

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

1.1. Product identifier

Mixture identification:

Trade name: Ink, T16N1

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

3rd and 4th Floors, The Clarendon Works, 37-39 Clarendon Road,
Watford, WD17 1JA, United Kingdom

Phone number: +44-1442-261144

Competent person responsible for the safety data sheet:

chemicals@epson.eu

Date: 02/12/2025

Revision: 7.0

1.4. Emergency telephone number

United Kingdom;

01952 607111 Monday to Friday 9am to 5:30pm.

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 8am – 10pm

Malta;

2545 0000 or 21224071

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:

EUH210 Safety data sheet available on request.

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 $\geq 0.1\%$

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
65% ~ 80%	Water	CAS: 7732-18-5 EC: 231-791-2	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
7% ~ 10%	Glycerol	CAS: 56-81-5 EC: 200-289-5	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
7% ~ 10%	2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutyl ether	Index number: 603-183-00-0 CAS: 143-22-6 EC: 205-592-6 REACH No.: 01-21194751 07-38	 3.3/1 Eye Dam. 1 H318 Specific Concentration Limits: C >= 30%: Eye Dam. 1 H318 20% <= C < 30%: Eye Irrit. 2 H319
1% ~ 3%	E-BK105		4.1/C3 Aquatic Chronic 3 H412
0.1% ~ 0.25%	Triethanolamine	CAS: 102-71-6 EC: 203-049-8 REACH No.: 01-21194864 82-31	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
0.0015% ~ 0.036%	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	Index number: 613-088-00-6 CAS: 2634-33-5 EC: 220-120-9	 3.1/2/Inhal Acute Tox. 2 H330  3.1/4/Oral Acute Tox. 4 H302  3.2/2 Skin Irrit. 2 H315  3.3/1 Eye Dam. 1 H318  3.4.2/1A Skin Sens. 1A H317  4.1/A1 Aquatic Acute 1 H400 M=1.  4.1/C1 Aquatic Chronic 1 H410 M=1. Specific Concentration Limits: 0.0036% <= C < 0.036%: EUH208 C >= 0.036%: Skin Sens. 1A H317 Acute Toxicity Estimate: ATE - Oral 450 mg/kg bw ATE - Inhalation (Dust/mist) 0.21 mg/l

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

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.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

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:

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 - TWA: 5 mg/m³ - Notes: Respirable dust

- OEL Type: OSHA - TWA: 15 mg/m³ - Notes: Total dust

Triethanolamine - CAS: 102-71-6

- OEL Type: ACGIH - TWA(8h): 5 mg/m³

- OEL Type: ISHL - TWA(8h): 1 mg/m³

DNEL Exposure Limit Values

Triethanolamine - CAS: 102-71-6

Worker Industry: 6.3 mg/kg/day - Consumer: 3.1 mg/kg/day - Exposure: Human

Dermal - Frequency: Long Term, systemic effects

Worker Industry: 5 mg/m³ - Consumer: 1.25 mg/m³ - Exposure: Human

Inhalation - Frequency: Long Term, systemic effects

Consumer: 13 mg/kg/day - Exposure: Human Oral - Frequency: Short Term, systemic effects

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

Triethanolamine - CAS: 102-71-6

Target: Fresh Water - Value: 0.32 mg/l

Target: Marine water - Value: 0.032 mg/l

Target: Freshwater sediments - Value: 1.7 mg/kg

Target: Marine water sediments - Value: 0.17 mg/kg

Target: Soil (agricultural) - Value: 0.151 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 personal protective equipment as required.

Protection for skin:

Use personal protective equipment as required.

Protection for hands:

Use personal protective equipment as required.

Respiratory protection:

Use personal protective equipment as required.

Thermal Hazards:

None

8.2.3. Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Black
Odour:	Slightly
Melting point / freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	Non-flammable
Lower and upper explosion limit:	No data available
Flash point:	Does not flash.
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	8 ~ 9 at 20 °C
Kinematic viscosity:	< 5 mm ² /s at 20 °C
Solubility in water:	Complete
Vapour pressure:	No data available
Relative vapour density:	No data available
Particle characteristics:	Not Relevant

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:

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:

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,
- Triethanolamine - 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.
- 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5
- a) acute toxicity
- ATE - Oral 450 mg/kg bw
- ATE - Inhalation (Dust/mist) 0.21 mg/l

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 \geq 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:
- 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5
- a) Aquatic acute toxicity
- ATE - Oral 450 mg/kg bw
- ATE - Inhalation (Dust/mist) 0.21 mg/l
- 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 $\geq 0.1\%$
- 12.7. 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 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 (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) 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 5 CLP)
 - Regulation (EU) n. 605/2014 (ATP 6 CLP)
 - Regulation (EU) n. 2015/1221 (ATP 7 CLP)
 - Regulation (EU) n. 2016/918 (ATP 8 CLP)
 - Regulation (EU) n. 2016/1179 (ATP 9 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)
 Regulation (EU) n. 2023/1434 (ATP 19 CLP)
 Regulation (EU) n. 2023/1435 (ATP 20 CLP)
 Regulation (EU) n. 2024/197 (ATP 21 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.

