EPSON

# Safety Data Sheet

## 1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: Ink, T56E3

Recommended use of the chemical and restrictions on use

Recommended use:

Ink for inkjet printing

Details of the supplier of the safety data sheet

Company:

Epson America, Inc.
3131 Katella Ave.
Los Alamitos, CA 90720
United States

Telephone : 562.276.1369

Emergency phone number

Telephone : 562.276.1369

## 2. HAZARD(S) IDENTIFICATION

Classification of the chemical

The product is not classified as dangerous according to OSHA Hazard Communication Standard (29 CFR 1910.1200).

Label elements

The product is not classified as dangerous according to OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazard pictograms:

None

Hazard statements:

None

Precautionary statements:

None

Special Provisions:

None

Hazards not otherwise classified identified during the classification process:

None

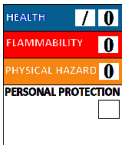
Ingredient(s) with unknown acute toxicity:

1% of this mixture consists of ingredient(s) of unknown acute toxicity.

Additional classification information

NFPA rating:

HMIS rating:




## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

No

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

| Qty | Name | Ident. Number | Classification |
|---|---|---|---|
| 50% ~ 65% | Water | CAS: 7732-18-5<br>EC: 231-791-2 | The product is not classified as dangerous according to OSHA Hazard Communication Standard (29 CFR 1910.1200). |
| 15% ~ 20% | Glycerol | CAS: 56-81-5<br>EC: 200-289-5 | The product is not classified as dangerous according to OSHA Hazard Communication Standard (29 CFR 1910.1200). |
| 1% ~ 3% | Triethanolamine | CAS: 102-71-6<br>EC: 203-049-8<br>REACH No.: 01-21194864 82-31 | The product is not classified as dangerous according to OSHA Hazard Communication Standard (29 CFR 1910.1200). |
| 1% ~ 3% | 2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutyl ether | Index number: 603-183-00-0<br>CAS: 143-22-6<br>EC: 205-592-6<br>REACH No.: 01-21194751 07-38 | A.3/1 Eye Dam. 1 H318<br>Specific Concentration Limits:<br>20% <= C < 30%: Eye Irrit. 2A H319<br>C >= 30%: Eye Dam. 1 H318 |

## 4. FIRST-AID MEASURES

Description of necessary 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.

Most important symptoms/effects, acute and delayed

None

Indication of immediate medical attention and special treatment needed

Treatment:

None

## 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Water.

Carbon dioxide ($CO_2$).

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products:

None

Explosive properties: No data available

Oxidizing properties: No data available

Special protective equipment and precautions for fire-fighters

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.

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures
Wear personal protection equipment.
Remove persons to safety.
See protective measures under point 7 and 8.
Methods and materials for containment and cleaning up
Wash with plenty of water.

## 7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Do not use on extensive surface areas in premises where there are occupants.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.
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.
Storage temperature:
Store at ambient temperature.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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
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
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

Appropriate engineering controls:

None

Individual protection measures

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| Appearance and colour: | Magenta Liquid |
| Odour: | Slightly |
| Odour threshold: | No data available |
| pH: | 8.2 ~ 9.6 at 20 °C |
| Melting point / freezing point: | No data available |
| Initial boiling point and boiling range: | No data available |
| Flash point: | Does not flash. |
| Evaporation rate: | No data available |
| Solid/gas flammability: | No data available |
| Upper/lower flammability or explosive limits: | No data available |
| Vapour pressure: | No data available |
| Vapour density: | No data available |
| Relative density: | Over 1.0 at 20 °C |
| Solubility in water: | Complete |
| Solubility in oil: | No data available |
| Partition coefficient (n-octanol/water): | No data available |
| Auto-ignition temperature: | No data available |
| Decomposition temperature: | No data available |
| Viscosity: | < 5 mPa·s at 20 °C |
| Miscibility: | No data available |
| Fat Solubility: | No data available |
| Conductivity: | No data available |

## 10. STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions

Chemical stability

Stable under normal conditions

Possibility of hazardous reactions

None

Conditions to avoid

Stable under normal conditions.

