

Material Safety Data Sheet

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

- 1.1. Product identifier:** EPSON Ink Cartridge T1431
- 1.2. Relevant identified uses of the substance or mixture and uses advised against:**
Identified uses; Ink for Inkjet Printing
- 1.3. Company/undertaking identification**
Manufacturer/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: 6 December 2010
Revision: A
- 1.4. Emergency telephone:** +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); Not Classified

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	balance	None	None	None	None
Proprietary organic materials	Trade secret	Trade secret	Not available for the moment	10 – 15	None	None	None	None
Glycerols	Trade secret	Trade secret	Not available for the moment	10 – 15	None	None	None	None
Carbon Black	1333-86-4	215-609-9	Not available for the moment	5 – 10	None	None	None	None
TEGBE	143-22-6	205-592-6	Not available for the moment	1 - 5	X _i	R-41	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:

Eyes: Ink contact with eye may be mildly irritating.

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

Inhalation: Intentional exposure to ink vapors (mist) will cause respiratory irritation.

Ingestion: May cause upset stomach.

4.3. Indication of any immediate medical attention and special treatment needed:

No data available

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:

There is no special hazards when the mixture burns.

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

Protective gloves and goggles should be used if there is a risk of direct contact for ink. Use proper ventilation.

6.1.2. For emergency responders No data available

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.

Bunding by water absorber.

6.3.2. Advice how to clean-up a spill.

If a spill occurs, use sponges to wipe-up ink, 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.

6.3.3. Any other information None

6.4. Reference to other sections None

SECTION 7: Handling and storage

7.1. Precautions for safe handling:

7.1.1. Recommendations

Do not dismantle cartridge.

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.

Keep out of reach of children and do not drink ink.

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. Make sure cartridge is dry before insertion into printer housing.

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. *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*

<i>Appearance:</i>	Black Liquid
<i>Odour:</i>	None
<i>Odour threshold:</i>	No data available
<i>pH:</i>	about 8.7 at 20°C / 68 °F
<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 95°C / 203 °F (Closed cup, ASTM D3278)
	None
<i>Evaporation rate:</i>	None
<i>Flammability (solid, gas):</i>	None
<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>	1.067 at 20°C / 68 °F
<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 / 68 °F
<i>Explosive properties:</i>	None
<i>Oxidizing properties:</i>	None

9.2. *Other information* None

SECTION 10: Stability and reactivity

10.1. Reactivity	No data available
10.2. Chemical stability	Stable under normal temperature
10.3. Possibility of hazardous reactions	No data available
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

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

Acute toxicity:

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

Oral LD₅₀: Not meet the criteria for classification according to EU Directive 1999/45/EC

Dermal LD₅₀: Not meet the criteria for classification according to EU Directive 1999/45/EC

Inhalant LC₅₀: No data available

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

Corrosivity (Skin): 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

Repeated dose toxicity: 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: Not meet the criteria for classification according to EU Directive 1999/45/EC

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 on the adverse effects of this ink on the environment
12.2. Persistence and degradability	No data available on the adverse effects of this ink on the environment
12.3. Bioaccumulative potential	No data available on the adverse effects of this ink on the environment
12.4. Mobility in soil	No data available on the adverse effects of this ink on the environment
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 hazardous classification
14.4. Packing group	Not applicable
14.5. Environmental hazards	Not hazardous classification
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

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

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 mixture(ink) has not carried out any Chemical Safety Assessment yet.

SECTION 16:Other information

List of relevant R-phrases: R-41 Risk of serious damage to eyes.

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.