

Safety Data Sheet (MSDS)

Issued Date : May 16,2008

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SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : Artline WHITEBOARD MARKER Color : (Green)
 EK-157,EK-159,EK-157R,EK-159R
 Artline REFILL INK FOR WHITEBOARD MARKER
 ESK-50A,ESK-50A-60



Company Name : Shachihata Inc.
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Recommended use : Permanent marker ink



blue ink sample

SECTION 2 HAZARDS IDENTIFICATION

GHS Classification

Physical Hazards

Flammable liquids

Category 2

Health Hazards

Serious eye damage /eye irritation

Category 1

Specific target organ toxicity ; single exposure

Category 3

(respiratory tract irritation, narcotic effects)

Environmental Hazards

Hazardous to the aquatic environment (acute)

Classification not possible

Hazardous to the aquatic environment (chronic)

Classification not possible

Hazardous to the ozone layer

Classification not possible



LABEL ELEMENTS

Symbols



Signal word : Danger

Hazard statement : Highly flammable liquid and vapour (H225)
 Causes serious eye damage (H318)
 May cause respiratory irritation (H335)
 May cause drowsiness or dizziness (H336)

Precautionary statement

【Prevention】

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. (P210)

Take precautionary measures against static discharge. (P243)

Wear protective gloves/protective clothing/eye protection/face protection. (P280)

Avoid breathing dust/fume/gas/mist/vapours/spray. (P261)

Use only outdoors or in a well-ventilated area. (P271)

Wash hands thoroughly after handling. (P264)

【Response】

In case of fire : Use dry chemical powder,form or carbon dioxide for extinction. (P370+P378)

IF INHALED : Remove victim to fresh air and keep at rest in a position comfortable for breathing. (P304+P340)

IF IN EYES : Rinse cautiously with water for several minutes. (P305+P351+P338)
 Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists	: Get medical advice/attention.	(P337+P313)
IF ON SKIN (or hair)	: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.	(P303+P361+P353)
If skin irritation occurs	: Get medical advice/attention.	(P332+P313)
IF SWALLOWED	: Get medical advice/attention if you feel unwell.Rinse mouth.	(P301+P314+P330)
【Storage】		
Store in a well-ventilated place. Keep container tightly closed.		(P403+P233)
【Disposal】		
Dispose of contents/container to waste in accordance with local/regional/ national/international regulation (to be specified).		(P501)

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture : Mixture
Ingredients :

Chemical Name / Generic name	Composition weight %	CAS Registry No.	Hazard Class (category)	Hazard statement
Ethanol	35~45	64-17-5	Flam.Liq. 2	H225
Propan-2-ol	30~40	67-63-0	Flam.Liq. 2 Eye Irrit. 2A STOT.SE. 3	H225 H319 H335,H336
Propan-1-ol	5~15	71-23-8	Flam.Liq. 2 Eye Irrit. 1 STOT.SE. 3	H225 H318 H335,H336
Organic pigment	1~10	Confidential	none	none
Synthetic resin	1~10	Confidential	none	none
Additive	1~10	Confidential	none	none
total	100			

SECTION 4 FIRST-AID MEASURES

IF INHALED	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Consult a doctor if symptoms persist.
IF ON SKIN	: Remove/Take off immediately all contaminated clothing.Wash with soap and water. If skin irritation/rash occurs or feel unwell, consult a doctor for medical advice.
IF IN EYES	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.Continue rinsing.If eye irritation persists, get medical advice/attention.
IF SWALLOWED	: After rinse mouth immediately, give about 250 ml of water or milk and thin in the stomach, and do not vomit forcibly.Moreover, do not give anything from the mouth to the patient when not conscious.Receive the doctor's treatment (stomach pump) promptly.

SECTION 5 FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA : Dry chemical powder, foam or carbon dioxide

UNSUITABLE EXTINGUISHING MEDIA : Water jet

SPECIFIC EXTINCTION METHOD

For initial stage extinction, carbon dioxide or dry chemical powder.

When a fire extends, fire is extinguished by a large amount of water spray.

Do not discharge extinguishing waters into the aquatic environment.

SPECIAL PROTECTIVE FOR FIRE- FIGHTERS

In the extinction work, an appropriate protective equipment (gloves, glasses, and mask) has to be worn.