H412 Harmful to aquatic life with long lasting effects.

H330 Fatal if inhaled.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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

Hazard class and hazard category	Code	Description
Acute Tox. 2	3.1/2/Inhal	Acute toxicity (inhalation), Category 2
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. 1A	3.4.2/1A	Skin Sensitisation, Category 1A
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) 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 3: Composition/information on ingredients

SECTION 6: Accidental release measures

SECTION 8: Exposure controls/personal protection

SECTION 11: Toxicological information

SECTION 12: Ecological 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 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.
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.

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

1.1. Product identifier

Mixture identification:

Trade name: Ink, T16N2

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

3rd and 4th Floors, The Clarendon Works, 37-39 Clarendon Road,
Watford, WD17 1JA, United Kingdom

Phone number: +44-1442-261144

Competent person responsible for the safety data sheet:

chemicals@epson.eu

Date: 02/12/2025

Revision: 7.0

1.4. Emergency telephone number

United Kingdom;

01952 607111 Monday to Friday 9am to 5:30pm.

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 8am – 10pm

Malta;

2545 0000 or 21224071

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:

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 $\geq 0.1\%$

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
65% ~ 80%	Water	CAS: 7732-18-5 EC: 231-791-2	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
7% ~ 10%	Glycerol	CAS: 56-81-5 EC: 200-289-5	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
5% ~ 7%	2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutyl ether	Index number: 603-183-00-0 CAS: 143-22-6 EC: 205-592-6 REACH No.: 01-21194751 07-38	 3.3/1 Eye Dam. 1 H318 Specific Concentration Limits: C $\geq 30\%$: Eye Dam. 1 H318 20% \leq C < 30%: Eye Irrit. 2 H319
1% ~ 3%	E-C104	EC: 700-815-8	4.1/C3 Aquatic Chronic 3 H412
1% ~ 3%	Lithium naphthalene-2-carboxylate	CAS: 674347-28-5 EC: 700-040-5	 3.1/4/Oral Acute Tox. 4 H302  3.3/1 Eye Dam. 1 H318 Specific Concentration Limits: 15% \leq C < 20%: Eye Dam. 1 H318 10% \leq C < 15%: Eye Irrit. 2 H319 15% \leq C < 20%: Acute Tox. 4 H302
0.1% ~ 0.25%	2,4,7,9-tetramethyldec-5-yne-4,7-diol	CAS: 126-86-3 EC: 204-809-1 REACH No.: 01-21199543 90-39	 3.3/1 Eye Dam. 1 H318  3.4.2/1B Skin Sens. 1B H317 4.1/C3 Aquatic Chronic 3 H412
0.1% ~ 0.25%	Triethanolamine	CAS: 102-71-6 EC: 203-049-8 REACH No.: 01-21194864 82-31	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
0.0015% ~ 0.036%	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	Index number: 613-088-00-6 CAS: 2634-33-5 EC: 220-120-9	 3.1/2/Inhal Acute Tox. 2 H330  3.1/4/Oral Acute Tox. 4 H302  3.2/2 Skin Irrit. 2 H315  3.3/1 Eye Dam. 1 H318  3.4.2/1A Skin Sens. 1A H317  4.1/A1 Aquatic Acute 1 H400 M=1.  4.1/C1 Aquatic Chronic 1 H410 M=1.

