

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** GC-30K18, GC-30K38, GC-30K4K Ink

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

**Relevant Identified Use(s)** Water based pigment ink (Mixture).

### 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  
200 Crossing Boulevard, Bridgewater, NJ 08807, USA  
Telephone (for information): +1-877-276-8437

**Importer (Europe)** Brother Internationale Industriemaschinen GmbH  
Dusseldorfer Str. 7-9, D-46446, Emmerich, am Rhein, Germany  
Telephone (for information): +49-2-822-6090

**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

**Importer (New Zealand)** BROTHER INTERNATIONAL (NZ) LTD.  
27 Matarawa Place, Tauriko Business Estate, Tauriko, Tauranga, New Zealand  
Telephone (for information): +64-7-543-5600

**Importer (Singapore)** BROTHER INTERNATIONAL SINGAPORE PTE. LTD.  
10 Eunos Road 8, #14-01/02 Singapore Post Centre, Singapore 408600  
Telephone (for information): +65-6538-0311

**Importer (Asia)** BROTHER MACHINERY ASIA LTD.  
12/F, PeakCastle, 476 Castle Peak Road, Kowloon, Hong Kong  
Telephone (for information): +852-2777-0010

**Importer (China)** BROTHER MACHINERY SHANGHAI LTD.  
Room B, 3/F., No.567, West Tianshan Rd., ChangNing District, Shanghai 200335, P.R.China  
Telephone (for information): +86-21-2225-6666

**E-mail Address** sds.info@brother.co.jp

### 1.4 Emergency telephone number

**Emergency Telephone (24 hours)** CHEMTREC  
+1-703-527-3887 (International)  
+1-800-424-9300 (North America)

For France only:  
Antipoison Center telephone number: ORFILA +33-1-45-425-959

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Oral) H302

Full text of H-phrases: see section 16

#### Classification according to Directive 1999/45/EC

Xn; R22

#### Australia Classification

Classified as hazardous according to the criteria of NOHSC

### 2.2 Label elements

#### Labelling according to Regulation (EC) No. 1272/2008

##### Hazard pictograms



##### Signal Word

Warning

##### Hazard Statements

H302 - Harmful if swallowed

##### Precautionary statements

P264 - Wash skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell  
P330 - Rinse mouth  
P501 - Dispose of contents/ container to an approved waste disposal plant.

##### EUH-statements

EUH208 - Contains 1,2-benzisothiazol-3(2H)-one(2634-33-5). May produce an allergic reaction

### 2.3 Other hazards

This product contains no substance considered to be very persistent nor very bioaccumulating (vPvB). This product contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**Description of the mixture:** Water based pigment ink (Mixture)

Chemical Name	CAS-No	EC-No	w/w%	Classification (67/548/EEC)	Classification (EU Reg. 1272/2008)
Diethylene glycol	111-46-6	203-872-2	40-50	Xn; R22	Acute Tox. 4 (H302)
Carbon Black	1333-86-4	215-609-9	1-5	Not classified	Not classified
Ethylene glycol	107-21-1	203-473-3	<1	Xn; R22	Acute Tox. 4 (H302)
1,2-benzisothiazol-3(2H)-one	2634-33-5	220-120-9	< 0.05	Xn; R22 Xi; R41 Xi; R38 R43 N; R50	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400

For the full text of R-phrases and H-Statements see Section 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice	If symptoms persist, obtain medical attention.
Inhalation	Obtain immediate 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 100-200 ml of water to drink.

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

Skin contact: Repeated and/or prolonged skin contact may cause irritation.  
Eye contact: May cause eye irritation. Tears. Reddening.  
Inhalation: May be harmful if inhaled.  
Ingestion: Nausea, headache, vomiting. Effects may be delayed.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable Extinguishing Media Extinguish preferably with dry chemical, carbon dioxide, water mist, foam.

Unsuitable Extinguishing Media None.

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

Water based inkjet ink. The product is not itself flammable, but residue that remains if the water it contains has been allowed to evaporate is flammable.

