

## Material Safety Data Sheet

In accordance with EU REACH Regulation (EC) No 1907/2006, EPSON has considered that a Safety Data Sheet is not required for the toner contained in this cartridge. To insure Epson's compliance with REACH information requirements, we will provide preparation information under the following format. Epson is not obliged to provide this information within European local languages.

### 1. Identification of The Substance/Preparation and of The Company/Undertaking

**1.1. Identification of the preparation:** Toner Cartridge (Cyan) S050318

**1.2. Use of the substance/preparation:** Laser Printing

#### 1.3. Company/undertaking identification

**Manufacturer/Distributor:** EPSON EUROPE B.V.  
**Address:** Entrada 701,  
1096 EJ AMSTERDAM  
The Netherlands

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**Date Prepared:** 20 May 2008

**Revision:** A

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

### 2. Hazards Identification

#### 2.1. Emergency Overview:

This toner does not meet the criteria for dangerous classification according to EU Directive 1999/45/EC. This toner is a Cyan powder that may cause eye irritation. Avoid contact with eyes or clothing. In the case of skin contact, wash with soap and water. Keep out of reach of children.

#### 2.2. Potential Health Effects:

**Eyes:** Toner contact with eye may be mildly irritating.

**Skin:** Toner contact with skin may cause irritation, swelling or redness.

**Inhalation:** Prolonged inhalation of excessive toner may cause respiratory tract irritation.

**Ingestion:** May cause upset stomach.

### 3. Composition/Information on Ingredients

*This toner is a preparation.*

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	60 – 70	None	None	None	None
Ferrite powder	Trade secret	Trade secret	Not available for the moment	< 20	None	None	None	None
Proprietary organic materials	Trade secret	Trade secret	Not available for the moment	< 10	None	None	None	None
Pigments	Trade secret	Trade secret	Not available for the moment	< 10	None	None	None	None
Amorphous silica	Trade secret	Trade secret	Not available for the moment	< 10	None	None	None	None
Carbon black	1333-86-4	215-609-9	Not available for the moment	< 1	None	None	None	None

#### 4. First Aid Measures

- 4.1. Eyes:** Immediately flush with room temperature, low pressure and clean water for at least 15 minutes. Seek medical attention if eye irritation continues.
- 4.2. Skin:** Wash surface areas with soap and water. Wash soiled clothing before re-wearing. Consult a physician if irritation continues.
- 4.3. 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.
- 4.4. Ingestion:** Seek medical advice; and attention if stomach continues to be upset.

#### 5. Fire-Fighting Measures

- 5.1. Flammability:** This material has no unusual fire or explosive hazards.
- 5.2. Extinguishing Media:** Dry chemical, carbon dioxide or water spray
- 5.3. Fire Fighting Instructions:** No special fire fighting procedures are required other than breathing apparatus. No special explosion hazards are known.

#### 6. Accidental Release Measures

- 6.1. Personal precautions:** Eye or Skin protection required during clean-up.
- 6.2. Environmental precautions:** Do not release to sewer, surface- or ground-water.
- 6.3. Methods for cleaning up:** Use wet sponges or cloths to wipe-up the materials, then rinse area with damp cloth. Place waste in closed container for disposal. Do not dispose of waste to the sewer. Wash hands with soap and water.

#### 7. Handling And Storage

- 7.1. Handling:** Keep out of reach of children. Do not dismantle cartridge.
- 7.2. Storage:** 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 use(s):** Not specified

#### 8. Exposure Controls and Personal Protection

##### 8.1. Exposure limit values:

###### As total dust

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

##### 8.2. Exposure Controls:

###### 8.2.1. Occupational exposure control

Proper ventilation, in prevention

###### 8.2.1.1. Respiratory protection

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

###### 8.2.1.2. Hand protection

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

###### 8.2.1.3. Eye protection

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

###### 8.2.1.4. Skin protection

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

###### 8.2.2. Environmental exposure control

Not established

## 9. Physical and Chemical Properties of Toner Formulation

### 9.1. General information

*Appearance:* Cyan powder  
*Odor:* Faint odor

### 9.2. Important health, safety and environmental information

*pH:* Not applicable  
*Boiling point:* Not applicable  
*Flash point:* Not applicable  
*Flammability (solid, gas):* Not flammable  
*Explosive properties:* No data available  
*Oxidizing properties:* No data available  
*Vapor pressure:* Not applicable  
*Relative density:* No data available  
*Solubility:* No data available  
*Water solubility:* Negligible  
*Partition coefficient: n-octanol/water:* Not applicable  
*Viscosity:* Not applicable  
*Vapor density:* Not applicable  
*Evaporation rate:* No data available

