

Product Name: GC-50W50, GC-50W4K, GC-30W38 Ink

Revision Date: 5-Jan-2022
Issuing Date: 12-May-2008
Revision Number: 9.2
Safety data sheet number: GC-50W50

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name GC-50W50, GC-50W4K, GC-30W38 Ink
Product Form Mixture
Safety data sheet number GC-50W50

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

Relevant identified uses Water based ink for inkjet printing machine
Uses advised against No information available

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
(Europe)
Brother Internationale Industriemaschinen GmbH
Dusseldorfer Str. 7-9, D-46446, Emmerich, am Rhein, Germany
Telephone (for information): +49-2-822-6090
(UK)
MHM Direct
Unit 9, The Stairway Langham Park Industrial Estate, Lows Ln, Stanton by Dale, Ilkeston
DE7 4RJ, U.K.
Telephone (for information): +44-115-944-2285
(Australia)
Brother International (Aust.) Pty. Ltd. ACN 001 393 835
Unit 2/51 Eastern Creek Drive Eastern Creek, NSW 2766, Australia
Telephone (for information): +61-2-9887-4344
(New Zealand)
BROTHER INTERNATIONAL (NZ) LTD.
27 Matarawa Place, Tauriko Business Estate, Tauriko, Tauranga, New Zealand
Telephone (for information): +64-7-543-5600
(Singapore)
BROTHER INTERNATIONAL SINGAPORE PTE. LTD.
10 Eunos Road 8, #14-01/02 Singapore Post Centre, Singapore 408600, Singapore
Telephone (for information): +65-6538-0311
(Asia)
BROTHER MACHINERY ASIA LTD.
Unit 1207-11, 12/F, 9 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Telephone (for information): +852-2777-0010
(China)
BROTHER MACHINERY SHANGHAI LTD.
Room 01, 5/F., No.799, West Tianshan Rd., ChangNing District, Shanghai 200335,
P.R.China
Telephone (for information): +86-21-2225-6666

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For further information, please contact

E-mail address sds.info@brother.co.jp

1.4. Emergency telephone number

Emergency Telephone CHEMTREC +1-703-527-3887 (International)
CHEMTREC +1-800-424-9300 (North America)
CHEMTREC +61-290372994 (Australia)
For France only:
Antipoison Center telephone number: ORFILA +33-1-45-425-959

Section 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label elements

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

EUH208 - Contains 1,2-Benzisothiazolin-3-one May produce an allergic reaction.
EUH210 - Safety data sheet available on request
EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

2.3. Other hazards

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).

Section 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	CAS No	EC No	EC Index No	Weight-%	Specific concentration limit (SCL)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Water	7732-18-5	231-791-2	-	40-70	-	Not classified	Not applicable
Diethylene glycol	111-46-6	203-872-2	603-140-00-6	15-25	-	Acute Tox. 4 (H302)	01-2119457857-21-XXXX
Titanium dioxide	13463-67-7	236-675-5	022-006-00-2	10-20	-	Carc. 2 (H351i)	Not applicable
Silicic acid	1343-98-2	215-683-2	-	1-5	-	Not classified	Pre-registered

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Aluminium hydroxide	21645-51-2	244-492-7	-	1-5	-	Not classified	Registered
Ammonium hydroxide	1336-21-6	215-647-6	007-001-01-2	<1	STOT SE 3 :: C>=5%	Skin Corr. 1B (H314) Aquatic Acute 1 (H400)	Not applicable
Zinc oxide	1314-13-2	215-222-5	030-013-00-7	<=0.25	-	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Not applicable
1,2-Benzisothiazolin-3-one	2634-33-5	220-120-9	613-088-00-6	<0.05	Skin Sens. 1 :: C>=0.05%	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Acute 1 (H400)	Not applicable

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Full text of H- and EUH-phrases: see section 16

Section 4: First aid measures

4.1. Description of first aid measures

General advice	If symptoms persist, call a physician.
Inhalation	Get immediate medical advice/attention. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
Eye contact	In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical advice/attention.
Skin contact:	Take off contaminated clothing. Wash off immediately with soap and 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

Symptoms	Skin contact: : Repeated and/or prolonged skin contact may cause irritation Eye contact : May cause eye irritation Inhalation : May be harmful if inhaled Ingestion : Ingestion above therapeutic dose may cause nausea, vomiting, dizziness, and headache
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4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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Section 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical, CO₂, water spray or regular foam

Unsuitable extinguishing media None

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Water-based inkjet ink. The product itself is not flammable, but the residue left after evaporating the water contained in the product is flammable.

