MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Artline ECO-GREEN WHITEBOARD MARKER EK-527,529

(Black)(Blue)(Red)(Green)

Artline ECO-GREEN WHITEBOARD MARKER ESK-NDW

(Black)(Blue)(Red)(Green)

General Use Whiteboard marker MSDS Number EA1011A-0101

MANUFACTURER

Company Name Shachihata Inc.

Address 4-69, Amazuka-cho, Nishi-ku, Nagoya City, 451-0021, Japan

Telephone Number ++ 81 52 521 3600 Fax Number ++ 81 52 521 3899

2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture Mixture

Hazardous Ingredients

Chemical or	wt.%		Other	CAS(TSCA)	EINECS
Common Name(s)	Black	Purple	colors	Number	Number
Ethanol	20 ~ 30	40 ~ 50	35 ~ 45	64-17-5	200-578-6
2-Propanol	30 ~ 40	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 throughly after handling.

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

Keep away from heat, sunlight. Keep away from children.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

OSHA PEL (1994)

[Ethanol] TWA 1,000 ppm (1,900mg/m³) 200 ppm (500mg/m³) [1-Propanol] TWA 400 ppm (980mg/m³) 3.5 mg/m³ TWA [2-Propanol]

[Carbon black] TWA

ACGIH TLV (2003)

[Ethanol] TWA 1,000 ppm TWA 200 ppm (skin) [1-Propanol] TWA 400 ppm [2-Propanol] TWA 3.5 mg/m^3 [Carbon black]

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

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

Flash Point 13

No data available **Explosive Properties** $0.9 \sim 1.0 \text{ g/cm}^3$ Relative Density (g/cm³) Solubility [Water] Insoluble

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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)

hanol	

[Linanoi]							
-	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			
		'		5 0			

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.

<u>Do not dump this product into sewers</u>, 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

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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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