

Safety Data Sheet

(MSDS)



Artline

		Revised Date :	March 21,2013
SECTION 1	CHEMICAL PRODUCT AND COMPANY I	DENTIFICATION	
Product Name	: Artline Garden Marker Color : (Bl EK-780		a
Company Name Address Telephone Fax Emergency Call Recommended use	 Shachihata Inc. 4-69,Amazuka-cho,Nishi-ku,Nagoya City,451-00 + 81- 52- 521- 3600 + 81- 52- 521- 3899 + 81- 52- 521- 3600 (Shachihata Inc. [Japan]) Permanent marker ink)21,Japan	orden Marker
SECTION 2	HAZARDS IDENTIFICATION		
GHS Classification Physical Haza	rds Flammable liquids	Category 2	
Health Hazard		Category 2	
	Serious eye damage /eye irritation Specific target organ toxicity ; single exposure	Category 1 Category 3 (respiratory tract irrita	tion, narcotic effects)
Environmenta	l Hazards Hazardous to the aquatic environment (acute) Hazardous to the aquatic environment (chronic) Hazardous to the ozone layer	Classification not pos Classification not pos Classification not pos	sible
LABEL ELEMENTS Symbols			
Signal word	: Danger		
Hazard statemen	t : Highly flammable liquid and vapour Causes serious eye damage May cause respiratory irritation May cause drowsiness or dizziness		(H225) (H318) (H335) (H336)
Precautionary st	atement		
Take pre Wear pre Avoid br Use only	tion] ay from heat/sparks/open flames/hot surfaces No sm ecautionary measures against static discharge. otective gloves/protective clothing/eye protection/face p eathing dust/fume/gas/mist/vapours/spray. - outdoors or in a well-ventilated area. ands thoroughly after handling.	-	(P210) (P243) (P280) (P261) (P271) (P264)
(Respon In case o IF INHA	se】 f fire :Use dry chemical powder,form or carbon diox		(P370+P378) (P304+P340)
	for breathing.		

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 p	(P403+P233)	
[Disposal]		
Dispose of contents/contain	ner to waste in accordance with	(P501)
local/regional/ national/i	international regulation (to be specified).	

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture	:	Mixture
Ingredients	:	

Chemical Name /	Composition	CAS	Hazard Class	Hazard statement
Generic name	weight %	Registry No.	(category)	
Ethanol	$25 \sim 35$	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	$15 \sim 25$	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 9	EVRACURE CONTROLS AND DERSONAL PROTECTION

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMIT

ACGIH (2012) Ethanol 1-methoxypropan-2-ol	STEL TWA	1000ppm 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
Appearance	÷ black liquid
Odour	: minor solvent odour
pH	: Not applicable
Boiling point	: No data available
Flash point	\therefore 19.0 °C (closed cup)
Relative Density	(at 25°C) $: 0.85 \sim 0.95 \text{ (g/cm}^3)$
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	$: CO, CO_2$

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity	: LD/LC50 values that are re [Ethanol]	: LD/LC50 values that are relevant for classification		
	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	

[ISO11014:2009][Shachihata Inc.] [EK-78	0_black_d] 4/5			
	Inhalation-rat	LC50	>7,559ppm/6h	
[E	thyl lactate]			
	Oral-rat	LD50	2,500mg/kg	
	Inhalation-rat	LC50	>5,400mg/m ³ /8H	
Serious eye damage /eye irritation	Category 1	Causes se	erious eye damage	
Specific target organ toxicity	: Category 3	B May caus	e respiratory irritation	
(single exposure)		May caus	e 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		n not possible		
Hazardous to the ozone layer : Classification not possible		n not possible		
SECTION 13 DISPOSAL CONSIDERATIONS				
Disposal must be made according t	Disposal must be made according to official regulations.			
Comply with all Federal, State, and Local regulations regarding disposal.				
Do not allow product to reach grou	nd, any water course or	sewage system.	_	

SECTION 14 TRANSPORT INFORMATION

UN number UN proper shipping name UN Classification Packing group Marine pollutant (Y/N) EmS number	(DOT, ADR, IMDG, IATA) (DOT, ADR, IMDG, IATA) (DOT, ADR, IMDG, IATA)	 UN1210 PRINTING INK ,flammable 3 II N F-E,S-D 	3	
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SECTION 15 REGULATORY INFORMATION

< EU Information > Regulation (EC) No 1272/2008 (CLP) : [Ethanol] Substance name : Flammable liquids, Category 2 Hazard Class & Category Symbols : GHS02 : Signal word Danger Hazard statements : H225 Highly flammable liquid and vapour : [1-methoxypropan-2-ol] Substance name 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 : [Ethyl lactate] Substance name Hazard Class & Category : Flammable liquids, Category 3 Eye irritation, Category 1 Specific target organ toxicity - single exposure, Category 3 : GHS02,GHS07,GHS05 Symbols 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/ECHazard designation Substance name : [Ethanol] Classification : F; R11 **R**-Phrase : R11 Highly flammable. S-Phrase : S2 Keep out of the reach of children. S7Keep container tightly closed.

Keep away from sources of ignition - No smoking.

S16

[ISO11014:2009][Shachihata Inc.] [EK-780_black_d] 5/5

Symbols and indication	ons of danger specific F: Highly flammabl	e	
Hazard designation			
Substance name	: [1-methoxypropan-2-ol]	thoxypropan-2-ol]	
Classification	: R10 - R67		
R-Phrase	R10 Flammable.		
	R67 Vapours may cause drowsir	ess and dizziness.	
S-Phrase	S2 Keep out of the reach of chi	ldren.	
Symbols and indication	ons of danger specific none		
Hazard designation			
Substance name	: [Ethyl lactate]		
Classification	: R10 - Xi; R37-41		
R-Phrase	R10 Flammable.		
	R37 Irritating to respiratory sys	tem.	
	R41 Risk of serious damage to e		
S-Phrase	S2 Keep out of the reach of chi	ldren.	
	S24 Avoid contact with skin.		
	S26 In case of contact with eyes and seek medical advice.	, rinse immediately with plenty of water	
	S39 Wear eye/face protection.		
Symbols and indication	ons of danger specific Xi : Irritant		
< USA Information >			
OSHA STATUS : This	product is hazardous under 29 CFR 1910.1200.		
TSCA STATUS : All c	omponents on TSCA INVENTORY.		

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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 does 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.