

SECTION 1: Identification 1.1. Product identifier	of the substance/mixture and of the company/undertaking
Mixture identifica	tion:
Trade name:	Ink, T5594
1.2. Relevant identified Recommended u	
	Ink for inkjet printing
	lier of the safety data sheet
Company:	
	EPSON EUROPE B.V.
	Azie building, Atlas ArenA, Hoogoorddreef 5,1101 BA Amsterdam
	Zuidoost The Netherlands
<b>0</b>	Phone number: +31-20-314-5000
Competent perso	on responsible for the safety data sheet:
	chemicals@epson.eu
Date:	12/10/2023
Revision:	3.1
1.4. Emergency telepho	
Phone number:	+31-20-314-5000
United Kingdom;	
	Emergency Action: In the event of a medical enquiry involving
	this product, please contact your doctor or local hospital
	accident and emergency department.
Ireland;	+353 (01) 809 2566 or +353 (01) 809 2166
Malta;	2545 0000 or 21224071
SECTION 2: Hazards ider	itification
2.1. Classification of the	e 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

Hazard pictograms:

None

Hazard statements:

None

Precautionary statements:

None

Special Provisions:

EUH210 Safety data sheet available on request.

EUH208 Contains 2,4,7,9-tetramethyldec-5-yne-4,7-diol. May produce an allergic reaction.

EUH208 Contains 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one. May produce an allergic reaction.

Special provisions according to Annex XVII of REACH and subsequent amendments: None

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1% Other Hazards:

No other hazards

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#### **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. Numb	er	Classification
65% ~ 80%	Water	CAS: EC:	7732-18-5 231-791-2	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
10% ~ 12.5%	Glycerol	CAS: EC:	56-81-5 200-289-5	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
7% ~ 10%	2-[2-(2-butoxyethoxy)et hoxy]ethanol; TEGBE; triethylene glycol monobutyl ether	number: CAS: EC:	603-183-00-0 143-22-6 205-592-6 01-21194751 07-38	<ul> <li>3.3/1 Eye Dam. 1 H318</li> <li>Specific Concentration Limits:</li> <li>C &gt;= 30%: Eye Dam. 1 H318</li> <li>20% &lt;= C &lt; 30%: Eye Irrit. 2 H319</li> </ul>
0.1% ~ 0.25%	2,4,7,9-tetramethyldec- 5-yne-4,7-diol	CAS: EC: REACH No.:	126-86-3 204-809-1 01-21199543 90-39	<ul> <li>3.3/1 Eye Dam. 1 H318</li> <li>3.4.2/1B Skin Sens. 1B H317</li> <li>4.1/C3 Aquatic Chronic 3 H412</li> </ul>
0.0015% ~ 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	<ul> <li>3.1/4/Oral Acute Tox. 4 H302</li> <li>3.2/2 Skin Irrit. 2 H315</li> <li>3.3/1 Eye Dam. 1 H318</li> <li>3.4.2/1 Skin Sens. 1 H317</li> <li>4.1/A1 Aquatic Acute 1 H400 Specific Concentration Limits:</li> <li>0.005% &lt;= C &lt; 0.05%: EUH208 C &gt;= 0.05%: Skin Sens. 1 H317</li> </ul>

#### **SECTION 4: First aid measures**

- 4.1. Description of first aid measures
  - In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

- Protect uninjured eye.
- In case of Ingestion:

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

In case of Inhalation:

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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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

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

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.

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.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities Keep away from food, drink and feed. Incompatible materials:

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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**

