

MATERIAL SAFETY DATA SHEET

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COMMERCIAL PRODUCT NAME : WB-INK Various Colors DATE PREPARED : September 15, 2009
EnduraGlide Markers

DATE OF REVISION : September 15, 2009
PRODUCER/SUPPLIER: : ASAI BUSSAN CO., LTD.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING

1.1 IDENTIFICATION OF THE SUBSTANCE OR PREPARATION: WB-INK Various Colors

1.2 COMPANY/UNDERTAKING IDENTIFICATION: ASAI BUSSAN CO., LTD.
6-22-3, FUKAEMINAMI, HIGASHINARI-KU, OSAKA,
JAPAN.
TEL: (06)6976-2531

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERIZATION

: CHEMICAL MIXTURE

INGREDIENT	CONTENT%	CAS NO.
Pigment	2.5-3.5	N/D
Polyvinyl Butyral	2.5-3.5	63148-65-2
Remover	4.5-7.5	N/D
Anti drying agent	0.5-1.5	N/D
Ethanol	70.0-80.0	64-17-5
2-propanol	10.0-15.0	67-63-0

UN CLASS 3.2 (Flammable liquid)

UN NO.1987

3. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Red liquid	Odor	: Solvent odor
Boiling point	: 78 [□]	Spec. gravity	: 0.81±0.02
Volatile matter	: 80 ~ 85%	Viscosity	: 7.0±1.5 mPa·s/25 [□]
Melting point	: N/A	Vapor density	: 1.59
Solvility to water	: Mixed	Vapor pressure	: N/A

4. HAZARDOUS IDENTIFICATION

DANGEROUS CODE NAME

: Flammable liquid. Explosion may occur when mixed with air.

DANGEROUSNESS

: Irritating to eye, nose and skin. It is harmful in case of inhalation and ingestion.

EFFECT TO ENVIRONMENT

: No data, but never evaporate to the open air.

5. FIRST-AID MEASURES

EYE CONTACT

: Flush eyes with generous amounts of water for at least 15 minutes, and get immediate medical attention.

SKIN CONTACT

: Wash affected area off with water or shower. Get immediate medical attention.

INHALATION

: Move to fresh air. Aid in breathing, if necessary, and get immediate medical attention.

INGESTION

: If swallowed, do not induce vomiting. Dilute with water or salt water and call a physician immediately.

6. FIRE-FIGHTING MEASURES**FIRE PERIPHERICAL**

: Move containers to safety place. If it is unable to move it, cool containers with water spray.

FIRE

: Off the fire with dry chemical foams or water spray.
Firefighters should be equipped with protective apparatus and never do it under the leak.

EXTINGUISHING MEDIA

: Chemical foam, dry powder, CO₂, water, dry sand.

7. ACCIDENTAL RELEASE MEASURES

Shut off all sources of ignition; No flares, smoking or flames in area.

Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container with covers for disposal, using no sparking tools and wash off with a plenty of water. Wear a protective clothes and gloves while working and never do it under the lee. Exercise reasonable care and attention not to drain waste water into the river.

8. HANDLING AND STORAGE**8.1 HANDLING:**

No flares, smoking or flames in area. Avoid spark and contact with strong acid.

Sufficient ventilation should be done in the working zone, should close the container tightly after working.

Avoid to absorb it and contact to eyes and skins, and ware the suitable protectors during working

Avoid to leaking, flooding, scattering and evaporation.

Take precautionary measures against static discharge. Wear an electric conductor type clothe and shoes.

Don't handle the containers roughly.

8.2 STORAGE:

The protective type electrical appliances should be used and appliances should be earthed.

It should be stored in a cool place and be kept in a tightly closed container, protected from physical damage, and away from oxidizing materials and sources of ignition.

8.3 OTHERS

Follow all federal, provincial and local requirements and regulations.

9. EXPOSURE CONTROL AND PERSONAL PROTECTION**9.1 SPECIFIC CONTROL PARAMETERS/LIMIT VALUES:**

	Ethanol	2-propanol
Managed density	-	400ppm
Permissible density by Japan Society for Occupational Health	-	400ppm(980g/m ³)
ACGIH (TLV)	TWA 1000ppm	TWA 400ppm
OSHA (PEL)	air TWA 1000ppm	air TWA 400ppm

9.2 ENGINEERING MEASURES

Close the container tightly in case of using in room or doing sufficient ventilation.

Install the safety shower, hand washing apparatus and eyes washable apparatus near to working area.

9.3 PERSONAL PROTECTIVE EQUIPMENT**RESPIRATORY PROTECTION**

: NIOSH/MSHA-Approved organic vapor respirator.

EYE PROTECTION

: Chemical goggles.

HAND, SKIN AND BODY PROTECTION

: Gloves, Coveralls, apron, Boots

10. SAFETY PARAMETERS

Flash point of product: 12[□] C

CHANGING IN PHYSICAL STATE

HAZARDOUS DATA OF SOLVENT

	ETHANOL	2-propanol
Flash point	19 [□] C (closed)	12 [□] C (closed)
Ignition point	371 ~ 427 [□] C	399 [□] C
Explosion limit		
	: Upper	19.0
	: Lower	3.3
		11.8
		2.0

Note) Explosion limit: volume%

STABILITY AND REACTIVITY

Stable under room temperature.

React to strong acid and may occur fire and explosion.

11. TOXICOLOGICAL INFORMATION

	ETHANOL	2-propanol
ACUTE TOXICITY		
ORAL-Rat LD50	7060mg/kg	5040mg/kg
STIMULUS EFFECTS		
EYE-Rabbit	500mg Heavy	10mg Middle
SKIN-Rabbit	400mg Middle	500mg Slight
TERATOGENICITY	N/A	N/A
CARCINOGENIC	N/A	N/A

CHRONIC TOXICITY

Repetition or contact on the prolonged skin may start dermatitis.

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY	: N/A
FISH TOXICITY	: N/A
ACCUMULATION NATURE	: Ethanol ; Octanol/Water distribution coefficient log Pow: 0.32 : 2-propanol ; N/A

13. DISPOSAL CONSIDERATIONS

Treatment should be done in accordance with the method noted on Chapter 7.

When discarding, in accordance with an industrial-waste-treatment standard, it destroys by fire. In outsourcing, it specifies that it is waste oil (flammable), and it commissions it to the industrial waste treatment company who obtained permission of authorities.

14. TRANSPORT INFORMATION

14.1 On the occasion of transportation, it confirms that there is no leak in a container and package, it loads that there may not be a fall, drop, and damage, and collapse-of-cargo-piles prevention is ensured.

14.2 In addition, the place set to statutes, such as labor security and hygiene law and Fire Service Law, is followed.

Note:

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N/A= Not applicable

N/D=Not description