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Revision date 16-Jan-2020 (DD-MM-YYYY)
Version 1

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name INK BOTTLE,CL,1000

Product code T49V0

Pure substance/mixture mixture

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

Recommended Use Ink jet ink (solvent-based)

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Company Name	Importer / Supplier
SEIKO EPSON CORPORATION 80 Harashinden, Hirooka, Shiojiri-shi, Nagano-ken, 399-0785 JAPAN +81-263-52-2552	-

For further information, please contact

Contact Point +81-263-52-2552

Email address -

1.4. Emergency telephone number

Emergency telephone -

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Serious eye damage/eye irritation	Category 2 - (H319)
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2.2. Label elements

Symbols/Pictograms



signal word
WARNING

Hazard Statements

H319 - Causes serious eye irritation

precautionary statements

P264 - Wash hands thoroughly after handling

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/attention

2.3. Other hazards

Other Hazards Combustible liquid

General Hazards No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

3.2 mixtures

Ingredients contributing to the classification of the mixture, etc.

Chemical name	EC No	CAS No	weight-%	Classification according to 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP] / Other	REACH registration number
Diethylene glycol diethyl ether	203-963-7	112-36-7	90-100	-	Eye Irrit. 2A (H319)	-
Propylene carbonate	203-572-1	108-32-7	5-10	Xi; R36	Eye Irrit. 2 (H319)	-

Full text of R-phrases: see section 16

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice Do not breathe dust/fume/gas/mist/vapors/spray
Do not get in eyes, on skin, or on clothing

Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
If breathing is irregular or stopped, administer artificial respiration
Seek immediate medical attention/advice

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes
Get medical attention if irritation develops and persists

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes If eye irritation persists: Get medical advice/attention
INGESTION	Do NOT induce vomiting Potential for aspiration if swallowed Clean mouth with water Get medical attention

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

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

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media CO2, dry chemical, dry sand, alcohol-resistant foam, mist of alkali salts water
Move containers from fire area if you can do it without risk
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
Remove combustible materials from their surroundings immediately

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire

5.2. Special hazards arising from the substance or mixture

5.3. Advice for firefighters

Special protective equipment for fire-fighters Use personal protective equipment as required
In the event of fire and/or explosion do not breathe fumes
Special protective equipment for fire-fighters

Special Extinguishing Media Cool container with water spray

Flammable properties May re-ignite after fire is extinguished
flammable
Containers may explode when heated
Will form explosive mixtures with air
Vapors from liquefied gas are initially heavier than air and spread along ground

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Stay upwind
Evacuate personnel to safe areas
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area)
Use personal protective equipment as required
Avoid contact with skin, eyes and inhalation of vapors
In the case of vapor formation use a respirator with filter model
In case of fire: Stop leak if safe to do so
Do not touch damaged containers or spilled material unless wearing appropriate protective clothing
Ensure adequate ventilation, especially in confined areas
Wash thoroughly after handling

Take precautionary measures against static discharges

other information

Ventilate the area

6.2. Environmental precautions

Environmental Precautions

See Section 12 for additional Ecological Information
Dispose of contents/container to an approved waste disposal plant
Do not flush into surface water or sanitary sewer system
Avoid release to the environment
Collect spillage

6.3. Methods and material for containment and cleaning up

Methods for Containment

Prevent further leakage or spillage if safe to do so

Methods for cleaning up

Soak up with inert absorbent material
Dam up
Use only non-sparking tools

6.4. Reference to other sections

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling

Take precautionary measures against static discharges
Use personal protection recommended in Section 8
Use only in well-ventilated areas
Avoid contact with skin, eyes or clothing
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea
Do not breathe dust/fume/gas/mist/vapors/spray
Wash contaminated clothing before reuse
Wash hands thoroughly and gargle after handling
Burn or dispose of the wiping cloths used to clean up the product at once

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place
Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity)
Use spark-proof tools and explosion-proof equipment
Incompatible with oxidizing agents
Store locked up
The product shall be stored in the original containers/vessels

7.3. Specific end use(s)

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

8.2. Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas
Showers
Eyewash stations
Ventilation systems

Personal protective equipment

Eye/face Protection Wear safety glasses with side shields (or goggles)

Hand Protection Wear protective gloves

Skin and Body Protection Wear suitable protective clothing
Antistatic footwear

Respiratory protection Wear suitable respiratory equipment
Respirator cartridge should be exchanged at regular intervals or at proper time according to breakthrough time

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State	liquid	ODR	slight odor
appearance	No information available	odor threshold	No information available
color	clear		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	not applicable	
Melting point/freezing point	no data available	
Boiling point/boiling range	no data available	No information available
Flash Point	≥ 70°C	Ceta Closed Cup
Evaporation Rate	no data available	No information available
Combustibility	Combustible	
Flammability Limits in Air		
Upper flammability limits	no data available	
Lower Flammability Limit	no data available	
vapor pressure	no data available	No information available
Vapor Density	no data available	No information available
Specific gravity	0.9-1.1	
solubility(ies)		
Water solubility	Soluble in water	
Organic Solvent Solubility	soluble in organic solvents	
Partition coefficient	no data available	No information available

Autoignition Temperature	no data available	No information available
decomposition temperature	no data available	No information available
Kinematic viscosity	no data available	
Explosive properties	No information available	
Oxidizing properties	No information available	

9.2. Other information

Softening point	no data available
Density	no data available

Chemical name	Boiling point °C	Density	vapor pressure	Vapor Density	Flash Point	Autoignition Temperature
Diethylene glycol diethyl ether	188 °C	-	0.5 mmHg at 25 °C	-	82 °C open cup	-
Propylene carbonate	241.9 °C	1.204 g/cm ³ at 20 °C	0.03 mmHg at 20 °C	3.52	135 °C open cup	510 °C