SECTION 6. Exposure controls/personal protection
8.1. Control parameters
Glycerol - CAS: 56-81-5
<ul> <li>OEL Type: OSHA - TWA: 5 mg/m3 - Notes: Respirable dust</li> </ul>
- OEL Type: OSHA - TWA: 15 mg/m3 - Notes: Total dust
DNEL Exposure Limit Values
No data available
PNEC Exposure Limit Values
2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutyl ether -
CAS: 143-22-6
Target: Fresh Water - Value: 1.5 mg/l
Target: Freshwater sediments - Value: 5.77 mg/kg
Target: Marine water - Value: 0.15 mg/l
Target: Marine water sediments - Value: 0.13 mg/kg
Target: Microorganisms in sewage treatments - Value: 200 mg/l
2,4,7,9-tetramethyldec-5-yne-4,7-diol - CAS: 126-86-3
Target: Fresh Water - Value: 0.04 mg/l
Target: Marine water - Value: 0.004 mg/l
Target: Freshwater sediments - Value: 0.32 mg/kg
Target: Marine water sediments - Value: 0.032 mg/kg
8.2. Exposure controls
8.2.1. Appropriate engineering controls:
None
8.2.2. Individual protection measures, such as personal protective equipment
Eye protection:
Use close fitting safety goggles, don't use eye lens.
Protection for skin:
Use clothing that provides comprehensive protection to the skin, e.g. cotton,
rubber, PVC or viton.
Protection for hands:
Use protective gloves that provides comprehensive protection, e.g. P.V.C.,
neoprene or rubber.
Respiratory protection:
Use personal protective equipment as required.
Thermal Hazards:
None
8.2.3. Environmental exposure controls:
None
Appropriate engineering controls:
None
SECTION 0. Physical and chemical properties
SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties Physical state: Colour: Odour: Melting point / freezing point: Boiling point or initial boiling point and boiling range:

Flammability: Lower and upper explosion limit: Flash point:

FPSON

Auto-ignition temperature: Decomposition temperature: pH: Kinematic viscosity: Solubility in water: Vapour pressure: Density and/or relative density:

Relative vapour density: Particle characteristics:

9.2. Other information No other relevant information

#### **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 hazard classes as defined in Regulation (EC) No 1272/2008 Toxicological information of the product:
  - a) acute toxicity:
    - Test: LD50 Route: Oral Species: Rat > 2500 mg/kg
    - Test: LD50 Route: Dermal Species: Rat > 2000 mg/kg
  - b) skin corrosion/irritation:
    - Test: Skin Irritant Species: Rabbit Non-irritant
  - c) serious eye damage/irritation:
    - Test: Eye Irritant Species: Rabbit Mild irritant
  - d) respiratory or skin sensitisation:
  - Test: Skin Sensitisation Route: LLNA Species: Mouse Non-sensitiser
  - e) germ cell mutagenicity:

Test: Mutagenesis - Species: Salmonella Typhimurium and Escherichia coli Negative

- f) carcinogenicity:
  - Does not contain carcinogens (Ref. 1)
- g) reproductive toxicity:
  - Does not contain reproductive toxicity and developmental toxic substances (Ref. 2)
- Toxicological information of the main substances found in the product:

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No data available Non-flammable No data available Does not flash until 100 °C / 212 ° F (closed cup method, ASTM D 3278) No data available No data available 8.6 ~ 9.6 at 20 °C < 5 mm2/sat 20 °C Complete No data available at 20 °C 1.061 Specific gravity (relative density) No data available Not Relevant



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.

2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutyl ether - CAS: 143-22-6

a) acute toxicity:

Test: LD50 - Route: Dermal - Species: Rabbit = 3.54 ml/kg - Source: American Industrial Hygiene Association Journal. Vol. 23, Pg. 95, 1962.

Test: LD50 - Route: Oral - Species: Rat = 5300 mg/kg - Source: Office of Toxic Substances Report. Vol. OTS,

2,4,7,9-tetramethyldec-5-yne-4,7-diol - CAS: 126-86-3

a) acute toxicity:

Test: LD50 - Route: Dermal - Species: Rat > 2000 mg/kg

b) skin corrosion/irritation: Test: Skin Irritant - Species: Rabbit Mild irritant

c) serious eye damage/irritation:

Test: Eye Irritant - Species: Rabbit Highly irritating

d) respiratory or skin sensitisation:

Test: Skin Sensitisation - Route: LLNA - Species: Mouse Sensitiser

e) germ cell mutagenicity:

Test: Mutagenesis - Species: Salmonella Typhimurium Negative

Direct Yellow 173 - Index number: 611-141-00-8

LD50 > 2000mg/kg Rat(Oral)

No-irritant to Rabbits skin

If not differently specified, the information required in Regulation (EU)2020/878 listed below must be considered as N.A.:

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.

