

Material Safety Data Sheet

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

- 1.1. Product identifier:** EPSON Ink cartridge T0481
- 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: EPSON EUROPE B.V.
Address: Azie building, Atlas ArenA, Hoogoorddreef
 5,1101 BA Amsterdam
 Zuidoost The Netherlands
www.epson-europe.com
TEL: +31-20-314-5000 **FAX:** +31-20-314-5100
e-mail: chemicals@epson-europe.com
Date Prepared: 30 May 2012
Revision: A
- 1.4. Emergency telephone number:** Giftnotruf Berlin +49 030 19240

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 (PBT,vPvB(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 | 5 - 10 | None | None | None | None |
| Proprietary organic materials | Trade secret | Trade secret | Not available for the moment | 5 - 10 | None | None | None | None |
| Colorants | Trade secret | Trade secret | Not available for the moment | 5 - 10 | None | None | None | None |
| TEGBE | 143-22-6 | 205-592-6 | Not available for the moment | 5 - 10 | Xi | R-41 | 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. 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.

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> | Slightly |
| <i>Odour threshold:</i> | No data available |
| <i>pH:</i> | about 8.5 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> | 1.07 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> Not meet the criteria for classification according to EU Directive 1999/45/EC Minimal irritating (Rabbits, OECD 405) |
| | <i>Skin:</i> Not meet the criteria for classification according to EU Directive 1999/45/EC 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> Not meet the criteria for classification according to EU Directive 1999/45/EC Non-sensitizing |
| <i>Carcinogenicity:</i> | Not meet the criteria for classification according to EU Directive 1999/45/EC Not contain any substances listed in IARC Monographs (1,2A and 2B) |
| <i>Mutagenicity:</i> | Not meet the criteria for classification according to EU Directive 1999/45/EC Negative (by Ames Test) |
| <i>Toxicity for reproduction:</i> | 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 5 Significant New Use Rule Regulation: | 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) |
|---------------------------|---------------------------------------|

Australia Information:

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

- 15.2. Chemical safety assessment:** This ink has not carried out any Chemical Safety Assessment yet.

SECTION 16: Other information

| | | |
|------------------------------------|------|---------------------------------|
| <i>List of relevant R-phrases:</i> | 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.

Material Safety Data Sheet

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

- 1.1. Product identifier:** EPSON Ink Cartridge T0482
- 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: EPSON EUROPE B.V.
Address: Azie building, Atlas ArenA, Hoogoorddreef
 5,1101 BA Amsterdam
 Zuidoost The Netherlands
www.epson-europe.com
TEL: +31-20-314-5000 **FAX:** +31-20-314-5100
e-mail: chemicals@epson-europe.com
Date Prepared: 30 May 2012
Revision: A
- 1.4. Emergency telephone number:** Giftnotruf Berlin +49 030 19240

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 (PBT,vPvB (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 |
| 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 | About 10 | None | None | None | None |
| TEGBE | 143-22-6 | 205-592-6 | Not available for the moment | About 10 | X _i | R-41 | None | None |
| Colorants | Trade secret | Trade secret | Not available for the moment | 1 - 5 | 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. 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.

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> | Cyan Liquid |
| <i>Odour:</i> | Slightly |
| <i>Odour threshold:</i> | No data available |
| <i>pH:</i> | 8.5 ~ 9.8 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> | 1.069 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> | Not meet the criteria for classification according to EU Directive 1999/45/EC Minimal irritating (Rabbits, OECD 405) |
| | <i>Skin:</i> | Not meet the criteria for classification according to EU Directive 1999/45/EC 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> | Not meet the criteria for classification according to EU Directive 1999/45/EC Non-sensitizing |
| <i>Carcinogenicity:</i> | Not meet the criteria for classification according to EU Directive 1999/45/EC Not contain any substances listed in IARC Monographs (1,2A and 2B) | |
| <i>Mutagenicity:</i> | Not meet the criteria for classification according to EU Directive 1999/45/EC | |

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 5 Significant New Use Rule Regulation: 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)

Australia Information:

