

## Material Safety Data Sheet

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

- 1.1. Product identifier:** Ink Cartridge T1590
- 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	25 – 30	None	None	None	None
Proprietary organic materials	Trade secret	Trade secret	Not available for the moment	10 – 15	None	None	None	None
Triethanolamine	102-71-6	203-049-8	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. Control parameters:** 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>	Clear Liquid
<i>Odour:</i>	Slightly
<i>Odour threshold:</i>	No data available
<i>pH:</i>	about 9.6 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 100 °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>	Over 1.0 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
<b>9.2. Other information:</b>	None

**SECTION 10: Stability and reactivity**

<b>10.1. Reactivity:</b>	Stable under normal temperature
<b>10.2. Chemical stability:</b>	Stable under normal temperature
<b>10.3. Possibility of hazardous reactions:</b>	None
<b>10.4. Conditions to avoid:</b>	High and freezing temperatures
<b>10.5. Incompatible materials:</b>	Oxidizers and explosives
<b>10.6. Hazardous decomposition products:</b>	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 <sub>50</sub> : Not meet the criteria for classification according to EU Directive 1999/45/EC
	Dermal LD <sub>50</sub> : Not meet the criteria for classification according to EU Directive 1999/45/EC
	Inhalant LC <sub>50</sub> : Not meet the criteria for classification according to EU Directive 1999/45/EC
<i>Irritation</i>	<i>Eye</i> : Not meet the criteria for classification according to EU Directive 1999/45/EC
	<i>Skin</i> : Not meet the criteria for classification according to EU Directive 1999/45/EC
<i>Corrosivity:</i>	Not meet the criteria for classification according to EU Directive 1999/45/EC
<i>Sensitisation</i>	<i>Skin</i> : Not meet the criteria for classification according to EU Directive 1999/45/EC
<i>Inhalation:</i>	Not meet the criteria for classification according to EU Directive 1999/45/EC
<i>Carcinogenicity:</i>	Not contain any substances listed in IARC Monographs (Group 1,2A and 2B) and Annex I of 67/548/EEC) for the ingredients of the ink
<i>Mutagenicity:</i>	Not meet the criteria for classification according to EU Directive 1999/45/EC
<i>Toxicity for reproduction:</i>	Not meet the criteria for classification according to EU Directive 1999/45/EC

**SECTION 12: Ecological information**

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