

Product Name: TZe cassette ribbon, TZ cassette ribbon (Gold)

Revision Date: 01-Dec-2020

Issuing Date: 18-Sep-2015

Revision Number: 3

Safety data sheet number: 5VA926-M4-1

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

**1.1. Product identifier**

Product Name TZe cassette ribbon, TZ cassette ribbon (Gold)

Product Form Mixture

Safety data sheet number 5VA926-M4-1

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

Relevant identified uses These products are ink ribbons for TZe / TZ cassette manufactured by Brother Industries, Ltd.

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** (Europe)  
Brother International Europe Ltd.  
1 Tame Street, Audenshaw, Manchester M34 5JE, UK  
Brother International (Nederland) B.V.  
Zanderij 25, 1185 ZM Amstelveen, The Netherlands  
Telephone (for information): +44-161-330-6531

**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)

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

Chronic aquatic toxicity	Category 3
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**2.2. Label elements**

Regulation (EC) No 1272/2008

Hazard statements H412 - Harmful to aquatic life with long lasting effects

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**Precautionary Statements - EU (§28, 1272/2008)**

P273 - Avoid release to the environment  
P501 - Dispose of contents/container to industrial incineration plant

**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 nature  
Ink on substrate film (Mixture) Article

Chemical name	CAS No	EC No	EC Index No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Copper	7440-50-8	231-159-6	-	17	Not classified	Registered
Paraffin wax	8002-74-2	232-315-6	-	8	Not classified	Registered
Zinc	7440-66-6	231-175-3	030-001-01-9	<2	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data available
Wax	**	-	-	**	Not classified	Registered
Synthetic resin	**	-	-	**	Not classified	Not applicable
Styrene-acrylate copolymer	**	-	-	**	Not classified	Not applicable
Resin	**	**	-	**	Not classified	Not applicable
Polyethylene terephthalate film	**	-	-	**	Not classified	Not applicable
Organic filler	**	-	-	**	Not classified	Registered
Dispersant	**	-	-	**	Not classified	Registered
Colorant	**	**	-	**	Not classified	Registered
Brass powder	**	-	-	**	Not classified	Registered
Additive	**	-	-	**	Not classified	Registered

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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**

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<b>General advice</b>	If symptoms persist, call a physician.
<b>Inhalation</b>	Not applicable.
<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.
<b>Ingestion</b>	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** No specific effects and/or symptoms have been reported or known

**4.3. Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**Section 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable Extinguishing Media** Dry chemical, CO<sub>2</sub>, 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** 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

**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** Not normally required.

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

**6.2. Environmental precautions**

**Environmental precautions** Avoid release to the environment.

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**Environmental precautions** 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** Not applicable.

**Methods for cleaning up** Not applicable

**Prevention of secondary hazards** Not applicable.

**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**

**7.1. Precautions for safe handling**

**Advice on safe handling** 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 away from oxidizing agents.

**7.3. Specific end use(s)**

**Specific use(s)** These products are ink ribbons for TZe / TZ cassette manufactured by Brother Industries, Ltd.

**Section 8: Exposure controls and personal protection**

**8.1. Control parameters**

**Exposure Limits**

Chemical name	European Union	United Kingdom	France	Spain	Germany
Copper 7440-50-8	-	TWA: 1 mg/m <sup>3</sup> TWA: 0.2 mg/m <sup>3</sup> STEL: 0.6 mg/m <sup>3</sup> STEL: 2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> STEL: 2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	-
Paraffin wax 8002-74-2	-	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	-
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Copper 7440-50-8	-	TWA: 0.2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.02 mg/m <sup>3</sup>	TWA: 1.0 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>

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Paraffin wax 8002-74-2	-	TWA: 2 mg/m <sup>3</sup>	-	TWA: 1 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Copper 7440-50-8	TWA: 1 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> STEL 4 mg/m <sup>3</sup> STEL 0.4 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> STEL: 2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> STEL: 0.6 mg/m <sup>3</sup> STEL: 2 mg/m <sup>3</sup>
Paraffin wax 8002-74-2	-	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> STEL: 4 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>