### 9.3. Other information

*Melting point:* No data available

## 10. Stability and Reactivity

*Stability:* Stable under normal temperature  
*Hazardous polymerization:* Will not occur

**10.1. Conditions to avoid:** High and freezing temperatures, electric discharge

**10.2. Materials to avoid:** Oxidizers and explosives

**10.3. Hazardous decomposition products:** CO, CO<sub>2</sub> and NO<sub>x</sub>

## 11. Toxicological Information

*Routes Of Overexposure:* Eye, skin, inhalation, and oral

*Acute Health Hazards:*

- Overexposure of eye surface to toner may be mildly irritating
- Overexposure of skin to toner contact may cause irritation and in some people swelling and redness
- Intentional inhalation overexposure to toner may result in respiratory tract irritation
- Intentional or accidental oral ingestion may cause an upset stomach

*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<sup>3</sup>) exposure group, and a minimal to mid degree of fibrosis was noted in 22% of the animals in the middle (4mg/m<sup>3</sup>) exposure group. But no pulmonary change was reported in the lowest (1mg/m<sup>3</sup>) exposure group, the most relevant level to potential human exposures.

*Mutagenicity:* Negative (by Ames test)

*Carcinogenicity:* Carbon Black is classified as “Group 2B (possibly carcinogenic to humans)” by IARC, the International Agency for Research on Cancer. With excessive exposure, carbon black has been listed as a possible human carcinogen. However, we obtained the results from a Chronic Toner Inhalation Study, that commercially available toner has no evidence of human carcinogens. All other ingredients are not classified as “Carcinogens”.

*Toxicity Data:* Oral LD<sub>50</sub>: >5000 mg/kg (Rat) (practically non-toxic)  
 Dermal LD<sub>50</sub>: >5000 mg/kg (Rabbit) (practically non-toxic)  
 Inhalant LC<sub>50</sub>: >4.1mg/L/4hr (Rat) (practically non-toxic)  
*Eye irritating:* Not an irritant (Rabbit)  
*Skin irritating:* Not an irritant (Rabbit)  
*Skin sensitizing:* Not a sensitizer (Guinea-pig)

## 12. Ecological Information

**12.1. Ecotoxicity** No data available on the adverse effects of this toner on the environment  
**12.2. Mobility** No data available on the adverse effects of this toner on the environment  
**12.3. Persistence and degradability** No data available on the adverse effects of this toner on the environment  
**12.4. Bioaccumulative potential** No data available on the adverse effects of this toner on the environment  
**12.5. Result of PBT assessment** Has not carried out PBT assessment  
**12.6. Other adverse effects** No data available

## 13. Disposal Considerations

Disposal should be in accordance with federal, state, and local requirements.

## 14. Transport Information

UN Class/UN Number: Not applicable  
 DOT, IMO, or IATA : Not hazardous classification

## 15. Regulatory Information

### *EU Information:*

#### *Chemical Safety Assessment according to (EC)1907/2006:*

This toner has not carried out any Chemical Safety Assessment yet.

#### *Symbols and indication according to 1999/45/EC:*

This toner does not meet the criteria for classification as dangerous.

### *US Information:*

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

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

TSCA Section 8(a) Inventory Update Rule:

Subject to a Special Regulatory Action under TSCA (2002 EPA Instructions, App. B) Not regulated

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

California Proposition 65: Not regulated

### *Canada Information:*

WHMIS Controlled Product: Not applicable (Manufactured article)

### *Australia Information:*

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

## 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.*