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Remarks	no data available
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10.2. Chemical stability

stability	Stable under normal conditions Heating may cause an explosion
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Explosion data

Sensitivity to Mechanical Impact May be ignited by heat, sparks or flames

Sensitivity to Static Discharge May be ignited by heat, sparks or flames

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

Conditions to Avoid	Take precautionary measures against static discharges Extremes of temperature and direct sunlight
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10.5. Incompatible materials

Incompatible Materials	Reference to other sections; 7
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10.6. Hazardous decomposition products

Hazardous Decomposition Products May emit toxic fumes under fire conditions

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Inhalation	Reference to other sections; 4
Eye contact	Reference to other sections; 4

Skin contact Reference to other sections; 4
INGESTION Reference to other sections; 4

Unknown acute toxicity 91.0% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 29,000.00
ATEmix (dermal) 24,080.00

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50	Classification according to 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP] / Other	Japan GHS Classification / Other
Diethylene glycol diethyl ether	-	-	-	-	Eye Irrit. 2A (H319)	Eye Irrit. 2A Flam. Liq. 4
Propylene carbonate	29000 mg/kg (Rat)	> 20 mL/kg (Rabbit)	-	Xi; R36	Eye Irrit. 2 (H319)	Eye Irrit. 2A

GHS/CLP Classification Note:

Acute Tox. Der. :Acute toxicity - Dermal, Acute Tox. Inh. (D/M) :Acute toxicity - Inhalation - Dusts and Mists, Acute Tox. Inh. (Gas) :Acute toxicity - Inhalation - Gases, Acute Tox. Inh. (Vap) :Acute toxicity - Inhalation - Vapours, Acute Tox. Oral :Acute toxicity - Oral, Aquatic Acute :Acute Hazardous to the aquatic environment, Aquatic Chronic :Chronic Hazardous to the aquatic environment, Asp. Tox. :Aspiration hazard, Carc. :Carcinogenicity, Expl. :Explosives, Eye Dam. :Serious eye damage, Eye Irrit. :Eye irritation, Flam. Gas :Flammable gases (including chemically unstable gases), Flam. Liq. :Flammable liquids, Flam. Solid :Flammable solids, Lact. :Effects on or via lactation, Met. Corr. :Corrosive to metals, Muta. :Germ cell mutagenicity, Org. Perox. :Organic peroxides, Ox. Gas :Oxidizing gases, Ox. Liq. :Oxidizing liquids, Ox. Sol. :Oxidizing solids, Press. Gas :Gases under pressure, Pyr. Liq. :Pyrophoric liquids, Pyr. Sol. :Pyrophoric solids, Repr. :Reproductive toxicity, Resp. Sens. :Respiratory sensitization, Self-heat. :Self-heating substances and mixtures, Self-react. :Self-reactive substances and mixtures, Skin Corr. :Skin corrosion, Skin Irrit. :Skin irritation, Skin Sens. :Skin sensitization, STOT RE :Specific target organ toxicity – Repeated exposure, STOT SE :Specific target organ toxicity – Single exposure, Water-react. :Substances and mixtures which, in contact with water emit flammable gases

skin corrosion/irritation No information available
Serious eye damage/eye irritation No information available
Sensitization No information available
Germ cell mutagenicity No information available
Carcinogenicity No information available
Reproductive toxicity No information available
STOT - single exposure No information available
STOT - repeated exposure No information available
Aspiration hazard No information available

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

100% of the mixture consists of component(s) of unknown hazards to the aquatic environment

12.2. Persistence and degradability

Persistence and degradability No information available

12.3. Bioaccumulative potential

Bioaccumulation No information available

Chemical name	Partition coefficient
Propylene carbonate	0.48

12.4. Mobility in soil

Mobility in soil No information available

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available

12.6. Other adverse effects

Other adverse effects No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues/Unused Products Should not be released into the environment
Disposal should be in accordance with applicable regional, national and local laws and regulations

Contaminated packaging Improper disposal or reuse of this container may be dangerous and illegal

other information Store in a tightly sealed drum to prevent the spillage of the content

Section 14: TRANSPORT INFORMATION

Containers/vessels must be leakage-free. Loading must be done to prevent containers from falling, dropping down and being damaged
Take necessary steps to prevent collapse

UN Number not applicable
Packing Group not applicable
ERG Code 133
Proper Shipping Name not applicable

IMDG

14.1 UN Number not applicable
14.2 Proper Shipping Name Not regulated

14.3 Hazard Class	Not regulated
14.4 Packing Group	not applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1 UN Number	not applicable
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing Group	not applicable
14.5 Environmental hazard	not applicable
14.6 Special Provisions	None

ADR

14.1 UN Number	not applicable
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing Group	not applicable
14.5 Environmental hazard	not applicable
14.6 Special Provisions	None

ICAO (air)

14.1 UN Number	not applicable
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing Group	not applicable
14.5 Environmental hazard	not applicable
14.6 Special Provisions	None

IATA

14.1 UN Number	not applicable
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing Group	not applicable
14.5 Environmental hazard	not applicable
14.6 Special Provisions	None

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemical name	CAS No	French RG number	Seveso III Directive
Diethylene glycol diethyl ether	112-36-7	RG 84	No information available
Propylene carbonate	108-32-7	-	No information available

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorisations and/or restrictions on use: This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Section 16: OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R36 - Irritating to eyes

Full text of H-Statements referred to under section 3

H319 - Causes serious eye irritation

Key literature references and sources for data LOLI Database (ChemADVISOR, Inc.)

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet