

Product Name

LC402C, LC402XLC, LC406C, LC406LC, LC406XLC, LC412C, LC412XLC, LC416C, LC416XLC, LC417XLC, LC418XLC, LC422C, LC422XLC, LC426C, LC426XLC, LC427C, LC427XLC, LC428XLC, LC432C, LC432XLC, LC436C, LC436XLC, LC456C, LC456XLC, LC462C, LC462XLC, LC472C, LC472XLC, LC492XLC

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SDS No.: BH252CCTE3

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

**1.1 Product identifier**

|               |          |          |          |          |          |          |
|---------------|----------|----------|----------|----------|----------|----------|
| Product Name: | LC402C   | LC402XLC | LC406C   | LC406LC  | LC406XLC | LC412C   |
|               | LC412XLC | LC416C   | LC416XLC | LC417XLC | LC418XLC | LC422C   |
|               | LC422XLC | LC426C   | LC426XLC | LC427C   | LC427XLC | LC428XLC |
|               | LC432C   | LC432XLC | LC436C   | LC436XLC | LC456C   | LC456XLC |
|               | LC462C   | LC462XLC | LC472C   | LC472XLC | LC492XLC |          |

**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):** sds.ieink@brother.co.jp

**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<br>(Eu Reg. 1272/2008)   |
|---------------------------------------|-----------|-----------|-------------|---|
| Glycerol                              | 56-81-5   | 200-289-5 | 15-25       | Not classified  |
| Triethylene glycol<br>monobutyl ether | 143-22-6  | 205-592-6 | 5-9         | Eye Dam. 1 (H318)   |
| 1,2-benzisothiazol-3(2H)-<br>one      | 2634-33-5 | 220-120-9 | <0.05       | Acute Tox. 4 (H302)<br>Skin Irrit. 2 (H315)<br>Eye Dam. 1 (H318)<br>Skin Sens. 1 (H317)<br>Aquatic Acute 1 (H400) |
| Water                                 | 7732-18-5 | 231-791-2 | 60-70       | Not classified  |

For the full text of any statements see Section 16

## 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

Cartridge contained 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           |
|---------------|---|--------------------|--------------------|
| Glycerol      | (as mist)<br>Total dust TWA 15mg/m <sup>3</sup> | Not<br>established | Not<br>established |

### 8.2 Exposure controls

#### Appropriate engineering controls

Use in a ventilated area.

#### Personal Protection

Eye/face protection

Not required under normal use.

Skin protection

Not required under normal use.

Hand protection

Not required under normal use.

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 blue 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

### 9.2 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

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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 NON 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

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## SECTION 16: OTHER INFORMATION

### Issue Date:

Dec. 23, 2020

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

Section 1

### 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)

TLV  
TSCA  
WHMIS

Threshold Limit Value (ACGIH)  
Toxic Substances Control Act (US)  
Workplace Hazardous Material Information System (Canada)

### Full text of R-, H- and EUH-phrases:

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