

Product Name  
LC401BK, LC401XLBK, LC401XXLBK, LC411BK, LC421BK, LC421XLBK

First Issue: Nov. 18, 2020  
Revised: -  
Version Number:1  
SDS No.: BH273KCTE1

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

- 1.1 Product identifier**  
Product Name: LC401BK LC401XLBK LC401XXLBK LC411BK LC421BK LC421XLBK
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Identified use(s): Water based ink for inkjet printing machine
- 1.3 Details of the supplier of the safety data sheet**  
**Manufacturer:** BROTHER INDUSTRIES, LTD.  
5-1, Hamada-cho, Minami-ku, Nagoya 457-0822, JAPAN  
Telephone Number for Information : +81-52-824-3445  
**Importer (Europe):** BROTHER INTERNATIONAL EUROPE LTD.  
Brother House, 1 Tame Street, Audenshaw, Manchester M34 5JE, UK  
Telephone Number for Information : +44-161-330-6531  
**Importer (USA):** BROTHER INTERNATIONAL CORPORATION (U.S.A.)  
200 Crossing Blvd. Bridgewater, New Jersey 08807-0911, U.S.A.  
Telephone Number for Information : +1-877-276-8437  
**Importer (Canada):** BROTHER INTERNATIONAL CORPORATION (Canada) LTD.  
1 rue Hôtel de Ville, Dollard-des-Ormeaux, Québec, H9B 3H6, CANADA  
Telephone Number for Information : +1-514-685-0600  
**Importer (Australia):** BROTHER INTERNATIONAL (AUST.) PTY. LTD. ACN 001 393 835  
Level 3, Building A, 11 Talavera Road Macquarie Park, NSW 2113, AUSTRALIA  
Telephone Number for Information : +61-2-9887-4344  
**Importer (China):** BROTHER TECHNOLOGY (SHENZHEN) LTD.  
No.6 Gold Garden Ind. Nanling, Nanwan, Longgang, Shenzhen, China  
TEL: +86-755-6188-5587  
sds.ieink@brother.co.jp
- E-Mail (competent person):**
- 1.4 Emergency telephone number**  
Emergency Phone No. (24 hours) We do not provide 24 hours cover for information contact.  
Please telephone to the above office during our business hours.

## SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture**  
**GHS Classification :**  
Physical hazards  
Flammable liquids: Not classified  
Health hazards  
Acute toxicity (oral): Not classified  
Skin corrosion/irritation: Not classified  
Serious eye damage/eye irritation: Not classified  
Skin sensitization: Not classified  
※Others are not applicable or not possible to classify.  
**Regulation (EC) No. 1272/2008 as amended** Not classified  
**[CLP] :**
- 2.2 Label elements**  
**GHS Label elements** None  
**Regulation (EC) No. 1272/2008 as amended**  
**[CLP] :**  
Hazard pictograms None  
Signal Word : None  
Hazard Statements : EUH208 - Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.  
Precautionary statements : None
- 2.3 Other hazards** None

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### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

CHEMICAL NAME	CAS No.	EC No.	% by weight	Classification (Eu Reg. 1272/2008)
Carbon Black	1333-86-4	215-609-9	5 – 9	Not classified
Glycerol	56-81-5	200-289-5	5 – 15	Not classified
Diethylene glycol	111-46-6	203-872-2	5 – 9	Acute Tox. 4 (H302)
1,2-benzisothiazol-3(2H)-one	2634-33-5	220-120-9	< 0.05	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Acute 1 (H400)
Water	7732-18-5	231-791-2	60-70	Not classified

For the full text of any statements see Section16

### SECTION 4: FIRST AID MEASURES

#### 4.1 Description of first aid measures

Inhalation:  
Skin Contact:  
Eye Contact:

Ingestion:

Remove to fresh air area and obtain medical attention immediately.  
Wash with water and soap. If irritation continues, obtain medical attention.  
Flush immediately with gentle running water for 15 minutes at least. If irritation continues, obtain medical attention.  
Rinse mouth with water, give one or two of glasses of water, and obtain medical attention immediately.

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

Inhalation:No harmful effects are expected under normal use.Over exposure to vapor or mist, may cause symptoms such as respiratory irritation, cough, dizziness, headache and nausea.

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

None

### SECTION 5: FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing media

Suitable Extinguishing Media:  
Unsuitable Extinguishing Media:

Water, CO<sub>2</sub>, Foam, Dry chemical.  
None.

#### 5.2 Special hazards arising from the substance or mixture

May produce toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides if burning.

#### 5.3 Advice for fire-fighters

Use self-contained breathing apparatus.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Avoid contact with eyes, skin and clothing.

#### 6.2 Environmental precautions

Do not release to surface water or ground water.

#### 6.3 Methods and material for containment and cleaning up

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

#### 6.4 Reference to other sections

See Section: 8.

### SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Avoid contact with skin, eyes and clothing.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep out of reach of children. Store in a cool and dark place.

#### 7.3 Specific end use(s)

Water based ink for inkjet printing machine

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Occupational Exposure Limits:

CHEMICAL NAME	OSHA PEL	ACGIH TLV	EU IOELV
Carbon Black	Limits for air contaminant TWA3.5mg/m <sup>3</sup>	TWA 3mg/m <sup>3</sup> Not classifiable as a human carcinogen.	Not established
Glycerol	(as mist) Total dust TWA 15mg/m <sup>3</sup>	Not established	Not established

### 8.2 Exposure controls

#### Appropriate engineering controls

Use in a ventilated area.

#### Personal Protection

Eye/face protection

Use protective eyeglasses.

Skin protection

Use rubber apron and rubber boots, if necessary.

Hand protection

Use rubber gloves.

Respiratory protection

Not required under normal use.

