PRODUCT : Artline Permanent Marker EK-250, EK-725 (Black)(Blue)(Red)(Green)(Brown)(Orange)(Purple)(Yellow) Issue Date 6 May, 2011 IDENTIFICATION OF THE MATERIAL AND SUPPLIER Artline Permanent Marker EK-250, EK725 Product Name: Other Names : Permanent marker Recommended Use : Permanent marker Supplier name/address/telephone no./Emergency phone number [JAPAN] SUPPLIER NAME : Shachihata Inc. ADDRESS : 4-69, Amazuka-cho, Nishi-ku, Nagoya, 451-0021, Japan TELEPHONE NO.: ++ 81 52 521 3600 FAX NUMBER: ++ 81 52 521 3899 [AUSTRALIA] AGENT : Pelikan Artline Pty Limited ABN 51 084 958 556 ADDRESS : 2 Coronation Avenue, Kings Park, Blacktown Business Centre NSW 2148 **TELEPHONE NO.:** 02-9674-0900 FAX NO.: 02-9674-0910 **EMERGENCY PHONE NUMBER :** 02-9674-0900 or Mobile: 0419-206-163 HAZARDS IDENTIFICATION Classified as Hazardous according to the criteria of Worksafe Australia [Ethanol] : [F] R:11 S; (2-)7-16 [2-Propanol,1-methoxy]: R:10 S: (2-)24 R:11-41-67 S:(2-)7-16-24-26-39 [1-Propanol] : [F,Xi] [Propanoic acid,2-hydroxy-,ethyl ester] : [Xi] R:10-37-41 S:(2-)24-26-39 [Benzenemethanol] : [Xn] R:20/22 S:(2-)26 F Symbol : (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.)

COMPOSITION / INFORMATION ON INGREDIENTS (INK)

<mixture> Chemical or</mixture>	wt.%		Brown		CAS(TSCA)
Common Name(s)		Black	Orange, Yellow	Others	Number
Ethanol		30~40	50~60	50~60	64-17-5
2-Propanol,1-methoxy		20~30	-	-	107-98-2
1-propanol		-	-	1~10	71-23-8
Propanoic acid,2-hydro ethyl ester	ху-,	20~30	20~30	10~20	97-64-3
Benzenemethanol		-	1~10	1~10	100-51-6

FIRST AID MEASURES

SWALLOWED :

Not applicable

EYE CONTACT:

Immediately flush with plenty of water. Seek medical advice immediately.

SKIN CONTACT:

Wipe off with dry cloth and wash with mild soap. Seek medical advice immediately.

INHALATION :

Move to well ventilated place.

Seek medical advice immediately.

FIRST AID FACILITIES :

No Data

FIRE FIGHTING MEASURES

Suitable Extinguishing Media :

water fog CO2, dry chemical or foam

Precaution for fire fighters and special protective equipment :

Vapors are flammable, may form explosive mixtures with air. While in use, keep away from heat, sparks or naked flames. Heating may cause explosion.

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.

HANDLING AND STORAGE

Store in a cool, dry, well-ventilated location. Keep tightly capped.

EXPOSURE CONTROLS / PERSONAL PROTECTION					
EXPOSURE CONTROL P	PARAMETERS :				
OSHA PE	EL (1994)				
	[Ethanol]	TWA	1,000 ppm (1,900mg/m ³)		
	[1-Propanol]	TWA	200 ppm (500mg/m ³)		
ACGIH TI	LV (2003)				
	[Ethanol]	TWA	1,000 ppm		
	[1-Propanol]	TWA	200 ppm(skin)		
	[2-Propanol,1-meth	oxy-] TWA	100 ppm		

[2-Propanol,1-methoxy-]

short-term

eight hours 100ppm (375mg/m³) (skin) 150ppm (568mg/m³) (skin)

PERSONAL PROTECTION

Not required. Avoid skin and eye contact. Do not smoke. Remove any naked lights or strong heat sources.

ENGINEERING CONTROLS:

Not required. Maintain concentration below recommended exposure limit. Use with local exhaust ventilation. Vapor heavier than air. Keep stock in a well ventilated area. Keep tightly capped.

