

Product Name
LC401M, LC401XLM, LC401XXLM, LC411M, LC421M, LC421XLM

First Issue: Nov. 18, 2020
Revised: -
Version Number:1
SDS No.: BH271MCTE1

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

1.1 Product identifier

Product Name: LC401M LC401XLM LC401XXLM LC411M LC421M LC421XLM

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

Product Name
LC401M, LC401XLM, LC401XXLM, LC411M, LC421M, LC421XLM

First Issue: Nov. 18, 2020
Revised: -
Version Number:1
SDS No.: BH271MCTE1

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

CHEMICAL NAME	CAS No.	EC No.	% by weight	Classification (Eu Reg. 1272/2008)
Glycerol	56-81-5	200-289-5	10-20	Not classified
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)
Magenta Dye	Registered	Registered	<2.5	Eye Irrit. 2 (H319) Skin Irrit. 2 (H315) Aquatic Chronic 2 (H411)
Water	7732-18-5	231-791-2	65-80	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:

Water, CO₂, Foam, Dry chemical.

Unsuitable Extinguishing Media:

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

Product Name
LC401M, LC401XLM, LC401XXLM, LC411M, LC421M, LC421XLM

First Issue: Nov. 18, 2020
Revised: -
Version Number:1
SDS No.: BH271MCTE1

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits:

CHEMICAL NAME	OSHA PEL	ACGIH TLV	EU IOELV
Glycerol	(as mist) Total dust TWA 15mg/m ³	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)	Dark red 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 ³)	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

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

Product Name
LC401M, LC401XLM, LC401XXLM, LC411M, LC421M, LC421XLM

First Issue: Nov. 18, 2020
Revised: -
Version Number:1
SDS No.: BH271MCTE1

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity (oral):	LD ₅₀ 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:	Not available
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

Product Name
LC401M, LC401XLM, LC401XXLM, LC411M, LC421M, LC421XLM

First Issue: Nov. 18, 2020
Revised: -
Version Number:1
SDS No.: BH271MCTE1

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
Eye Irrit. 2
Skin Irrit. 2
Skin Sens. 1
Aquatic Acute 1
Aquatic Chronic 2
H302
H315
H317
H318
H319
H400
H411

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