

## Product Information Sheet

### 1. Article and Corporate Identification

**Product:** Epson Toner Cartridge S050229

**Manufacturer/Distributor:**

**Medical Emergency Number:**

### 2. Composition Information

*This toner is a preparation.*

Composition	CAS No.	% By Weight
Organic materials	–	> 80 %
Carbon black	1333-86-4	1 – 10 %
Others	–	1 – 10 %

### 3. Hazard Identification

- 3.1 Physical and Chemical Hazard:** There are no significant hazards associated with this product.
- 3.2 Adverse Human Health Effects:** This toner is not classified as a human carcinogen and is of no significant hazards. No symptoms expected with intended use.
- 3.3 Environmental Effects:** This toner is classified for environmental effects according to EU Directive 1999/45/EC with R52/53.

### 4. First Aid Measures

- 4.1 Eyes:** Flush with a large amount of water for at least 15 minutes. Seek medical advice.
- 4.2 Skin:** Wash with soap and water.
- 4.3 Inhalation:** Remove from exposure and provide fresh air. Rinse mouth with water.
- 4.4 Ingestion:** Rinse mouth with water. Give several glasses of water to drink and seek medical advice.

### 5. Fire Fighting Measures

- 5.1 Flammable Properties:** This material has no unusual fire or explosive hazards.
- 5.2 Extinguishing Media:** Water spray, foam or dry chemical.
- 5.3 Fire Fighting Instructions:** No special equipment is required.
- 5.4 Fire and explosion hazards:** If dispersed in air, like most finely divided organic powders, may form an explosive mixture.

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## 6. Accidental Release Measures

- 6.1 *Personal protections:* Not applicable under intended use.  
6.2 *Methods for cleaning up:* Wipe off with paper or cloth. Do not use a vacuum cleaner when released a large amount.

## 7. Precautions for Safe Handling and Use

- 7.1 *Handling:* Do not incinerate toner or a toner cartridge. Do not dismantle a cartridge.  
7.2 *Storage:* Keep in cool, dry and well-ventilated area. Keep out of reach of children.

## 8. Exposure Controls and Personal Protection

- 8.1 *Engineering Controls:* No specific controls are needed.

- 8.2 *Exposure Controls:* Control parameters  
**As total dust:** ACGIH-TLV(USA) : 10mg/m<sup>3</sup>  
OSHA-PEL(USA) : 15mg/m<sup>3</sup>  
DFG-MAK(GER) : 4mg/m<sup>3</sup>  
Worksafe-TWA(Austl) : 10mg/m<sup>3</sup>

**Carbon black:** OES-TWA (UK HSE) : 3.5 mg/m<sup>3</sup>  
OES-STEL (UK HSE) : 7 mg/m<sup>3</sup>

- 8.3 *Personal Protection:* None required when cartridges are used as intended.

## 9. Physical and Chemical Properties

<i>Appearance:</i>	Black powder
<i>Odor:</i>	Faint odor
<i>Boiling point:</i>	Not applicable
<i>Softening point:</i>	Not available
<i>Vapor pressure:</i>	Not applicable
<i>Solubility in water:</i>	Negligible
<i>Specific gravity:</i>	1.2 g/cm <sup>3</sup>
<i>Flash point:</i>	Not applicable
<i>Auto-Ignition Temperature:</i>	Not applicable
<i>Explosion limit:</i>	Not applicable
<i>Particle size:</i>	Not available
<i>Other data:</i>	None

## 10. Stability and Reactivity

<i>Flammability:</i>	Not flammable under conditions of use.
<i>Spontaneous combustibility/Reactivity with water:</i>	None
<i>Self-reactivity/Explosive:</i>	None
<i>Dust explosion:</i>	Like most organic materials in powder form, it can form explosive mixtures when dispersed in air.
<i>Stability and Reactivity:</i>	Stable
<i>Other Data:</i>	None

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## 11. Toxicology and Health Hazards

### Acute Health Hazards:

<i>Toxicity Data:</i>	Oral LD <sub>50</sub>	Dermal LD <sub>50</sub>	Inhalant LC <sub>50</sub>
	> 5000mg/kg (Rats)	> 2000mg/kg (Rats)	Not available

*Skin corrosive:* Not available

*Irritation Skin:* Not an irritant (Rabbits)  
*Eye:* Not an irritant (Rabbits)

*Skin sensitization:* Not available

*Mutagenicity:* Negative (by Ames Test)

*Carcinogenicity:* Carbon Black is classified as “Group 2B (possibly carcinogenic to humans)” by IARC. But 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”.

*Reproduction and Development:* Not available

### Chronic toxicity of long term toxicity :

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.

## 12. Ecological Information

No data available on the adverse effects of this toner on the environment.

The toner is classified as R52/53 according to EU Directive 1999/45/EC because it contains a substance classified R50/53 at 0.25~2.5%.

*Biodegradability:* Not available

*Bioaccumulation:* Not available

*Acute Toxicity:* Not available

*Other information:* None

## 13. Disposal Considerations

Disposal should be in accordance with national and local requirements.

## 14. Transportation Information

UN Class/UN Number: Not applicable

DOT, IMO, or IATA: Not hazardous classification

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## 15. Regulatory Considerations

Cartridges are outside the scope of EU Directive 1999/45/EC

## 16. Other Information

*This “Product Information 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.*

*In consideration of our environment and world neighbors, all genuine EPSON toner cartridges are engineered and based on an “Ecologically Friendly” technology. EPSON toner cartridges contain no CFCs or harsh liquid solvents.*