

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 1.0

Revision Date 01.06.2015

Print Date 27.07.2016



1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product name: Cyan ink for cartridges replacing Brother LC-1280 ink cartridges.
article number: LC1280C 170070990354 7081284 cyan

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

Identified uses: Inkjet printing
Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet

Company: timo printware GmbH
Hollabererstrasse 4
A-4020 Linz
Telephone: +43 732 90 80 20 – 600
E-mail address: office@timo-printware.at

1.4 Emergency telephone number

Emergency Phone: +43 (0)1406 / 4343

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008

Not classified as a hazardous mixture according to the CLP Regulation.

Ingredients of unknown toxicity: Percentage of components in the mixture of unknown toxicity: 3.0%

Ingredients of unknown ecotoxicity: Percentage of components in the mixture with unknown hazards to the aquatic environment: 3.0%

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008

The mixture has not to be labeled as hazardous according to Regulation (EC) no. 1272/2008.

Hazard pictograms: None

Signal word: None

Hazard statement(s): None

Precautionary statement(s): None

2.3 Other hazards

The mixture does not meet the criteria for PBT or vPvB (see section 12).

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3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

General information: Organic dyestuffs, organic solvents and additives solubilised in water.

Information on components:

Chemical Name	CAS-No.	EC-No.	REACH Registration No.	Index No.	% [w/w]	Classification according to regulation 1272/2008 (CLP)
2,2'-(Ethylendioxy) diethanol	112-27-6	203-953-2	01-2119438366-35-xxxx	-	<21	
Glycerol	56-81-5	200-289-5		-	<9	

Additional information: None.

4. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: Move to fresh air. If symptoms persist, get medical attention.

Skin contact: Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.

Eye Contact: Do not rub eyes. Immediately flush with large amounts of clean, warm water (low pressure) for at least 15 minutes or until particles are removed. If irritation persists get medical attention.

Ingestion: If ingestion of a large amount does occur, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture

Exposure to decomposition products may cause a health hazard.

5.3 Advice for fire fighters

No data available.

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6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear appropriate personal protective equipment like safety glasses, gloves and clothes (see section 8). Avoid dust formation. Avoid breathing vapors, mist or gas.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle with the usual precautions for industrial chemical. Avoid contact with skin, eyes and clothing.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of the reach of children. Store in accordance with national and/or local regulations in a dry and cool place. Keep away from excessive heat or cold. Protect against frost.

7.3 Specific end uses

No data available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

2,2'-(Ethylendioxy)diethanol
(CAS 112-27-6):

MAK

Short-term value: 2000mg/m³ inhalable aerosol (Germany, Switzerland)

Long-term value: 1000mg/m³, inhalable aerosol (Germany, Switzerland)

DNEL

Employee, long-term exposure, systemic effects, dermal: 40mg/kg

Employee, long-term exposure, systemic effects, inhalation: 50mg/kg

Consumer, long-term exposure, systemic effects, dermal: 20mg/kg

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		Consumer, long-term exposure, systemic effects, inhalation: 25mg/kg
	PNEC	Freshwater: 10mg/l Marine water: 1mg/l Intermittent release: 10mg/l STP: 10mg/l Sediment (freshwater): 46mg/kg Soil: 3.32mg/kg
<i>Glycerol (CAS 56-81-5):</i>	MAK	Short-term value: 100mg/m ³ inhalable aerosol (Germany, Switzerland) Long-term value: 50mg/m ³ inhalable aerosol (Germany, Switzerland) Long-term value: 10mg/m ³ (Belgium, France, Ireland, Poland, Spain, United Kingdom) Long-term value: 20mg/m ³ , (Finland)

All "MAK" values concerning the workplace parameters are according to the following national Institutions:

AUVA (Austria), Belgian Federal Public Service Employment, Labour and Social Dialque (Belgium), ENI Corporate (Italy), Eurofins Danmarks A/S (Denmark), FIOH (Finland), HSL (Great Britain), INRS (France), ITM (Sweden), INSHT (Spain), NIOM (Poland), NFSZ (Hungary), SUVA (Switzerland), DFG (Germany)

8.2 Exposure controls

Appropriate engineering controls: Use in a well ventilated area.

Personal protective equipment

Eye/face protection:	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Body Protection:	Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection:	Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

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9.1 Information on basic physical and chemical properties

Appearance:

Physical state: Liquid
Colour: Cyan

Odour: Not available.

Odour Threshold: No data available.

pH: 8.4-9.0 at 25°C

Melting point/freezing point: No data available.

Initial boiling point and boiling range: Not determined.

Flash point: Not determined.

Evaporation rate: Not determined.

Flammability (solid, gas): No data available.

Upper/lower flammability or explosive limits:

Lower limit: Not determined.
Upper limit: Not determined.

Vapour pressure: No data available.

Vapour density: No data available.

Relative density: 1.063-1.066 g/ml at 25°C

Water solubility: Miscible

Partition coefficient, n-octanol/water: No data available.

Auto-ignition temperature: No data available.

Decomposition temperature: No data available.

Viscosity (kinematic): 2.40-2.80 mm²/s at 25°C

Explosive properties: No data available.

Oxidizing properties: No data available.

9.2 Other safety information

No relevant additional information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

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10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Incompatible with strong bases, strong acids and oxidizing agents.

10.6 Hazardous decomposition products

Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity: Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Respiratory or skin sensitization: Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

Specific target organ toxicity – single exposure: Based on available data, the classification criteria are not met.