Because during a fire, hazardous gases may be generated, fire-fighters have to wear self-contained breathing apparatus and other protective equipment.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Evacuate personnel to safe area. Shut off all sources of ignition.

No Flares, smoking or flame in area. Put on protective equipment. Ensure adequate ventilation.

ENVIRONMENTAL PRECAUTIONS

Do not throw the leakage thing directly into environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

In case of a small spill, absorb with dry sand, soil, sawdust, cloth, etc., then place in a chemical waste containers.

In case of large spills, dike and prevent overflow, cover spills with foam, then place in a chemical container using non-sparking tools.

SECONDARY ACCIDENT PREVENTION MEASURE

All ignition sources should be quickly removed. (No smoking in vicinity, prohibit sparks or fire sources)

SECTION 7 HANDLING AND STORAGE

- Handling** : Use with adequate ventilation.
 Avoid contact with skin, eyes and clothing.
 Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Do not eat, drink or smoke when using this product.
- Storage** : Keep containers tightly closed and store in a cool and dry place.
 Keep away from heat and flame, ignition source and sunlight.
 Keep out of the reach of children.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION**OCCUPATIONAL EXPOSURE LIMIT**

ACGIH (2011)		
Ethanol	STEL	1000ppm
Propan-2-ol	TWA	200ppm
Propan-1-ol	TWA	100ppm
OSHA PEL		
Ethanol	TWA	1000ppm
Propan-2-ol	TWA	400ppm
Propan-1-ol	TWA	200ppm
DIRECTIVE 2000/39/EC	none	
Japan Society for Occupational Health (2011)		
Propan-2-ol	TWA	400ppm

PERSONAL PROTECTION

- : Respiratory Protection
 Use with local exhaust ventilation, when in long use.
 Avoid breathing vapours. Wear mask to prevent organic gas, if necessary.
- : Hand Protection
 Avoid contact with hands. Wear safety gloves, if necessary.
- : Eye Protection
 Avoid contact with eyes. Wear safety glasses, if necessary.
- : Skin Protection
 Avoid skin contact. Wear personal protection apron, boots, if necessary.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** : green liquid
- Odour** : minor solvent odour
- pH** : Not applicable
- Boiling point** : No data available
- Flash point** : 13 °C (closed cup)
- Relative Density (at 25°C)** : 0.8 - 0.9 (g/cm³)
- Solubility in Water** : Insoluble

SECTION 10 STABILITY AND REACTIVITY

- Stability** : Stable under normal handling.
- Conditions to Avoid** : High temperature, Direct sunlight, Fire
- Incompatible Materials** : Strong oxidising agents
- Hazardous Decomposition Products** : CO, CO₂

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity	: LD/LC50 values that are relevant for classification		
	[Ethanol]		
	Oral-rat	LD50	7,060mg/kg
	Inhalation-rat	LC50	20,000ppm/10h
	[Propan-2-ol]		
	Oral-rat	LD50	>5,000mg/kg
	Dermal-rabbit	LD50	>5,000mg/kg
	[Propan-1-ol]		
	Oral-rat	LD50	1,870mg/kg
	Dermal-rabbit	LD50	4,060mg/kg
	Inhalation-rat	LC50	4,000mg/l/4H
Serious eye damage /eye irritation	: Category 1	Causes serious eye damage	
Specific target organ toxicity (single exposure)	: Category 3	May cause respiratory irritation May cause drowsiness or dizziness	
Carcinogenicity	: Not listed by IARC, EPA, EU, NTP.		

SECTION 12 ECOLOGICAL INFORMATION

Hazardous to the aquatic environment (acute)	: Classification not possible
Hazardous to the aquatic environment (chronic)	: Classification not possible
Hazardous to the ozone layer	: Classification not possible

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal must be made according to official regulations.
Comply with all Federal, State, and Local regulations regarding disposal.
Do not allow product to reach ground, any water course or sewage system.

