

**MATERIAL SAFETY DATA SHEET****1. PRODUCT AND COMPANY IDENTIFICATION**

Product Name Artline PAINT MARKER  
 EK-409XF, EK-400XF, EK-440XF, EK-444XF  
 (All colors)

General Use Paint marker

MSDS Number EA1001B-0101

**MANUFACTURER**

Company Name Shachihata Co.,Ltd.  
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**2. COMPOSITION / INFORMATION ON INGREDIENTS**

Substance / Mixture Mixture

**Hazardous Ingredients**

Chemical or Common Name(s)	wt.%		Other colors	CAS. Number	EINECS Number
	WHITE	BLACK			
Cyclohexane,methyl-	20 ~ 30	40 ~ 50	-	108-87-2	203-624-3
Alkanes,C9-C12-iso-	1 ~ 10	1 ~ 10	-	90622-57-4	292-459-0
Alkanes,C7-C10-iso-	-	-	30 ~ 50	90622-56-3	292-458-5
Carbon black	-	1 ~ 10	-	1333-86-4	215-609-9
Titanium oxide	30 ~ 40	-	1 ~ 30	13463-67-7	236-675-5

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 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)

[Cyclohexane,methyl-] TWA	500 ppm (2,000mg/m <sup>3</sup> )
[Carbon black] TWA	3.5 mg/m <sup>3</sup>
[Titanium oxide] TWA	15 mg/m <sup>3</sup> (total dust)

## ACGIH TLV (2003)

[Cyclohexane,methyl-] TWA	400 ppm
[Carbon black] TWA	3.5 mg/m <sup>3</sup>
[Titanium oxide] TWA	10 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	( White,Black ) - 5 (Other colors ) 5 <Close Cup>
Explosive Properties	No data available
Relative Density (g/cm <sup>3</sup> )	(White ) 1.2 ~ 1.3 ( Other colors ) 0.8 ~ 1.0
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)

[Cyclohexane,methyl-]			
	Oral	LD <sub>50</sub> (rat)	> 3,200 mg/kg
	Inhalation	TCL <sub>0</sub> (rat)	82 mg/ m <sup>3</sup> /1H
[Alkanes,C9-C12-iso-]			
	Oral	LD <sub>50</sub> (rat)	> 10 mg/kg
	Inhalation	TCL <sub>0</sub> (rat)	> 12,200 mg/ m <sup>3</sup> /4H
	Skin	LD <sub>50</sub> (rabbit)	> 3,200 mg/kg
[Carbon black]			
	Oral	LD <sub>50</sub> (rat)	> 15,400 mg/kg
	Skin	LD <sub>50</sub> (rabbit)	> 3 mg/kg
[Titanium oxide]			
	Oral	TDL <sub>0</sub> (rat)	60 mg/kg
	Inhalation	TCL <sub>0</sub> (rat)	50 mg/ m <sup>3</sup> /6H/13W-I

**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 ,

[Cyclohexane,methyl-] :	[F,Xn,N]	R:11-38-51/53-65-67	S:(2-)9-16-33-61-62
[Alkanes,C9-C12-iso-] :		R:10-65-66	S: (2-)23-24-33-43A-62
[Alkanes,C7-C10-iso-] :		R:11-65-67	
			S:(2-)9-16-23-24-33-43A-62

Symbol :	F	( Highly Flammable)
	Xn	( Harmful)
	N	( Dangerous for the environment)

Risk Phrase :	10	( Flammable)
	11	( Highly flammable)
	38	( Irritating to skin)
	51/53	( Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.)
	65	( Harmful: may cause lung damage if swallowed.)
	66	( Repeated exposure may cause skin dryness or cracking.)

Safety Advice :	67	( Vapours may cause drowsiness and dizziness.)
	2	( Keep out of the reach of children.)
	9	( Keep container in a well-ventilated place.)
	16	( Keep away from sources of ignition – No smoking.)
	23	( Do not breathe gas/fumes/vapour/spray.)
	24	( Avoid contact with skin.)
	33	( Take precautionary measures against static discharges.)
	43A	( In case of fire, use sand, earth, chemical powder or foam.)
	61	( Avoid release to the environment. Refer to special instructions/safety data sheets.)
	62	( If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.)

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

**16. OTHER INFORMATION**

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