

## MATERIAL SAFETY DATA SHEET

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Artline CLIX WHITEBOARD MARKER  
EK-573A,593A (All colors)  
Artline Refill Cartridge for Artline CLIX WHITEBOARD MARKER  
EK-573AR (All colors)

General Use Whiteboard marker  
MSDS Number EA1023A-0101

**MANUFACTURER**  
Company Name Shachihata Inc.  
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## 2. COMPOSITION / INFORMATION ON INGREDIENTS

## Substance / Mixture

## Hazardous Ingredients

Chemical or Common Name(s)	wt. %	Black	Other colors	CAS(TSCA) Number	EINECS Number
Ethanol		20 ~ 30	35 ~ 45	64-17-5	200-578-6
2-Propanol		30 ~ 40	30 ~ 40	67-63-0	200-661-7
1-Propanol		20 ~ 30	5 ~ 15	71-23-8	200-746-9
Carbon black		1 ~ 10	-	1333-86-4	215-609-9

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

## **MATERIAL SAFETY DATA SHEET**

### **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.

## MATERIAL SAFETY DATA SHEET

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### EXPOSURE LIMIT VALUES

OSHA PEL (1994)		
[Ethanol]	TWA 1,000 ppm (1,900mg/m <sup>3</sup> )	
[1-Propanol]	TWA 200 ppm ( 500mg/m <sup>3</sup> )	
[2-Propanol]	TWA 400 ppm ( 980mg/m <sup>3</sup> )	
[Carbon black]	TWA 3.5 mg/m <sup>3</sup>	
ACGIH TLV (2003)		
[Ethanol]	TWA 1,000 ppm	
[1-Propanol]	TWA 200 ppm (skin)	
[2-Propanol]	TWA 400 ppm	
[Carbon black]	TWA 3.5 mg/m <sup>3</sup>	
EN LIMIT (2000/39/EN)		
	Not established	

#### 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

Liquid

#### Odor

minor solvent odor

#### Boiling Point / Boiling Range

No data available

#### Flash Point

13

#### Explosive Properties

No data available

#### Relative Density (g/cm<sup>3</sup>)

0.9 ~ 1.0 g/cm<sup>3</sup>

#### Solubility [ Water ]

Insoluble

## MATERIAL SAFETY DATA SHEET

### 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 : 2004-11)

[Ethanol]			
Oral	LD <sub>50</sub> (rat)	7,060	mg/kg
Inhalation	LC <sub>50</sub> (rat)	20,000	ppm/10H
Skin	LD <sub>50</sub> (rabbit)	6,300	mg/kg
[1-Propanol]			
Oral	LD <sub>50</sub> (rat)	1,870	mg/kg
Inhalation	LCL <sub>0</sub> (rat)	4,000	ppm/4H
Skin	LD <sub>50</sub> (rabbit)	5,040	mg/kg
[2-Propanol]			
Oral	LD <sub>50</sub> (rat)	5,000	mg/kg
Inhalation	LC <sub>50</sub> (rat)	16,000	ppm/8H
Skin	LD <sub>50</sub> (rabbit)	12,800	mg/kg
[Carbon black]			
Oral	LD <sub>50</sub> (rat)	> 15,400	mg/kg
Skin	LD <sub>50</sub> (rabbit)	> 3	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	3
UN Packing Group (PG)	
UN NUMBER	1210
Proper Shipping Name	Printing ink, flammable

## MATERIAL SAFETY DATA SHEET

### 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] :	[F]	R:11	S; (2-)7-16
[1-Propanol] :	[F,Xi]	R:11-41-67	S: (2-)7-16-24-26-39
[2-Propanol] :	[F,Xi]	R:11-36-67	S: (2-)7-16-24/25-26

Symbol :	F	( Highly Flammable)
	Xi	( Irritant)
Risk Phrase :	11	( Highly flammable)
	36	( Irritating to eyes)
	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.)
	24/25	( Avoid contact with skin and eyes.)
	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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