

# Material Safety Data Sheet

Date of issue: 2010-12-10  
Revision Date: 2011-06-03

## 1. Identification of the mixture and of the company

Product name : Ink for MCKEE EXTRA FINE: MO-120-MC-BK 1),BL,LB,G,LG,Y,P,PU,R,OR,LE,E  
 Ink for HI MCKEE: MO-150-MC-BK 2),BL,LB,G,LG,Y,P,PU,R,OR,LE,E  
 Ink for MCKEE EXTRA BOLD: MC-EB-450-BK 2),BL,G,Y,P,PU,R,E  
 Ink for MCKEE CARE EXTRA FINE REPLACEABLE TYPE: YYTS5-BK  
 1),BL,LB,G,LG,Y,P,PU,R,OR,LE,E  
 Ink for HI MCKEE CARE REPLACEABLE TYPE: YYT5-BK  
 2),BL,LB,G,LG,Y,P,PU,R,OR,LE,E  
 Ink for MCKEE KNOCK: P-YYSS6-BK 1),BL,G,P,R  
 Ink for NAME PEN FINE: MO-12A1-SNZ-BK 3),BL,R  
 Ink for ONAMAE MCKEE Double-ended: YYTS7-BK 3)  
 Ink for ONAME MCKEE FINE: YYSS7-BK 3)

Company : ZEBRA CO., LTD.  
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 Emergency telephone : +81-3-3268-1834  
 This phone number is available only during office hours: 9 a.m. to half past 5 p.m.  
 (Japan time)

Product use : Infill Ink for above product

## 2. Hazards identification

### GHS classification

Details are given on the Annex I .

### GHS label elements

#### Pictograms or Symbol

Flame



Exclamation mark



Health Hazard



#### Signal Word

Details are given on the Annex I .

#### Hazard statement

Details are given on the Annex I .

#### Precautionary Statements

##### Prevention

Read label and Material Safety Data Sheet before use.  
 Keep away from heat/sparks/open flames/hot surfaces – No smoking  
 Do not breathe dust/vapours.  
 Ground/bond container and receiving equipment

Use explosion-proof electrical/ventilating/light  
Take precautionary measures against static discharge  
Use only non-sparking tools  
Use only outdoors or in a well-ventilated area  
Do not eat, drink or smoke when using this product  
Wear protective gloves/eye protection.  
Wash hand thoroughly after handling  
Avoid release to the environment

**Response**

In case of fire: Use suitable method for extinction  
IF ON SKIN : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
If skin irritation occurs or you feel unwell : Get medical advice/attention  
If in eyes : Rinse cautiously with water for several minutes.  
Remove contact lenses if present and easy to do – continue rinsing.  
IF SWALLOWED: Immediately call a doctor/physician. Do not induce vomiting

**Storage**

Store in a well ventilated place. Keep cool and container tightly closed.

**Disposal**

Dispose of contents/container to in accordance with local government regulation.

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**3. Composition/information on ingredients****Mixture****Component and Amount**

Details are given on the Annex II .

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**4. First-aid measures****After inhalation:**

Get Medical advice/attention if you feel unwell  
Remove victim to fresh air and keep at rest in a position comfortable for breathing.

**After skin contact:**

Call a doctor/physician if you feel unwell  
If skin irritation or a rash occurs: Get medical advice/attention

**After eye contact:**

Rinse continuously with water for several minutes.  
Remove contact lenses if present and easy to do – continue rinsing  
If eye irritation persists: Get medical advice/attention

**After ingestion: expected immediate and delayed symptoms.**

Immediately call a doctor/physician . Rinse mouth. Do NOT induce vomiting  
Eye, skin and respiratory tract irritation occurs.  
Headache, nausea, dizziness, lethargy, diarrhea, ataxia occurs.

**Protection of the person who takes first aid**

Nothing in particular.

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**5. Fire-fighting measures****Suitable Extinguishing media**

Carbon dioxide, dry chemical powder, water fog, foam

**Prohibition extinguishing media for safety reason**

Water spray (straight)

**Specific hazards**

Extremely flammable. Will be easily ignited by heat, sparks or flames  
May produce toxic fumes if burning.

**Specific fire fighting procedures**

Spray water if have no effect on extinguishing fire because of very low flash point.  
If safe to do so, move undamaged containers from the fire area.  
If can't move the container, cool containers and surrounding with spray water.  
Cool containers with large quantities of water until well after extinguished the fire.

**Special protective equipment for fire-fighters**

Fire-fighting should be performed from the windward side.  
Respiratory protection, and other suitable protective equipment

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**6. Accidental release measures****Personal precautions**

The pollution area should be established as off limits without concerned persons.

**Protective equipment and emergency measure**

Do not touch the leakage or its damaged container without suitable protection.  
Do not walk through the leakage.  
Keep sufficient ventilation if the area is indoor.  
Remove ignition sources.