5.3. Advice for firefighters

Special protective equipment for fire-fighters Wear self-contained breathing apparatus and protective suit.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Use personal protective equipment as required

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Avoid release to the environment. Prevent substance entering sewers. Washings must be prevented from entering surface water drains.

6.3. 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.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

Section 7: Handling and storage

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7.1. Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid contact with skin and eyes.
General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep tightly closed in a dry and cool place.

7.3. Specific end use(s)

Specific use(s) Water based ink for inkjet printing machine

Section 8: Exposure controls and personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	United Kingdom	France	Spain	Germany
Diethylene glycol 111-46-6	-	TWA: 23 ppm TWA: 101 mg/m ³ STEL: 69 ppm STEL: 303 mg/m ³	-	-	TWA: 10 ppm TWA: 44 mg/m ³
Titanium dioxide 13463-67-7	-	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 1.25 mg/m ³ TWA: 10 mg/m ³
Aluminium hydroxide 21645-51-2	-	TWA: 10 mg/m ³ TWA: 4 mg/m ³	-	-	TWA: 1.25 mg/m ³ TWA: 10 mg/m ³
Zinc oxide 1314-13-2	-	-	TWA: 5 mg/m ³ TWA: 10 mg/m ³	TWA: 2 mg/m ³ STEL: 10 mg/m ³	-
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Diethylene glycol 111-46-6	-	-	-	-	TWA: 2.5 ppm TWA: 11 mg/m ³
Titanium dioxide 13463-67-7	-	TWA: 10 mg/m ³	-	-	TWA: 6 mg/m ³
Silicic acid 1343-98-2	-	-	-	-	TWA: 5 mg/m ³ TWA: 2 mg/m ³
Ammonium hydroxide 1336-21-6	-	-	-	TWA: 20 ppm TWA: 14 mg/m ³ STEL: 50 ppm STEL: 36 mg/m ³	-
Zinc oxide 1314-13-2	-	TWA: 2 mg/m ³ STEL: 10 mg/m ³	-	TWA: 2 mg/m ³ STEL: 10 mg/m ³	TWA: 4 mg/m ³
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Diethylene glycol 111-46-6	TWA: 10 ppm TWA: 44 mg/m ³ STEL 40 ppm STEL 176 mg/m ³	TWA: 10 ppm TWA: 44 mg/m ³ STEL: 40 ppm STEL: 176 mg/m ³	TWA: 10 mg/m ³	-	TWA: 23 ppm TWA: 100 mg/m ³ STEL: 69 ppm STEL: 300 mg/m ³

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Titanium dioxide 13463-67-7	TWA: 5 mg/m ³ STEL 10 mg/m ³	TWA: 3 mg/m ³	STEL: 30 mg/m ³ TWA: 10 mg/m ³	TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³
Aluminium hydroxide 21645-51-2	TWA: 5 mg/m ³ STEL 10 mg/m ³	TWA: 3 mg/m ³	TWA: 2.5 mg/m ³ TWA: 1.2 mg/m ³	-	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³
Zinc oxide 1314-13-2	TWA: 5 mg/m ³	TWA: 3 mg/m ³ STEL: 3 mg/m ³	STEL: 10 mg/m ³ TWA: 5 mg/m ³	TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 2 mg/m ³ STEL: 10 mg/m ³

Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Aluminium hydroxide 21645-51-2	-	60	-	-	-

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

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

Personal protective equipment Not normally required. For use other than in normal operating procedures (such as in the event of large spill), the following should be applied:

Eye/face protection Safety goggles.