			<p>Specific Concentration Limits: 0.0036% <= C < 0.036%: EUH208 C >= 0.036%: Skin Sens. 1A H317 Acute Toxicity Estimate: ATE - Oral 450 mg/kg bw ATE - Inhalation (Dust/mist) 0.21 mg/l</p>
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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

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.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

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:

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 - TWA: 5 mg/m³ - Notes: Respirable dust

- OEL Type: OSHA - TWA: 15 mg/m³ - Notes: Total dust

Triethanolamine - CAS: 102-71-6

- OEL Type: ACGIH - TWA(8h): 5 mg/m³

- OEL Type: ISHL - TWA(8h): 1 mg/m³

DNEL Exposure Limit Values

Triethanolamine - CAS: 102-71-6

Worker Industry: 6.3 mg/kg/day - Consumer: 3.1 mg/kg/day - Exposure: Human

Dermal - Frequency: Long Term, systemic effects

Worker Industry: 5 mg/m³ - Consumer: 1.25 mg/m³ - Exposure: Human

Inhalation - Frequency: Long Term, systemic effects

Consumer: 13 mg/kg/day - Exposure: Human Oral - Frequency: Short Term, systemic effects

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

Triethanolamine - CAS: 102-71-6

Target: Fresh Water - Value: 0.32 mg/l

Target: Marine water - Value: 0.032 mg/l

Target: Freshwater sediments - Value: 1.7 mg/kg

Target: Marine water sediments - Value: 0.17 mg/kg

Target: Soil (agricultural) - Value: 0.151 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 personal protective equipment as required.

Protection for skin:

Use personal protective equipment as required.

Protection for hands:

Use personal protective equipment as required.

Respiratory protection:

Use personal protective equipment as required.

Thermal Hazards:

None

8.2.3. Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Cyan
Odour:	Slightly
Melting point / freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	Non-flammable
Lower and upper explosion limit:	No data available
Flash point:	Does not flash.
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	8 ~ 9 at 20 °C
Kinematic viscosity:	< 5 mm ² /s at 20 °C
Solubility in water:	Complete
Vapour pressure:	No data available
Relative vapour density:	No data available
Particle characteristics:	Not Relevant

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:

- 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:

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,

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- a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg
Test: LD50 - Route: Dermal - Species: Rat > 2000 mg/kg
Test: LC50 - Route: Inhalation Dust - Species: Rat > 5 mg/l

- b) skin corrosion/irritation:

Test: Skin Irritant - Species: Rabbit Non-irritant

- c) serious eye damage/irritation:

Test: Eye Irritant - Species: Rabbit Minimal irritant

- d) respiratory or skin sensitisation:

Test: Skin Sensitisation - Route: LLNA - Species: Mouse Non-sensitiser

- e) germ cell mutagenicity:

Test: Genotoxicity Negative
Test: Mutagenesis - Route: Dermal - Species: Salmonella Typhimurium and Escherichia coli Negative

- g) reproductive toxicity:

Test: Reproductive Toxicity - Route: Oral - Species: Rat No

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
 Triethanolamine - 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.
- 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5
- a) acute toxicity
 ATE - Oral 450 mg/kg bw
 ATE - Inhalation (Dust/mist) 0.21 mg/l

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 $\geq 0.1\%$

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:

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a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 97.9 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 60.7 mg/l - Duration h: 48

Endpoint: ErC50 - Species: Algae > 103 mg/l - Duration h: 72

f) Effects in sewage plants:

Endpoint: EC50 - Species: activated sludge > 100 mg/l - Duration h: 3

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

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

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5

- a) Aquatic acute toxicity
 - ATE - Oral 450 mg/kg bw
 - ATE - Inhalation (Dust/mist) 0.21 mg/l
- 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 \geq 0.1%
- 12.7. 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 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 (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) 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 5 CLP)
 - Regulation (EU) n. 605/2014 (ATP 6 CLP)
 - Regulation (EU) n. 2015/1221 (ATP 7 CLP)
 - Regulation (EU) n. 2016/918 (ATP 8 CLP)
 - Regulation (EU) n. 2016/1179 (ATP 9 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)
 Regulation (EU) n. 2023/1434 (ATP 19 CLP)
 Regulation (EU) n. 2023/1435 (ATP 20 CLP)
 Regulation (EU) n. 2024/197 (ATP 21 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.

H412 Harmful to aquatic life with long lasting effects.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H330 Fatal if inhaled.

H315 Causes skin irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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

Hazard class and hazard category	Code	Description
Acute Tox. 2	3.1/2/Inhal	Acute toxicity (inhalation), Category 2
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. 1A	3.4.2/1A	Skin Sensitisation, Category 1A
Skin Sens. 1B	3.4.2/1B	Skin Sensitisation, Category 1B
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) 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 3: Composition/information on ingredients
- SECTION 6: Accidental release measures
- SECTION 8: Exposure controls/personal protection
- SECTION 11: Toxicological information
- SECTION 12: Ecological 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 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.
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.