SECTION 14 TRANSPORT INFORMATION

UN number	(DOT, ADR, IMDG, IATA)	: UN1210
UN proper shipping name	(DOT, ADR, IMDG, IATA)	: PRINTING INK ,flammable
UN Classification		: 3
Packing group	(DOT, ADR, IMDG, IATA)	: II
Marine pollutant (Y/N)		: N
EmS number		: F-E,S-D

**SECTION 15 REGULATORY INFORMATION**

< EU Information >

Regulation (EC) No 1272/2008 (CLP)

Substance name	: [Ethanol]
Hazard Class & Category	: Flammable liquids, Category 2
Symbols	: GHS02
Signal word	: Danger
Hazard statements	: H225 Highly flammable liquid and vapour
Substance name	: [Propan-2-ol]
Hazard Class & Category	: Flammable liquids, Category 2 Eye irritation, Category 2 Specific target organ toxicity - single exposure, Category 3
Symbols	: GHS02, GHS07
Signal word	: Danger
Hazard statements	: H225 Highly flammable liquid and vapour H319 Causes serious eye irritation H336 May cause drowsiness or dizziness
Substance name	: [Propan-1-ol]
Hazard Class & Category	: Flammable liquids, Category 2 Eye irritation, Category 1 Specific target organ toxicity - single exposure, Category 3
Symbols	: GHS02, GHS07, GHS05

Signal word : Danger
 Hazard statements : H225 Highly flammable liquid and vapour
 : H318 Causes serious eye damage
 : H336 May cause drowsiness or dizziness

Directive 67/548/EEC or 1999/45/EC

Hazard designation

Substance name : [Ethanol]
 Classification : F; R11
 R-Phrase : R11 Highly flammable.
 S-Phrase : S2 Keep out of the reach of children.
 : S7 Keep container tightly closed.
 : S16 Keep away from sources of ignition - No smoking.

Symbols and indications of danger specific F : Highly flammable

Hazard designation

Substance name : [Propan-2-ol]
 Classification : F; R11 - Xi; R36 - R67
 R-Phrase : R11 Highly flammable.
 : R36 Irritating to eyes.
 : R67 Vapours may cause drowsiness and dizziness.
 S-Phrase : S2 Keep out of the reach of children.
 : S7 Keep container tightly closed.
 : S16 Keep away from sources of ignition - No smoking.
 : S24/25 Avoid contact with skin and eyes.
 : S26 In case of contact with eyes, rinse immediately with plenty of water
 and seek medical advice.

Symbols and indications of danger specific F : Highly flammable Xi : Irritant

Hazard designation

Substance name : [Propan-1-ol]
 Classification : F; R11 - Xi; R41 - R67
 R-Phrase : R11 Highly flammable.
 : R41 Risk of serious damage to eyes.
 : R67 Vapours may cause drowsiness and dizziness.
 S-Phrase : S2 Keep out of the reach of children.
 : S7 Keep container tightly closed.
 : S16 Keep away from sources of ignition - No smoking.
 : S24 Avoid contact with skin.
 : S26 In case of contact with eyes, rinse immediately with plenty of water
 and seek medical advice.
 : S39 Wear eye/face protection.

Symbols and indications of danger specific F : Highly flammable Xi : Irritant

< USA Information >

OSHA STATUS : This product is hazardous under 29 CFR 1910.1200.
 TSCA STATUS : All components on TSCA INVENTORY.
 TSCA Hazard Communication Program (40 CFR Part 721) (SNUR) : Not Applicable
 CERCLA REPORTABLE QUANTITY (40 CFR 117,302) : Not Applicable
 SARA TITLE III Section 313 (40 CFR 372) : Not Applicable
 California Proposition 65 (Chemicals known to cause cancer) : not Listed

Refer to any other federal , state , EU , national and local regulations.

SECTION 16 OTHER INFORMATION



EU RoHS Directive(2002/95/EC) and ELV Directive(2000/53/EC)
This product not contain lead,mercury, cadmium, hexavalent chromium,
polybromiated biphenyls (PBB) or polybrominated diphenylethers (PBDE).

This data sheet may not be enough when evaluating danger or hazard.The above information, which is created from currently available documents, information and data, may be revised when new findings announced.This document has been written on the assumption that when dealing with a large amount of ink on the business case and emergency.When handling as a normal product, please refer to the notes that is described in the produce or packaging.The information contained herein is not intended to provide any kind of warranty other than information, there is no guarantee for the accuracy of the content.