

Revision Date: 29-Jul-2022

Issuing Date: 26-Oct-2011

Revision Number: 6.2

Product Name: LC10EM, LC12EM, LC15EM, LC101M, LC103M, LC105M, LC110M, LC111M, LC113M, LC115M, LC121M, LC123M, LC125XLM, LC131M, LC133M, LC135XLM, LC161M, LC163M, LC505M, LC525XLM, LC535XLM, LC545XLM, LC563M, LC565XLM, LC583M, LC585XLM, LC595XLM Ink

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## 1. Identification

### Product identifier

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### Other means of identification

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### Recommended use of the chemical and restrictions on use

**Recommended Use** These products are dark red ink in a cartridge for Brother Industries, Ltd. inkjet multifunction devices and fax receivers. The cartridge should be used as supplied by Brother and for use in the products stated. Information provided on this SDS is only consistent with the use specified by Brother.

**Uses advised against** No information available

### Details of manufacturer or importer

#### Manufacturer

Brother Industries, Ltd.  
15-1 Naeshiro-cho, Mizuho-ku, Nagoya 467-8561, Japan  
Telephone (for information): +81-52-824-2735

#### Importer

Brother International (Aust.) Pty. Ltd.  
ACN 001 393 835 Unit 2/51 Eastern Creek Drive Eastern Creek, NSW 2766, Australia  
Telephone (for information): +61-2-9887-4344

### For further information, please contact

**Contact Point** Product Safety Department

**E-mail address** sds.info@brother.co.jp

### Emergency telephone number

**Emergency telephone number** CHEMTREC +61-290372994 (Australia)  
CHEMTREC +1-703-527-3887 (International)  
The National Poisons Centre, New Zealand: 0800 764 766 (0800 POISON)

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## 2. Hazard(s) identification

### GHS Classification

Not classified

### Label elements

Not classified

### Hazard statements

Not classified

### Other hazards which do not result in classification

#### **General Hazards**

This product contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

This product contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

## 3. Composition/information on ingredients

### Substance

Not applicable

### Mixture

Chemical name	CAS No	Weight-%
Water	7732-18-5	65-80
Glycerol	56-81-5	10-20
Magenta Dye	**	<2.5
1,2-Benzisothiazolin-3-one	2634-33-5	<0.05

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## 4. First-aid measures

### Description of first aid measures

<b>General advice</b>	If symptoms persist, call a physician.
<b>Emergency telephone number</b>	Poisons Information Center, Australia: 13 11 26 Poisons Information Center, New Zealand: 0800 764 766
<b>Inhalation</b>	Remove to fresh air. Get immediate medical advice/attention.
<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
<b>Skin contact:</b>	Wash with soap and water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Obtain immediate medical attention. Wash out mouth with water and give 100-200 ml of water to drink.

### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	Skin contact: Repeated and/or prolonged skin contact may cause irritation Eye contact: May cause eye irritation Ingestion: May cause stomach ache. Unlikely route of exposure Inhalation : Unlikely route of exposure
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### Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Treat symptomatically.
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## 5. Fire-fighting measures

### Suitable Extinguishing Media

<b>Suitable Extinguishing Media</b>	Dry chemical, CO <sub>2</sub> , water spray or regular foam
<b>Unsuitable extinguishing media</b>	None.
<b>Specific hazards arising from the chemical</b>	Thermal decomposition can lead to release of irritating gases and vapors

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## Special protective actions for fire-fighters

**Special protective equipment for fire-fighters**      Wear self contained breathing apparatus for fire fighting if necessary.

## **6. Accidental release measures**

### Personal precautions, protective equipment and emergency procedures

**Personal precautions**      Avoid contact with skin, eyes or clothing.

**For emergency responders**      Use personal protection recommended in Section 8.

### Environmental precautions

**Environmental precautions**      Prevent substance entering sewers. Washings must be prevented from entering surface water drains.

### Methods and material for containment and cleaning up

**Methods for containment**      Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

**Methods for cleaning up**      Wipe up with absorbent towel Wash with water to remove remaining traces of ink.

### Precautions to prevent secondary hazards

**Prevention of secondary hazards**      Clean contaminated objects and areas thoroughly observing environmental regulations.

**Reference to other sections**      See section 8 for more information. See section 13 for more information.

## **7. Handling and storage**

### Precautions for safe handling

**Advice on safe handling**      Avoid contact with skin, eyes or clothing.

**General hygiene considerations**      Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions**      Keep out of the reach of children. Store in a cool, well ventilated area.

**Incompatible materials**      Acids, Bases, Oxidizing agent, Reducing agent

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## 8. Exposure controls/personal protection

### Control parameters

#### Exposure Limits

Chemical name	Australia	ACGIH TLV
Glycerol 56-81-5	10 mg/m <sup>3</sup>	

### Appropriate engineering controls

**Engineering controls** Good general ventilation should be sufficient under normal use.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** If there is a risk of contact: Safety goggles.

