

## Safety Data Sheet

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

- 1.1. Product identifier  
 Mixture identification:  
 Trade name: Ink Cartridge, Cyan, T0962
- 1.2. Relevant identified uses of the substance or mixture and uses advised against  
 Recommended use:  
 Ink for inkjet printing
- 1.3. Details of the supplier of the safety data sheet  
 Company:  
 EPSON EUROPE B.V.  
 Azie building, Atlas ArenA, Hoogoorddreef 5, 1101 BA Amsterdam  
 Zuidoost The Netherlands  
 Phone number: +31-20-314-5000  
 Competent person responsible for the safety data sheet:  
 chemicals@epson-europe.com  
 Date: 07/10/2016  
 Revision: 1.0
- 1.4. Emergency telephone number  
 Phone number: +31-20-314-5000  
 Giftnotruf Berlin; +48 (0) 30 30686 790

### SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture  
 EC regulation criteria 1272/2008 (CLP)  
 The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).  
 Adverse physicochemical, human health and environmental effects:  
 No other hazards
- 2.2. Label elements  
 The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).  
 Hazard pictograms:  
 None  
 Hazard statements:  
 None  
 Precautionary statements:  
 None  
 Special Provisions:  
 None  
 Special provisions according to Annex XVII of REACH and subsequent amendments:  
 None
- 2.3. Other hazards  
 vPvB Substances: None - PBT Substances: None  
 Other Hazards:  
 No other hazards

### SECTION 3: Composition/information on ingredients

- 3.1. Substances  
 No
- 3.2. Mixtures  
 Hazardous components within the meaning of the CLP regulation and related classification:

| Qty | Name | Ident. Number | Classification |
|-----|------|---------------|----------------|
|-----|------|---------------|----------------|

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|             |                  |                                 |  |
|-------------|------------------|---------------------------------|--|
| 65% ~ 80%   | Water            | CAS: 7732-18-5<br>EC: 231-791-2 | The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). |
| 10% ~ 12.5% | Glycerol         | CAS: 56-81-5<br>EC: 200-289-5   | The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). |
| 1% ~ 3%     | Triethanol amine | CAS: 102-71-6<br>EC: 203-049-8  | The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). |

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

#### 4.2. Most important symptoms and effects, both acute and delayed

None

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

Treatment:

None

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

None in particular.

#### 5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

#### 5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

#### 6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

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In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

### SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

### SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Glycerol - CAS: 56-81-5

- OEL Type: OSHA - LTE: 5 mg/m<sup>3</sup> - Notes: PEL, as mist, respirable fraction

- OEL Type: OSHA - LTE: 15 mg/m<sup>3</sup> - Notes: PEL, as mist, total dust

DNEL Exposure Limit Values

No data available

PNEC Exposure Limit Values

No data available

8.2. Exposure controls

Eye protection:

Not needed for normal use. Anyway, operate according good working practices.

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Not needed for normal use.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

### SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance and colour:

Cyan Liquid

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|   |   |
|---|---|
| Odour:  | Slightly  |
| Odour threshold:                              | No data available   |
| pH:   | 7.8 ~ 9.2 at 20 °C  |
| Melting point / freezing point:               | -21.5 °C  |
| Initial boiling point and boiling range:      | No data available   |
| Solid/gas flammability:                       | No data available   |
| Upper/lower flammability or explosive limits: | No data available   |
| Vapour density:                               | No data available   |
| Flash point:                                  | Does not flash until 100 °C / 212 ° F<br>(closed cup method, ASTM D 3278) |
| Evaporation rate:                             | No data available   |
| Vapour pressure:                              | No data available   |
| Relative density:                             | -21.5 at 20 °C  |
| Solubility in water:                          | Complete  |
| Solubility in oil:                            | No data available   |
| Partition coefficient (n-octanol/water):      | No data available   |
| Auto-ignition temperature:                    | No data available   |
| Decomposition temperature:                    | No data available   |
| Viscosity:                                    | < 5 mPa·s at 20 °C  |
| Explosive properties:                         | No data available   |
| Oxidizing properties:                         | No data available   |
| 9.2. Other information                        |   |
| Miscibility:                                  | No data available   |
| Fat Solubility:                               | No data available   |
| Conductivity:                                 | No data available   |

### SECTION 10: Stability and reactivity

- 10.1. Reactivity  
Stable under normal conditions
- 10.2. Chemical stability  
Stable under normal conditions
- 10.3. Possibility of hazardous reactions  
None
- 10.4. Conditions to avoid  
Stable under normal conditions.
- 10.5. Incompatible materials  
None in particular.
- 10.6. Hazardous decomposition products  
None.

