# Safety Data Sheet

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

***1.1. Product identifier:*** TONER CARTRIDGE（YELLOW） S050627

***1.2. Relevant identified uses of the substance or mixture and uses advised against:***

Identified uses; Toner for electrophotographic printing

***1.3. Details of the supplier of the safety data sheet:***


*Distributor:* EPSON EUROPE B.V.

*Address:* Azie building, Atlas ArenA, Hoogoorddreef 5,1101 BA Amsterdam Zuidoost The Netherlands

www.epson-europe.com

*TEL:* +31-20-314-5000 *FAX:* +31-20-314-5100

*e-mail:* chemicals@epson-europe.com


*Date Prepared:* 7 September 2012

*Revision:* A

***1.4. Emergency telephone number:*** Giftnotruf Berlin +49 030 19240

## SECTION 2: Hazards identification

***2.1. Classification of the mixture:***

Classification (1999/45/EC); Not Classified

***2.2. Label elements:***Label in Accordance with 1999/45/EC

Symbol(s); None

Indication(s) of danger; None

Risk phrase; None

Safety advice; None

***2.3. Other hazards:***

Classification (PBT,vPvB (EC)No1907/2006); No data available

## SECTION 3: Composition/information on ingredients

***Substance / Mixture: Mixture (Toner Composition)***

| Toner Composition | CAS No. | EEC No. | EU registration No. | % By Weight | EU Symbols | EU R-phrase | EU OELs | Remark |
|---|---|---|---|---|---|---|---|---|
| Styrene/acrylate copolymer | Trade secret | Trade secret | Not available for the moment | 70 - 80 | None | None | None | None |
| Polyolefin wax | Trade secret | Trade secret | Not available for the moment | < 10 | None | None | None | None |
| Amorphous silica | 7631-86-9 | 231-545-4 | Not available for the moment | < 10 | None | None | None | None |
| Yellow pigment | Trade secret | Trade secret | Not available for the moment | < 10 | None | None | None | None |
| Titanium dioxide | 13463-67-7 | 236-675-5 | Not available for the moment | < 1 | None | None | None | None |

## SECTION 4: First aid measures

***4.1. Description of first aid measures***

***4.1.1. Eyes :*** Immediately flush with room temperature, low pressure and clean water for at least 15 minutes. Seek medical attention if eye irritation continues.

***4.1.2. Skin :*** Wash surface areas with soap and water. Wash soiled clothing before wearing again. Consult a physician if irritation continues.

***4.1.3. Inhalation :*** Remove subject to ventilated fresh air. If not breathing, give artificial respiration right away. If breathing is difficult, give oxygen. Seek immediate medical attention.

***4.1.4. Ingestion :*** Seek medical advice; and attention if stomach continues to be upset.

***4.2. Most important symptoms and effects, both acute and delayed:***

Skin: Toner contact with skin may cause irritation, swelling or redness.
Inhalation: Prolonged inhalation of excessive toner may cause respiratory tract irritation.

***4.3. Indication of any immediate medical attention and special treatment needed:*** Not necessary

## SECTION 5: Fire-fighting measures

***5.1. Extinguishing Media***

***5.1.1.Suitable extinguishing media:*** Dry chemical , carbon dioxide or water spray.

***5.1.2.Unsuitable extinguishing media:*** None known.

***5.2. Special hazards arising from the substance or mixture:*** CO, NOx

***5.3. Advice for firefighters:*** No special fire fighting procedures are required other than breathing apparatus. No special explosion hazards are known.

## SECTION 6: Accidental release measures

***6.1. Personal precautions, protective equipment and emergency procedures***

***6.1.1. For non-emergency personnel:*** Eye or Skin protection required during clean-up. Use proper ventilation.

***6.1.2. For emergency responders:*** None

***6.2. Environmental precautions:*** Do not release to sewer, surface- or ground-water.

***6.3. Methods and material for containment and cleaning up***

***6.3.1. Advice on how to contain a spill:*** Use wet sponges or cloths to wipe-up the materials.

***6.3.2. Advice how to clean-up a spill:*** Rinse area with damp cloth.Place waste in closed container for disposal. Wash hands with soap and water.

