements. Prevent entry into waterways, sewers, basements or confined areas
Methods of Purification and Removal: Absorb spills with inert material such as dry sand or earth. Place in a chemical waste container. Absorb the liquid and scrub the area with mild detergent and water

6.4 Reference to other sections

See section 8 for additional information

Section 7: Handling and Storage

7.1 Precautions for safe handling

Handle in accordance with good industrial practice, handle with care and avoid any unnecessary contact.
Keep away from heat, sparks or open flame.
Avoid uncontrolled procedures; may result in generating excessive dust or vapour that can be inhaled or contact the eyes.
Use adequate local ventilation if dust or vapour generation cannot be avoided.
Avoid skin contact with this material or solutions of this material.
Take precautionary measures against **Static Discharges**.
Handle in accordance with good industrial practice, handle with care and avoid any unnecessary contact.
Keep away from heat, sparks or open flame.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed when not in use.
Store in a cool, dry place away from heat, spark or open flame.
Store away from other combustibles and strong oxidizers.
Maximum temperatures 38°C/100°F.

7.2.1 Personal Hygiene:

Practice good personal hygiene after contact with product.
Do not eat, smoke or apply cosmetics in areas where material is being handled.
Wash thoroughly with soap and water after handling. Launder clothing prior to use.

7.3 Specific end use(s)

See instructions for safe use in the operator manual of the copier/printer

Section 8: Exposure controls / personal protection

8.1 Control Parameters

Ingredients with occupational exposure limits to be monitored

Substance	Cas No.	Workplace exposure limit (Threshold Limit Value)			
		US OSHA (TWA/PEL)	ACGIH (TWA/TLV)	TRGS 900	UK WEL
Total Dust		15 mg/m ³			
Inhalable dust/fraction/particulate			10 mg/m ³	10 mg/m ³	5 mg/m ³
Respirable dust/fraction/particulate		5 mg/m ³	5 mg/m ³	3 mg/m ³	10 mg/m ³
Alveolar dust/fraction/particulate				3 mg/m ³	
Carbon black	1333-86-4	3.5 mg/m ³	3.5 mg/m ³		3.5 mg/m ³ (8hr) 7 mg/m ³ (15 min)

8.2 Exposure controls

General: Keep away from food, beverages and feed. Wash hands before breaks and end of work
Appropriate engineering controls: Ensure adequate ventilation
Respiratory Protection: Not required under normal condition of use. Dust-Resistant Masks can be worn in the event of high concentrations (FFP3/FFP2 Grade UK)
Skin Protection: No Precautions should be needed under normal use
Eye/face Protection: No Precautions should be needed under normal use
In the event of high concentrations dust resistant Safety Goggles to be worn
Thermal hazards: No data available
Environmental exposure controls: Not required during normal intended use of this product

Pictograms:



Section 9: Physical and Chemical Properties

9.1 Information on basic and chemical properties

Appearance:	Fine powder
Physical state:	Solid (powder)
Colour:	Black
Odour:	Odourless
pH:	Not applicable
pH-value (1%):	Not applicable
Flash Point:	Not applicable
Melting point/freezing point:	Not applicable
Flammability:	Not Flammable
Upper/lower flammability or explosive limits:	Not available
Boiling Point (°C):	Not applicable for solid mixtures
Vapour Pressure (mmHg):	Not applicable
Vapour Density (Air = 1):	Less than negligible
Solubility In Water:	Insoluble in water
Solubility in Organic Solvents:	Partially soluble in Toluene, Chloroform and Tetrahydrofurane
Relative density:	0.3 ~ 0.8 (water = 1)
Bulk density kg m ³ :	1000 - 1700
Density Specific Gravity (H ₂ O = 1):	1.g/ml (20°C - 68°F)
Melting Point (°C):	120
Evaporation Rate:	Less than negligible
Log partition coefficient (n-octanol/water):	Not applicable
Auto ignition temperature (°C):	> 360
Decomposition temperature (°C):	> 200
Viscosity:	Not applicable
Explosive properties:	No data available
Oxidizing properties:	No data available

9.2 Other information

No data available

Section 10: Stability and Reactivity

10.1 Reactivity

Stable under normal conditions

10.2 Chemical stability

This product is considered stable during storage and transportation under normal conditions

10.3 Possibility of hazardous reactions

Hazardous reactions may occur if contact made with incompatible material

10.4 Conditions to avoid

Avoid mixing with oxidizing agents. Avoid Combustibles, direct sunlight, ignition sources

10.5 Incompatible materials

Strong acid, alkali and oxidizing agents

10.6 Hazardous decomposition

None at Intended use. Hazardous decomposition products should not be produced. Toner is combustible, fine toner dust clouds may form explosive mixtures with air

10.7 Hazardous reaction

None when used at intended

10.8 Combustion products

CO₂, CO, AlO_x

10.9 Incompatibility (Materials to avoid)

No data

Section 11: Toxicology Information

11.1 Information on toxicological effects

Threshold Limits:	No Data
Routes of Entry:	Oral
Eyes irritation:	None of the substances in this preparation is classified as eye irritant according to EU Directive 67/548/EEC
Skin irritation:	None of the substances in this preparation is classified as Skin irritant according to EU Directive 67/548/EEC
Acute toxicity:	No adverse effects are expected under intended use
Chronic toxicity:	No known significant or critical hazards
Irritation:	No known significant or critical hazards
Skin:	Rabbit, Not irritant (OECD404)
Eye:	Rabbit, Not irritant (OECD405)
Health Hazards (Acute or Chronic):	None of the substances in this preparation is classified as chronic toxicity according to EU Directive 67/548/EEC

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Carcinogenicity:	None of the substances in this preparation is a known or suspected carcinogen according to IARC monographs, EU Directive 67/548/EEC, OSHA Regulations (USA) or NTP. Carbon black is listed by IARC as a group 2B (possibly carcinogenic), but IARC monographs vol. 65 and 93 state that there is inadequate evidence in humans for carcinogenicity of carbon black. Inhalation test of a toner for two years* showed no significant exposure to other materials, such as rubber, printing ink or paints. Carbon black in this preparation is in bound form. * "Negative Effect of long term inhalation of Toner formation of 8-Hydroxydeoxyguanosine in DNA in the lungs of rats in Vivo", Yasuo Morimoto, et. al., Inhalation Toxicology, Vol. 17 (13) 749-753 (2005)
Mutagenicity:	Negative, does not indicate mutagenic potential. (Ames test: Salmonella Typhimurium, Escherichia coli) (TA98, TA100, TA1535, TA1537, TA1538, WP2uvrA)
Signs or Symptoms of Exposure:	Some respiratory irritation
Reproductive toxicity:	No test data available. None of the substances in this preparation is classified for reproductive toxicity according to EU Directive 67/548/EEC
Medical Conditions Aggravated by Exposure:	None known
Chronic Effects:	In a study in rats (H. Muhle) by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in the concentration (16mg/m ³) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of rats in the middle (4mg/m ³) exposure group. But no pulmonary change was reported in the lowest (1mg/m ³) exposure group, the most relevant level to potential human exposures

Section 12: Ecological Information

12.1 Aquatic toxicity

According to our test results of this or similar preparation and the information provided by the suppliers about the substances contained in this preparation, is not expected to be harmful to ecology

Toxicity: LL₅₀ Fish >1000mg/l, 96 hours

12.2 Persistence and degradability

Biodegradation: No data available
Abiotic degradation: No data available

12.3 Bioaccumulative potential

Bioconcentration factor (BCF): No data available

12.4 Mobility in soil

Distribution to environment: No data available
Compartments: No data available
Adsorption/Desorption: No data available

12.5 Results of PBT and vPvB assessment

Results of PBT assessment: Not a PBT substance or mixture
Results of vPvB assessment: Not a vPvB substance or mixture

