

# Safety Data Sheet (MSDS)

Issued Date : May 16,2008  
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**SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**Product Name** : Artline Garden Marker Color : (Black)  
 EK-780

**Company Name** : Shachihata Inc.  
**Address** : 4-69,Amazuka-cho,Nishi-ku,Nagoya City,451-0021,Japan  
**Telephone** : + 81- 52- 521- 3600  
**Fax** : + 81- 52- 521- 3899  
**Emergency Call** : + 81- 52- 521- 3600 (Shachihata Inc. [Japan] )  
**Recommended use** : Permanent marker ink



**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. (P303+P361+P353)  
 Rinse skin with water/shower.

- 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 (P501)  
 local/regional/ national/international regulation (to be specified).

### 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	25~35	64-17-5	Flam.Liq. 2	H225
1-methoxypropan-2-ol	20~30	107-98-2	Flam.Liq. 3 STOT.SE. 3	H226 H336
Ethyl lactate	15~25	97-64-3	Flam.Liq. 3 Eye Irrit. 1 STOT.SE. 3	H226 H318 H335
Synthetic resin	5~15	Confidential	none	none
Dyestuff	10~20	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 (2012)			
Ethanol	STEL		1000ppm
1-methoxypropan-2-ol	TWA		100ppm
OSHA PEL			
Ethanol	TWA		1000ppm
DIRECTIVE 2000/39/EC			
1-methoxypropan-2-ol	TWA		100ppm
Japan Society for Occupational Health (2012)			
	none		

**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**

<b>Appearance</b>	: black liquid
<b>Odour</b>	: minor solvent odour
<b>pH</b>	: Not applicable
<b>Boiling point</b>	: No data available
<b>Flash point</b>	: 19.0 °C (closed cup)
<b>Relative Density (at 25°C)</b>	: 0.85~0.95 (g/cm <sup>3</sup> )
<b>Solubility in Water</b>	: 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, CO<sub>2</sub>

**SECTION 11 TOXICOLOGICAL INFORMATION**

<b>Acute toxicity</b>	: LD/LC50 values that are relevant for classification		
	[Ethanol]		
	Oral-rat	LD50	7,060mg/kg
	Inhalation-rat	LC50	20,000ppm/10h
	[1-methoxypropan-2-ol]		
	Oral-rat	LD50	>5,000mg/kg
	Dermal-rabbit	LD50	13,000mg/kg

Inhalation-rat [Ethyl lactate]	LC50	>7,559ppm/6h
Oral-rat	LD50	2,500mg/kg
Inhalation-rat	LC50	>5,400mg/m <sup>3</sup> /8H

<b>Serious eye damage /eye irritation</b>	: Category 1	Causes serious eye damage
<b>Specific target organ toxicity (single exposure)</b>	: Category 3	May cause respiratory irritation May cause drowsiness or dizziness
<b>Carcinogenicity</b>	: Not listed by IARC, EPA, EU, NTP.	

## SECTION 12 ECOLOGICAL INFORMATION

<b>Hazardous to the aquatic environment (acute)</b>	: Classification not possible
<b>Hazardous to the aquatic environment (chronic)</b>	: Classification not possible
<b>Hazardous to the ozone layer</b>	: 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

<b>UN number</b>	(DOT, ADR, IMDG, IATA)	: UN1210
<b>UN proper shipping name</b>	(DOT, ADR, IMDG, IATA)	: PRINTING INK ,flammable
<b>UN Classification</b>		: 3
<b>Packing group</b>	(DOT, ADR, IMDG, IATA)	: II
<b>Marine pollutant (Y/N)</b>		: N
<b>EmS number</b>		: 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	: [1-methoxypropan-2-ol]
Hazard Class & Category	: Flammable liquids, Category 3 Specific target organ toxicity - single exposure, Category 3
Symbols	: GHS02,GHS07
Signal word	: Warning
Hazard statements	: H226 Flammable liquid and vapour H336 May cause drowsiness or dizziness
Substance name	: [Ethyl lactate]
Hazard Class & Category	: Flammable liquids, Category 3 Eye irritation, Category 1 Specific target organ toxicity - single exposure, Category 3
Symbols	: GHS02,GHS07,GHS05
Signal word	: Danger
Hazard statements	: H226 Flammable liquid and vapour H318 Causes serious eye damage H335 May cause respiratory irritation

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 : [1-methoxypropan-2-ol ]  
 Classification : R10 - R67  
 R-Phrase : R10 Flammable.  
 R67 Vapours may cause drowsiness and dizziness.  
 S-Phrase : S2 Keep out of the reach of children.

Symbols and indications of danger specific none

Hazard designation

Substance name : [Ethyl lactate]  
 Classification : R10 - Xi; R37-41  
 R-Phrase : R10 Flammable.  
 R37 Irritating to respiratory system.  
 R41 Risk of serious damage to eyes.  
 S-Phrase : S2 Keep out of the reach of children.  
 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 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 Listed

CERCLA REPORTABLE QUANTITY (40 CFR 117,302) : not Listed

SARA TITLE III Section 313 (40 CFR 372) : not Listed

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.