MATERIAL SAFETY DATA SHEET

[MSDS NO. AA1001A-9401]

PRODUCT:

Artline PAINT MARKER

EK-409XF,EK-400XF,EK-440XF,EK-444XF (All colors)

Issue Date Jan.5,2007

Not classified as Hazardous according to criteria of Worksafe Australia

COMPANY DETAILS

JAPAN:

MANUFACTURER/SUPPLIER: Shachihata Inc.

ADDRESS: 4-69,Amazuka-chou,Nishi-ku,Nagoya,451-0021,Japan

TELEPHONE NUMBER: ++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 NUMBER: 02-9674-0900 **FAX NUMBER:** 02-9674-0910

EMERGENCY TELEPHONE: 02-9674-0900 or Mobile:0419-206-163

IDENTIFICATION

Product Name: Artline PAINT MARKER

Ship Name (CSN): non hazardous

Other Names: -

UN No.: 1210

D.G.CLASS: 3

HAZCHEM: n/a

D.G.CLASS: 3

PACK. GRP: II

SUBDP: Not Scheduled

PRODUCT USE: Paint marker

PHYSICAL DATA (INK)

APPEARANCE AND ODOUR Liquid, solvent odour.

BOILING POINT No data available

MELTING POINT n/a VAPOUR PRESSURE n/a VOLATILE (wt.%) 40∼70

DENSITY(g/cm3) {White} $1.2\sim1.3$ {Other color} $0.9\sim1.0$

FLASH POINT $\{White, Black\} -5 ^{\circ}C$ $\{Other color\} 5 ^{\circ}C$ (closed cup)

FLAMMABILITY LIMITS no data REL. VAPOUR DENSITY no data SOLUBILITY IN WATER Insoluble

INGREDIENTS (INK)

Chemical or		wt.%	CAS(TSCA)	EINECS
Common Name(s)	WHITE	BLACK Others	Number	<u>Number</u>
 Cyclohexane,methyl-	20~30	40~50 -	108-87-2	203-624-3
Naphtha(petroleum), hydrotreated heavy	1~10	1~10 -	64742-48-9	265-150-3
Naphtha(petroleum),light alkylate	_	− 30~50	64741-66-8	265-068-8
Carbon black	_	1~10 -	1333-86-4	215-609-9

HEALTH HAZARD INFORMATION

HEALTH EFFECTS

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.

FIRST AID

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

ADVICE TO DOCTOR

Treat symptomatically.

ACUTE TOXICITY (RTECS; 2002.03):

[Cyclohexane,methyl-]

Oral LD_{50} (rat) >3,200 mg/kg Inhalation LCL_0 (rat) 82 mg/ m³/1H

[Naphtha(petroleum), light alkylate]

Oral TDL_0 (rat) 10 mg/kg/4W-I Inhalation TCL_0 (rat) 7,500ppm/13W-I

[Carbon black]

Oral LD₅₀ (rat) >15,400 mg/kg

Inhalation TCL₀ (rat) 50 mg/ m³/6H/90D-I

PRECAUTIONS FOR USE

EXPOSURE CONTROL PARAMETERS:

OSHA PEL (2002)

[Cyclohexane,methyl-]TWA 500ppm(2,000mg/m3)

[Carbon black] TWA 3.5mg/m3

ACGIH TLV (2002)

[Cyclohexane,methyl-]TWA 400ppm [Carbon black] TWA 3.5mg/m3

EN LIMIT (2000/39/EN)

Not established

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.

PERSONAL PROTECTION

Not required.

Avoid skin and eye contact.

Do not smoke.

Remove any naked lights or strong heat sources.

FLAMMABILITY

Vapors are flammable, may form explosive mixtures with air.

While in use, keep away from heat, sparks or naked flames.

Heating may cause explosion.

ENVIRONMENT:

Not applicable

OTHER PRECAUTIONS:

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

SAFE HANDLING INFORMATION

STORAGE AND TRANSPORT

Store in a cool, dry, well-ventilated location.

Keep tightly capped.

SPILLS AND DISPOSAL:

Disposal as usual industrial waste goods, follow all regulations in your country.

FIRE / EXPLOSIUON HAZARD

Extinguish fire with the following:

Use water fog.

Use CO2, dry chemical or foam.