### 5.3 Advice for firefighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

## SECTION 6: Accidental release measures

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

Wear suitable protective clothing. Gloves and eye/face protection.

### 6.2 Environmental precautions

Avoid release to the environment. Do not allow to enter drains, sewers or water courses.

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

Small spillage: Wash spill area with soapy water. To be disposed of as hazardous waste.  
Large spillage: Absorb spillages onto sand, earth or any suitable adsorbent material. To be disposed of as hazardous waste.

### 6.4 Reference to other sections

For personal protection: See section 8.  
For disposal considerations: See section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Wear suitable respiratory protective equipment. Avoid contact with skin and eyes.

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

Keep container tightly closed. Avoid leaking, rolling or dropping.

### 7.3 Specific end use(s)

Water based pigment ink (Mixture).

## SECTION 8: Exposure controls/personal protection

### 8.1 Control Parameters

#### Occupational Exposure Limits

Chemical Name	Diethylene glycol 111-46-6
ACGIH TLV	-
OSHA PEL	-
European Union	-
The United Kingdom	STEL: 69 ppm STEL: 303 mg/m <sup>3</sup> TWA: 23 ppm TWA: 101 mg/m <sup>3</sup>
Germany	TWA: 10 ppm TWA: 44 mg/m <sup>3</sup> Ceiling / Peak: 40 ppm Ceiling / Peak: 176 mg/m <sup>3</sup>

Denmark	TWA: 2.5 ppm TWA: 11 mg/m <sup>3</sup>
Austria	STEL 40 ppm STEL 176 mg/m <sup>3</sup> TWA: 10 ppm TWA: 44 mg/m <sup>3</sup>
Switzerland	STEL: 40 ppm STEL: 176 mg/m <sup>3</sup> TWA: 10 ppm TWA: 44 mg/m <sup>3</sup>
Poland	TWA: 10 mg/m <sup>3</sup>
Ireland	TWA: 23 ppm TWA: 100 mg/m <sup>3</sup>
<b>Chemical Name</b>	<b>Carbon Black 1333-86-4</b>
<b>ACGIH TLV</b>	TWA: 3 mg/m <sup>3</sup> inhalable fraction
<b>OSHA PEL</b>	TWA: 3.5 mg/m <sup>3</sup>
<b>European Union</b>	-
<b>The United Kingdom</b>	STEL: 7 mg/m <sup>3</sup> TWA: 3.5 mg/m <sup>3</sup>
<b>France</b>	TWA: 3.5 mg/m <sup>3</sup>
<b>Spain</b>	TWA: 3.5 mg/m <sup>3</sup>
<b>Germany</b>	Carc
<b>Portugal</b>	TWA: 3.5 mg/m <sup>3</sup>
<b>Finland</b>	TWA: 3.5 mg/m <sup>3</sup> STEL: 7 mg/m <sup>3</sup>
<b>Denmark</b>	TWA: 3.5 mg/m <sup>3</sup>
<b>Poland</b>	TWA: 4.0 mg/m <sup>3</sup>
<b>Norway</b>	TWA: 3.5 mg/m <sup>3</sup> STEL: 7 mg/m <sup>3</sup>
<b>Ireland</b>	TWA: 3.5 mg/m <sup>3</sup> STEL: 7 mg/m <sup>3</sup>
<b>Chemical Name</b>	<b>Ethylene glycol 107-21-1</b>
<b>ACGIH TLV</b>	Ceiling: 100 mg/m <sup>3</sup> aerosol only
<b>OSHA PEL</b>	-
<b>European Union</b>	S* TWA 20 ppm TWA 52 mg/m <sup>3</sup> STEL 40 ppm STEL 104 mg/m <sup>3</sup>
<b>The United Kingdom</b>	STEL: 40 ppm STEL: 104 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup> TWA: 20 ppm TWA: 52 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup> S*
<b>France</b>	TWA: 20 ppm TWA: 52 mg/m <sup>3</sup> STEL: 40 ppm STEL: 104 mg/m <sup>3</sup>
<b>Spain</b>	S* STEL: 40 ppm STEL: 104 mg/m <sup>3</sup> TWA: 20 ppm TWA: 52 mg/m <sup>3</sup>
<b>Germany</b>	TWA: 10 ppm TWA: 26 mg/m <sup>3</sup> Ceiling / Peak: 20 ppm Ceiling / Peak: 52 mg/m <sup>3</sup> S*

