EK250,725, EA3004A-0101, 1/5

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Artline PERMANENT MARKE	R
	EK-725 ,EK-250	(All colors)
General Use	Permanent marker	
MSDS Number	EA3004A-0101	
MANUFACTURER		
Company Name	Shachihata Co.,Ltd.	
Address	4-69,Amatuka-chou,Nishi-ku,N	Nagoya-shi,Aichi-ken,Japan
Telephon Number	++ 81 52 521 3600	
Fax Number	++ 81 52 521 389	

2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture Mixture

Hazardous Ingredients

Chemical or	wt.%	Bi	rown,Orange	Other	CAS(TSCA)	EINECS
 Common Name(s)		Black	Yellow	colors	Number	Number
Ethanol		30 ~ 40	50~60	50 ~ 60	64-17-5	200-578-6
1-Propanol				1~10	71-23-8	200-746-9
2-Propanol,1-methoxy-		20~30			107-98-2	203-539-1
Propanoic acid,2-hydroxy-,e	thyl ester	20~30	20~30	10~20	97-64-3	202-598-0
Benzenemethanol			1~10	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 HESALTH EFFECT No data available

POTENTIAL ENVIRONMENTAL EFFECTS No data available

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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.
- STORAGE : Store in a cool, dry, well-ventilated location. Keep away from heat, sunlight. Keep away from children.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

OSHA PEL (2002) [Ethanol] TWA 1,000 ppm (1,900mg/m³) [1-Propanol] TWA 200 ppm (500mg/m³) ACGIH TLV (2002) [Ethanol] TWA 1,000 ppm [1-Propanol] TWA 200 ppm [2-Propanol,1-methoxy-] TWA 100 ppm EN LIMIT (2000/39/EN) [2-Propanol,1-methoxy-] 100 ppm (375mg/m³) (skin) eiaht hours 150 ppm (568mg/m³) (skin) Short-term

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 stateLiquidOdorminor solvent odorBoiling Point / Boiling RangeNo data availableFlash Point $16.5 \sim 19$ Explosive PropertiesNo data availableRelative Density (g/cm³) $0.9 \sim 1.0$ g/cm³Solubility [Water]Insoluble

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10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID	No data available
STABILITY	No data available
MATERIALS TO AVOID	No data available

HAZARDOUS REACTIONS / DECOMPOSITION PRODUCTS No data available

11. TOXICOLOGICAL INFORMATION

Acute Toxicity (RTECS: 2002.3)

Oral LD_{50} (rat) 7,060 mg/kg Inhalation LC_{50} (rat) 20,000 ppm/10H [1-Propanol]			
[1-Propanol]			
• • •			
Oral LD ₅₀ (rat) 1,870 mg/kg			
Inhalation LCL ₀ (rat) 4,000 ppm/4H			
[2-Propanol,1-methoxy-]			
Oral LD ₅₀ (rat) 6,600 mg/kg			
Inhalation LC ₅₀ (rat) 10,000 ppm/5H			
[Propanoic acid,2-hydroxy-,ethyl ester]			
Oral LD ₅₀ (rat) 8,200 mg/kg			
[Benzenemethanol]			
Oral LD ₅₀ (rat) 1,230 mg/kg			
Inhalation LC_{50} (rat) > 500 mg/m ³			
Skin LD ₅₀ (rat) 100 pph/90M			

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. <u>Do not dump this product into sewers</u>, on the ground or into any body of water.

14. TRANSPORT INFORMATION

UN CLASS	3
UN Packing Group (PG)	
UN NUMBER	1210
Proper Shipping Name	Printing ink, flammable

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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,

[Ethanol] : [1-Propanol] :	[F] [F,Xi]	R:11 R:11-41-67	S; (2-)7-16 S: (2-)7-16-24-26-39
[2-Propanol,1-methoxy-]		R:10	S: (2-)24
[Propanoic acid,2-hydroxy-,ethyl ester] :			
	[Xi]	R:10-37-41	S: (2-)24-26-39
[Benzenemethanol] :	[Xn]	R:20/22	S: (2-)26

Symbol :	F	(Highly Flammable)
	Xi	(Irritant)
	Xn	(Harmful)
Risk Phrase :	10	(Flammable)
	11	(Highly flammable)
	20/22	(Harmful by inhalation and if swallowed)
	37	(Irritating to respiratory system)
	41	(Risk of serious damage to eyes)
	67	(Vapours may cause drowsiness and dizziness)
Safety Advice :	2	(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.)
	39	(Wear eye/face protection.)

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

16. OTHER INFORMATION

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