Incompatible materials

None in particular.

Hazardous decomposition products

None.

## 11. TOXICOLOGICAL INFORMATION

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.

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.

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,

Substance(s) listed on the NTP report on Carcinogens:
None.
Substance(s) listed on the IARC Monographs:
Triethanolamine - Group 3.
Substance(s) listed as OSHA Carcinogen(s):
None.
Substance(s) listed as NIOSH Carcinogen(s):
None.

## 12. ECOLOGICAL INFORMATION

Ecotoxicity
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:
No data available

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects
None

## 13. DISPOSAL CONSIDERATIONS

Waste treatment and disposal methods

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

## 14. TRANSPORT INFORMATION

UN number

Not classified as dangerous in the meaning of transport regulations.

UN proper shipping name

No data available

Transport hazard class(es)

No data available

Packing group

No data available

Environmental hazards

No data available

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

No data available

Special precautions

No data available

## 15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act

TSCA inventory: all the components are listed on the TSCA inventory or not subject to the notification requirements, 40 CFR 720.30(f).

TSCA listed substances:

None.

SARA - Superfund Amendments and Reauthorization Act

Section 302 – Extremely Hazardous Substances: no substances listed.

Section 304 – Hazardous substances: no substances listed.

Section 313 – Toxic chemical list: 2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutyl ether.

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA: 2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutyl ether.

CAA - Clean Air Act

CAA listed substances:

Glycerol is listed in CAA Section 111

2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutyl ether is listed in CAA Section 112, Section 112(b) - HON.

CWA - Clean Water Act

CWA listed substances:

None.

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

None.

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:

No substances listed.

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:

2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutyl ether.

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutyl ether.

## 16. OTHER INFORMATION

Full text of phrases referred to in Section 3:

H318 Causes serious eye damage.
H319 Causes serious eye irritation.

Safety Data Sheet dated February 14, 2023, Revision: 3.0
Sections modified from the previous revision:

2. HAZARD(S) IDENTIFICATION
3. COMPOSITION/INFORMATION ON INGREDIENTS
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Main bibliographic sources:

Ref. 1 ·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)
·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)

Disclaimer:
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. The information relates only to the specific material and may not be valid for such material used in combination with any other material or in any process.
This Safety Data Sheet cancels and replaces any preceding release.

| | |
|---|---|
| ADR: | European Agreement concerning the International Carriage of Dangerous Goods by Road. |
| CAS: | Chemical Abstracts Service (division of the American Chemical Society). |
| CLP: | Classification, Labeling, Packaging. |
| DNEL: | Derived No Effect Level. |
| EINECS: | European Inventory of Existing Commercial Chemical Substances. |
| GHS: | Globally Harmonized System of Classification and Labeling of Chemicals. |
| HMIS: | Hazardous Materials Identification System |
| IARC: | International Agency for Research on Cancer |
| IATA: | International Air Transport Association. |
| IATA-DGR: | Dangerous Goods Regulation by the "International Air Transport Association" (IATA). |
| ICAO: | International Civil Aviation Organization. |
| ICAO-TI: | Technical Instructions by the "International Civil Aviation Organization" (ICAO). |
| IMDG: | International Maritime Code for Dangerous Goods. |

| | |
|---|---|
| INCI: | International Nomenclature of Cosmetic Ingredients. |
| KSt: | Explosion coefficient. |
| LC50: | Lethal concentration, for 50 percent of test population. |
| LD50: | Lethal dose, for 50 percent of test population. |
| LTE: | Long-term exposure. |
| NFPA: | National Fire Protection Association |
| NIOSH: | National Institute for Occupational Safety and Health |
| NTP: | National Toxicology Program |
| OSHA: | Occupational Safety and Health Administration |
| PNEC: | Predicted No Effect Concentration. |
| RID: | Regulation Concerning the International Transport of Dangerous Goods by Rail. |
| STE: | Short-term exposure. |
| STEL: | Short Term Exposure limit. |
| STOT: | Specific Target Organ Toxicity. |
| TLV: | Threshold Limiting Value. |
| TWATLV: | Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard). |