

Material Safety Data Sheet

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

- 1.1. Product identifier:** Ink Cartridge T1591
- 1.2. Relevant identified uses of the substance or mixture and uses advised against:**
Identified uses; Ink for Inkjet Printing
- 1.3. Details of the supplier of the safety data sheet:**
Distributor: SEIKO EPSON CORPORATION
Address: 80 Harashinden, Hirooka,
 Shiojiri-shi, Nagano-ken, 399-0785
 JAPAN
TEL: +81-263-52-2552 **FAX:** +81-263-54-6949
e-mail: msds_hro@exc.epson.co.jp
Date Prepared: 26 August 2011
Revision: A
- 1.4. Emergency telephone number:** +81-263-52-2552 (Mon-Fri, 9AM-5PM JST)

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 ((EC)No1907/2006); No data available

SECTION 3: Composition/information on ingredients

Substance / Mixture: Mixture (Ink Composition)

Ink Composition	CAS No.	EEC No.	EU registration No.	% By Weight	EU Symbols	EU R-phrase	EU OELs	Remark
Water	7732-18-5	231-791-2	Exemption	< 80	None	None	None	None
Glycerols	Trade secret	Trade secret	Not available for the moment	10 – 15	None	None	None	None
Proprietary organic materials	Trade secret	Trade secret	Not available for the moment	10 – 15	None	None	None	None
Carbon black	1333-86-4	215-604-9	Not available for the moment	1 - 5	None	None	None	None
Triethanolamine	102-71-6	203-049-8	Not available for the moment	1 - 5	None	None	None	None
Colorant	Trade secret	Trade secret	Not available for the moment	< 1	None	None	None	None

Please refer to the section 16, where the full text of each relevant R-phrase.

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: Ink contact with skin may cause irritation, swelling or redness.

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.

5.1.2. Unsuitable extinguishing media: None

5.2. Special hazards arising from the substance or mixture: None

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 sponges to wipe-up ink.

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 and do not drink ink.

7.1.2. Advice on general occupational hygiene:

Avoid contact with eyes or clothing. In the case of skin contact, wash with soap and water.

7.2. Conditions for safe storage, including any incompatibilities:

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

7.3. Specific end use(s): Not specified

SECTION 8: Exposure controls/personal protection

8.1. Exposure limit values: Not established

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties:

<i>Appearance:</i>	Black Liquid
<i>Odour:</i>	Slightly
<i>Odour threshold:</i>	No data available
<i>pH:</i>	8.7 ± 0.3 at 20°C
<i>Melting point / freezing point:</i>	No data available
<i>Initial boiling point and boiling range:</i>	No data available
<i>Flash point:</i>	Not detected until 120°C (Closed cup, ASTM D3278)
<i>Evaporation rate:</i>	No data available
<i>Flammability (solid, gas):</i>	Not applicable (liquid)
<i>Upper/lower flammability or explosive limits:</i>	No data available
<i>Vapor pressure:</i>	No data available
<i>Vapor density:</i>	No data available
<i>Relative density:</i>	About 1.05 at 20 °C
<i>Solubility(ies):</i>	Complete
<i>Partition coefficient: n-octanol/water:</i>	No data available
<i>Auto-ignition temperature:</i>	No data available
<i>Decomposition temperature:</i>	No data available
<i>Viscosity:</i>	Less than 5 mPa·s at 20°C
<i>Explosive properties:</i>	None
<i>Oxidizing properties:</i>	None
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
10.5. Incompatible materials:	Oxidizers and explosives
10.6. Hazardous decomposition products:	No data available

SECTION 11: Toxicological information

11.1. Information on toxicological effects:

<i>Acute toxicity:</i>	Not meet the criteria for classification according to EU Directive 1999/45/EC
	Oral LD ₅₀ : > 2500mg/kg (Rats)
	Dermal LD ₅₀ : > 2000mg/kg (Rats)
	Inhalant LC ₅₀ : Not applicable
<i>Irritation</i>	<i>Eye:</i> Mild irritating (Rabbits, OECD 405)
	<i>Skin:</i> Mild irritating (Rabbits, OECD 404)
<i>Corrosivity:</i>	Not meet the criteria for classification according to EU Directive 1999/45/EC
<i>Sensitisation</i>	<i>Skin:</i> Non-sensitizing (LLNA, OECD 429)
<i>Inhalation:</i>	Not meet the criteria for classification according to EU Directive 1999/45/EC

Carcinogenicity: With excessive exposure, carbon black has been listed as a possible human carcinogen. However, as engineered within this ink cartridge, emissions to air of carbon black during normal printing use have not been found. IARC, the International Agency for Research on Cancer, has found printing inks to be not classifiable as human carcinogens.

Mutagenicity: 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 8(a) Preliminary Assessment Information Rule (PAIR):	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)
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Australia Information:

Statement of Hazardous Nature:	Not classified as hazardous according to criteria of NOHSC
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15.2. Chemical safety assessment: This mixture(ink) 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.