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

1.1. Product identifier

Mixture identification:

Trade name: Ink, T16N3

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

3rd and 4th Floors, The Clarendon Works, 37-39 Clarendon Road,
Watford, WD17 1JA, United Kingdom

Phone number: +44-1442-261144

Competent person responsible for the safety data sheet:

chemicals@epson.eu

Date: 02/10/2025

Revision: 9.0

1.4. Emergency telephone number

United Kingdom;

01952 607111 Monday to Friday 9am to 5:30pm.

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 8am – 10pm

Malta; 2545 0000 or 21224071

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:

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 $\geq 0.1\%$

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
50% ~ 65%	Water	CAS: 7732-18-5 EC: 231-791-2	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
10% ~ 12.5%	2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutyl ether	Index number: 603-183-00-0 CAS: 143-22-6 EC: 205-592-6 REACH No.: 01-21194751-07-38	 3.3/1 Eye Dam. 1 H318 Specific Concentration Limits: C $\geq 30\%$: Eye Dam. 1 H318 20% \leq C < 30%: Eye Irrit. 2 H319
10% ~ 12.5%	Glycerol	CAS: 56-81-5 EC: 200-289-5	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
0.1% ~ 0.25%	2,4,7,9-tetramethyldec-5-yne-4,7-diol	CAS: 126-86-3 EC: 204-809-1 REACH No.: 01-21199543-90-39	 3.3/1 Eye Dam. 1 H318  3.4.2/1B Skin Sens. 1B H317 4.1/C3 Aquatic Chronic 3 H412
0.1% ~ 0.25%	Triethanolamine	CAS: 102-71-6 EC: 203-049-8 REACH No.: 01-21194864-82-31	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
0.0015% ~ 0.036%	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	Index number: 613-088-00-6 CAS: 2634-33-5 EC: 220-120-9	 3.1/2/Inhal Acute Tox. 2 H330  3.1/4/Oral Acute Tox. 4 H302  3.2/2 Skin Irrit. 2 H315  3.3/1 Eye Dam. 1 H318  3.4.2/1A Skin Sens. 1A H317  4.1/A1 Aquatic Acute 1 H400 M=1.  4.1/C1 Aquatic Chronic 1 H410 M=1. Specific Concentration Limits: 0.0036% \leq C < 0.036%: EUH208 C $\geq 0.036\%$: Skin Sens. 1A H317 Acute Toxicity Estimate: ATE - Oral 450 mg/kg bw ATE - Inhalation (Dust/mist) 0.21 mg/l

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

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.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

- 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:
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 - TWA: 5 mg/m³ - Notes: Respirable dust

- OEL Type: OSHA - TWA: 15 mg/m³ - Notes: Total dust

Triethanolamine - CAS: 102-71-6

- OEL Type: ACGIH - TWA(8h): 5 mg/m³

- OEL Type: ISHL - TWA(8h): 1 mg/m³

DNEL Exposure Limit Values

Triethanolamine - CAS: 102-71-6

Worker Industry: 6.3 mg/kg/day - Consumer: 3.1 mg/kg/day - Exposure: Human

Dermal - Frequency: Long Term, systemic effects

Worker Industry: 5 mg/m³ - Consumer: 1.25 mg/m³ - Exposure: Human

Inhalation - Frequency: Long Term, systemic effects

Consumer: 13 mg/kg/day - Exposure: Human Oral - Frequency: Short Term, systemic effects

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

Triethanolamine - CAS: 102-71-6

Target: Fresh Water - Value: 0.32 mg/l

Target: Marine water - Value: 0.032 mg/l

Target: Freshwater sediments - Value: 1.7 mg/kg

Target: Marine water sediments - Value: 0.17 mg/kg

Target: Soil (agricultural) - Value: 0.151 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 personal protective equipment as required.

Protection for skin:

Use personal protective equipment as required.

Protection for hands:

Use personal protective equipment as required.

Respiratory protection:

Use personal protective equipment as required.

Thermal Hazards:

None

8.2.3. Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Magenta
Odour:	Slightly
Melting point / freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	Non-flammable
Lower and upper explosion limit:	No data available
Flash point:	Does not flash.
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	8.1 ~ 9.1 at 20 °C
Kinematic viscosity:	< 5 mm ² /s at 20 °C
Solubility in water:	Complete
Vapour pressure:	No data available
Relative vapour density:	No data available
Particle characteristics:	Not Relevant

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:

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:

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,

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.

2,4,7,9-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

Triethanolamine - 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.

