## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Artline ECO-GREEN PERMANENT MARKER EK-177,199 (Black)(Blue)(Red)(Green)
	Artline ECO-GREEN PERMANENT MARKER INK ESK-ND (Black)(Blue)(Red)(Green)
General Use	Permanent marker
MSDS Number	EA3008A-4901

#### MANUFACTURER

Shachihata Inc.
4-69, Amazuka-cho, Nishi-ku, Nagoya City, 451-0021, Japan
++ 81 52 521 3600
++ 81 52 521 3899

Mixture

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture

Hazardous Ingredients

Chemical or	wt.%		CAS(TSCA)	EINECS
Common Name(s)	Blue ,Green	Black,Red	Number	Number
1-Propanol	80 ~ 90	70 ~ 80	71-23-8	200-746-9
Benzenemethanol	-	1~10	100-51-6	202-859-9

EU symbol(s) and risk phrase(s) is specified in 15. REGULATORY INFORMATION.

## 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW Flammable liquid with a solvent odor. May cause allergic skin reaction.

POTENTIAL HEALTH EFFECT No data available

POTENTIAL ENVIRONMENTAL EFFECTS No data available



## 4. FIRST AID MEASURES

INHALATION Move to well ventilated place. See medical advice immediately.

- EYE Immediately flush with plenty of water. See medical advice immediately.
- SKIN Wipe off with dry cloth and wash with mild soap. See medical advice immediately.

INGESTION See medical advice immediately.

PROTECTION TO FIRST – AIDERS No data available

NOTE TO PHYSICIAN Treatment may vary with condition of victim and specifics of incident.

## 5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES Highly Flammable

- EXTINGUISHING MEDIA Dry chemical powder, foam or carbon dioxide.
- FIRE FIGHTING INSTRUCTIONS Wear full fire-fighting turn-out gear and respiratory protection.
- 6. ACCIDENTAL RELEASE MEASURES
  - LAND SPILL Wipe off with dry cloth.
  - WATER SPILL Contain spilled liquid with sand or earth. Do not use combustible materials, such as sawdust.
- 7. HANDLING AND STORAGE
  - HANDLING : Use only in the well-ventilated areas. Avoid contact with skin or eyes, or clothing. Avoid inhalation and ingestion. Avoid high temp. and fire. Wash throughly after handling.



EK-177 EA3008A-4901, 3/5

# MATERIAL SAFETY DATA SHEET

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

OSHA PEL (1994) [1-Propanol] ACGIH TLV (2003) [1-Propanol] EN LIMIT (2000/39/EN) Not established

TWA 200 ppm ( 500mg/m<sup>3</sup>)

TWA 200 ppm

EXPOSURE CONTROLS

Occupational Exposure Controls Engineering Controls Use exhaust ventilation to keep airborne concentration below exposure limits.

Personal Protection Respiratory Protection Use with local exhaust ventilation, when in long use.

Hand Protection

Not required, but wear safety gloves, if necessary.

Eye Protection

Not required, but wear safety glasses, if necessary.

Skin Protection

To prevent any contact, wear impervious clothing such as gloves, apron, as appropriate.

Environmental Exposure Controls Not established

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Physical state Odor Boiling Point / Boiling Range Flash Point Explosive Properties Relative Density (g/cm<sup>3</sup>) Solubility [ Water ]

Liquid minor solvent odor No data available 25 No data available 0.9 ~ 1.0 g/cm<sup>3</sup> Insoluble



No data available

## 10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID No data available
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STABILITY

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MATERIALS TO AVOID No data available

HAZARDOUS REACTIONS / DECOMPOSITION PRODUCTS No data available

## 11. TOXICOLOGICAL INFORMATION

Acute Toxicity (RTECS: 2004-11)

[1-Propanol]		
Oral	$LD_{50}$ (rat)	1,870 mg/kg
Inhalation	$LC_{50}$ (rat)	4,000 ppm/4H
Skin	LD <sub>50</sub> (rabbit)	5,040 mg/kg
[Benzenemethanol]		
Oral	LD <sub>50</sub> (rat)	1,230 mg/kg
Inhalation	$LC_{50}$ (rat)	> 500 mg/m <sup>3</sup>
Skin	LD <sub>50</sub> (rabbit)	2,000 mg/kg

## 12. ECOLOGICAL INFORMATION

ECOTOXICITY	No data available
BIOACCUMULATIVE POTENTIAL	No data available
OTHER ADVERSE EFFECTS	No data available

## 13, DISPOSAL CONSIDERATIONS

Comply with all federal,state,EU,national and local regulations. Do not dump this product into sewers , on the ground or into any body of water.

## 14. TRANSPORT INFORMATION

UN CLASS UN Packing Group (PG) UN NUMBER Proper Shipping Name

3 1210 Printing ink, flammable

# OFFICEW CRLD

## 15. REGULATORY INFORMATION

Refer to any other federal, state, EU, national and local regulations. **OSHA STATUS :** This product is hazardous under 29 CFR 1910.1200. **TSCA STATUS :** All components on TSCA INVENTORY. CERCLA REPORTABLE QUANTITY (40 CFR 117,302) : Not applicable SARA TITLE : Not applicable This product is classified as follows, [F,Xi] S: (2-)7-16-24-26-39 [1-Propanol] : R:11-41-67 [Benzenemethanol] : [Xn] R:20/22 S: (2-)26 F Symbol: (Highly Flammable) Xi (Irritant) Xn (Harmful) **Risk Phrase :** 11 (Highly flammable) 20/22 (Harmful by inhalation and if swallowed) 41 (Risk of serious damage to eyes) 67 (Vapours may cause drowsiness and dizziness.) 2 Safety Advice : (Keep out of the reach of children.) 7 (Keep container tightly closed.) 16 (Keep away from sources of ignition - No smoking.) 24 (Avoid contact with skin.) 26 (In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.)

(Wear eye/face protection.)

Please refer to any other EU, national and local measures.

39

## 16. OTHER INFORMATION

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