Safety Data Sheet

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

1.1. Product identifier: TONER CARTRIDGE（YELLOW） S050590

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

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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-acrylic resin	Trade secret	Trade secret	Not available for the moment	75 - 85	None	None	None	None
Wax	Trade secret	Trade secret	Not available for the moment	10 - 20	None	None	None	None
Organic pigment	Trade secret	Trade secret	Not available for the moment	1 - 10	None	None	None	None
Amorphous silica	7631-86-9	231-545-4	Not available for the moment	1 - 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:

<u>*As total dust*</u>

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 applicable (Powder, solid)
Melting point / freezing point:	No data available
Initial boiling point and boiling range:	Not applicable (Powder, solid)
Flash point:	Not applicable (Powder, solid)
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	Not applicable (Powder, solid)
Vapor density:	Not applicable (Powder, solid)
Relative density:	1.2
Solubility(ies):	Negligible
Partition coefficient: n-octanol/water:	Not applicable (Powder, solid)
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	Not applicable (Powder, solid)
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}:	>2500 mg/kg (Rat)	(practically non-toxic)
Dermal LD_{50}:	No data available	(practically non-toxic)
Inhalant LC_{50}:	>5.57 mg/L/4hr (Rat)	(practically non-toxic)

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

Minimal 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

Sensitisation: Skin: Not meet the criteria for classification according to EU Directive 1999/45/EC
Not a 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.