Specific target organ toxicity – repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

Information on components under section 3:

<i>2,2'-(Ethylendioxy)diethanol:</i>	Acute toxicity:	Oral, LD50: >2000mg/kg (rat) Dermal, LD50: >2000/kg (rabbit) Inhalation, LC50: 5.2mg/l 4h (rat, dust/mist)
	Irritation of the skin:	No irritation.
	Irritation of the eye:	No irritation.
	Sensitization:	No sensitizing effects known.
<i>Glycerol:</i>	Acute toxicity:	Oral, LD50: >12600mg/kg (rat)

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Irritation of the skin:	No irritation.
Irritation of the eye:	No irritation.
Sensitization:	No sensitizing effects known.

Mixture versus substance Information:

No data available.

Additional information:

Complete toxicity data are not available for this specific formulation. Refer to Section 2 for potential health effects and Section 4 for first aid measures.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

There are no data available for the mixture itself.

Information on components under section 3:

<i>2,2'-(Ethylendioxy)diethanol:</i>	Acute toxicity:	Fish: LC50 >10000mg/l (Lepomis macrochirus; 96h) Daphnia and aquatic invertebrates: EC50 >10000mg/l (Daphnia magna; 48h) Alga: EC0 >10000mg/l (Scenedesmus subspicatus; 192h) Bacteria: EC10 >1995mg/l (activated sludge; 0.5h)
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12.2 Persistence and degradability

There are no data available for the mixture itself.

Information on components under section 3:

<i>2,2'-(Ethylendioxy)diethanol:</i>	Readily biodegradable.
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<i>Glycerol:</i>	Readily biodegradable.
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12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This mixture contains no substances which are assessed as PBT or vPvB.

12.6 Other adverse effects

No data available.

12.7 Additional Information

Information on components under section 3:

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2,2'-(Ethylendioxy)diethanol: Do not flush into surface water or sanitary sewer system.

Glycerol: Water hazard class1: slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: Disposal should be in accordance with local, state or national legislation. For example: by incineration in a suitable plant.

Contaminated packaging: Non-cleanable packaging should be treated as the product itself. Dispose of as unused product.

14. TRANSPORT INFORMATION

Not classified as dangerous for ADR/RID, ADR/ADNR, IMDG, IATA.

14.1 UN number

Not applicable.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packaging group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

Not applicable.

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

Not available.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006 and their changes.

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

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Not available.

15.2 Chemical Safety Assessment

Not available.

16. OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The users working conditions are beyond our knowledge and control. The product is not to be used for other purposes than those specified under section 1 without first obtaining written handling instruction. It always the responsibility of the user to take all necessary steps in order to fulfil the demand laid down in the local rules and legislation. It does not represent any guarantee of the properties of the product.

List of abbreviations and acronyms that may be but not necessarily used in this safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists
BEI: Biologischer Expositionsindex
BAT: Biologischer Arbeitsstoff-Toleranzwert (biological tolerance value)
CAS: Chemical Abstracts Service
CMR: Carcinogenic, Mutagenic or Toxic for Reproduction
Ecxx: Effective Concentration
FG: food grade
GHS: Harmonized System of Classification and Labeling of Chemicals
H-Phrase: H-statement
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation International Air Transport Association
ICAO: International Civil Aviation Organization
ICAO-TI (ICAO): International Civil Aviation Organization
IC: Inhibitory Concentration
IMDG: International Maritime Code for Dangerous Goods
ISO: International Organization for Standardization
LC: Lethal Concentration
LD: Lethal Dose
logPow: Octanol / water partition coefficient
OECD: Organization for Economic Co-operation and Development)
AGW: Arbeitsplatzgrenzwert (N.O.S.)
PBT: Persistent, bioaccumulative and toxic
PEC: Predicted Effect Concentration
PEL: Permissible Exposure Limits
PNEC: Predicted No Effect Concentration
PSA: Persönliche Schutzausrüstung
P-Phrases: P-statement
NOEL: No Observed Effect Level
NOAEL: No Observed Adverse Effect Level
STEL: Short-term exposure limit
STOT: Specific Target Organ Toxicity
TLV: Threshold Limit Value
TWA: Time-weighted average
vPvB: Very Persistent and Very Bioaccumulative
WEL: Workplace Exposure Level
MAK: Maximale Arbeitsstoffkonzentration (maximum workplace concentration)
ADNR: Regulation on the transport of dangerous goods on the Rhine

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ADR: Agreement concerning the International Carriage of Dangerous Goods by Road.

CLP: Classification, Labelling and Packaging

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DNEL: Derived No Effect Level

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

RID: Concerning the International Transport of Dangerous Goods by Rail

WGK: Deutsche Wassergefährdungsklasse (German water hazard class)

AUVA: Allgemeine Unfallversicherungsanstalt, Austria

FIOH: Finnish Institute of Occupational Health, Finland

HSL: Health and Safety Laboratory, Great Britain

INRS: Institut National de Recherche et de Sécurité, France

ITM : Institute for Applied Environmental Research, Air Pollution Laboratory, Sweden

INSHT: Instituto Nacional de Seguridad e Higiene en el

Trabajo <http://www.insht.es/portal/site/Insht>, Spain

NIOSH: National Institute for Occupational Safety and Health, USA

NIOM: Nofer Institute of Occupational Medicine, Poland

NFSZ: Nemzeti Munkaügyi Hivatal, Hungary

SUVA: Schweizerische Unfallversicherung, Switzerland

DFG: Deutsche Forschungsgemeinschaft (Senate Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area), Germany