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

15.2. Chemical safety assessment: This 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.

Material Safety Data Sheet

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

- 1.1. Product identifier:** EPSON Ink cartridge T0483
- 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: EPSON EUROPE B.V.
Address: Azie building, Atlas ArenA, Hoogoorddreef
 5,1101 BA Amsterdam
 Zuidoost The Netherlands
www.epson-europe.com
TEL: +31-20-314-5000 **FAX:** +31-20-314-5100
e-mail: chemicals@epson-europe.com
Date Prepared: 30 May 2012
Revision: A
- 1.4. Emergency telephone number:** Giftnotruf Berlin +49 030 19240

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 (PBT,vPvB(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 |
| 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 | 5 - 10 | None | None | None | None |
| TEGBE | 143-22-6 | 205-592-6 | Not available for the moment | 5 - 10 | X _i | R-41 | None | None |
| Colorants | Trade secret | Trade secret | Not available for the moment | 1 - 5 | 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. 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.

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> | Magenta liquid |
| <i>Odour:</i> | Slightly |
| <i>Odour threshold:</i> | No data available |
| <i>pH:</i> | about 9.0 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 |
| <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> | 1.072 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> Not meet the criteria for classification according to EU Directive 1999/45/EC Mild irritating (Rabbits, OECD 405) <i>Skin:</i> Not meet the criteria for classification according to EU Directive 1999/45/EC Non-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> Not meet the criteria for classification according to EU Directive 1999/45/EC Non-sensitizing |
| <i>Carcinogenicity:</i> | Not meet the criteria for classification according to EU Directive 1999/45/EC Not contain any substances listed in IARC Monographs (1,2A and 2B) |
| <i>Mutagenicity:</i> | Not meet the criteria for classification according to EU Directive 1999/45/EC Negative (by Ames Test) |
| <i>Toxicity for reproduction:</i> | 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 5 Significant New Use Rule Regulation: | 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) |
|---------------------------|---------------------------------------|

Australia Information:

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

- 15.2. Chemical safety assessment:** This ink has not carried out any Chemical Safety Assessment yet.

SECTION 16: Other information

| | | |
|------------------------------------|------|---------------------------------|
| <i>List of relevant R-phrases:</i> | 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.

Material Safety Data Sheet

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

- 1.1. Product identifier:** EPSON Ink cartridge T0484
- 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: EPSON EUROPE B.V.
Address: Azie building, Atlas ArenA, Hoogoorddreef
 5,1101 BA Amsterdam
 Zuidoost The Netherlands
www.epson-europe.com
TEL: +31-20-314-5000 **FAX:** +31-20-314-5100
e-mail: chemicals@epson-europe.com
Date Prepared: 30 May 2012
Revision: A
- 1.4. Emergency telephone number:** Giftnotruf Berlin +49 030 19240

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 (PBT,vPvB(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 | 5 - 10 | None | None | None | None |
| TEGBE | 143-22-6 | 205-592-6 | Not available for the moment | 5 - 10 | X _i | R-41 | None | None |
| Azo Dye | Trade secret | Trade secret | Not available for the moment | 1 - 5 | X _i | R-41, R-43 | None | None |
| Colorants | Trade secret | Trade secret | Not available for the moment | 1 - 5 | 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. 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.

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> | Yellow liquid |
| <i>Odour:</i> | Slightly |
| <i>Odour threshold:</i> | No data available |
| <i>pH:</i> | about 9.1 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 |
| <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> | 1.061 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> Not meet the criteria for classification according to EU Directive 1999/45/EC Mild irritating (Rabbits, OECD 405) <i>Skin:</i> Not meet the criteria for classification according to EU Directive 1999/45/EC Non-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> Not meet the criteria for classification according to EU Directive 1999/45/EC Non-sensitizing |
| <i>Carcinogenicity:</i> | Not meet the criteria for classification according to EU Directive 1999/45/EC Not contain any substances listed in IARC Monographs (1,2A and 2B) |
| <i>Mutagenicity:</i> | Not meet the criteria for classification according to EU Directive 1999/45/EC Negative (by Ames Test) |
| <i>Toxicity for reproduction:</i> | 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 5 Significant New Use Rule Regulation: | 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) |
|---------------------------|---------------------------------------|

Australia Information:

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

- 15.2. Chemical safety assessment:** This ink has not carried out any Chemical Safety Assessment yet.

SECTION 16: Other information

| | | |
|------------------------------------|------|--|
| <i>List of relevant R-phrases:</i> | R-41 | Risk of serious damage to eyes. |
| | R-43 | May cause sensitization by skin contact. |

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.

Material Safety Data Sheet

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

- 1.1. Product identifier:** EPSON Ink Cartridge T0485
- 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: EPSON EUROPE B.V.
Address: Azie building, Atlas ArenA, Hoogoorddreef
 5,1101 BA Amsterdam
 Zuidoost The Netherlands
www.epson-europe.com
TEL: +31-20-314-5000 **FAX:** +31-20-314-5100
e-mail: chemicals@epson-europe.com
Date Prepared: 30 May 2012
Revision: A
- 1.4. Emergency telephone number:** Giftnotruf Berlin +49 030 19240

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 (PBT,vPvB (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 |
| Proprietary organic materials | Trade secret | Trade secret | Not available for the moment | 15 - 20 | None | None | None | None |
| Glycerols | Trade secret | Trade secret | Not available for the moment | About 10 | None | None | None | None |
| TEGBE | 143-22-6 | 205-592-6 | Not available for the moment | 5 - 10 | X _i | R-41 | None | None |
| Colorants | Trade secret | Trade secret | Not available for the moment | 1 - 5 | 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. 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.

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> | Cyan Liquid |
| <i>Odour:</i> | Slightly |
| <i>Odour threshold:</i> | No data available |
| <i>pH:</i> | about 9.0 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> | 1.058 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> | Not meet the criteria for classification according to EU Directive 1999/45/EC Minimal irritating (Rabbits, OECD 405) |
| <i>Skin:</i> | Not meet the criteria for classification according to EU Directive 1999/45/EC Non-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> Not meet the criteria for classification according to EU Directive 1999/45/EC Non-sensitizing |
| <i>Carcinogenicity:</i> | Not meet the criteria for classification according to EU Directive 1999/45/EC Not contain any substances listed in IARC Monographs (1,2A and 2B) |
| <i>Mutagenicity:</i> | Not meet the criteria for classification according to EU Directive 1999/45/EC 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 5 Significant New Use Rule Regulation: 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)

Australia Information:

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

- 15.2. Chemical safety assessment:** This 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.

Material Safety Data Sheet

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

- 1.1. Product identifier:** EPSON Ink cartridge T0486
- 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: EPSON EUROPE B.V.
Address: Azie building, Atlas ArenA, Hoogoorddreef
 5,1101 BA Amsterdam
 Zuidoost The Netherlands
www.epson-europe.com
TEL: +31-20-314-5000 **FAX:** +31-20-314-5100
e-mail: chemicals@epson-europe.com
Date Prepared: 30 May 2012
Revision: A
- 1.4. Emergency telephone number:** Giftnotruf Berlin +49 030 19240

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 (PBT,vPvB(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 |
| 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 | 5 - 10 | None | None | None | None |
| TEGBE | 143-22-6 | 205-592-6 | Not available for the moment | 5 - 10 | X _i | R-41 | None | None |
| Colorants | Trade secret | Trade secret | Not available for the moment | 1 - 5 | 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. 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.

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> | Magenta liquid |
| <i>Odour:</i> | Slightly |
| <i>Odour threshold:</i> | No data available |
| <i>pH:</i> | about 9.0 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 |
| <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> | 1.072 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> Not meet the criteria for classification according to EU Directive 1999/45/EC Mild irritating (Rabbits, OECD 405) <i>Skin:</i> Not meet the criteria for classification according to EU Directive 1999/45/EC Non-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> Not meet the criteria for classification according to EU Directive 1999/45/EC Non-sensitizing |
| <i>Carcinogenicity:</i> | Not meet the criteria for classification according to EU Directive 1999/45/EC Not contain any substances listed in IARC Monographs (1,2A and 2B) |
| <i>Mutagenicity:</i> | Not meet the criteria for classification according to EU Directive 1999/45/EC Negative (by Ames Test) |
| <i>Toxicity for reproduction:</i> | 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 5 Significant New Use Rule Regulation: | 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) |
|---------------------------|---------------------------------------|

Australia Information:

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

- 15.2. *Chemical safety assessment:* This ink has not carried out any Chemical Safety Assessment yet.

SECTION 16: Other information

| | | |
|------------------------------------|------|---------------------------------|
| <i>List of relevant R-phrases:</i> | 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.