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 0.1%

#### **SECTION 12: Ecological information**

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment. Toxicological information of the product:

No data available

Toxicological information of the main substances found in the product:

2,4,7,9-tetramethyldec-5-yne-4,7-diol - CAS: 126-86-3

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 36 mg/l - Duration h: 96

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Endpoint: EC50 - Species: Daphnia = 88 mg/l - Duration h: 48 Endpoint: EC50 - Species: Algae = 15 mg/l - Duration h: 72

- c) Bacteria toxicity:
  - Endpoint: EC50 Species: activated sludge = 630 mg/l Duration h: 0.5
- 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. Endocrine disrupting properties
  - No endocrine disruptor substances present in concentration >= 0.1%
- 12.7. Other adverse effects None

#### **SECTION 13: Disposal considerations**

13.1. Waste treatment methods Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

#### **SECTION 14: Transport information**

- 14.1. UN number or ID 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. Maritime transport in bulk according to IMO instruments 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 (Cocupational 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) n. 2020/878 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 4 CLP) Regulation (EU) n. 605/2014 (ATP 5 CLP) Regulation (EU) n. 2015/1221 (ATP 7 CLP) Regulation (EU) n. 2016/1179 (ATP 8 CLP)



Regulation (EU) n. 2017/776 (ATP 10 CLP) Regulation (EU) n. 2018/669 (ATP 11 CLP) Regulation (EU) n. 2018/1480 (ATP 13 CLP) Regulation (EU) n. 2019/521 (ATP 12 CLP) Regulation (EU) n. 2020/217 (ATP 14 CLP) Regulation (EU) n. 2020/1182 (ATP 15 CLP) Regulation (EU) n. 2021/643 (ATP 16 CLP) Regulation (EU) n. 2021/849 (ATP 17 CLP) Regulation (EU) n. 2022/692 (ATP 18 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: **Restriction 75** Where applicable, refer to the following regulatory provisions : Directive 2012/18/EU (Seveso III) Regulation (EC) nr 648/2004 (detergents). Dir. 2004/42/EC (VOC directive) Provisions related to directive EU 2012/18 (Seveso III): Seveso III category according to Annex 1, part 1 None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

#### **SECTION 16: Other information**

Full text of phrases referred to in Section 3:

- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.
- H412 Harmful to aquatic life with long lasting effects.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H400 Very toxic to aquatic life.

EUH208 Contains (name of sensitising substance). May produce an allergic reaction.

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
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Skin Sens. 1	3.4.2/1	Skin Sensitisation, Category 1
Skin Sens. 1B	3.4.2/1B	Skin Sensitisation, Category 1B
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

Paragraphs modified from the previous revision:

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

- SECTION 2: Hazards identification
- SECTION 4: First aid measures
- SECTION 6: Accidental release measures
- SECTION 7: Handling and storage

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SECTION 8: Exposure controls/personal protection SECTION 9: Physical and chemical properties SECTION 11: Toxicological information SECTION 12: Ecological information SECTION 13: Disposal considerations SECTION 14: Transport information SECTION 15: Regulatory information SECTION 16: Other information

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

- Ref. 1 IARC Monographs on the Evaluation Carcinogenic Risks to Humans (IARC: International Agency for Research on Cancer)
  Journal of Occupational Health (JOH) (Japan Society of Occupational Health (JSOH))
  TLVs and BEIs (ACGIH: American Conference of Governmental Industrial Hygienists)
  IRIS Carcinogenic Assessment (IRIS: Integrated Risk Information System of US EPA)
  National Toxicology Program (NTP) Report on Carcinogens (USA)
  Annex VI of REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
  MAK und BAT Werte Liste (DFG: German Research Foundation)
  TRGS 905, Verzeichnis krebserzeugender, keimzell mutagener oder reproduktionstoxischer Stoffe (AGS: Committee on Hazardous Substances, Germany)
- Ref. 2 •Annex VI of REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
   •TRGS 905, Verzeichnis krebserzeugender, keimzell mutagener oder reproduktionstoxischer Stoffe (AGS: Committee on Hazardous Substances, Germany)

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 Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
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

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ICAO: ICAO-TI:	Association" (IATA). International Civil Aviation Organization. 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.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.