Hand protection Protective gloves.

Skin and body protection Long sleeved clothing and long pants

Respiratory protection In case of 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	white
Odor	Slight
Odor threshold	No information available

Property

Property	Values	Remarks • Method
pH	7 - 8	
Melting point / freezing point	No data available	None known
Boiling point / boiling range	> 100 °C	

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Flash point	> 93.3 °C	
Evaporation rate	No data available	None known
Flammability (solid, gas)	Not applicable	
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 - 1.2	(H ₂ O=1)
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	CONFIDENTIAL	
Explosive properties	Not explosive	
Oxidizing properties	No information available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No information available

9.2.2. Other safety characteristics

No information available

Section 10: Stability and reactivity

10.1. Reactivity

None.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Keep away from heat. Avoid friction, sparks, or other means of ignition.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

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Carbon monoxide, Carbon dioxide (CO₂), Nitrogen oxides (NO_x)

Section 11: Toxicological information

11.1. Information on toxicological effects

Product Information

Inhalation	No information available
Eye contact	No information available
Skin contact:	No information available
Ingestion	May be harmful if swallowed

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	2,433.20 mg/kg
ATEmix (dermal)	46,316.10 mg/kg

Skin corrosion/irritation	Repeated and/or prolonged skin contact may cause irritation
Serious eye damage/eye irritation	May cause eye irritation
Respiratory or skin sensitization	Repeated or prolonged contact may cause allergic reactions in very susceptible persons
Germ cell mutagenicity	No information available
Carcinogenicity	Printing inks: IARC Classification: Group 3 (Non-classified Human Carcinogen) Titanium dioxide: IARC Classification: Group 2B (Possible human carcinogen) Other ingredients of this product have not been classified as carcinogens according to IARC monographs, NTP and OSHA

11.2. Information on other hazards

No information available

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity Harmful to aquatic life with long lasting effects
Contains 0 % of components with unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Diethylene glycol	-	LC50: =75200mg/L (96h, Pimephales promelas)	EC50 = 29228 mg/L 15 min	EC50: =84000mg/L (48h, Daphnia magna)
Ammonium hydroxide	-	LC50: =8.2mg/L (96h,	-	EC50: =0.66mg/L (48h,

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		Pimephales promelas)		Daphnia pulex) EC50: =0.66mg/L (48h, water flea)
Zinc oxide	-	LC50: =1.55mg/L (96h, Danio rerio)	-	-

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

There is no data for this product.

Component Information

Chemical name	Partition coefficient
Diethylene glycol	-1.98
1,2-Benzisothiazolin-3-one	1.3

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. Endocrine disrupting properties

No information available.

12.7. Other adverse effects

No information available.

Section 13: Disposal considerations

13.1. Waste treatment methods

Dispose in accordance with federal, state and local regulations.

Section 14: Transport information

IMDG

- 14.1 UN/ID no Not regulated
- 14.2 Proper shipping name Not regulated
- 14.3 Hazard Class Not regulated
- 14.4 Packing group Not regulated
- 14.5 Marine pollutant Not applicable
- 14.6 Special Provisions None
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

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RID

14.1 UN/ID no	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

ADR

14.1 UN/ID no	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

IATA

14.1 UN/ID no	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

Section 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU-Regulations

- * Contains no substances listed in REACH Regulation (EC) No.1907/2006 ANNEX XVII.
- * Contains no substance listed in REACH Regulation (EC) No.1907/2006 Candidate List for Authorization.
- * Contains no substances listed in REACH Regulation (EC) No.1907/2006 ANNEX XIV.

National Regulations

No information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Section 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

- H302 - Harmful if swallowed
- H314 - Causes severe skin burns and eye damage
- H315 - Causes skin irritation
- H317 - May cause an allergic skin reaction

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H318 - Causes serious eye damage
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorization:

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
**	Trade secret		

Key literature references and sources for data

No information available

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Revision Note

SDS sections updated; 1

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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).