Other:

Not applicable.

#### Environmental Exposure Controls

Avoid release to the environment.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance (20 °C)	Black liquid
Odor	Slight odor
Odor threshold (ppm)	Not available
pH (Value)	7 – 9
Melting point (°C) / Freezing point (°C)	Melting point(°C) : <-5°C
Boiling point/boiling range (°C)	Boiling point(°C) : >100°C
Flash point (°C)	Does not flash at 93.3°C or lower (Tag closed cup & Cleveland opened cup)
Evaporation rate	Not available
Flammability (solid, gas)	LEL : Not available UEL : Not available
Explosive limit ranges	Not available
Vapor pressure (Pa)	Not available
Vapor density (Air=1)	Not available
Density (g/cm <sup>3</sup> )	1.0 – 1.1 g/ml
Solubility (Water)	Soluble
Solubility (Other)	Not available
Partition coefficient (n-Octanol/water)	Not available
Auto ignition point (°C)	>400°C
Decomposition temperature (°C)	Not available
Viscosity (mPa. s)	2 – 5 mPa.s
Explosive properties	Not available
Oxidising properties	Not available
Other information	Not available

### 9.2 Other information

## SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	None
10.2 Chemical stability	Stable
10.3 Possibility of hazardous reactions	Will not occur
10.4 Conditions to avoid	High-temperature or High-humidity
10.5 Incompatible materials	Acids, Bases, Oxidizing agents, Reducing agents
10.6 Hazardous Decomposition Product(s)	Carbon monoxide, Carbon dioxide, Nitrogen oxides, Sulfur oxides

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## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute toxicity (oral):**

LD<sub>50</sub> of ink is greater than 2000mg/kg.

**Skin corrosion/irritation:**

Ink is classified as a NON IRRITANT

**Serious eye damage/irritation:**

Ink is classified as a MINIMAL IRRITANT.

**Respiratory or skin sensitization:**

Respiratory sensitization : Not available

Skin sensitization : Non-sensitizer

**Mutagenicity:**

Ames test : Negative

**Carcinogenicity:**

Specific data are not available.

Carbon black has been classified by the IARC as group 2B. However, IARC reported that no significant exposure to carbon black is thought to occur during the use of products in which carbon black is bound to other materials, such as printing ink.

Other ingredients of ink have not been classified as carcinogens according to IARC monographs, NTP, and OSHA regulated.

**Reproductive toxicity:**

Not available

**STOT-single exposure:**

Not available

**STOT-repeated exposure:**

Not available

**Aspiration hazard:**

Not available

**Potential Health Effects:**

Eye : Ink may cause slight irritation.

Skin : Prolonged exposure to ink may cause irritation.

Ingestion : Ink may cause gastrointestinal or other adverse effects.

Inhalation : Not expected to be a route of exposure under normal use.

Over exposure may cause respiratory irritation.

## SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity Not available

12.2 Persistence and degradability Not available

12.3 Bioaccumulative potential Not available

12.4 Mobility in soil Not available

12.5 Results of PBT and vPvB assessment Not available

12.6 Other adverse effects Not available

## SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods Dispose in accordance with federal, state and local regulations.

## SECTION 14: TRANSPORT INFORMATION

14.1 UN number None

14.2 Proper Shipping Name None

14.3 Transport hazard class(es) None

14.4 Packing Group None

US Department of Transportation (DOT) : Not regulated as dangerous goods.

Maritime Transport IMDG : Not regulated as dangerous goods.

Air Transport ICAO/IATA : Not regulated as dangerous goods.

14.5 Environmental hazards Not available

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  
EU : All components in ink comply with REACH rules and regulations.  
Ink is not classified according to Regulation (EC) No 1272/2008 and Regulation (EU) No 286/2011.

US : All components in ink comply with TSCA rules and regulations.

Canada : WHMIS : Not applicable. (Manufactured article)

15.2 Chemical Safety Assessment None

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## SECTION 16: OTHER INFORMATION

**Issue Date:**

Nov 18, 2020

**The following sections contain revisions or new statements:**

-

**Additional information:**

The information only relates to this specific product. It may not be valid for this product, 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:**

World Health Organization International Agency for Research on Cancer, IARC Monographs on the Evaluation on the Carcinogenic Risks to Humans, Volume 93  
U.S. Department of labor, 29CFR Part 1910.  
ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices  
EU Commission Directive 2009/161/EU

**Abbreviations:**

ACGIH  
DOT  
IARC  
IATA  
ICAO  
IMDG  
IOELV  
NTP  
OSHA  
PEL  
REACH

American Conference of Governmental Industrial Hygienists  
Department Of Transportation (US)  
International Agency for Research on Cancer  
International Air Transport Association  
International Civil Aviation Organization  
International Maritime Dangerous Goods  
Indicative Occupational Exposure Limit Value  
National Toxicology Program (US)  
Occupational Safety and Health Administration (US)  
Permissible Exposure Limit  
Registration, Evaluation, Authorization and Restriction of Chemicals (EU)  
Threshold Limit Value(ACGIH)  
Toxic Substances Control Act (US)  
Workplace Hazardous Material Information System (Canada)

TLV  
TSCA  
WHMIS

**Full text of any statements:**

Acute Tox. 4  
Eye Dam. 1  
Skin Irrit. 2  
Skin Sens. 1  
Aquatic Acute 1  
H302  
H315  
H317  
H318  
H400

Acute toxicity Category 4  
Serious eye damage/eye irritation Category 1  
Skin corrosion/irritation Category 2  
Skin sensitization Category 1  
Hazardous to the aquatic environment -Acute Category 1  
Harmful if swallowed  
Causes skin irritation  
May cause an allergic skin reaction  
Causes serious eye damage  
Very toxic to aquatic life