

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) and (EC) No.1272/2008 (CLP)

Version CLP-1.3

Date of issue :2009-11-18

Revision Date:2017-04-14

1. Identification of the mixture and of the company

1.1- Product identifier

Product name Ink for PAINT MARKER Black: MOP-200MZ-BK

1.2 - Relevant identified uses of the substance or mixture and uses advised against

- Use of the substance/mixture : Ink for writing implement
- Recommended restrictions on use : No information available
- Uses Advised Against : No information available

1.3 - Details of the supplier of the SDS

•Impoter : ZEBRA PEN UK LT German Branch:
Habichtweg 1; 41468 Neuss; Germany

TEL : +49-2131-178-2900

FAX : +49-2131-178-2901

•Manufacture : ZEBRA CO., LTD.
2-9 Higashi-gokencho Shinjuku-ku Tokyo JAPAN

TEL : +81-3-3268-1193

FAX : +81-3-3268-1197

1.4 - Emergency telephone number

- Impoter : +49-2131-178-2900
- Manufacture : +81-3-3268-1193

This phone number is available only during office hours: 9 a.m. to half past 5 p.m.
(Japan time)

2. Hazards identification

2.1 Classification of the substance or mixture

According to (EC) No.1272/2008 (CLP)

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 (Single exposure)	Not classified
Specific target organ toxicity(Repeated exposure)	Category 2 (hearing organs)
Aspiration hazard	Category 1

Environmental hazards

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

2.2 Label elements

According to (EC) No.1272/2008 (CLP)

Pictograms or Symbol**Signal Word**

Danger

Hazard statement

- H225 Highly flammable liquid and vapour
 H304 May be fatal if swallowed and enters airways
 H315 Causes skin irritation
 H318 Causes serious eye damage
 H332 Harmful if inhaled
 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 thoroughly after handling
 P271 Use only outdoors or in a well-ventilated area
 P280 Wear protective gloves/protective clothing/eye protection/face protection

Response

- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 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
 P331 Do NOT induce vomiting
 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
 P405 Store locked up

Disposal

- P501 Dispose of contents/container to in accordance with local government regulation.

Supplemental information

- EUH 208 Contains Methyl methacrylate. May produce an allergic reaction.

2.3 Other hazards

The ink does not have data whether a substance meeting the criteria for PBT or vPvB in accordance with EC 1907/2006 Annex III.

3. Composition/information on ingredients

3.1 Substance : Not applicable

3.2 Mixture**Component and Amount**

Component	Amount	CAS No.	EC No.	Reach No.	Hazard Statement and Class	
Xylene	15-25%	1330-20-7	215-535-7	— **	H226 H332	Flam. Liq. 3 Acute Tox. 4 *

					H312	Acute Tox. 4 *
					H315	Skin Irrit. 2
Ethylbenzene	15-25%	100-41-4	202-849-4	— **	H225	Flam. Liq. 2
					H304	Asp. Tox. 1
					H332	Acute Tox. 4 *
					H373	STOT RE 2
					(hearing organs)	
Methyl isobutyl ketone	10-15%	108-10-1	203-550-1	— **	H225	Flam. Liq. 2
					H332	Acute Tox. 4 *
					H319	Eye Irrit. 2
					H335	STOT SE 3
2-Butoxyethanol	5-10%	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
Methyl methacrylate	0.29%	80-62-6	201-297-1	— **	H225	Flam. Liq. 2
					H335	STOT SE 3
					H315	Skin Irrit. 2
					H317	Skin Sens.1
Styrene	0.27%	100-42-5	202-851-5	— **	H226	Flam. Liq. 3
					H361d	Repr.2
					H332	Acute Tox. 4 *
					H372	STOT RE 1
					(hearing organs)	
					H315	Skin Irrit. 2
					H319	Eye Irrit. 2
Dyes	5-10%	Nondisclosure	Nondisclosure	— **	All not required	
Resins	20-25%	Nondisclosure	Nondisclosure	— **	All not required	
Additives	1-5%	Nondisclosure	Nondisclosure	— **	All not required	

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

** Exempt from REACH Registry.

4. First-aid measures

4.1 Description of 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.

4.2 Most important symptoms and effects, both acute and delayed

No significant reaction of the human body to this product known.