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5

a) acute toxicity

ATE - Oral 450 mg/kg bw

ATE - Inhalation (Dust/mist) 0.21 mg/l

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 \geq 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
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
 - 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5
 - a) Aquatic acute toxicity
ATE - Oral 450 mg/kg bw
ATE - Inhalation (Dust/mist) 0.21 mg/l
- 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 \geq 0.1%
- 12.7. 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 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 (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) 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 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 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)

Regulation (EU) n. 2023/1434 (ATP 19 CLP)

Regulation (EU) n. 2023/1435 (ATP 20 CLP)

Regulation (EU) n. 2024/197 (ATP 21 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.

H330 Fatal if inhaled.

H302 Harmful if swallowed.
 H315 Causes skin irritation.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 EUH208 Contains (name of sensitising substance). May produce an allergic reaction.

Hazard class and hazard category	Code	Description
Acute Tox. 2	3.1/2/Inhal	Acute toxicity (inhalation), Category 2
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. 1A	3.4.2/1A	Skin Sensitisation, Category 1A
Skin Sens. 1B	3.4.2/1B	Skin Sensitisation, Category 1B
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) 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 3: Composition/information on ingredients
 SECTION 8: Exposure controls/personal protection
 SECTION 11: Toxicological information
 SECTION 12: Ecological 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 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.
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.

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

1.1. Product identifier

Mixture identification:

Trade name: Ink, T16N4

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

3rd and 4th Floors, The Clarendon Works, 37-39 Clarendon Road,
Watford, WD17 1JA, United Kingdom

Phone number: +44-1442-261144

Competent person responsible for the safety data sheet:

chemicals@epson.eu

Date: 02/12/2025

Revision: 6.0

1.4. Emergency telephone number

United Kingdom;

01952 607111 Monday to Friday 9am to 5:30pm.

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 8am – 10pm

Malta; 2545 0000 or 21224071

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:

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 $\geq 0.1\%$

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
65% ~ 80%	Water	CAS: 7732-18-5 EC: 231-791-2	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
7% ~ 10%	Glycerol	CAS: 56-81-5 EC: 200-289-5	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
7% ~ 10%	2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGEBE; triethylene glycol monobutyl ether	Index number: 603-183-00-0 CAS: 143-22-6 EC: 205-592-6 REACH No.: 01-21194751 07-38	 3.3/1 Eye Dam. 1 H318 Specific Concentration Limits: C $\geq 30\%$: Eye Dam. 1 H318 20% \leq C < 30%: Eye Irrit. 2 H319
0.25% ~ 0.5%	2,4,7,9-tetramethyldec-5-yne-4,7-diol	CAS: 126-86-3 EC: 204-809-1 REACH No.: 01-21199543 90-39	 3.3/1 Eye Dam. 1 H318  3.4.2/1B Skin Sens. 1B H317 4.1/C3 Aquatic Chronic 3 H412
0.1% ~ 0.25%	Triethanolamine	CAS: 102-71-6 EC: 203-049-8 REACH No.: 01-21194864 82-31	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
0.0015% ~ 0.036%	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	Index number: 613-088-00-6 CAS: 2634-33-5 EC: 220-120-9	 3.1/2/Inhal Acute Tox. 2 H330  3.1/4/Oral Acute Tox. 4 H302  3.2/2 Skin Irrit. 2 H315  3.3/1 Eye Dam. 1 H318  3.4.2/1A Skin Sens. 1A H317  4.1/A1 Aquatic Acute 1 H400 M=1.  4.1/C1 Aquatic Chronic 1 H410 M=1. Specific Concentration Limits: 0.0036% \leq C < 0.036%: EUH208 C $\geq 0.036\%$: Skin Sens. 1A H317 Acute Toxicity Estimate: ATE - Oral 450 mg/kg bw ATE - Inhalation (Dust/mist) 0.21 mg/l

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

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.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

- 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:
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 - TWA: 5 mg/m³ - Notes: Respirable dust

- OEL Type: OSHA - TWA: 15 mg/m³ - Notes: Total dust

Triethanolamine - CAS: 102-71-6

- OEL Type: ACGIH - TWA(8h): 5 mg/m³

- OEL Type: ISHL - TWA(8h): 1 mg/m³

DNEL Exposure Limit Values

Triethanolamine - CAS: 102-71-6

Worker Industry: 6.3 mg/kg/day - Consumer: 3.1 mg/kg/day - Exposure: Human

Dermal - Frequency: Long Term, systemic effects

Worker Industry: 5 mg/m³ - Consumer: 1.25 mg/m³ - Exposure: Human

Inhalation - Frequency: Long Term, systemic effects

Consumer: 13 mg/kg/day - Exposure: Human Oral - Frequency: Short Term, systemic effects

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

Triethanolamine - CAS: 102-71-6

Target: Fresh Water - Value: 0.32 mg/l

Target: Marine water - Value: 0.032 mg/l

Target: Freshwater sediments - Value: 1.7 mg/kg

Target: Marine water sediments - Value: 0.17 mg/kg

Target: Soil (agricultural) - Value: 0.151 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 personal protective equipment as required.

