Safety Data Sheet

Date of issue: 2012-10-26 Revision Date: 2014-11-18

1. Identification of the mixture and of the company

Product name : Ink for Ball point pen refills as follows:

K-0.7(Black, Blue, Red) : BR-6A-K-BK,BL,R
SK-0.7(Black, Blue, Red) : BR-6A-SK-BK,BL,R
SH-0.5(Black, Blue, Red) : BR-8A-SH-BK,BL,R
H-0.7(Black, Blue, Red) : BR-6A-H-BK,BL,R
LH-1.0(Black, Blue, Red) : RLH10-BK,BL,R
LH-1.2(Black, Blue, Red) : RLH12-BK,BL,R
LH-1.6(Black, Blue, Red) : RLH16-BK,BL,R
F-0.7(Black, Blue, Red) : BR-1B-F-BK,BL,R
F-1.0(Black, Blue, Red) : BRM-1B-F-BK,BL,R

4C-0.4(Black) : R4C4-BK 4C-0.5(Black) : R4CS-BK

4C-0.7(Black, Blue, Red) : BR-8A-4C-BK,BL,R 4C-1.0(Black, Blue, Red) : R4C10-BK,BL,R ST-0.7(Black, Blue, Red) : BR-3B-ST-BK,BL,R Ink for Lite Rite DE(Ball-point Pen Side: Black ink)

Company : ZEBRA CO., LTD.

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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 writing implement

2. Hazards identification

GHS classification

Physical hazards

Flammable liquids

Pyrophoric liquids

Self-heating mixtures

Corrosive to metals

Not classified

Not classified

Not classified

Health hazards

Acute toxicity-Oral Category 4
Acute toxicity-Dermal Not classified
Acute toxicity-Inhalation: vapour Not classified
Acute toxicity-Inhalation: mist Not classified
Skin corrosion / irritation Category 2
Serious eye damage / eye irritation Category 1

Respiratory or skin sensitization Classification not possible Not classified

Germ cell mutagenicity Not classified

Carcinogenicity Not classified Reproductive toxicity Not classified

Specific target organ toxicity (Singel exposure) Classification not possible

Specific target organ toxicity(Repeated exposure) Not classified

Aspiration hazard Classification not possible

GHS label elements

Pictograms or Symbol

Exclamation mark Corrosion





Signal Word

Danger

Hazard statement

- Harmful if swallowed
- Causes skin irritation
- ·Causes serious eye damage

Precautionary Statements

Prevention

- •Read label and Material Safety Data Sheet before use.
- •Do not eat, drink or smoke when using this product
- •Wear protective gloves/eye protection.
- ·Wash hand throughly after handling
- Avoid release to the environment

Response

- •IF SWALLOWED:Rinse mouth. Call a doctor/physician if you feel unwell
- •IF ON SKIN: Wash with soap and water
- •If skin irritation occurs: Get medical advice/attention
- •IF IN EYES:Immediately call a doctor/physician.Rinse continuously with water for several minutes.

Remove contact lenses if present and easy to do . Continue rinsing

•Take off contaminated clothing and wash before reuse

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.

3. Composition/information on ingredients

Mixture

Component and Amount

Reference Number in Gazetted List in Japan

Component	Amount	CAS No.	(Japanese Chemical Substances Control Act)
Dyes	20-30%	Nondisclosure	Nondisclosure(registered)
Resins	15-25%	Nondisclosure	Nondisclosure(registered)
Ethylenglycol monophenyleth	30-45%	122-99-6	(9)–1277
Benzyl alchol	10-20%	100-51-6	(3)–1011
Additives	1-5%	Nondisclosure	Nondisclosure(registered)

4. First-aid measures

After inhalation:

Call a doctor/physician if you feel unwell.

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

After skin contact:

Wash with soap and water

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

Call a doctor/physician if you feel unwell.

After eye contact:

Immediately call a doctor/physician. Rinse continuously with water for several minutes.

Remove contact lenses if present and easy to do . Continue rinsing

After ingestion:

Rinse mouth. Call a doctor/physician if you feel unwell

Protection of the person who takes first aid

Nothing in particular.

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

May produce toxic fumes if burning.

Specific fire fighting procedures

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

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)

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 throughly after handling.

Use only outdoors or in awell-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

Exposure little values					
	Permissible c	Administrative levels			
	The Japan Society for Occupational Health	\(\alpha(\cdot)(\cdot) \(\alpha(\cdot) \cdot) \(\alpha(\cdot)	Ministry of Health, Labour and Welfare(JAPAN)		
Ethylenglycol monophenylether	Not established	Not established	Not established		
Benzyl alchol	Not established	Not established	Not established		

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.

Eve 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

Appearance Coloring liquid
Odour Peculiar odour
pH No data available
Melting point / Coagulating point No data available

Boiling point Black ink: 100°C

Blue ink : 100° C Red ink : 100° C

Flash point Black ink: 118°C

Blue ink : 121°C Red ink : 123°C

Explosive limit UEL No data available No data available **Explosive limit LEL** Vapour pressure No data available Vapour density No data available Specific gravity No data available Water solubility No data available Partition coefficient n-octanol/water No data available Ignition point No data available **Decomposition point** No data available

10. Stability and reactivity

Chemical stability This product is stable in normal condition.

Materials to AvoidStrong oxidizing agentConditions to avoidHigh temperatureIncompatible materialsStrong oxidizing agentHazardous decomposition productsNothing in particular.

11. Toxicological information

Acute toxicity-OralCategory 4Acute toxicity-DermalNot classifiedAcute toxicity-Inhalation: vapourNot classifiedAcute toxicity-Inhalation: mistNot classifiedSkin corrosion / irritationCategory 2Serious eye damage / eye irritationCategory 1

Respiratory or skin sensitization Classification not possible / Not classified

Germ cell mutagenicity

Carcinogenicity

Not classified

Reproductive toxicity

Not classified

Specific target organ toxicity(Singel exposure)
Specific target organ toxicity(Repeated exposure)

Aspiration hazard

Classification not possible

Not classified

Classification not possible

12. Ecological information

Hazardous to the aquatic environment(acute)

Not classified

Hazardous to the aquatic environment(chronic)

Not classified

DegradabilityNo data is availableBioaccumulative potentialNo data is availableMobility in soilNo 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

IMDG (maritime transport)

UN No.	Not applicable
Class	_
Packing Group	-
Marine Pollutant	_

ICAO/IATA(air transport)

UN No. Not applicable

Class – Packing Group –

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 applied to transport of writing instruments filled with the ink.

15. Regulatory information(Japan)

Follow all regulation in your country.

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