

Product Name: LC37BK, LC51BK, LC57BK, LC960BK, LC970BK, LC1000BK,  
LC51HYBK, LC57HYBK, LC960HYBK, LC1000HYBK Ink

Revision Date: 10-Mar-2020

Issuing Date: 20-Dec-2005

Revision Number: 15

Safety data sheet number: BHK014-01

## 1. Identification

### Product identifier

**Product Name** LC37BK, LC51BK, LC57BK, LC960BK, LC970BK, LC1000BK, LC51HYBK, LC57HYBK,  
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**Product Code(s)** BHK014

### Other means of identification

**Safety data sheet number** BHK014-01

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

**Recommended Use** These products are black 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 Level 3, Building A, 11 Talavera Road, Macquarie Park, NSW 2113, 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** No information available

## 2. Hazard(s) identification

### GHS Classification

Not classified

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## 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	65-75
Glycerol	56-81-5	20-30
Carbon Black	1333-86-4	1-5
1,2-Benzisothiazolin-3-one	2634-33-5	<0.05

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## **4. First-aid measures**

### Description of first aid measures

#### **General advice**

If symptoms persist, call a physician.

#### **Emergency telephone number**

Poisons Information Center, Australia: 13 11 26  
Poisons Information Center, New Zealand: 0800 764 766

#### **Inhalation**

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.

#### **Eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

#### **Skin contact:**

Take off contaminated clothing. Wash off immediately with soap and plenty of water.

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**Ingestion** 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**

**Symptoms** 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

### **Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## **5. Fire-fighting measures**

### **Suitable Extinguishing Media**

**Suitable Extinguishing Media** Dry chemical, CO<sub>2</sub>, water spray or regular foam.

**Unsuitable extinguishing media** None.

**Specific hazards arising from the chemical** Thermal decomposition can lead to release of toxic/corrosive gases and vapors.

### **Special protective actions for fire-fighters**

**Special protective equipment for fire-fighters** Use appropriate respirator for carbon monoxide and carbon dioxide. Wear positive pressure self-contained breathing apparatus (SCBA) during the attack phase of firefighting operations and during cleanup in enclosed or poorly ventilated areas immediately after a fire. Personnel not having suitable respiratory protection must leave the area to prevent significant exposure to toxic combustion gases from any source.

## **6. Accidental release measures**

### **Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation. Avoid contact with eyes.

**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.

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**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** Keep out of reach of children. Avoid contact with skin and eyes.

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

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep away from oxidizing agents.

**Incompatible materials** . Strong oxidizing agents

**8. Exposure controls/personal protection**

**Control parameters**

**Exposure Limits**

Chemical name	Australia	ACGIH TLV
Glycerol 56-81-5	10 mg/m <sup>3</sup>	
Carbon Black 1333-86-4	3 mg/m <sup>3</sup>	TWA: 3 mg/m <sup>3</sup> inhalable particulate matter

**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: Long sleeved clothing and long pants.

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<b>Hand protection</b>	If there is a risk of contact: Protective gloves.
<b>Respiratory protection</b>	In case of large spillages: Wear suitable respiratory protective equipment.
<b>Environmental exposure controls</b>	Avoid release to the environment.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Appearance</b>	No information available
<b>Color</b>	black
<b>Odor</b>	Slight.
<b>Odor threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	7 - 9	
<b>Melting point / freezing point</b>	< -5 °C	
<b>Boiling point / boiling range</b>	> 100 °C	
<b>Flash point</b>	> 94 °C	Tag Closed Cup Cleveland Open Cup
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	Not applicable	
<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>	1 - 5 mPa s	
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	

### Other Information

<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

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**Reactivity** No information available.

**Chemical stability**

**Stability** Stable under normal conditions.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** Yes.

**Possibility of hazardous reactions**

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

**Conditions to avoid**

**Conditions to avoid** . No information available

**Incompatible materials**

**Incompatible materials** . Strong oxidizing agents.

**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** LD50 > 2000 mg/kg (OECD 420 method)

**Symptoms** No information available.

**Numerical measures of toxicity - Product Information**

No information available

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

**ATEmix (oral)** 44,571.10 mg/kg  
**ATEmix (dermal)** 26,113.00 mg/kg

**Unknown acute toxicity**

29 % of the mixture consists of ingredient(s) of unknown toxicity  
0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity  
29 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)  
29 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)  
4 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 90 mL/kg ( Rat )	-	-
Glycerol	= 12600 mg/kg ( Rat )	> 10 g/kg ( Rabbit )	> 570 mg/m <sup>3</sup> ( Rat ) 1 h
Carbon Black	> 15400 mg/kg ( Rat )	> 3 g/kg ( Rabbit )	-
1,2-Benzisothiazolin-3-one	= 1020 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**

**Skin corrosion/irritation** Non-irritant. (OECD 404 method).

**Serious eye damage/eye irritation** Minimal irritant to the eye. (OECD 405 method).

**Respiratory or skin sensitization** It is not a skin sensitizer (OECD 429 method)

**Germ cell mutagenicity** AMES test : Negative (OECD 471 method)

**Carcinogenicity** Carbon Black: In 1996, the IARC re-evaluated carbon black as a Group 2B carcinogen (possible human carcinogen). This classification is given to chemicals, for which there is inadequate human evidence, but sufficient animal evidence on which to base an opinion of carcinogenicity. The classification is based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black at levels that induce particle overload of the lung. Studies performed in animal models other than rats did not show any association between carbon black and lung tumors.

Other ingredients of this product have not been classified as carcinogens according to IARC monographs, NTP and OSHA

**12. Ecological information**

**Ecotoxicity**

**Ecotoxicity** .

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**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	-	51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static	-	500: 24 h Daphnia magna mg/L EC50
Carbon Black	-	1000:96 h Brachydanio rerio mg/L LC50	-	5600: 24 h Daphnia magna mg/L EC50

**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	-1.76
1,2-Benzisothiazolin-3-one	1.3

**Mobility**

**Mobility in soil** No information available.

**Mobility** 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.

**14. Transport information**

**ADG** Not regulated

**IATA** Not regulated



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**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**

<b>TSCA</b>	Contact supplier for inventory compliance status
<b>DSL/NDSL</b>	Contact supplier for inventory compliance status
<b>EINECS/ELINCS</b>	Contact supplier for inventory compliance status
<b>ENCS</b>	Contact supplier for inventory compliance status
<b>IECSC</b>	Contact supplier for inventory compliance status
<b>KECL</b>	Contact supplier for inventory compliance status
<b>PICCS</b>	Contact supplier for inventory compliance status
<b>AICS</b>	Contact supplier for inventory compliance status

**Legend:**

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

**DSL/NDSL** - 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**

The symbol (\*) in the margin of this SDS indicates that this line has been revised.

**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  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 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**

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**End of Safety Data Sheet**