4.3 Indication of any immediate medical attention and special treatment needed

There is no specific and immediate treatment, but should consult a doctor.

5. Fire-fighting measures

5.1 Suitable Extinguishing media

Carbon dioxide, dry chemical powder, water fog, foam

5.2 Special hazards arising from the substance or mixture

toxic gases will form upon combustion ; CO, CO₂, NO_x

Prohibition extinguishing media for safety reason

Water spray (straight)

5.3 Advice for firefighters

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

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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.

6.2 Environmental precautions

Keep away from drains, and prevent from releasing to the environment.

6.3 Methods and materials for containment and cleaning up

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)

6.4 Reference to other sections

Refer to section 8 and 13.

7. Handling and storage

7.1 Precautions for safe 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.

7.2 Conditions for safe storage, including incompatibilities**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

7.3 Specific end uses

Not applicable

8. Exposure control/ personal protection**8.1 .1 Control parameters****Exposure limit values**

Chemical name	EU-OEL (2006/15/EC, 2009/161/EU)		Germany TRGS900	UK. EH40 Workplace Exposure Limits (WELS)	
	Eight hours	Short-term		Long-term exposure limit	Short-term exposure limit
Xylene	50 ppm 221 mg/m ³	100 ppm 442 mg/m ³	100 ml/m ³ (ppm) 440 mg/m ³	50 ppm 220 mg/m ³	100 ppm 441 mg/m ³
Ethylbenzene	100 ppm 442 mg/m ³	200 ppm 884 mg/m ³	20 ml/m ³ (ppm) 88 mg/m ³	100 ppm 441 mg/m ³	125 ppm 552 mg/m ³
Methyl isobutyl ketone	20 ppm 83 mg/m ³	50 ppm 208 mg/m ³	20 ml/m ³ (ppm) 83 mg/m ³	50 ppm 208 mg/m ³	100 ppm 416 mg/m ³
2-Butoxyethanol	20 ppm 98 mg/m ³	50 ppm 246 mg/m ³	10 ml/m ³ (ppm) 49 mg/m ³	25 ppm 123 mg/m ³	50 ppm 246 mg/m ³
n-Butanol	–	–	100 ml/m ³ (ppm) 310 mg/m ³	–	50 ppm 154 mg/m ³
Methyl methacrylate	–	–	50 ml/m ³ (ppm) 210 mg/m ³	50 ppm 208 mg/m ³	100 ppm 416 mg/m ³
Styrene	–	–	20 ml/m ³ (ppm) 86 mg/m ³	100 ppm 430 mg/m ³	250 ppm 1080 mg/m ³

8.2 Exposure controls**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**9.1 Information on basic physical and chemical properties**

Appearance	Black Liquid
Odour	Peculiar odour
Odour threshold	No data available
pH	No data available
Evaporation rate	No data available
Flammability	No data available
Melting point / Coagulating point	No data available
Boiling point	120°C
Flash point	22.5°C
Explosive limit UEL	No data available
Explosive limit LEL	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	0.9092(40°C)
Water solubility	No data available
Partition coefficient n-octanol/water	No data available
Ignition point	No data available
Decomposition point	No data available
Viscosity	9.1 mPa·s(40°C)
Explosive properties	No data available
Oxidising properties	No data available

9.2 Other information

No data available

10. Stability and reactivity

10.1 Reactivity	No hazardous reactions if stored and handled as prescribed.
10.2 Chemical stability	This product is stable in normal condition.
10.3 Possibility of hazardous reaction	No hazardous reactions known
10.4 Conditions to avoid	Strong oxidizing agent, High temperature
10.5 Incompatible materials	Strong oxidizing agent
10.6 Hazardous decomposition products	Nothing in particular.