12.6 Other adverse effects:

No data available

Section 13: Disposal Considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations
The waste code is to be determined within the EU in liaison with the waste-disposal operator
This product is not classified as a hazardous waste
Product: Coordinate disposal with the authorities if necessary
For recycling, consult with the manufacturer
Contaminated packaging: Uncontaminated packaging may be taken for recycling
Waste number recommended: 150102
150104

Section 14: Transport Information

This substance is not regulated as dangerous goods by transport regulations IMDG, ADR, RID or ICAO/IATA and as such no label is required

14.1 UN number

None

14.2 UN proper shipping name

None

14.3 Transportation

Road (ADR) No dangerous goods
Rail (RID) No dangerous goods
Air (ICAO/IATA) No dangerous goods
Sea (IMO/IMDG) No dangerous goods

Continued...

14.4 ADR Packing Group

None

14.5 PollutantEnvironmental
MarineNone
None**14.6 Special precautions:**

See sections 6 to 8

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

Section 15: Regulatory Information**EU Directives**Carbon Black
Classification: Annex I of Directive 67/548/EEC:
Not classified
Risk Phrases: Not applicable
Safety Phrases: Not applicable**EU CLP 1272/2008/EC**Classification: Not classified
Hazard Statement: Not applicable
Precautionary Statement: Not applicable
EU SVHC List: Not regulated
EU Authorisation List: Not regulated
EU Restriction List: Not regulated**Foreign Regulatory Information:**USA OSHA Regulation: Not regulated
USA CERCLA Regulation: Not regulated
USA EPCRA 302 Regulation: Not regulated
USA EPCRA 304 Regulation: Not regulated
USA EPCRA 313 Regulation: Not regulated
Substance of Rotterdam Protocol: Not regulated
Substance of Stockholm Protocol: Not regulated
Substance of Montreal Protocol: Not regulated**Foreign Inventory Status:****Carbon Black:** Korea – existing chemicals inventory (KECI/KECL): Existing Chemical Substance (KE-04682)
USA Section 8(b) Inventory (TSCA) XU
Polypropylene Wax: Korea – existing chemicals inventory (KECI/KECL): Existing Chemical Substance (KE-29389)
USA Section 8(b) Inventory (TSCA) XU
**Silicones and Siloxanes dimethyl-
reaction products with Silica** Korea – existing chemicals inventory (KECI/KECL): Existing Chemical Substance (KE-31207)
USA Section 8(b) Inventory (TSCA) XU

Approved Code of Practise

Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply

National Regulations

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. No. 1689.
Workplace Exposure Limits 2005 (EH40)
Control of Substances Hazardous to Health Regulations 2002 (as amended)
All the ingredients of this product are exempt, registered or considered registered (polymers) under the European Inventory of Existing Commercial Chemical substances (EINECS/ELINCS)**Section 16: Other information****16.1 Key literature references and source for data**

EU Directives 1999/45/EC and 67/548/EEC, EU Regulation (EC) No. 1907/2006 mean their latest adaptations in this safety data sheet.

16.2 Explanation of Terms:Estimate: Estimate based on data of similar product or the ingredient(s) of this mixture
Mixture: Refers to the physical combination of two or more substances
Substances: form of matter that has constant chemical composition and characteristic properties**16.3 Abbreviations:**ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
ACGIH TLV: TLV Threshold Limit Value under American Conference of Governmental Industrial Hygienists (<http://www.acgih.org/tlv>)
ADN Accord européen relatif au transport international des marchandises Dangereuses par voies de Navigation intérieures
CAS Chemical Abstract Service number (<http://www.cas.org>)
CERCLA Comprehensive Environmental Response Compensation and Liability Act
CLP Classification, Labelling and Packaging
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DPD Dangerous Preparations Directive
DSD Dangerous Substance Directive
EC₅₀ Half maximal Effective Concentration, 50%
ECB European Chemicals Bureau
EEC European Economic Community
ELINCS European List of Notified Chemical Substances
EU European Union
GHS Globally Harmonized System of Classification and Labelling of Chemicals

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