Safety Data Sheet

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

1.1. Product identifier

Mixture identification:

Trade name: Ink Cartridge, White, T891A

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use:

Ink for inkjet printing

1.3. Details of the supplier of the safety data sheet

Company:

EPSON EUROPE B.V.
Azie building, Atlas ArenA, Hoogoorddreef 5,1101 BA Amsterdam Zuidoost The Netherlands
Phone number: +31-20-314-5000

Competent person responsible for the safety data sheet:

chemicals@epson-europe.com

Date: 29/05/2017

Revision: 1.0

1.4. Emergency telephone number

Phone number: +31-20-314-5000

Giftnotruf Berlin; +48 (0) 30 30686 790

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Hazard pictograms:

None

Hazard statements:

None

Precautionary statements:

None

Special Provisions:

None

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

No

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification

65% ~ 80%	1-ethoxy-2-(2-methoxy ethoxy)ethane	CAS: EC:	1002-67-1 213-690-5	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
12.5% ~ 15%	Titanium dioxide	CAS: EC:	13463-67-7 236-675-5	substance with a Community workplace exposure limit
5% ~ 7%	(2-Methoxymethyletho xy)propanol	CAS: EC:	34590-94-8 252-104-2	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
1% ~ 3%	gamma-Butyrolactone	CAS: EC:	96-48-0 202-509-5	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
1% ~ 3%	Silica	CAS: EC:	63231-67-4 613-187-4	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

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

In case of Ingestion:

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

In case of Inhalation:

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

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

None

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

Treatment:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray, dry chemical, carbon dioxide or alcohol-resistant foam.

Carbon dioxide (CO_2).

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.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Titanium dioxide - CAS: 13463-67-7

- OEL Type: ACGIH - LTE(8h): 10 mg/m3
- OEL Type: OSHA - LTE: 15 mg/m3
- OEL Type: JSOH - LTE: 0.3 mg/m3 - Notes: nano perticle
- OEL Type: NIOSH - STE: 5000 mg/m3

DNEL Exposure Limit Values

No data available

PNEC Exposure Limit Values

No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls:

Provide a good standard of general ventilation. Use powered wall- or window-mounted fans to supply fresh air - five to ten air changes per hour, with a through draught.

8.2.2. Individual protection measures, such as personal protective equipment

Eye protection:

Wear eye protection, if there is a risk of material splashing under work.

Protection for skin:

Use chemical protective clothes if there is a risk of splushing the material under work.

Protection for hands:

Use chemical protective gloves where there is a risk of skin contact under working, e.g. single-use NBR (nitrile rubber) gloves 0.2 mm thick are acceptable. Do not exceed the breackthrough time or reuse.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

8.2.3. Environmental exposure controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance and colour:	White Liquid
Odour:	Slightly
Odour threshold:	No data available
pH:	Not Relevant
Melting point / freezing point:	No data available
Initial boiling point and boiling range:	No data available
Solid/gas flammability:	No data available
Upper/lower flammability or explosive limits:	No data available
Vapour density:	No data available
Flash point:	65 °C / 149 ° F (closed cup method, ASTM D 3278)
Evaporation rate:	No data available
Vapour pressure:	No data available
Relative density:	No data available
Solubility in water:	Soluble
Solubility in oil:	No data available
Partition coefficient (n-octanol/water):	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	< 5 mPa·s at 20 °C
Explosive properties:	No data available
Oxidizing properties:	No data available

9.2. Other information

Miscibility:	No data available
Fat Solubility:	No data available
Conductivity:	No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the mixture:

e) germ cell mutagenicity:

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

f) carcinogenicity:

Components do not come under carcinogens (Ref. 1), except for Titanium dioxide

g) reproductive toxicity:

Does not contain reproductive toxicity and developmental toxic substances (Ref. 2)

Toxicological information of the main substances found in the mixture:

1-ethoxy-2-(2-methoxyethoxy)ethane - CAS: 1002-67-1

a) acute toxicity:

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

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

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Dermal - Species: Rabbit Negative

c) serious eye damage/irritation:

Test: Eye Irritant - Species: Rabbit Negative

e) germ cell mutagenicity:

Test: Mutagenesis - Species: Salmonella Typhimurium Negative

g) reproductive toxicity:

Test: Reproductive Toxicity - Route: Oral - Species: Rat Negative

Titanium dioxide - CAS: 13463-67-7

Titanium dioxide is classified as "possibly carcinogenic to human" (Group 2B). In animal chronic inhalation studies, the tumor formulation observed in only rats with animal chronic inhalation study are attributed to "lung overloading", a generic response to excessive amounts of any dust retained in the lungs for a prolonged interval. Use of this product, as intended, dose not result in inhalation of excessive dust. Epidemiological study to data have not revealed any evidence of the relation between exposure to titanium dioxide and diseases of the respiratory tract beyond general effects of dust.

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

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

SECTION 12: Ecological information

12.1. Toxicity

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

1-ethoxy-2-(2-methoxyethoxy)ethane - CAS: 1002-67-1

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Algae > 89.5 mg/l - Duration h: 96

Endpoint: LC50 - Species: Daphnia > 93.6 mg/l - Duration h: 48

Endpoint: LC50 - Species: Fish > 90.8 mg/l - Duration h: 96

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential
No data available
12.4. Mobility in soil
No data available
12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None
12.6. Other adverse effects
None

SECTION 13: Disposal considerations

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

SECTION 14: Transport information

14.1. UN number
Not classified as dangerous in the meaning of transport regulations.
14.2. UN proper shipping name
No data available
14.3. Transport hazard class(es)
No data available
14.4. Packing group
No data available
14.5. Environmental hazards
No data available
14.6. Special precautions for user
No data available
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
No data available

SECTION 15: Regulatory information

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

Provisions related to directives 82/501/EC(Seveso), 96/82/EC(Seveso II):
No data available

15.2. Chemical safety assessment
No

SECTION 16: Other information

This safety data sheet has been completely updated in compliance to Regulation 2015/830.
This document was prepared by a competent person who has received appropriate training.
Main bibliographic sources:
ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold
CCNL - Appendix 1

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
·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.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport

	Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
LTE:	Long-term exposure.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE:	Short-term exposure.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWATLV:	Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
WGK:	German Water Hazard Class.