11. Toxicological information**11.1 Information on toxicological effects****• Specific Component information**

Acute toxicity	Oral	:	LD ₅₀	2-Butoxyethanol, n-Butanol is Category 4
	Dermal	:	LD ₅₀	Xylene, 2-Butoxyethanol is Category 4
	Inhalation	:	LD ₅₀	Xylene, Ethylbenzene, Methyl isobutyl ketone, 2-Butoxyethanol is Category 4
Skin irritation				Xylene, 2-Butoxyethanol, n-Butanol is Category 2.
Eye irritation				n-Butanol is Category 1.
Sensitization				Methyl methacrylate is Skin Sensitization Category 1.
Mutagenicity				No information is available.
Chromosome aberration				No information is available.
Carcinogenicity				No information is available.
Reproductive toxicity				Styrene is Category 2.
Sub-Acute toxicity				May cause damage to hearing organs.(Ethyl benzene)
Aspiration hazard				Ethyl benzene is Category 1.

12. Ecological information**12.1 Toxicity**

Fish toxicity :	No information is available.
Acute toxicity to daphnia-magna :	No information is available.
Daphnia-magna Reproduction :	No information is available.
Algal inhibition :	No information is available.
Inhibitory effect assessment of activated sewage sludge :	No information is available.
12.2 Persistence and degradability :	No information is available.
12.3 Bioaccumulative potential :	No information is available.
12.4 Mobility of soil :	No information is available.

12.5 Results of PBT and vPvB assessment :

No information is available.

12.6 Other adverse effect :

No information is available.

13. Disposal considerations**13.1 Waste treatment methods****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.

European Waste(Eural code)

Ink:080312 – waste ink containing dangerous substances

14. Transport information**14.1 Un number****14.2 UN proper shipping name****14.3 Transport hazard class(es)****14.4 Packaging group****International regulation****IMDG (Maritime transport)**

UN No.	1993
Class	3
Packing Group	II
Marine Pollutant	No
Shipping name	Flammable Liquid n.o.s (Mixture of xylene, ethelbenzen and others.)

ICAO/IATA (Air transport)

UN No.	1993
Class	3
Packing Group	II
Shipping name	Flammable Liquid n.o.s (Mixture of xylene, ethelbenzen and others.)

ADR/RID (Land transport)

UN No.	1993
Class	3
Packing Group	II
Shipping name	Flammable Liquid n.o.s (Mixture of xylene, ethelbenzen and others.)

14.5 Environmental hazards

Not classified

14.6 Special precautions for user

Not applicable.

14.7 Transport in bulk according to Annex II of Marpol and the IBC code

Not applicable.

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.

Follow all regulation in your country.

15. Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This ink is not deplete the ozone layer, Seveso category.

15.2 Chemical safety assessment

Chemical safety assessment has not benn carried out.

15.3 Futher information

Water Endangering Substances Regulation in Germany: WGK2: Water Endangering

16. Other information**16.1 Full text of H-Statements referred to under Sections 2 and 3**

H225 Highly flammable liquid and vapour
H226 Flammable liquid and vapour
H302 Harmful if swallowed
H304 May be fatal if swallowed and enters airways
H312 Harmful in contact with skin
H315 Causes skin irritation
H318 Causes serious eye damage
H319 Causes serious eye irritation
H332 Harmful if inhaled
H335 May cause respiratory irritation
H336 May cause drowsiness or dizziness
H373 May cause damage to hearing organs through prolonged or repeated exposure
EUH 208 Contains Methyl methacrylate. May produce an allergic reaction.

16.2 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.

Revision

2009/11/18	First version
2017/2/24	Added CLP classification.
2017/3/15	Ver 1.1, Recertification : 1.2, 3.1, 3.2, 7.1, 8.1.1, 9.1, 11.1
2017/4/3	Ver 1.2, Recertification : 1.3, 2.2, 9.1, 11.1, 16.1
2017/4/14	Ver 1.3, Recertification : 2.2