<b>Italy</b>	TWA: 20 ppm TWA: 52 mg/m <sup>3</sup> STEL: 40 ppm STEL: 104 mg/m <sup>3</sup> S*
<b>Portugal</b>	Ceiling: 100 mg/m <sup>3</sup>
<b>The Netherlands</b>	S* STEL: 104 mg/m <sup>3</sup> TWA: 52 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>
<b>Finland</b>	TWA: 20 ppm TWA: 50 mg/m <sup>3</sup> STEL: 40 ppm STEL: 100 mg/m <sup>3</sup> S*
<b>Denmark</b>	TWA: 10 ppm TWA: 26 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup> S*
<b>Austria</b>	S* STEL 20 ppm STEL 52 mg/m <sup>3</sup> TWA: 10 ppm TWA: 26 mg/m <sup>3</sup>
<b>Switzerland</b>	S* STEL: 20 ppm STEL: 52 mg/m <sup>3</sup> TWA: 10 ppm TWA: 26 mg/m <sup>3</sup>
<b>Poland</b>	NDSch: 50 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup>
<b>Norway</b>	TWA: 10 mg/m <sup>3</sup> S* Ceiling: 25 ppm STEL: 20 mg/m <sup>3</sup>
<b>Ireland</b>	TWA: 10 mg/m <sup>3</sup> TWA: 20 ppm TWA: 52 mg/m <sup>3</sup> STEL: 40 ppm STEL: 104 mg/m <sup>3</sup> S*

S\* - Possibility of significant uptake through the skin

## 8.2 Exposure controls

**Appropriate engineering controls** Good general ventilation should be sufficient under normal use.

Eye Protection	Safety goggles.
Hand Protection	Protective gloves.
Skin and body protection	Long sleeved clothing and long pants.
Respiratory protection	Large spillages: Wear suitable respiratory protective equipment.

**Environmental Exposure Controls** Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance	
Physical state	Liquid
Color	Black
Odor	Slight
Odor Threshold	No information available
pH	7 - 9
Melting point/freezing point	No information available
Initial boiling point and boiling range	> 100 °C
Flash Point	Does not flash at 93.3°C or lower (closed cup)
Evaporation rate	No information available
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	No information available
Vapor pressure	No information available
Vapor density	No information available
Relative density	1.0 - 1.2 (H <sub>2</sub> O=1)
Solubility(ies)	Miscible (water)
Partition coefficient: n-octanol/water	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	Confidential
Explosive properties	Not explosive
Oxidizing properties	No information available

### 9.2 Other information

No information available.

## SECTION 10: Stability and reactivity

10.1 Reactivity	No information available.
10.2 Chemical stability	Stable.
10.3 Possibility of hazardous reactions	No information available.
10.4 Conditions to avoid	No information available.
10.5 Incompatible materials	Strong oxidizing agents.
10.6 Hazardous decomposition products	Contains: Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide (CO).

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

<b>Acute toxicity</b>	Harmful if swallowed.
ATE CLP (oral)	839.00 mg/kg body weight
ATE CLP (dermal)	19955.00 mg/kg body weight
	14.8% of the mixture consists of ingredient(s) of unknown acute oral toxicity
<b>Skin corrosion/irritation</b>	Repeated or prolonged contact may cause irritation.
<b>Serious eye damage/irritation</b>	May cause eye irritation. Tears. Reddening.
<b>Respiratory or skin sensitisation</b>	Repeated and/or prolonged contact may cause skin sensitization. Contains: <0.03% Preservative
<b>Mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	<p>Printing Ink: IARC Classification: Group 3. Non-classified Human Carcinogen.</p> <p>Carbon Black: In 1996, the IARC re-evaluated 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.</p> <p><b>Other ingredients of this product have not been classified as carcinogens according to IARC monographs, NTP and OSHA.</b></p>



