Safety Data Sheet

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1. Identification of the mixture and of the company

Product name	: Ink for PAINT MARKER Green: MOP-200MZ-G
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	Category 2
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	Category 4
Acute toxicity-Inhalation：mist	Classification not possible
Skin corrosion / irritation	Category 2
Serious eye damage / eye irritation	Category 1
Respiratory or skin sensitization	Not classified／Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (Singel exposure)	Not classified
Specific target organ toxicity(Repeated exposure)	Category 2 (hearing organs)
Aspiration hazard	Classification not possible

Environmental hazards

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

GHS label elements

Pictograms or Symbol

Flame

Health Hazard

Exclamation mark

Corrosion

Signal Word

Danger

Hazard statement

H225 Highly flammable liquid and vapour
H332 Harmful if inhaled
H315 Causes skin irritation
H318 Causes serious eye damage
H373 May cause damage to hearing organs through prolonged or repeated exposure

Precautionary Statements

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces - No smoking
P233 Keep container tightly closed
P240 Ground/bond container and receiving equipment
P241 Use explosion-proof electrical/ventilating/light/equipment
P242 Use only non-sparking tools
P243 Take precautionary measures against static discharge
P260 Do not breathe dust/fume/gas/mist/vapours/spray
P261 Avoid breathing dust/fume/gas/mist/vapours/spray
P264 Wash hand throughly after handling
P271 Use only outdoors or in a well-ventilated area
P280 Wear protective gloves/protective clothing/eye protection/face protection

Response

P302+P352 IF ON SKIN: Wash with soap and water
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do . Continue rinsing
P310 Immediately call a POISON CENTER or doctor/physician
P312 Call a POISON CENTER or doctor/physician if you feel unwell
P314 Get Medical advice/attention if you feel unwell
P332+P313 If skin irritation occurs: Get medical advice/attention
P362 Take off contaminated clothing and wash before reuse
P370+P378 In case of fire: Use Dry chemical,Foam CO2 for extinction

Storage

P403+P235 Store in a well ventilated place. Keep cool

Disposal

P501 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)	
Xylene	10-25%	1330-20-7	215-535-7	H226	Flam. Liq. 3
				H332	Acute Tox. 4 *
				H312	Acute Tox. 4 *
				H315	Skin Irrit. 2
Ethylbenzene	10-25%	100-41-4	202-849-4	H225	Flam. Liq. 2
				H304	Asp. Tox. 1

				H332	Acute Tox. 4 *
				H373 (hearing organs)	STOT RE 2
Methyl isobutyl ketone	5-10%	108-10-1	203-550-1	H225	Flam. Liq. 2
				H332	Acute Tox. 4 *
				H319	Eye Irrit. 2
				H335	STOT SE 3
2-Butoxyethanol	1-5%	111-76-2	203-905-0	H332	Acute Tox. 4 *
				H312	Acute Tox. 4 *
				H302	Acute Tox. 4 *
				H319	Eye Irrit. 2
				H315	Skin Irrit. 2
n-Butanol	5-10%	71-36-3	200-751-6	H226	Flam. Liq. 3
				H302	Acute Tox. 4 *
				H335	STOT SE 3
				H315	Skin Irrit. 2
				H318	Eye Dam. 1
				H336	STOT SE 3
Methanol	0-1%	67-56-1	200-659-6	H225	Flam. Liq. 2
				H331	Acute Tox. 3 *
				H311	Acute Tox. 3 *
				H301	Acute Tox. 3 *
				H370 **	STOT SE 1
Pigments＆Dyes	25-30%	Nondisclosure	Nondisclosure	All not required	
Resins	20-25%	Nondisclosure	Nondisclosure	All not required	
Additives	0-1%	Nondisclosure	Nondisclosure	All not required	

* See (EC)No 1272/2008 Annex Ⅵ Section 1.2.1.
** See (EC)No 1272/2008 Annex Ⅵ Section 1.2.2.

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 POISON CENTER or doctor/physician
Rinse continuously with water for several minutes.
Remove contact lenses if present and easy to do . Continue rinsing

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

Highly flammable. Will be easily ignited by heat, sparks or flames

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 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

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8. Exposure control/ personal protection

Exposure limit values

Chemical name	EU-OEL(2006/15/EC)	The Japan Society for Occupational Health	ACGIH TLV-TWA
Xylene	50ppm	50ppm	100ppm
Ethylbenzene	100ppm	50ppm	100ppm
Methyl isobutyl ketone	20ppm	50ppm	20ppm
2-Butoxyethanol	20ppm	Not established	20ppm
n-Butanol	Not established	Max 50ppm	100ppm
Methanol	200ppm	200ppm	200ppm
Titanium oxide	Not established	0.3mg/m3	10mg/m3

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

Appearance	Green Liquid
Odour	Peculiar odour
pH	No data available
Melting point / Coagulating point	No data available
Boiling point	120℃
Flash point	22.5℃
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	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 Avoid	Strong oxidizing agent
Conditions to avoid	High temperature
Incompatible materials	Strong oxidizing agent
Hazardous decomposition products	Nothing in particular.

11. Toxicological information

Acute toxicity-Oral	Not classified
Acute toxicity-Dermal	Not classified
Acute toxicity-Inhalation:vapour	Category 4
Acute toxicity-Inhalation:mist	Classification not possible
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Aspiration hazard	Classification not possible

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.	1993
Class	3
Packing Group	Ⅱ
Marine Pollutant	No

ICAO/IATA(air transport)

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 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