### SECTION 11: Toxicological information

- 11.1. Information on toxicological effects
  - Toxicological information of the mixture:  
No data available
  - Toxicological information of the main substances found in the mixture:  
Glycerol - CAS: 56-81-5
    - a) acute toxicity:  
Test: LD50 - Route: Oral - Species: Guinea pig = 7750 mg/kg - Source: Journal of Industrial Hygiene and Toxicology. Vol. 23, Pg. 259, 1941  
Test: LDLo - Route: Oral - Species: Human = 1428 mg/kg - Source: "Toxicology of Drugs and Chemicals," Deichmann, W.B., New York, Academic Press, Inc., 1969Vol. -, Pg. 288, 1969. - Notes: BEHAVIORAL: HEADACHE  
GASTROINTESTINAL: NAUSEA OR VOMITING
  - Triethanol amine - CAS: 102-71-6

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a) acute toxicity:

Test: LD50 - Route: Oral - Species: Guinea pig = 2200 mg/kg - Source: "Toxicometric Parameters of Industrial Toxic Chemicals Under Single Exposure," Izmerov, N.F., et al., Moscow, Centre of International Projects, GKNT, 1982Vol. -, Pg. 114, 1982.

Test: LD50 - Route: Oral - Species: Mouse = 5846 mg/kg - Source: Science Reports of the Research Institutes, Tohoku University, Series C: Medicine. Vol. 36(1-4), Pg. 10, 1989. - Notes: GASTROINTESTINAL: "HYPERMOTILITY, DIARRHEA" KIDNEY, URETER, AND BLADDER: OTHER CHANGES BEHAVIORAL: CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD

If not differently specified, the information required in Regulation (EU) 2015/830 listed below must be considered as 'No data available':

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

### SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

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

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

### SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

### SECTION 14: Transport information

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

No data available

14.3. Transport hazard class(es)

No data available

14.4. Packing group

No data available

14.5. Environmental hazards

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- No data available
- 14.6. Special precautions for user  
No data available
- 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  
No data available

### SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
- Dir. 98/24/EC (Risks related to chemical agents at work)
  - Dir. 2000/39/EC (Occupational exposure limit values)
  - Regulation (EC) n. 1907/2006 (REACH)
  - Regulation (EC) n. 1272/2008 (CLP)
  - Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
  - Regulation (EU) 2015/830
  - Regulation (EU) n. 286/2011 (ATP 2 CLP)
  - Regulation (EU) n. 618/2012 (ATP 3 CLP)
  - Regulation (EU) n. 487/2013 (ATP 4 CLP)
  - Regulation (EU) n. 944/2013 (ATP 5 CLP)
  - Regulation (EU) n. 605/2014 (ATP 6 CLP)
- Restrictions related to the product or the substances contained according to Annex XVII  
Regulation (EC) 1907/2006 (REACH) and subsequent modifications:
- Restrictions related to the product:  
No restriction.
  - Restrictions related to the substances contained:  
No restriction.
- Where applicable, refer to the following regulatory provisions :
- Directive 2003/105/CE ('Activities linked to risks of serious accidents') and subsequent amendments.
  - Regulation (EC) nr 648/2004 (detergents).
  - 1999/13/EC (VOC directive)
- Provisions related to directives 82/501/EC(Seveso), 96/82/EC(Seveso II):  
No data available
- 15.2. Chemical safety assessment  
No

### SECTION 16: Other information

This safety data sheet has been completely updated in compliance to Regulation 2015/830.  
This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

- ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
- SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold
- CCNL - Appendix 1

Insert further consulted bibliography

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This Safety Data Sheet cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of

## Safety Data Sheet

|             |   |
|-------------|---|
|             | Dangerous Goods by Road.  |
| CAS:        | Chemical Abstracts Service (division of the American Chemical Society).             |
| CLP:        | Classification, Labeling, Packaging.  |
| DNEL:       | Derived No Effect Level.  |
| EINECS:     | European Inventory of Existing Commercial Chemical Substances.                      |
| GefStoffVO: | Ordinance on Hazardous Substances, Germany.   |
| GHS:        | Globally Harmonized System of Classification and Labeling of Chemicals.             |
| IATA:       | International Air Transport Association.  |
| IATA-DGR:   | Dangerous Goods Regulation by the "International Air Transport Association" (IATA). |
| ICAO:       | International Civil Aviation Organization.  |
| ICAO-TI:    | Technical Instructions by the "International Civil Aviation Organization" (ICAO).   |
| IMDG:       | International Maritime Code for Dangerous Goods.                                    |
| INCI:       | International Nomenclature of Cosmetic Ingredients.                                 |
| KSt:        | Explosion coefficient.  |
| LC50:       | Lethal concentration, for 50 percent of test population.                            |
| LD50:       | Lethal dose, for 50 percent of test population.                                     |
| LTE:        | Long-term exposure.   |
| PNEC:       | Predicted No Effect Concentration.  |
| RID:        | Regulation Concerning the International Transport of Dangerous Goods by Rail.       |
| STE:        | Short-term exposure.  |
| STEL:       | Short Term Exposure limit.  |
| STOT:       | Specific Target Organ Toxicity.   |
| TLV:        | Threshold Limiting Value.   |
| TWATLV:     | Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).   |
| WGK:        | German Water Hazard Class.  |