**Skin and body protection** If there is a risk of contact: Apron, Boots

**Hand protection** If there is a risk of contact: Protective gloves.

**Respiratory protection** Use appropriate respiratory protection.

**Environmental exposure controls** Avoid release to the environment.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

**Physical state** Liquid  
**Appearance** aqueous solution  
**Color** dark red  
**Odor** Slight.  
**Odor threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	7 - 9	
pH (as aqueous solution)	No data available	
Melting point / freezing point	< -5 °C	
Boiling point / boiling range	> 100 °C	
Flash point	> 94 °C	Tag Closed Cup Cleveland Open Cup

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<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability limit:</b>	No data available	
<b>Lower flammability limit:</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Relative density</b>	1.0 - 1.1	(H <sub>2</sub> O=1)
<b>Water solubility</b>	Soluble in water	
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	> 400 °C	
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	2 - 5 mPa·s	
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	
<b><u>Other Information</u></b>		
<b>Softening point</b>	No information available	
<b>Molecular weight</b>	No information available	
<b>VOC Content (%)</b>	No information available	
<b>Liquid Density</b>	No information available	
<b>Bulk density</b>	No information available	

## 10. Stability and reactivity

### Reactivity

**Reactivity** No information available.

### Chemical stability

**Stability** Stable under normal conditions.

### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### Possibility of hazardous reactions

**Possibility of hazardous reactions** No information available.

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## Conditions to avoid

Conditions to avoid No information available.

## Incompatible materials

Incompatible materials Acids. Bases. Oxidizing agent. Reducing agent.

## Hazardous decomposition products

Hazardous decomposition products Carbon monoxide, Carbon dioxide (CO<sub>2</sub>)

## 11. Toxicological information

### Acute toxicity

### Information on likely routes of exposure

#### Product Information

Inhalation	No information available
Eye contact	No information available
Skin contact:	No information available
Ingestion	Acute LD <sub>50</sub> > 2000 mg/kg (OECD 420 method)

Symptoms No information available.

### Numerical measures of toxicity - Product Information

No information available

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

ATEmix (dermal) 52,684.20 mg/kg

#### Unknown acute toxicity

2 % of the mixture consists of ingredient(s) of unknown toxicity  
2 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
2 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity  
21 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)  
21 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)  
2 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

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## Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 90 mL/kg ( Rat )	-	-
Glycerol	= 12600 mg/kg ( Rat )	> 10 g/kg ( Rabbit )	> 2.75 mg/L ( Rat ) 4 h
1,2-Benzisothiazolin-3-one	= 1020 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-

See section 16 for terms and abbreviations

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Skin corrosion/irritation</b>	Non-irritant (OECD 404 method)
<b>Serious eye damage/eye irritation</b>	Minimal irritant to the eye (OECD 405 method)
<b>Respiratory or skin sensitization</b>	It is not a skin sensitizer (OECD 429 method)
<b>Germ cell mutagenicity</b>	AMES test : Negative (OECD 471 method)
<b>Carcinogenicity</b>	Ingredients of this product have not been classified as carcinogens according to IARC monographs, NTP and OSHA
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.
<b>Potential health effects</b>	<p>Eye : May cause slight irritation</p> <p>Skin : Prolonged exposure may cause skin irritation</p> <p>Ingestion : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea</p> <p>Inhalation : Not an expected route of exposure Over exposure may cause respiratory irritation.</p>



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## 12. Ecological information

### Ecotoxicity

#### Ecotoxicity

**Unknown aquatic toxicity** 0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Glycerol	-	LC50: 51 - 57mL/L (96h, Oncorhynchus mykiss)	-	-

### Persistence and degradability

**Persistence and degradability** No information available.

### Bioaccumulative potential

**Bioaccumulation** There is no data for this product.

#### Component Information

Chemical name	Partition coefficient
Glycerol	-1.75
1,2-Benzisothiazolin-3-one	0.99

### Mobility

**Mobility in soil** No information available.

### Other adverse effects

**Other adverse effects** No information available.

## 13. Disposal considerations

### Waste treatment methods

**Waste from residues/unused products** Dispose in accordance with federal, state and local regulations.

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## 14. Transport information

**ADG** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
Not applicable

## 15. Regulatory information

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

#### National Regulations

##### Australia

See section 8 for national exposure control parameters

##### **Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)**

No poisons schedule number allocated

#### International Inventories

TSCA	Complies
DSL/NDL	Exempt
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

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## Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

## International Regulations

**Ozone-depleting substances (ODS)** Not applicable

**Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

## 16. Other information

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### Revision Note

SDS sections updated : 1

### Key or legend to abbreviations and acronyms used in the safety data sheet

#### Legend SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	**	Trade secret
C	Carcinogen		

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australian Industrial Chemicals Introduction Scheme (AICIS)

NIOSH (National Institute for Occupational Safety and Health)

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National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

#### **Disclaimer**

**The information provided in this 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**