

MATERIAL SAFETY DATA SHEET

PRODUCT : Artline DRAWING SYSTEM
 EK-2305 , EK-231 , EK-232 , EK-233 , EK-234 ,
 EK-235 , EK-236 , EK-237 , EK-238
 (Black)(Blue)(Red)(Green)

Issue Date 16 May, 2016

IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name : Artline DRAWING SYSTEM
 EK-2305 , EK-231 , EK-232 , EK-233 , EK-234 ,
 EK-235 , EK-236 , EK-237 , EK-238

Recommended use : Writing ink

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

[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 : 0423-782-595

HAZARDS IDENTIFICATION

Classified as Hazardous according to criteria of Worksafe Australia

Substance name : [Ethane-1,2-diol]
Classification : Xn; R22
R-Phrase : R22 Harmful if swallowed.
S-Phrase : S2 Keep out of the reach of children.
Symbols and indications of danger specific Xn : Harmful

Substance name : [2,2'-oxydiethanol]
Classification : Xn; R22
R-Phrase : R22 Harmful if swallowed.
S-Phrase : S2 Keep out of the reach of children.
 S46 If swallowed, seek medical advice immediately and show this container or label.

Symbols and indications of danger specific Xn : Harmful

COMPOSITION / INFORMATION ON INGREDIENTS (INK)

Chemical Name / Generic name	Composition weight %		CAS Registry No.
	Black	Blue,Red,Green	
Water	50 ~ 60	55 ~ 65	7732-18-5
Ethane-1,2-diol (Ethylene Glycol)	10 ~ 20	5 ~ 15	107-21-1
2,2'-oxydiethanol	1 ~ 10	—	111-46-6
1,2,3-Propanetriol	—	10 ~ 20	56-81-5
Carbon black	5 ~ 15	—	1333-86-4

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.

FIRE FIGHTING MEASURES

Extinguishing media

- Suitable extinguishing media : Dry chemical powder, foam or carbon dioxide
- Unsuitable extinguishing media : Water jet

Special hazards arising from the substance or mixture

- 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.

Advice for firefighters

- 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.

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 material for containment and cleaning up

- In case of a small spill, remove by absorbing with absorbents (sawdust, soil, sand, waste cloth,etc.), and then wipe off the waste well with waste cloth, and rag.
- In case of large spills, prevent leakage by enclosing with nonflammables (earth and sand, etc.) and collect into empty container by scoop, suction equipment or the like.

HANDLING AND STORAGE

Precautions for safe handling

- Advice on safe 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.

Conditions for safe storage, including any incompatibilities

- Requirements for storage : Keep containers tightly closed and store in a cool and dry place.
 areas and containers Keep away from heat and flame, ignition source and sunlight.
 Keep out of the reach of children.

EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Australian exposure standards(2013)

Ethane-1,2-diol	TWA	20ppm
2,2'-oxydiethanol	TWA	23ppm
1,2,3-Propanetriol	TWA	10 mg/m ³
Carbon black	TWA	3 mg/m ³

EH40/2005 Workplace exposure limits

Ethane-1,2-diol	TWA	20ppm
2,2'-oxydiethanol	TWA	23ppm
1,2,3-Propanetriol	TWA	10 mg/m ³
Carbon black	TWA	3.5 mg/m ³

ACGIH (2015)

Ethane-1,2-diol	STEL ceiling	100mg/m ³ (H)
Carbon black	TWA	3 mg/m ³

Exposure controls

Personal protective equipment

- 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.

Environmental exposure controls

- General advice : Prevent product from entering drains.
 Prevent further leakage or spillage if safe to do so.
 If the product contaminates rivers and lakes or drains inform respective authorities.

PHYSICAL AND CHEMICAL PROPERTIES (INK)

Appearance	: liquid
Odour	: none
pH	: 8 ~ 11
Boiling point	: No data available
Flash point	: Not applicable
Relative Density (at 25°C)	: 1.0 ~ 1.3 (g/cm ³)

Solubility in Water : soluble

STABILITY AND REACTIVITY

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical stability

Thermally stable at typical use temperatures.

Possibility of hazardous reactions

No data available

Conditions to Avoid

High temperature, Direct sunlight, Fire

Incompatible Materials

No data available

Hazardous decomposition products

CO, CO₂**TOXICOLOGICAL INFORMATION**

Information on toxicological effects

Acute toxicity : LD/LC50 values that are relevant for classification

[Ethane-1,2-diol]

Oral-rat LD50 >300 - <=2,000mg/kg

Dermal-rabbit LD50 >5,000 mg/kg

[2,2'-oxydiethanol]

Oral-rat LD50 >300 - <=2,000 mg/kg

Dermal-rabbit LD50 >5,000mg/kg

[1,2,3-Propanetriol]

Oral-rat LD50 >5,000mg/kg

Dermal-rabbit LD50 >5,000mg/kg

Carcinogenicity : Carbon black has been classified by the IARC as Group 2B.

Other materials ; Not contain any component that is considered a human carcinogen by IARC, ACGIH, EPA, EU or NTP .

Regarding the carcinogenicity of carbon black, International Agency for Research on Cancer (IARC) has classified as a group 2B. However, ACGIH(American Conference of Governmental Industrial Hygienists) ,EPA(Environmental Protection Agency),EU (European Chemicals Agency), NTP (National Toxicology Program, USA) in the classification of suspected carcinogenic to humans has not been done. Therefore, as the ink product we could not classify the carcinogenicity of GHS from that there is no sufficient data.

ECOLOGICAL INFORMATION

Ecotoxicity : No data available

Persistence and degradability : No data available

Bioaccumulative potential : No data available

Mobility in soil : No data available

Other adverse effects : No data available

DISPOSAL CONSIDERATIONS

Disposal Methods

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.

TRANSPORT INFORMATION

UN number	ADG, IMDG, IATA	: None
UN proper shipping name	ADG, IMDG, IATA	: None
Transport hazard class(es)	ADG, IMDG, IATA	: None
Packing group	ADG, IMDG, IATA	: None
Environmental hazards	Marine pollutant	: None
Special precautions for user	EMS Number	: None
HAZCHEM Code		: None

REGULATORY INFORMATION

This product does not contain any hazardous chemical that has been determined by Montreal Protocol (Ozone depleting substances), The Stockholm Convention (Persistent Organic Pollutants), and The Rotterdam Convention (Prior Informed Consent).

OTHER INFORMATION

Contact Point : Mr. C Watt , Product Manager , Phone(02-9674-0900) Fax(02-9674-0910)

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.