

Safety Data Sheet

Date of issue: 2013-07-02

Revision Date: -

1. Identification of the mixture and of the company

Product name : Ink for JLV 0.7 Black
 Company : ZEBRA CO., LTD.
 2-9 Higashi-gokencho Shinjuku-ku Tokyo JAPAN
 TEL: +81-3-3268-1193
 FAX: +81-3-3268-1197
 Emergency telephone : +81-3-3268-1193
 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 | Not classified |
| Pyrophoric liquids | Not classified |
| Self-heating mixtures | Not classified |
| Corrosive to metals | Not classified |

Health hazards

| | |
|--|--|
| Acute toxicity-Oral | Not classified |
| Acute toxicity-Dermal | Not classified |
| Acute toxicity-Inhalation: vapour | Classification not possible |
| Acute toxicity-Inhalation: mist | Classification not possible |
| Skin corrosion / irritation | Not classified |
| Serious eye damage / eye irritation | Category 2 |
| 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 (Single exposure) | Category 1 (respiratory organs, nerve center, heart, kidney) |
| Specific target organ toxicity (Repeated exposure) | Category 1 (respiratory organs, nerve center, heart) |
| Aspiration hazard | Not classified |

Environmental hazards

| | |
|--|----------------|
| Hazardous to the aquatic environment (acute) | Not classified |
| Hazardous to the aquatic environment (chronic) | Not classified |

GHS label elements

Pictograms or Symbol

Exclamation mark Health Hazard



Signal Word

Danger

Hazard statement

- Causes serious eye irritation
- Causes damage to organs (respiratory organs, nerve center, heart, kidney)
- Causes damage to organs (respiratory organs, nerve center, heart) through prolonged or repeated exposure

Precautionary Statements**Prevention**

- Read label and Material Safety Data Sheet before use.
- Do not breathe dust/vapours
- 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

- IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do . Continue rinsing
- IF exposed: Call a POISON CENTER or doctor/physician
- Get Medical advice/attention if you feel unwell

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**

| Component | Amount | CAS No. | Reference Number in Gazetted List in Japan (Japanese Chemical Substances Control Act) |
|-----------------|--------|---------------|--|
| Dyes | 5-10% | Nondisclosure | Nondisclosure(registered) |
| Resins | 1-5% | Nondisclosure | Nondisclosure(registered) |
| Water | 75-80% | 7732-18-5 | — |
| Ethylene glycol | 10-15% | 107-21-1 | (2)-230 |
| Additives | 1-5% | Nondisclosure | Nondisclosure(registered) |
| Triethanolamine | 0-1% | 102-71-6 | (2)-308 |

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:

- Call a doctor/physician if you feel unwell.
- If skin irritation 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:

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

This product is not combustible. But evaporated residue is combustible.

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.

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**

| Chemical name | Permissible concentration | | Administrative levels |
|-----------------|---|---|---|
| | The Japan Society for Occupational Health | ACGIH TLV-TWA | Ministry of Health, Labour and Welfare(JAPAN) |
| Ethylene glycol | Not established | 100mg/m ³ (aerosol, TLV-C(STEL), 2009) | Not established |
| Triethanolamine | Not established | 5mg/m ³ (TWA, 2009) | 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**

If necessary use suitable respiratory protection.

Hand protection

Use suitable protective gloves.

Eye protection

Use suitable eye protection.

Skin/body protection

If necessary 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 | Black Liquid |
| Odour | Peculiar odour |
| pH | No data available |
| Melting point / Coagulating point | No data available |

| | |
|--|-------------------------------|
| Boiling point | No data available |
| Flash point | No data available |
| Explosive limit UEL | No data available |
| Explosive limit LEL | No data available |
| Vapour pressure | No data available |
| Vapour density | No data available |
| Specific gravity | No data available |
| Water solubility | This ink is soluble in water. |
| 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 Avoid | No data available |
| Conditions to avoid | No data available |
| Incompatible materials | No data available |
| Hazardous decomposition products | No data available |

11. Toxicological information

| | |
|--|--|
| Acute toxicity-Oral | Not classified |
| Acute toxicity-Dermal | Not classified |
| Acute toxicity-Inhalation: vapour | Classification not possible |
| Acute toxicity-Inhalation: mist | Classification not possible |
| Skin corrosion / irritation | Not classified |
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| Carcinogenicity | Not classified |
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| Specific target organ toxicity(Repeated exposure) | Category 1 (respiratory organs, nerve center, heart) |
| Aspiration hazard | Not classified |

12. Ecological information

| | |
|--|----------------------|
| Hazardous to the aquatic environment(acute) | Not classified |
| Hazardous to the aquatic environment(chronic) | Not classified |
| Degradability | No data is available |
| Bioaccumulative potential | No data is available |
| Mobility in soil | 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

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)

Industrial Safety and Health Act

Article 57-2 paragraph (1) "notifiable substances"

Applicable

Triethanolamine

Ethylene glycol

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

dangerous substances ·inflammable substances

Not applicable

Poisonous and Deleterious Substances Control Law

Article 2 Appended Table 1 and 2

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

Not applicable

Fire Service Law

Article 2 paragraph (7) hazardous material Appended Table 1

Not applicable

Ship Safety Act

Regulations for the carriage and storage of dangerous goods in ship Article 2, 3

dangerous goods public notice Appended Table 1

Not applicable

Civil Aviation Law

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

Not applicable

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