OTHER SAFE HANDLING INFORMATION

[F,Xn,N]

Page 4 of 4

OTHER INFORMATION

[Cyclohexane,methyl-]:

This product is classified as follows and labeled accordingla,

[Naphtha(petroleum),hydrotreated heavy]: R:45-65 S: 53-45 [T][Naphtha(petroleum), light alkylate] [T]R:45-65 S: 53-45 Symbol: F (Highly Flammable) Ν (Dangerous for the environment) Т (Toxic) Xn (Harmful)

Risk Phrase : 11 (Highly flammable.) 38 (Irritating to skin.)

45 (May cause cancer.)

51/53 (Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.)

65 (Harmful: may cause lung gamage if swallowed.)
67 (Vapours may cause drowsiness and dizziness.)

Safety Advice: 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.)

33 (Take precautionary measures against

static discharges.)

45 (In case of accident or if you feel unwell, seek medical

advice immediately (show the label where possible).

R:11-38-51/53-65-67 S; (2-)9-16-33-61-62

53 (Avoid exposure – obtain special instructions

before use.)

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.

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)

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.

MATERIAL SAFETY DATA SHEET

[MSDS NO.AA1003B-9401]

PRODUCT :

Artline METALLIC INK MARKER

EK-900XF, EK-990XF, EK-999XF (Gold)(Silver)

Issue Date Jan.5,2007

IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Artline paint marker

Other Names: Recommended Use:

paint marker

Supplier name/address/telephone no./Emergency phone number

[JAPAN]

SUPPLIER NAME: Shachihata Inc.

ADDRESS: 4-69,Amazuka-chou,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

Not classified as Hazardous according to the criteria of Worksafe Australia

COMPOSITION / INFORMATION ON INGREDIENTS (INK)

<MIXTURE>

Chemical or	wt.%			CAS.
Common Name(s)	(Gold	Silver	Number
Cyclohexane,methyl-	30	0∼40	50~60	108-87-2
Alkanes,C9-C12-iso-	1	$1{\sim}5$	1~5	90622-57-4

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 PARAMETERS:

OSHA PEL (1994)

[Cyclohexane,methyl-] TWA 500 ppm (2000 mg/m³)

ACGIH TLV (2003)

[Cyclohexane,methyl-] TWA 400 ppm

EN LIMIT (2000/39/EN)

Not established

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 Liquid

Odor Minor solvent odor Boiling Point / Boiling Range No data available

Flash Point -2℃

Explosive Properties No data available

Relative Density (g/cm³) 0.9(Silver), 1.2 (Gold) g/cm³

Solubility [Water] 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):

[Cyclohexane,methyl-]

Oral LD₅₀ (rat) >3,200 mg/kg Inhalation TCL₀ (rat) 82 mg/m 3 /1H

[Alkanes, C9-C12-iso-]

ECOLOGICAL INFORMATION

ECOTOXICITY

BIOACCUMULATIVE POTENTIAL

OTHER ADVERSE EFFECTS

No data available

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):

UN CLASS 3 UN Packing Group (PG) II UN NUMBER 1210

Proper Shipping Name printing ink,flammable

REGULATORY INFORMATION

HAZARD CLASSIFICATION of INGREDIENTS

/clohexane,methyl-] kanes,C9-C12-iso-]	[F,Xn,N] R:11-38-51/53-65-67 R:10-65-66	S: (2-)9-16-33-61-62 S: (2-)23-24-33-43A-62			
Symbol : F Xn N	(Highly flammable) (Harmful) (Dangerous for the environr	, , , , , , , , , , , , , , , , , , ,			
Risk Phrase : 10 11 38 51/53	 (Flammable) (Highly flammable) (Irritating to skin) (Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.) 				
65 66	 (Harmful: may cause lung da (Repeated exposure may ca dryness or cracking.) 				
Safety Phrase : 2 9 16 23 24 33 43A	 (Keep out of the reach of children.) (Keep container in a well-ventilated place.) (Keep away from sources of ignition – No smoking) (Do not breathe gas/fumes/vapor/spray.) (Avoid contact with skin.) (Take precautionary measures against static discharges.) (In case of fire, use sand, earth, chemical powder or foam.) 				
61	(Avid release to the environr Refer to special instruction (If swallowed, do not induce	nent. s/safety data sheets.)			

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)

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.