***6.3.3. Any other information:*** Do not dispose of waste to the sewer.

***6.4. Reference to other sections:*** None

## SECTION 7: Handling and storage

***7.1. Precautions for safe handling***

***7.1.1. Recommendations:*** Keep out of reach of children. Do not dismantle cartridge.

***7.1.2. Advice on general occupational hygiene:***

Avoid inhaling toner. In the case of prolonged inhalation of excessive toner, seek immediate medical attention.

***7.2. Conditions for safe storage, including any incompatibilities:***

Do not store the cartridge in high or freezing temperatures. Keep cartridge out of direct sunlight. Do not store cartridges with oxidizing agents or explosives.

***7.3. Specific end use(s):*** Not specified

## SECTION 8: Exposure controls / personal protection

***8.1. Control parameters:***

*As total dust*

US: ACGIH-TLV is: 10mg/$m^3$
US: OSHA-PEL is: 15mg/$m^3$
Germany: DFG-MAK is: 4mg/$m^3$
Australia: Worksafe-TWA is: 10mg/$m^3$

***8.2. Exposure Controls***

***8.2.1. Appropriate engineering controls:*** Proper ventilation, in prevention

***8.2.2. Individual protection measures, such as personal protective equipment***

***8.2.2.1. Use of personal protective equipment:***

Not required under suitable use as setting the cartridge on the printer.

***8.2.2.2. Detailed specification on equipment to provide adequate and suitable protection***

***(a) eye/face protection:*** Not required under suitable use as setting the cartridge on the printer.

***(b) skin protection: hand protection & others:***

Not required under suitable use as setting the cartridge on the printer.

***(c) respiratory protection:*** Not required under suitable use as setting the cartridge on the printer.

***(d) thermal hazards:*** Not required under suitable use as setting the cartridge on the printer.

***8.2.3. Environmental exposure controls:*** Not established

## SECTION 9: Physical and chemical properties

***9.1. Information on basic physical and chemical properties:***

| | |
|---|---|
| *Appearance:* | Yellow powder |
| *Odour:* | Slightly |
| *Odour threshold:* | No data available |
| *pH:* | Not available |
| *Melting point / freezing point:* | Not available |
| *Initial boiling point and boiling range:* | Not available |
| *Flash point:* | None |
| *Evaporation rate:* | No data available |
| *Flammability (solid, gas):* | Not flammable |
| *Upper/lower flammability or explosive limits:* | Not available |
| *Vapor pressure:* | Not available |
| *Vapor density:* | Not available |
| *Relative density:* | Not available |
| *Solubility(ies):* | Insoluble |
| *Partition coefficient: n-octanol/water:* | Not applicable |
| *Auto-ignition temperature:* | None |
| *Decomposition temperature:* | Not available |
| *Viscosity:* | No data available |
| *Explosive properties:* | No data available |
| *Oxidizing properties:* | No data available |

***9.2. Other information:*** None

## SECTION 10:Stability and reactivity

| | |
|---|---|
| ***10.1. Reactivity:*** | Stable under normal temperature |
| ***10.2. Chemical stability:*** | Stable under normal temperature |
| ***10.3. Possibility of hazardous reactions:*** | None |
| ***10.4. Conditions to avoid:*** | High and freezing temperatures, electric discharge |
| ***10.5. Incompatible materials:*** | Oxidizers and explosives |
| ***10.6. Hazardous decomposition products:*** | CO, CO2 and NOx |

## SECTION 11: Toxicological Information

***11.1. Information on toxicological effects:***

*Acute toxicity:* Not meet the criteria for classification according to EU Directive 1999/45/EC

Oral $LD_{50}$: >5000 mg/kg (Rat)

Dermal $LD_{50}$: >5000 mg/kg (Rabbit)

Inhalant $LC_{50}$: >4.1 mg/L/4hr (Rat)

