

Product Name
LC103BK, LC107BK, LC113BK, LC117BK, LC123BK, LC127XLBK, LC133BK,
LC137XLBK, LC563BK, LC567BK, LC573BK, LC577XLBK, LC583BK,
LC587BK, LC593BK, LC597XLBK Ink

Date: Issued: 26 October 2011
Revised: 26 September 2012
Version Number: 4
SDS No.: BHK023-01-EUUSOTHER

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

1.1 Product identifier

Product Name:	LC103BK	LC107BK	LC113BK	LC117BK
Product Code:	LK6537001	LK6576001	LK6868001	LK6900001
Product Name:	LC123BK	LC127XLBK	LC133BK	LC137XLBK
Product Code:	LK6810001	LK6924001	LK7242001	LK7209001
Product Name:	LC563BK	LC567BK	LC573BK	LC577XLBK
Product Code:	LK6970001	LK6974001	LK6982001	LK6986001
Product Name:	LC583BK	LC587BK	LC593BK	LC597XLBK
Product Code:	LK7001001	LK7005001	LK7013001	LK7017001

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

Identified use(s): 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.

1.3 Details of the supplier of the safety data sheet

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

Importer (USA): Brother International Corporation
100 Somerset Corporate Boulevard, Bridgewater, NJ 08807-0911, USA
Telephone (for information): +1-800-284-4329

Importer (Canada): Brother International Corporation (Canada) Ltd.
1 Hotel de Ville, Dollard des Ormeaux, Quebec, H9B 3H6, Canada
Telephone (for information): +1-514-685-0600

Importer (Europe): Brother International Europe Ltd.
Brother House, 1 Tame Street, Guide Bridge, Audenshaw, Manchester M34 5JE, UK
Telephone (for information): +44-161-330-6531

Importer (Australia): 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

E-Mail (competent person): sds.info@brother.co.jp

1.4 Emergency telephone number

Emergency Phone No. (24 hours) CHEMTREC
+1-703-527-3887 (International)
+1-800-424-9300 (North America)
For France only:
Antipoison Centre telephone number: ORFILA +33-1-45-425-959

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture	Not classified as hazardous according to EU Directive 1999/45/EC.
EU Classification:	
Australia Classification:	Not classified as hazardous according to the criteria of NOHSC.
2.2 Label elements	Label elements according to EU Directive 1999/45EC.: None
2.3 Other hazards	None

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

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Chemical Name	CAS No.	EC No.	%W/W	EU Hazard Symbols	EU Risk Phrases
Glycerol	56-81-5	200-289-5	5 - 15	-	-
Carbon Black	1333-86-4	215-609-9	1 - 10	-	-
Diethylene glycol	111-46-6	203-872-2	1 - 9	Xn	R22
Water	7732-18-5	231-791-2	60 - 70	-	-

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: Obtain medical attention. In case of accident by inhalation remove casualty to fresh air and keep at rest.

Skin Contact: Remove contaminated clothing immediately and wash affected skin with plenty of water or soap and water.

Eye Contact: Obtain medical attention. If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes.

Ingestion: Obtain immediate medical attention. Wash out mouth with water and give 200-300 ml (half a pint) of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

If symptoms persist, obtain medical attention.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media: Extinguish preferably with dry chemical, Carbon dioxide, Water, Foam.

Unsuitable Extinguishing Media: None.

5.2 Special hazards arising from the substance or mixture

Thermal decomposition of organic components may result in occurrence of oxides of carbon. Toxic gases may be formed upon combustion and represents a hazard to firefighters. Combustion products: See Section: 10.

5.3 Advice 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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

In case of ink vapor formation, use respirator.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Wipe up with absorbent towel. Wash with water to remove remaining traces of ink.

6.4 Reference to other sections

See Section: 13.

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SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling** Keep out of the reach of children. Avoid contact with skin. Avoid contact with eyes.
- 7.2 Conditions for safe storage, including any incompatibilities** Keep out of the reach of children. Keep away from oxidizing agents.
- 7.3 Specific end use(s)** 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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits:

Substance	CAS No.	OSHA PEL	ACGIH TLV	EU IOELV
Carbon Black	1333-86-4	3.5 mg/m ³	3.5 mg/m ³	Not established
Glycerol	56-81-5	15 mg/m ³ (total dust)	10 mg/m ³ (mist)	Not established

- 8.2 Exposure controls** Observe local regulations.
- Appropriate engineering controls** Good general ventilation should be sufficient under normal use.
- Personal Protection** Not normally required. For use other than in normal operating procedures (such as in the event of large spill), the following should be applied:
- Eye/face protection Goggles.
- Skin protection Protective gloves.
- Respiratory protection Large spillages: Wear suitable respiratory protective equipment.
- Other: Not applicable.
- Environmental Exposure Controls** Not normally required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance (20 °C)	Liquid.
Color.	Black.
Odor	Slight.
Odor threshold (ppm)	No data.
pH (Value)	7 - 9
Melting point (°C) / Freezing point (°C)	No data / < -5
Boiling point/boiling range (°C):	>100
Flash point (°C)	Not less than 93.3°C (Tag closed cup & Cleveland open cup)
Relative Evaporation Rate (Butyl acetate = 1)	No data.
Flammability (solid, gas)	No data.
Explosive limit ranges	No data.
Vapor pressure (Pa)	No data.
Vapor density (Air=1)	No data.
Density (g/ml)	1.0 - 1.1
Solubility (Water)	Soluble.
Solubility (Other)	No data.
Partition coefficient (n-Octanol/water)	No data.