Protection for skin:

Use personal protective equipment as required.

Protection for hands:

Use personal protective equipment as required.

Respiratory protection:

Use personal protective equipment as required.

Thermal Hazards:

None

8.2.3. Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Yellow
Odour:	Slightly
Melting point / freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	Non-flammable
Lower and upper explosion limit:	No data available
Flash point:	Does not flash.
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	7.8 ~ 8.8 at 20 °C
Kinematic viscosity:	No data available
Solubility in water:	Complete
Vapour pressure:	No data available
Relative vapour density:	No data available
Particle characteristics:	Not Relevant

9.2. Other information

Viscosity:	< 5 mPa·s	at 20 °C
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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:

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:

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., 1969 Vol. -, 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

Triethanolamine - 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, 1982 Vol. -, 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.

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5

a) acute toxicity

ATE - Oral 450 mg/kg bw

ATE - Inhalation (Dust/mist) 0.21 mg/l

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 $\geq 0.1\%$

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
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
 - 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5
 - a) Aquatic acute toxicity
ATE - Oral 450 mg/kg bw
ATE - Inhalation (Dust/mist) 0.21 mg/l
- 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 $\geq 0.1\%$
- 12.7. 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 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 (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) 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 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 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)

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Regulation (EU) n. 2021/849 (ATP 17 CLP)

Regulation (EU) n. 2022/692 (ATP 18 CLP)

Regulation (EU) n. 2023/1434 (ATP 19 CLP)

Regulation (EU) n. 2023/1435 (ATP 20 CLP)

Regulation (EU) n. 2024/197 (ATP 21 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.

H330 Fatal if inhaled.

H302 Harmful if swallowed.
 H315 Causes skin irritation.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 EUH208 Contains (name of sensitising substance). May produce an allergic reaction.

Hazard class and hazard category	Code	Description
Acute Tox. 2	3.1/2/Inhal	Acute toxicity (inhalation), Category 2
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. 1A	3.4.2/1A	Skin Sensitisation, Category 1A
Skin Sens. 1B	3.4.2/1B	Skin Sensitisation, Category 1B
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) 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 3: Composition/information on ingredients
 SECTION 6: Accidental release measures
 SECTION 8: Exposure controls/personal protection
 SECTION 11: Toxicological information
 SECTION 12: Ecological 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)
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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 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.
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.

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

1.1. Product identifier

Mixture identification:

Trade name: Ink, T16N5

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

3rd and 4th Floors, The Clarendon Works, 37-39 Clarendon Road,
Watford, WD17 1JA, United Kingdom

Phone number: +44-1442-261144

Competent person responsible for the safety data sheet:

chemicals@epson.eu

Date: 02/12/2025

Revision: 6.0

1.4. Emergency telephone number

United Kingdom;

01952 607111 Monday to Friday 9am to 5:30pm.

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 8am – 10pm

Malta; 2545 0000 or 21224071

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:

EUH210 Safety data sheet available on request.

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 $\geq 0.1\%$

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
65% ~ 80%	Water	CAS: 7732-18-5 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 EC: 200-289-5	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
7% ~ 10%	2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutyl ether	Index number: 603-183-00-0 CAS: 143-22-6 EC: 205-592-6 REACH No.: 01-21194751 07-38	 3.3/1 Eye Dam. 1 H318 Specific Concentration Limits: C >= 30%: Eye Dam. 1 H318 20% <= C < 30%: Eye Irrit. 2 H319
0.1% ~ 0.25%	Triethanolamine	CAS: 102-71-6 EC: 203-049-8 REACH No.: 01-21194864 82-31	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
0.0015% ~ 0.036%	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	Index number: 613-088-00-6 CAS: 2634-33-5 EC: 220-120-9	 3.1/2/Inhal Acute Tox. 2 H330  3.1/4/Oral Acute Tox. 4 H302  3.2/2 Skin Irrit. 2 H315  3.3/1 Eye Dam. 1 H318  3.4.2/1A Skin Sens. 1A H317  4.1/A1 Aquatic Acute 1 H400 M=1.  4.1/C1 Aquatic Chronic 1 H410 M=1. Specific Concentration Limits: 0.0036% <= C < 0.036%: EUH208 C >= 0.036%: Skin Sens. 1A H317 Acute Toxicity Estimate: ATE - Oral 450 mg/kg bw ATE - Inhalation (Dust/mist) 0.21 mg/l