**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** Not normally required

**Respiratory protection** No special protective equipment required.

**Environmental exposure controls** Not normally required.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

**Physical state** film  
**Color** Gold  
**Odor** Slight wax odor  
**Odor threshold** No information available

#### Property

**pH** No data available  
**Melting point / freezing point** No data available  
**Boiling point / boiling range** No data available  
**Flash point** >150 °C  
**Evaporation rate** No data available  
**Flammability (solid, gas)** Not flammable  
**Flammability Limit in Air**  
**Upper flammability limit:** No data available

#### Remarks • Method

None known

None known

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<b>Lower flammability limit:</b>	No data available	
<b>Vapor pressure</b>	Not applicable	
<b>Vapor density</b>	Not applicable	
<b>Relative density</b>	No data available	None known
<b>Water solubility</b>	negligible	
<b>Solubility(ies)</b>	No information available	
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	
<b>Kinematic viscosity</b>	Not applicable	
<b>Dynamic viscosity</b>	No data available	
<b>Explosive properties</b>	Not explosive	
<b>Oxidizing properties</b>	No information available	

**9.2. Other information**

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**

Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>)

**Section 11: Toxicological information**

**11.1. Information on toxicological effects**

**Product Information**

**Inhalation** No information available

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<b>Eye contact</b>	No information available
<b>Skin contact:</b>	No information available
<b>Ingestion</b>	No information available
<b>Skin corrosion/irritation</b>	No information available pH: Not applicable
<b>Serious eye damage/eye irritation</b>	No information available pH: Not applicable
<b>Respiratory or skin sensitization</b>	No information available
<b>Germ cell mutagenicity</b>	No information available
<b>Carcinogenicity</b>	Printing inks: IARC Classification: Group 3 (Non-classified Human Carcinogen)  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.

## Section 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity** Very toxic to aquatic life with long lasting effects

Contains 74.1 % of components with unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Copper	0.0426 - 0.0535: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 0.031 - 0.054: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	0.0068 - 0.0156: 96 h Pimephales promelas mg/L LC50 0.3: 96 h Pimephales promelas mg/L LC50 static 0.2: 96 h Pimephales promelas mg/L LC50 flow-through 0.052: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.3: 96 h Cyprinus carpio	-	0.03: 48 h Daphnia magna mg/L EC50 Static

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		mg/L LC50 semi-static 0.112: 96 h <i>Poecilia reticulata</i> mg/L LC50 flow-through 1.25: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 0.8: 96 h <i>Cyprinus carpio</i> mg/L LC50 static		
Zinc	0.11 - 0.271: 96 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 static 0.09 - 0.125: 72 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 static	2.16 - 3.05: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 0.211 - 0.269: 96 h <i>Pimephales promelas</i> mg/L LC50 semi-static 0.24: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through 7.8: 96 h <i>Cyprinus carpio</i> mg/L LC50 static 2.66: 96 h <i>Pimephales promelas</i> mg/L LC50 static 3.5: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 30: 96 h <i>Cyprinus carpio</i> mg/L LC50 0.45: 96 h <i>Cyprinus carpio</i> mg/L LC50 semi-static 0.59: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 semi-static 0.41: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static	-	0.139 - 0.908: 48 h <i>Daphnia magna</i> mg/L EC50 Static

**12.2. Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential**

No information available.

**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.



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## 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

### 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.

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\* 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**

**Model Number List**

The model number of the cassette covered by this Safety Data Sheet is as follows.

TTZe-334	TZe-344	TZe-354	TZe-M34	TZe-MQ934
TZe-MQ954	TZe-MT3403	TZe-MT3406	TZe-MT3411	TZe-PR234
TZe-PR254	TZe-Z334			
TZ-164	TZ-324	TZ-334	TZ-344	TZ-354
TZ-364	TZ-MQ934			

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

**Full text of H-Statements referred to under section 3**

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H412 - Harmful 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**

Importer information has been changed.

Safety data sheet number changed.

Revision number corrected.

SDS sections updated

As the Product Safety Information Sheet (PSIS) has been abolished, the model number has been added to "Section 16. Other Information"

**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

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other process, and it is based on our best knowledge as of the date of preparation (revision).