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Auto ignition point (°C)	> 400
Decomposition temperature (°C)	No data.
Viscosity (mPa. s)	2 - 5
Explosive properties	No data.
Oxidising properties	No data.
9.2 Other information	None.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Not available.
10.2 Chemical stability	Stable.
10.3 Possibility of hazardous reactions	Not available.
10.4 Conditions to avoid	None.
10.5 Incompatible materials	Strong oxidizing agents.
10.6 Hazardous Decomposition Product(s)	Contains: Carbon monoxide and Carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects	
Acute toxicity:	
Ingestion:	Acute LD ₅₀ > 2000mg/kg (OECD No.420). Unlikely route of exposure. Ingestion may cause irritation of the gastrointestinal tract.
Inhalation:	Unlikely route of exposure. No data.
Skin Contact:	Non-irritant. (OECD No.404)
Eye Contact:	Minimal irritant to the eye. (OECD No.405)
Skin corrosion/irritation:	Repeated and/or prolonged skin contact may cause irritation.
Serious eye damage/irritation:	May cause eye irritation.
Respiratory or skin sensitization:	It is not a skin sensitizer. (OECD No.429)
Mutagenicity:	Negative. (OECD No.471)
Carcinogenicity:	Carbon Black: In 1996, the IARC reevaluated 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.
Reproductive toxicity:	No data.
STOT-single exposure:	No data.
STOT-repeated exposure:	No data.
Aspiration hazard:	Not applicable.
Potential Health Effects:	No data.

SECTION 12: ECOLOGICAL INFORMATION

No data available on the adverse effects of this product on the environment.

12.1 Toxicity	No data.
12.2 Persistence and degradability	No data.
12.3 Bioaccumulative potential	No data.
12.4 Mobility in soil	No data.
12.5 Results of PBT and vPvB assessment	No data.
12.6 Other adverse effects	No data.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	Dispose of in compliance with Federal, State and local regulations.
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SECTION 14: TRANSPORT INFORMATION

Not classified according to the United Nations 'Recommendations on the Transport of Dangerous Goods'.

14.1	UN number	None.
14.2	Proper Shipping Name	None.
14.3	Transport hazard class(es)	None.
14.4	Packing Group	None.
14.5	Environmental hazards	None.
14.6	Special precautions for user	None.
14.7	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	<p>EU: Not classified as dangerous for supply/use. (1999/45/EC)</p> <p>USA: All components of this product are listed on the TSCA Inventory.</p> <p>WHMIS: Not applicable. (Manufactured article)</p>
15.2	Chemical Safety Assessment	No.

SECTION 16: OTHER INFORMATION

Hazard Symbol:	Xn: Harmful.
Risk Phrases:	R22. Harmful if swallowed.

The following sections contain revisions or new statements: Formats, All Sections.

Additional information: The information relates only to this product. It may not be valid, if used in combination with any other materials or in any other process, and it is based on our best knowledge as of the date of preparation (revision).

References:

- U.S. 29CFR Part 1910
- ACGIH Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices
- EU Directive 91/322/EEC and 2000/39/EC
- IARC Monographs on the Evaluation Carcinogenic Risks to Humans
World Health Organization
- NTP 11th Report on Carcinogens

Abbreviations:

- ACGIH: American Conference of Governmental Industrial Hygienists
- ADR: European Agreement concerning the International carriage of Dangerous goods by Road (EU)
- DOT: Department Of Transportation (US)
- EINECS: European Inventory of Existing Commercial Chemical Substances
- HCS: Hazard Communication Standard (US)
- IARC: International Agency for Research on Cancer
- IATA: International Air Transport Association
- IMDG: International Maritime Dangerous Goods
- IOELV: Indicative Occupational Exposure Limit Value
- NOHSC: National Occupational Health and Safety Commission (Australia)
- NTP: National Toxicology Program (US)
- OSHA: Occupational Safety and Health Administration (US)
- PEL: Permissible Exposure Limit
- RID: Regulations concerning the International carriage of goods by Rail (EU)
- TLV: Threshold Limit Value (ACGIH)
- TSCA: Toxic Substances Control Act (US)
- WHMIS: Workplace Hazardous Material Information System (Canada)