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

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.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

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:

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 - TWA: 5 mg/m³ - Notes: Respirable dust
- OEL Type: OSHA - TWA: 15 mg/m³ - Notes: Total dust

Triethanolamine - CAS: 102-71-6

- OEL Type: ACGIH - TWA(8h): 5 mg/m³
- OEL Type: ISHL - TWA(8h): 1 mg/m³

DNEL Exposure Limit Values

Triethanolamine - CAS: 102-71-6

- Worker Industry: 6.3 mg/kg/day - Consumer: 3.1 mg/kg/day - Exposure: Human
- Dermal - Frequency: Long Term, systemic effects
- Worker Industry: 5 mg/m³ - Consumer: 1.25 mg/m³ - Exposure: Human
- Inhalation - Frequency: Long Term, systemic effects
- Consumer: 13 mg/kg/day - Exposure: Human Oral - Frequency: Short Term, systemic effects

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

Triethanolamine - CAS: 102-71-6

- Target: Fresh Water - Value: 0.32 mg/l
- Target: Marine water - Value: 0.032 mg/l
- Target: Freshwater sediments - Value: 1.7 mg/kg
- Target: Marine water sediments - Value: 0.17 mg/kg
- Target: Soil (agricultural) - Value: 0.151 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 personal protective equipment as required.

Protection for skin:

Use personal protective equipment as required.

Protection for hands:

Use personal protective equipment as required.

Respiratory protection:

Use personal protective equipment as required.

Thermal Hazards:

None

8.2.3. Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Light cyan
Odour:	Slightly
Melting point / freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	Non-flammable
Lower and upper explosion limit:	No data available
Flash point:	Does not flash.
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	8.1 ~ 9.1 at 20 °C
Kinematic viscosity:	< 5 mm ² /s at 20 °C
Solubility in water:	Complete
Vapour pressure:	No data available
Relative vapour density:	No data available
Particle characteristics:	Not Relevant

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:

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:

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,

Triethanolamine - 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.

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5

a) acute toxicity

ATE - Oral 450 mg/kg bw

ATE - Inhalation (Dust/mist) 0.21 mg/l

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 \geq 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:

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5

a) Aquatic acute toxicity

ATE - Oral 450 mg/kg bw

ATE - Inhalation (Dust/mist) 0.21 mg/l

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 \geq 0.1%

12.7. 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 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

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No restriction.

Restrictions related to the substances contained:

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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.

H330 Fatal if inhaled.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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

Hazard class and hazard category	Code	Description
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Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
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Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Skin Sens. 1A	3.4.2/1A	Skin Sensitisation, Category 1A
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
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·TLVs and BEIs (ACGIH: American Conference of Governmental Industrial Hygienists)
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·National Toxicology Program (NTP) Report on Carcinogens (USA)
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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.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods

STEL: by Rail.
Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWA: Time-weighted average
WGK: German Water Hazard Class.

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

1.1. Product identifier

Mixture identification:

Trade name: Ink, T16N6

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

3rd and 4th Floors, The Clarendon Works, 37-39 Clarendon Road,
Watford, WD17 1JA, United Kingdom

Phone number: +44-1442-261144

Competent person responsible for the safety data sheet:

chemicals@epson.eu

Date: 02/12/2025

Revision: 6.0

1.4. Emergency telephone number

United Kingdom;

01952 607111 Monday to Friday 9am to 5:30pm.

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 8am – 10pm

Malta; 2545 0000 or 21224071

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:

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 $\geq 0.1\%$

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
65% ~ 80%	Water	CAS: 7732-18-5 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 EC: 200-289-5	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
7% ~ 10%	2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutyl ether	Index number: 603-183-00-0 CAS: 143-22-6 EC: 205-592-6 REACH No.: 01-21194751 07-38	 3.3/1 Eye Dam. 1 H318 Specific Concentration Limits: C $\geq 30\%$: Eye Dam. 1 H318 20% \leq C < 30%: Eye Irrit. 2 H319
0.1% ~ 0.25%	2,4,7,9-tetramethyldec-5-yne-4,7-diol	CAS: 126-86-3 EC: 204-809-1 REACH No.: 01-21199543 90-39	 3.3/1 Eye Dam. 1 H318  3.4.2/1B Skin Sens. 1B H317 4.1/C3 Aquatic Chronic 3 H412
0.1% ~ 0.25%	Triethanolamine	CAS: 102-71-6 EC: 203-049-8 REACH No.: 01-21194864 82-31	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
0.0015% ~ 0.036%	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	Index number: 613-088-00-6 CAS: 2634-33-5 EC: 220-120-9	 3.1/2/Inhal Acute Tox. 2 H330  3.1/4/Oral Acute Tox. 4 H302  3.2/2 Skin Irrit. 2 H315  3.3/1 Eye Dam. 1 H318  3.4.2/1A Skin Sens. 1A H317  4.1/A1 Aquatic Acute 1 H400 M=1.  4.1/C1 Aquatic Chronic 1 H410 M=1. Specific Concentration Limits: 0.0036% \leq C < 0.036%: EUH208 C $\geq 0.036\%$: Skin Sens. 1A H317 Acute Toxicity Estimate: ATE - Oral 450 mg/kg bw ATE - Inhalation (Dust/mist) 0.21 mg/l

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

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.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

- 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:
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 - TWA: 5 mg/m³ - Notes: Respirable dust

- OEL Type: OSHA - TWA: 15 mg/m³ - Notes: Total dust

Triethanolamine - CAS: 102-71-6

- OEL Type: ACGIH - TWA(8h): 5 mg/m³

- OEL Type: ISHL - TWA(8h): 1 mg/m³

DNEL Exposure Limit Values

Triethanolamine - CAS: 102-71-6

Worker Industry: 6.3 mg/kg/day - Consumer: 3.1 mg/kg/day - Exposure: Human

Dermal - Frequency: Long Term, systemic effects

Worker Industry: 5 mg/m³ - Consumer: 1.25 mg/m³ - Exposure: Human

Inhalation - Frequency: Long Term, systemic effects

Consumer: 13 mg/kg/day - Exposure: Human Oral - Frequency: Short Term, systemic effects

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

Triethanolamine - CAS: 102-71-6

Target: Fresh Water - Value: 0.32 mg/l

Target: Marine water - Value: 0.032 mg/l

Target: Freshwater sediments - Value: 1.7 mg/kg

Target: Marine water sediments - Value: 0.17 mg/kg

Target: Soil (agricultural) - Value: 0.151 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 personal protective equipment as required.

Protection for skin:

Use personal protective equipment as required.

Protection for hands:

Use personal protective equipment as required.

Respiratory protection:

Use personal protective equipment as required.

Thermal Hazards:

None

8.2.3. Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Light magenta
Odour:	Slightly
Melting point / freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	Non-flammable
Lower and upper explosion limit:	No data available
Flash point:	Does not flash.
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	7.9 ~ 8.9 at 20 °C
Kinematic viscosity:	< 5 mm ² /s at 20 °C
Solubility in water:	Complete
Vapour pressure:	No data available
Relative vapour density:	No data available
Particle characteristics:	Not Relevant

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:

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:

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., 1969 Vol. -, 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

Triethanolamine - 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, 1982 Vol. -, 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.

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5

a) acute toxicity

ATE - Oral 450 mg/kg bw

ATE - Inhalation (Dust/mist) 0.21 mg/l

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 $\geq 0.1\%$

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
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
 - 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one - CAS: 2634-33-5
 - a) Aquatic acute toxicity
ATE - Oral 450 mg/kg bw
ATE - Inhalation (Dust/mist) 0.21 mg/l
- 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 $\geq 0.1\%$
- 12.7. 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 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 (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) 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 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 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)
Regulation (EU) n. 2023/1434 (ATP 19 CLP)
Regulation (EU) n. 2023/1435 (ATP 20 CLP)
Regulation (EU) n. 2024/197 (ATP 21 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.
H330 Fatal if inhaled.

H302 Harmful if swallowed.
 H315 Causes skin irritation.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 EUH208 Contains (name of sensitising substance). May produce an allergic reaction.

Hazard class and hazard category	Code	Description
Acute Tox. 2	3.1/2/Inhal	Acute toxicity (inhalation), Category 2
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. 1A	3.4.2/1A	Skin Sensitisation, Category 1A
Skin Sens. 1B	3.4.2/1B	Skin Sensitisation, Category 1B
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) 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 3: Composition/information on ingredients
 SECTION 6: Accidental release measures
 SECTION 8: Exposure controls/personal protection
 SECTION 11: Toxicological information
 SECTION 12: Ecological 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 Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
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INCI:	International Nomenclature of Cosmetic Ingredients.
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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.