Ink for JLV 0.7 Forest 2013-07-02

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 Forest

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

Pyrophoric liquids

Self-heating mixtures

Corrosive to metals

Not classified

Not classified

Not classified

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 Not classified

Germ cell mutagenicity

Carcinogenicity

Reproductive toxicity

Specific target organ toxicity (Singel exposure)

Aspiration hazard

Not classified

Not classified

Not classified

Not classified

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

No pictogram

Signal Word

No signal word

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Hazard statement

No hazard statement

Precautionary Statements

Prevention

- •Read label and Material Safety Data Sheet before use.
- •Wear protective gloves/eye protection.
- ·Wash hand throughly after handling
- Avoid release to the environment

Response

Nothing in particular

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	1-5%	Nondisclosure	Nondisclosure(registered)
Resins	1-5%	Nondisclosure	Nondisclosure(registered)
Water	75-80%	7732-18-5	_
Propylene glycol	10-15%	57-55-6	(2)–234
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)

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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.

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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 c	Administrative levels	
Chemical name	The Japan Society for Occupational Health	\(\alpha(\cdot)(\cdot) \(\alpha(\cdot) \cdot) \(\alpha(\cdot)	Ministry of Health, Labour and Welfare(JAPAN)
Triethanolamine	Not established	5mg/m3 (TWA, 2009)	Not established
Propylene glycol	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

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 Green black Liquid Peculiar odour Odour Ha No data available Melting point / Coagulating point No data available **Boiling point** No data available No data available Flash point **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 This ink is soluble in water.

Partition coefficient n-octanol/water No data available No data available Ignition point Decomposition point No data available

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10. Stability and reactivity

Chemical stability This product is stable in normal condition.

Materials to AvoidNo data availableConditions to avoidNo data availableIncompatible materialsNo data availableHazardous decomposition productsNo data available

11. Toxicological information

Acute toxicity-Oral Not classified
Acute toxicity-Dermal Not classified

Acute toxicity-Inhalation: vapourClassification not possibleAcute toxicity-Inhalation: mistClassification not possible

Skin corrosion / irritationNot classifiedSerious eye damage / eye irritationNot classified

Respiratory or skin sensitization Classification not possible / Not classified

Germ cell mutagenicity

Carcinogenicity

Reproductive toxicity

Specific target organ toxicity(Singel exposure)

Aspiration hazard

Not classified

Not classified

Not classified

Not classified

Not classified

Not classified

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)

INDG (mantime transport)	
UN No.	Not applicable
Class	_
Packing Group	_
Marine Pollutant	_

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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