*Irritation Eye:* Not meet the criteria for classification according to EU Directive 1999/45/EC

Not an irritant (Rabbit)

*Skin:* Not meet the criteria for classification according to EU Directive 1999/45/EC
Not an irritant (Rabbit)

*Corrosivity:* Not meet the criteria for classification according to EU Directive 1999/45/EC
Not a corrosive

*Sensitisation: Skin:* Not meet the criteria for classification according to EU Directive 1999/45/EC
Not a skin sensitizer (Guinea-pig)

*Inhalation:* Not meet the criteria for classification according to EU Directive 1999/45/EC

*Chronic Health Hazards:* Prolonged inhalation of excessive dust may cause lung damage. It is attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lungs for a prolonged interval. Use of this product, as intended, does not result in inhalation of excessive dust.
In a study in rats by chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of rats in the high concentration (16mg/$m^3$) exposure group, and a minimal to mid degree of fibrosis was noted in 22% of the animals 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.

*Carcinogenicity:* Not meet the criteria for classification according to EU Directive 1999/45/EC
Titanium dioxide is classified as "possibly carcinogenic to human" (Group 2B). In animal chronic inhalation studies, the tumor formulation observed in only rats with animal chronic inhalation study are attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lungs for a prolonged interval. Use of this product, as intended, dose not result in inhalation of excessive dust. Epidemiological study to date have not revealed any evidence of the relation between exposure to titanium dioxide and diseases of the respiratory tract beyond general effects of dust.

*Mutagenicity:* Not meet the criteria for classification according to EU Directive 1999/45/EC
Negative (by Ames test)

*Toxicity for reproduction:* Not meet the criteria for classification according to EU Directive 1999/45/EC

## SECTION 12:Ecological information

***12.1. Toxicity:*** No data available
***12.2. Persistence and degradability:*** No data available
***12.3. Bioaccumulative potential:*** No data available
***12.4. Mobility in soil:*** No data available
***12.5. Results of PBT and vPvB assessment:*** Has not carried out PBT and vPvB assessment
***12.6. Other adverse effects:*** No data available

## SECTION 13: Disposal considerations

***13.1. Waste treatment methods:*** Disposal should be in accordance with federal, state, and local requirements.

## SECTION 14: Transport information

***14.1. UN number:*** Not applicable
***14.2. UN proper shipping name:*** Not applicable
***14.3. Transport hazard class(es):*** Not applicable
***14.4. Packing group:*** Not applicable
***14.5. Environmental hazards:*** Not applicable
***14.6. Special precautions for user:*** Not applicable
***14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:*** Not applicable

## SECTION 15: Regulatory Information

***15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:***
*EU Information:*
Regulation (EC) No 2037/2000: Is not subject
Regulation (EC) No 850/2004: Is not subject

Regulation (EC) No 689/2008: Is not subject

*US Information:*

TSCA Section 4(a) Final Test Rules Regulated: Not regulated

TSCA Section 5 Significant New Use Rule Regulation: Not regulated

TSCA Section 8(a) Preliminary Assessment Information Rule (PAIR): Not regulated

TSCA Section 12(b) One-Time Export Notification Regulated: Not regulated

California Proposition 65: This material contains Titanium dioxide, a chemical known to the State of California to cause cancer.

*Canada Information:*

WHMIS Controlled Product: Not applicable (Manufactured article)

*Australia Information:*

Statement of Hazardous Nature: Not classified as hazardous according to criteria of NOHSC

***15.2. Chemical safety assessment:*** This toner has not carried out any Chemical Safety Assessment yet.

**SECTION 16: Other Information**

*List of relevant R-phrases:* Nothing

*This "Material Safety Data Sheet" contains health, safety, and environmental information. It does not replace any precautionary language or use and disposal information which accompanies the product. The information contained herein is believed to be accurate at the time of preparation, but should only be used as a guide. It is subject to revision from time to time. EPSON does not warrant the completeness or accuracy of the information contained herein.*