**Environmental precautions**

Keep away from drains, and prevent from releasing to the environment.

**Methods for cleaning up**

Use non-flammable absorbent materials, and put them in airtight container.  
Dispose of absorbent in accordance with law.

**Prevention of secondary disaster**

Remove nearby ignition source and hot surface.  
Equipped with suitable extinguishing media. (Preparation for in case of ignition)

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**7. Handling and storage****Handling****Technical measures**

Do suitable equipment measures and use suitable protection that refer to  
"8. Exposure control/ personal protection".

**Local exhaust ventilation and general ventilation**

Use local exhaust ventilation and general ventilation that refer to  
"8. Exposure control/ personal protection".

**Caution**

When handling do not use high temperature articles, spark and fire.  
Handle container with care, do not make it turn over, drop, give impact and drag.  
Do not breathe, contact and swallow.  
Maintain air concentrations below exposure limit using exhaust ventilation.  
Do not eat, drink or smoke when using this product.  
Wash hand thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Avoid release to the environment.

**Avoid contact**

Refer to section 10 about stability and reactivity.

**Storage**

**Incompatible materials**

Refer to section 10 about stability and reactivity.

**Storage condition**

Store away from heat/sparks/open flames – No smoking

Store in a well ventilated place. Keep cool and container tightly closed.

Store locked up.

**The Containers**

Use the container that our company filled up when ship products

**8. Exposure control/ personal protection****Exposure limit values**

Details are given on the Annex II .

**Equipment measures**

Put up local exhaust ventilation. Use explosion-proof electrical/ventilating/lighting.

Take precautionary measures against static discharge.

Put up emergency eyewash and shower in case of storage or handling about this product.

**Protection****Respiratory protection**

Use suitable respiratory protection.

**Hand protection**

Use suitable protective gloves.

**Eye protection**

Use suitable eye protection.

**Skin/body protection**

Use suitable face protection.

**Hygiene measures**

Do not eat ,drink or smoke when using this product.

Wash thoroughly after handling.

**9. Physical and chemical properties**

<b>Appearance</b>	Coloring liquid
<b>Odour</b>	Peculiar odour
<b>pH</b>	No data available
<b>Melting point / Coagulating point</b>	No data available
<b>Boiling point</b>	84.0–117.0 °C
<b>Flash point</b>	All ink except BK)3 : 25.3–33.4 °C BK)3 : 19.4 °C
<b>Explosive limit UEL</b>	No data available
<b>Explosive limit LEL</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Vapour density</b>	No data available
<b>Specific gravity</b>	0.95–0.98
<b>Water solubility</b>	No data available
<b>Partition coefficient n-octanol/water</b>	No data available
<b>Ignition point</b>	No data available
<b>Decomposition point</b>	No data available

**10. Stability and reactivity**

<b>Chemical stability</b>	This product is stable in normal condition.
<b>Materials to Avoid</b>	Strong oxidizing agent
<b>Conditions to avoid</b>	High temperature
<b>Incompatible materials</b>	Strong oxidizing agent
<b>Hazardous decomposition products</b>	Nothing in particular.

## 11. Toxicological information

Details are given on the Annex I .

## 12. Ecological information

Details are given on the Annex I .

<b>Degradability</b>	No data is available
<b>Bioaccumulative potential</b>	No data is available
<b>Mobility in soil</b>	No data is available

## 13. Disposal considerations

### Waste residues

Disposal must be made according to official regulations.

Avoid release to the environment.

### Contaminated container and packaging

Do not flush into the sewer.

Remove all contents when you dispose of empty containers.

## 14. Transport information

The contents are as follows when transport only ink

### International regulation

#### All ink except BK)3

##### IMDG(maritime transport)

UN No.	1993
Class	3
Packing Group	III
Marine Pollutant	Not applicable

##### ICAO/IATA(air transport)

UN No.	1993
Class	3
Packing Group	III

#### BK)3 ink

##### IMDG(maritime transport)

UN No.	1993
Class	3
Packing Group	II
Marine Pollutant	Not applicable

## ICAO/IATA (air transport)

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UN No.	1993
Class	3
Packing Group	II

**Special precautions**

Prevent from falling, stumbling and doing damage when the container loading.

Avoid acute vibration and friction for container.

If there are some indications of hazard in transporting like acute leak in transporting, take emergency measures and report the accident at once to disaster management agency.

Avoid transport with foods or feeds.

Above regulations are not applied to transport of writing instruments filled with the ink.

But only "Ink for MCKEE EXTRA BOLD: MC-EB-450-BK2),BL,G,Y,P,PU,R,E" comes under UN No.3175 because of ink volume.

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**15. Regulatory information(Japan)**

Details are given on the Annex II.

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**16. Other information**

In this sheet, the contents of ingredients and the value of physical and chemical properties are not guaranteed performance.

