

Revision Date: -

Issuing Date: 08-Jan-2021

Revision Number: 1

Safety data sheet number: BHM253-01

Product Name: LC404M, LC414M, LC424M

## 1. IDENTIFICATION

### Product identifier

**Product Name** LC404M, LC414M, LC424M

### Other means of identification

**Synonyms** None

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

**Recommended Use** Water based ink for inkjet printing machine

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

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

**Supplier Address** Brother International Corporation  
200 Crossing Boulevard, Bridgewater, NJ 08807, USA  
Telephone (for information): +1-877-276-8437

### Emergency telephone number

**Emergency Telephone** CHEMTREC +1-703-527-3887 (International)  
CHEMTREC +1-800-424-9300 (North America)

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

The product contains no substances which at their given concentration, are considered to be hazardous to health

**Appearance**  
**Physical state** Liquid **Odor:** Slight

### Other Information

#### **Unknown acute toxicity**

17.4 % of the mixture consists of ingredient(s) of unknown toxicity

Revision Date: -

Issuing Date: 08-Jan-2021

Revision Number: 1

Safety data sheet number: BHM253-01

Product Name: LC404M, LC414M, LC424M

2.4 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity  
17.4 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)  
17.4 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)  
2.4 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance

Not applicable.

#### Mixture

Chemical name	CAS No	Weight-%	Trade secret
Water	7732-18-5	65-80	*
Glycerol	56-81-5	10-20	*
Magenta Dye	**	<2.5	*
1,2-Benzisothiazolin-3-one	2634-33-5	<0.05	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

\*\* Trade secret

### 4. FIRST AID MEASURES

#### Description of first aid measures

<b>General advice</b>	If symptoms persist, call a physician.
<b>Inhalation</b>	Remove to fresh air. Get immediate medical advice/attention.
<b>Eye contact</b>	In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical advice/attention.
<b>Skin contact:</b>	Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	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

<b>Symptoms</b>	Inhalation. (. Vapor. / Mist. ). :. No specific effects and/or symptoms have been reported or known. . For large quantities: May cause irritation to the respiratory system. Increased difficulty in breathing. Sneezing. Coughing. .
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#### Indication of any immediate medical attention and special treatment needed

Product Name: LC404M, LC414M, LC424M

**Revision Date:** -  
**Issuing Date:** 08-Jan-2021  
**Revision Number:** 1  
**Safety data sheet number:** BHM253-01

**Note to physicians** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**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 irritating and toxic gases and vapors Carbon monoxide Carbon dioxide (CO<sub>2</sub>) Nitrogen oxides (NOx) Oxides of sulfur

### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Special protective equipment for fire-fighters** Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Avoid contact with skin, eyes or clothing.

**For emergency responders** Use personal protection recommended in Section 8.

### Environmental precautions

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

### 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.

**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** Avoid contact with skin, eyes or clothing.

Product Name: LC404M, LC414M, LC424M

**Revision Date:** -  
**Issuing Date:** 08-Jan-2021

Revision Number: 1  
Safety data sheet number: BHM253-01

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

**Storage Conditions** Keep out of the reach of children. Keep cool. Protect from sunlight.

The information required is contained in this Safety Data Sheet

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Limits** The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Glycerol 56-81-5	No data available	TWA: 15 mg/m <sup>3</sup> mist, total particulate TWA: 5 mg/m <sup>3</sup> mist, respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> mist, total particulate (vacated) TWA: 5 mg/m <sup>3</sup> mist, respirable fraction	-

**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.

**Hand protection** If there is a risk of contact.: Protective gloves.

**Skin and body protection** If there is a risk of contact.: Apron. Boots.

**Respiratory protection** Use appropriate respiratory protection.

**Environmental exposure controls** Avoid release to the environment.

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

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

Product Name: LC404M, LC414M, LC424M

**Appearance**  
**Physical state** Liquid  
**Color** dark red  
**Odor** Slight  
**Odor threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	7 - 9	
Melting point / freezing point	< -5	
Boiling point / boiling range	> 100 °C	
Flash point	> 94 °C	Tag Closed Cup Cleveland Open Cup
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	1.0 - 1.1	(H <sub>2</sub> O=1)
Water solubility	Soluble in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	> 400 °C	
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	2 - 5 mPa s	
Explosive properties	No information available	.
Oxidizing properties	No information available	

<u>Other Information</u>	
Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available

**10. STABILITY AND REACTIVITY**

**Reactivity** None.

**Chemical stability** Stable under normal conditions.

**Possibility of hazardous reactions** None under normal processing.

**Conditions to avoid** Keep away from heat. Keep away from water or moist air.

**Incompatible materials** Acids, Bases, Oxidizing agent, Reducing agent

**Hazardous decomposition products** Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>), Oxides of sulfur

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## 11. TOXICOLOGICAL INFORMATION

### Product Information

<b>Inhalation</b>	No information available
<b>Eye contact</b>	No information available.
<b>Skin contact:</b>	No information available.
<b>Ingestion</b>	Acute LD <sub>50</sub> > 2000 mg/kg (OECD 420 method)
<b>Skin corrosion/irritation</b>	Non-irritant (OECD 404 method)
<b>Serious eye damage/irritation</b>	Minimal irritant to the eye (OECD 405 method)
<b>Respiratory or skin sensitization</b>	Respiratory sensitization : No information available It is not a skin sensitizer (OECD 429 method)
<b>Germ cell mutagenicity</b>	AMES test : Negative (OECD 471 method)
<b>Carcinogenicity</b>	Ingredients of this product have not been classified as carcinogens according to IARC monographs, NTP and OSHA
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.
<b>Potential health effects</b>	Eye : May cause slight irritation Skin : Prolonged exposure may cause skin irritation Ingestion : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea Inhalation : Not an expected route of exposure

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Glycerol 56-81-5	-	LC50: 51 - 57mL/L (96h, Oncorhynchus mykiss)	-	-

**Persistence and degradability** No information available.

Revision Date: -

Issuing Date: 08-Jan-2021

Revision Number: 1

Safety data sheet number: BHM253-01

Product Name: LC404M, LC414M, LC424M

**Bioaccumulation** There is no data for this product.  
**Component Information**

Chemical name	Partition coefficient
Glycerol 56-81-5	-1.76
1,2-Benzisothiazolin-3-one 2634-33-5	1.3

**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

**DOT** Not regulated  
**TDG** Not regulated  
**MEX** Not regulated  
**ICAO (air)** Not regulated  
**IATA** Not regulated  
**IMDG** Not regulated  
**RID** Not regulated  
**ADR** Not regulated  
**ADN** Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

**TSCA** Complies  
**DSL/NDSL** Exempt  
**EINECS/ELINCS** Complies  
**ENCS** Complies  
**IECSC** Complies



# SAFETY DATA SHEET

Product Name: LC404M, LC414M, LC424M

Revision Date: -  
Issuing Date: 08-Jan-2021

Revision Number: 1  
Safety data sheet number: BHM253-01

KECL Complies  
PICCS Complies  
AICS Complies

**Legend:**

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

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**U.S. State Right-to-Know Regulations**

**US State Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Glycerol 56-81-5	X	X	X

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable



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## 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health hazards 0	Flammability 1	Instability 0	Section 9: Physical and chemical properties -
<u>HMIS</u>	Health hazards 0	Flammability 1	Physical hazards 0	Personal protection X
Issuing Date	08-Jan-2021			
Revision Date	-			
Revision Note	No information available			

### Disclaimer

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).

**End of Safety Data Sheet**