

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 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

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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 thoroughly 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 ³)
[1-Propanol]	TWA 200 ppm (500mg/m ³)
[2-Propanol]	TWA 400 ppm (980mg/m ³)
[Carbon black]	TWA 3.5 mg/m ³

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 ³

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 ³)	0.9 ~ 1.0 g/cm ³
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 ₅₀ (rat)	7,060	mg/kg
Inhalation	LC ₅₀ (rat)	20,000	ppm/10H
Skin	LD ₅₀ (rabbit)	6,300	mg/kg
[1-Propanol]			
Oral	LD ₅₀ (rat)	1,870	mg/kg
Inhalation	LCL ₀ (rat)	4,000	ppm/4H
Skin	LD ₅₀ (rabbit)	5,040	mg/kg
[2-Propanol]			
Oral	LD ₅₀ (rat)	5,000	mg/kg
Inhalation	LC ₅₀ (rat)	16,000	ppm/8H
Skin	LD ₅₀ (rabbit)	12,800	mg/kg
[Carbon black]			
Oral	LD ₅₀ (rat)	> 15,400	mg/kg
Skin	LD ₅₀ (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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