PHYSICAL AND CHEMICAL PROPERTIES (INK)

Appearance Physical state Odor Boiling Point / Boiling Range Flash Point Explosive Properties Relative Density (g/cm³) Solubility [Water]

Liquid minor solvent odor No data available 16.5∼19 °C No data available $0.9 \sim 1.0 \text{ g/cm}^3$ Insoluble

STABILITY AND REACTIVITY

Keep away from oxidizing agents, peroxides, acids, acid chlorides, acid anhydrides, alkali metals and ammonia.

TOXICOLOGICAL INFORMATION

ACUTE EFFECTS

SWALLOWED :

Not applicable

EYE:

A moderate eye irritant.

May cause watering of eyes.

High concentrations of vapors will cause irritation.

SKIN:

Contact with skin may result in irritation. Repeated or prolonged skin contact may lead to dermatitic effects. Will have a degreasing action on the skin.

INHALED:

Toxic by inhalation. The vapor is an irritant to the mucous membranes and respiratory tract. Inhalation of vapor can result in headaches, dizziness and possible nausea. Possible CNS effects.

CHRONIC EFFECTS:

Possible liver and kidney disorders. Repeated or prolonged skin contact can cause chronic dermatitis.

Treat symptomatically.

ACUTE TOXICITY (RTECS ; 2004.11):

[Ethanol]

Oral	LD ₅₀ (rat)	7,060 mg/kg
Inhalation	LC_{50} (rat)	20,000 ppm/10H
Skin	LD ₅₀ (rabbit)	6,300 mg/kg

[2-Propano	l,1-methoxy-]			
	Oral	LD ₅₀ (rat)	6,600 mg/kg	
	Inhalation	LC_{50} (rat)	10,000 ppm/5H	
	Skin	LD ₅₀ (rabbit)	13 mg/kg	
[1-Propano	ol]			
	Oral	LD ₅₀ (rat)	1,870 mg/kg	
	Inhalation	LC ₅₀ (rat)	4,000 ppm/4H	
	Skin	LD ₅₀ (rabbit)	5,040 mg/kg	
[Propanoic	acid,1-hydroxy	/-,ethyl ester]		
	Oral	LD ₅₀ (rat)	>2,000 mg/kg	
	Inhalation	LC ₅₀ (rat)	>500 mg/m ³	
	Skin	LD ₅₀ (rabbit)	>500 mg/kg	
[Benzenemethanol]				
	Oral	LD ₅₀ (rat)	1,230 mg/kg	
	Inhalation	LC ₅₀ (rat)	>500 mg/m ³	
	Skin	LD ₅₀ (rabbit)	2,000 mg/kg	

ECOLOGICAL INFORMATION

ECOTOXICITY		No	data	available
BIOACCUMULATIV	E POTENTIAL	No	data	available
OTHER ADVERS	E EFFECTS	No	data	available

DISPOSAL CONSIDERATIONS

Disposal as usual industrial waste goods, follow all regulations in your country. Do not dump this product into sewers, on the ground or into any body of water.

TRANSPORT INFORMATION

Ship Name (CSN):

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1210
Printing ink, flammable

REGULATORY INFORMATION

HAZARD CLASSIFICATION of INC	GREDIE	NTS			
[Ethanol] :		[F]	R:11	S; (2-)7-16	
[2-Propanol,1-methoxy	/]:		R:10	S: (2-)24	
[1-Propanol] :			R:11-41-67	S:(2-)7-16-24-26-39	
[Propanoic acid,2-hyd	roxy-,e	thyl e	ster]:		
		[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 drows	iness and dizziness.)	
Safety Advice :	2		(Keep out of the reach of c	hildren.)	
	7		(Keep container tightly clos	ed.)	

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- 16 (Keep away from sources of ignition No smoking.)
 - (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.)

OTHER INFORMATION

REFERENCES:

N.IRVING Sax and RICHARD J. LEWIS, SR, "Dangerous Properties of industrial Materials Seventh Edition", Van Nostrand Reinhold (1989). REGISTRY OF TOXIC EFFECTS IF CHEMICAL SUBSTANCES 1985-86 Edition

Contact Point : Mr. C Watt , Product Manager , Phone (02-9674-0900) Fax (02-9674-0910)

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IMPORTANT ADVICE:

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace.

Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact the supplier. Our responsibility for products sold is subject to our standard terms and conditions.