

| 1.1. Product identifier | of the substance/mixture and of the company/undertaking |
|----------------------------------------------|-------------------------------------------------------------------------------------------|
| Mixture identificati Trade name: | on: Ink Cartridge, Light Black, T5807 |
| 1.2. Relevant identified u Recommended us | uses of the substance or mixture and uses advised against |
| | Ink for inkjet printing |
| 1.3. Details of the suppli Company: | er of the safety data sheet |
| | EPSON EUROPE B.V. |
| | Azie building, Atlas ArenA, Hoogoorddreef 5,1101 BA Amsterdam Zuidoost The Netherlands |
| | Phone number: +31-20-314-5000 |
| Competent persor | n responsible for the safety data sheet: chemicals@epson-europe.com |
| Date: | 07/10/2016 |
| Revision: | 1.0 |
| 1.4. Emergency telephor | |
| Phone number: | +31-20-314-5000 |
| Giftnotruf Berlin; | +48 (0) 30 30686 790 |
| SECTION 2: Hazards ident | ification |
| 2.1. Classification of the | |
| | eria 1272/2008 (CLP) |
| The produc | t is not classified as dangerous according to Regulation EC 1272/2008 |
| (CLP). | |
| | hemical, human health and environmental effects: |
| No other ha | zards |
| 2.2. Label elements | classified as dangerous according to Regulation EC 1272/2008 (CLP). |
| Hazard pictogram | |
| None | |
| Hazard statement | S: |
| None | |
| Precautionary stat | ements: |
| None Special Provisions | , |
| | Ifety data sheet available on request. |
| | ontains 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one. May |
| | allergic reaction. |
| | according to Annex XVII of REACH and subsequent amendments: |
| None 2.3. Other hazards | |
| | None - PBT Substances: None |
| Other Hazards: | |
| No other ha | zards |
| SECTION 3: Composition/ | information on ingredients |
| 3.1. Substances | |
| No 2.2. Mixturoo | |
| 3.2. Mixtures Hazardous compo | ments within the meaning of the CLP regulation and related classification: |
| | |
| | |
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| Qty | Name | Ident. Num | ber | Classification |
|--------------|---------------------------------------------------------------------|---------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 50% ~ 65% | Water | CAS: EC: | 7732-18-5 231-791-2 | The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). |
| 20% ~ 25% | Glycerol | CAS: EC: | 56-81-5 200-289-5 | The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). |
| 1% ~ 3% | Triethanol amine | CAS: EC: | 102-71-6 203-049-8 | The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). |
| 1% ~ 3% | Carbon black | CAS: EC: | 1333-86-4 215-609-9 | The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). |
| < 0.05% | 1,2-benzisothiazol-3(2 H)-one; 1,2-benzisothiazolin-3- one | Index number: CAS: EC: | 613-088-00-6 2634-33-5 220-120-9 | 3.1/4/Oral Acute Tox. 4 H302 3.2/2 Skin Irrit. 2 H315 3.3/1 Eye Dam. 1 H318 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317 4.1/A1 Aquatic Acute 1 H400 |

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 (CO2).

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

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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.

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. 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/m3 Notes: PEL, as mist, respirable fraction
 - OEL Type: OSHA LTE: 15 mg/m3 Notes: PEL, as mist, total dust
 - Carbon black CAS: 1333-86-4
 - OEL Type: ACGIH LTE: 3 mg/m3
 - OEL Type: NIOSH LTE: 3.5 mg/m3 STE: 1750 mg/m3
 - OEL Type: OSHA LTE: 3.5 mg/m3
 - 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: Odour: Odour threshold: pH: Melting point / freezing point: Initial boiling point and boiling range: Solid/gas flammability: Upper/lower flammability or explosive limits: Vapour density: Flash point: Evaporation rate: Vapour pressure: Relative density: Solubility in water: Solubility in oil: Partition coefficient (n-octanol/water): Auto-ignition temperature: Decomposition temperature: Viscosity: Explosive properties: Oxidizing properties:

9.2. Other information Miscibility: Fat Solubility: Conductivity:

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

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Light Black Liquid Slightly No data available 8.4 ~ 9.6 at 20 °C -29.8 °C No data available No data available No data available No data available > 120 °C / 248 ° F No data available No data available 1.061 at 20 °C Complete No data available No data available No data available No data available < 5 mPa⋅s at 20 °C No data available No data available

No data available No data available No data available



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 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 Carbon black - CAS: 1333-86-4 a) acute toxicity: Test: LD50 - Route: Dermal - Species: Rabbit > 3 g/kg - Source: Acute Toxicity Data. Journal of the American College of Toxicology, Part B. Vol. 15 Test: LD50 - Route: Oral - Species: Rat > 15400 mg/kg - Source: Acute Toxicity Data. Journal of the American College of Toxicology, Part B. Vol. 15 Carbon black - CAS: 1333-86-4

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.

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

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- 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 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

Full text of phrases referred to in Section 3:

- H302 Harmful if swallowed.
- H315 Causes skin irritation.

H318 Causes serious eye damage.

- H317 May cause an allergic skin reaction.
- H400 Very toxic to aquatic life.

| Hazard class and hazard category | Code | Description |
|-------------------------------------|---------------|--------------------------------------|
| Acute Tox. 4 | 3.1/4/Oral | Acute toxicity (oral), Category 4 |
| Skin Irrit. 2 | 3.2/2 | Skin irritation, Category 2 |
| Eye Dam. 1 | 3.3/1 | Serious eye damage, Category 1 |
| Skin Sens. 1,1A,1B | 3.4.2/1-1A-1B | Skin Sensitisation, Category 1,1A,1B |
| Aquatic Acute 1 | 4.1/A1 | Acute aquatic hazard, category 1 |

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 |
|-------------|--------------------------------------------------------------------------------------------------------|
| CAS: | Dangerous Goods by Road. 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 Áviation Organization. |
| ICAO-TI: | Technical Instructions by the "International Civil Aviation Organization" |
| | (ICAO). |
| IMDG: | International Maritime Code for Dangerous Goods. |
| | |



| INCI: KSt: | International Nomenclature of Cosmetic Ingredients. 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. |