Safety Data Sheet

Date of issue:2014-09-19 Revision Date:-

1. Identification of the mixture and of the company

| Product name | : Ink for J-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 / Category 1 |
| Germ cell mutagenicity | Not classified |
| Carcinogenicity | Category 2 |
| Reproductive toxicity | Category 1B |
| Specific target organ toxicity (Singel exposure) | Category 1 (respiratory organs, nerve center, heart, kindney) |
| Specific target organ toxicity(Repeated exposure) | Category 1 (respiratory organs, nerve center, heart) |
| Aspiration hazard | Classification not possible |

GHS label elements

Pictograms or Symbol

Exclamation mark



Health Hazard



Hazard statement

- •May cause an allergic skin reaction
- •Causes serious eye irritation
- Suspected of causing cancer
- •May damage fertility or the unborn child
- Causes damage to organs (respiratory organs, nerve center, heart, kindney)
- Causes damage to organs through prolonged or repeated exposure (respiratory organs, nerve center, heart)

Precautionary Statements

Prevention

- •Read label and Material Safety Data Sheet before use.
- •Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- •Do not breathe dust/vapours
- Contaminated work clothing should not be allowed out of the workplace
- •Wear protective gloves/protective clothing/eye protection/face protection
- ·Use personal protective equipment as required
- •Wear protective gloves/eye protection.
- •Wash hand throughly after handling
- •Avoid release to the environment

Response

·IF exposed or concerned: Get medical advice/attention

- IF IN EYES: Rinse continuously with water for several minutes.
- Remove contact lenses if present and easy to do . Continue rinsing
- $\mbox{{\ \ }If}$ eye irritation persists : Get medical advice/attention
- •IF ON SKIN: Wash with soap and water
- If skin irritation or a rash occurs: Get medical advice/attention
- ·Wash contaminated clothing 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) |
| Pigments | 1-5% | Nondisclosure | Nondisclosure(registered) |
| Resins | 0-5% | Nondisclosure | Nondisclosure(registered) |
| Water | 50-55% | 7732-18-5 | - |
| Glycerol | 25-35% | 56-81-5 | (2)-242 |
| Additives | 10-15% | 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 or a rash occurs: Get medical advice/attention Wash contaminated clothing before reuse 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

Wash hand throughly after handling.

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 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

| | Permissible concentration | | Administrative levels |
|---------------|--|---------------------------|--|
| Chemical name | The Japan Society for Occupational Health | | Ministry of Health, Labour and Welfare(JAPAN) |
| Glycerol | Not established | 10mg/m3 (mist, TWA, 2009) | Not established |

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 |
| рH | 7.8-8.8 |
| 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 stabilityThis product is stable in normal condition.Materials to AvoidNothing in particular.Conditions to avoidNothing in particular.Incompatible materialsNothing in particular.Hazardous decomposition productsNothing in particular.

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 |
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| | Category 1 (respiratory organs, nerve center, heart) |
| Specific target organ toxicity(Repeated exposure) Aspiration hazard | Classification not possible |

12. Ecological information

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

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