The information contained in this sheet is based on the data available at now.

But this shall not constitute a guarantee for any specific or classification.

Please be alert to handling this product because chemicals shall have unknown hazards.

This sheet may be revised when we get new information.

The information is assumed in the case of large-scale handling on business operations.

They cannot be always applicable to general use of writing instruments.

**Reference**

Globally Harmonized System of Classification and Labelling of Chemicals (GHS) second revised edition 2007  
Recommendation of Occupational Exposure Limits(2009-2010) by The Japan Society for Occupational Health  
2009 TLVs and BEIs by ACGIH



Annex II of Material Safety Data Sheet

Date of issue: 2010-12-10  
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3. Composition/information on ingredients

Component and Amount	CAS No.	Reference Number in Gazetted List in Japan (Japanese Chemical Substances Control)	BK 1)	BK 2)	BK 3)	BL	R	G	Y	P	PU	E	OR	LB	LE	LG
1-Methoxy-2-propanol	107-98-2	(2)-404	75-80%	70-75%	45-55%	70-75%	70-75%	65-70%	70-75%	70-75%	70-75%	65-70%	70-75%	70-75%	70-75%	70-75%
Ethanol	64-17-5	(2)-202		5-10%	20-30%	5-10%	5-10%	5-10%	5-10%	5-10%	5-10%	5-10%	5-10%	5-10%	5-10%	5-10%
2-Propanol	67-63-0	(2)-207		1-5%		1-5%	1-5%	1-5%	1-5%	1-5%	1-5%	1-5%	1-5%	1-5%	1-5%	1-5%
Benzyl alcohol	100-51-6	(3)-1011	5-10%													
Resins	Nondisclosure		5-10%	5-10%	5-15%	10-15%	10-15%	10-15%	10-15%	10-15%	10-15%	10-15%	10-15%	10-15%	10-15%	10-15%
Dyes	Nondisclosure		10-15%	10-15%	10-20%	5-10%	1-5%	5-10%	5-10%	1-5%	1-5%	5-10%	5-10%	1-5%	5-10%	5-10%
Additives	Nondisclosure		1-5%													

8. Exposure control/ personal protection

Chemical name	Permissible concentration		Administrative levels
	The Japan Society for Occupational Health	ACGIH TLVs and BEIs	Ministry of Health, Labour and Welfare(JAPAN)
1-Methoxy-2-propanol	Not established	100 ppm(TWA, 2009), 150 ppm(STEL/C, 2009)	Not established
Ethanol	Not established	1000 ppm(STEL/C, 2009)	Not established
2-Propanol	400ppm(2009)	200 ppm(TWA, 2009), 400 ppm(STEL/C, 2009)	200 ppm
Benzyl alcohol	Not established	Not established	Not established

15. Regulatory information(Japan)

Industrial Safety and Health Act  
Article 57-2 paragraph (1) "notifiable substances"

	BK 1)	BK 2)	BK 3)	BL	R	G	Y	P	PU	E	OR	LB	LE	LG
1-Methoxy-2-propanol	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Ethanol		○	○	○	○	○	○	○	○	○	○	○	○	○
2-Propanol		○		○	○	○	○	○	○	○	○	○	○	○
Copper Compounds				○					○			○		
Chromium Compounds		○	○											

Order for Enforcement Article 1, 6, 9-3 Appended Table 1 item(IV)  
dangerous substances •inflammable substances

BK 1)	BK 2)	BK 3)	BL	R	G	Y	P	PU	E	OR	LB	LE	LG
Applicable													

Poisonous and Deleterious Substances Control Law  
Article 2 Appended Table 1 and 2

BK 1)	BK 2)	BK 3)	BL	R	G	Y	P	PU	E	OR	LB	LE	LG
Not applicable													

Act on confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management There of Article 2 Class I, II Designated Chemical Substances

BK 1)	BK 2)	BK 3)	BL	R	G	Y	P	PU	E	OR	LB	LE	LG
Not applicable													

Fire Service Law  
Article 2 paragraph (7) hazardous material Appended Table 1  
Category IV Class I petroleum non water soluble  
Category IV Class II petroleum non water soluble

BK 1)	BK 2)	BK 3)	BL	R	G	Y	P	PU	E	OR	LB	LE	LG
		○											
○	○		○	○	○	○	○	○	○	○	○	○	○

Ship Safety Act  
Regulations for the carriage and storage of dangerous goods in ship Article 2, 3  
dangerous goods public notice Appended Table 1

BK 1)	BK 2)	BK 3)	BL	R	G	Y	P	PU	E	OR	LB	LE	LG
Flammable liquid													

Civil Aviation Law  
Ordinance for Enforcement Article 194 dangerous goods public notice Appended Table 1

BK 1)	BK 2)	BK 3)	BL	R	G	Y	P	PU	E	OR	LB	LE	LG
Flammable liquid													