## SECTION 12: Ecological information

### 12.1 Toxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Diethylene glycol 111-46-6		LC <sub>50</sub> : 75200 mg/L 96 h flow-through (Pimephales promelas)	EC <sub>50</sub> : 84000 mg/L 48 h (Daphnia magna)
Carbon Black 1333-86-4			EC <sub>50</sub> : >5600 mg/L 24 h (Daphnia magna)
Ethylene glycol 107-21-1	EC <sub>50</sub> : 6500 - 13000 mg/L 96 h (Pseudokirchneriella subcapitata)	LC <sub>50</sub> : 41000 mg/L 96 h (Oncorhynchus mykiss) LC <sub>50</sub> : 14 - 18 mL/L 96 h static (Oncorhynchus mykiss) LC <sub>50</sub> : 27540 mg/L 96 h static (Lepomis macrochirus) LC <sub>50</sub> : 40761 mg/L 96 h static (Oncorhynchus mykiss) LC <sub>50</sub> : 40000 - 60000 mg/L 96 h static (Pimephales promelas) LC <sub>50</sub> : 16000 mg/L 96 h static (Poecilia reticulata)	EC <sub>50</sub> : 46300 mg/L 48 h (Daphnia magna)

**12.2 Persistence and degradability** No information available.

### 12.3 Bioaccumulative potential

Chemical Name	log Pow
Diethylene glycol	-1.98
Ethylene glycol	-1.93

**12.4 Mobility in soil** No information available.

**12.5 Results of PBT and vPvB assessment** This product contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This product contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

**12.6 Other adverse effects** No information available.

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods** Dispose of in accordance with Federal, State, and local regulations.

## SECTION 14: Transport information

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

<b>14.1 UN Number</b>	None
<b>14.2 UN proper shipping name</b>	None
<b>14.3 Transport hazard class(es)</b>	None
<b>14.4 Packing Group</b>	None
<b>14.5 Environmental hazards</b>	None
<b>14.6 Special precautions for user</b>	None
<b>14.7 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code</b>	Not applicable

## SECTION 15: Regulatory information

<b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	<p><b>EU:</b> Classified as hazardous for supply/use. (1999/45/EC)</p> <p><b>USA:</b> All chemical substances contained in this product are and had been listed on the TSCA Chemical Substances Inventory, and none is subject to any of the following TSCA requirements: section 4 test rules; proposed or final section 5(a)(2) significant new use rules; section 5(e) consent orders; section 8(a) preliminary assessment information rules; and section 8(d) health and safety data reporting rules.</p> <p><b>Canada:</b> WHMIS: Not applicable. (Manufactured article)</p>
<b>15.2 Chemical Safety Assessment</b>	No.

## SECTION 16: Other information

<b>Full text of R-phrases referred to under sections 2 and 3</b>	<p>R22 - Harmful if swallowed R38 - Irritating to skin R41 - Risk of serious damage to eyes R43 - May cause sensitisation by skin contact R50 - Very toxic to aquatic organisms</p>
<b>Full text of H-Statements referred to under section 3</b>	<p>H302 - Harmful if swallowed H315 - Causes skin irritation H317 - May cause an allergic skin reaction H318 - Causes serious eye damage H400 - Very toxic to aquatic life</p>
<b>Additional information</b>	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).
<b>Revision Note</b>	Section1
<b>References:</b>	<p>U.S. 29CFR Part 1910 ACGIH Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices IARC Monographs on the Evaluation Carcinogenic Risks to Humans World Health Organization EU Directive 91/322/EEC and 2000/39/EC NTP 11th Report on Carcinogens</p>

**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)  
IARC: International Agency for Research on Cancer  
IATA: International Air Transport Association  
IMDG: International Maritime Dangerous Goods  
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)