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SAFETY DATA SHEET

according to Regulation (EC) 1907/2006

Date of Issue: Jan 11,2012

WHITE COMPLETE AND ADDREES

SECTION 1	IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND
	OF THE COMPANY/UNDERTAKING
Product Name	Artline WHITEBOARD MARKER EK-525T Artline WHITEBOARD MARKER EK-525TT Artline WHITEBOARD MARKER EK-541T
	Color : (Black)
Supplier	: Shachihata (Europe) Limited
	Artline Point, Ashville Way, Sutton Weaver, Runcorn, Cheshire WA7 3EZ. UK Telephone: 0870 600 5 006 Fax: 0871 200 5 006
Manufacturer	: Shachihata Inc. [Japan] 4-69,Amazuka-cho,Nishi-ku,Nagoya City,451-0021,Japan
e-mail address of per- responsible for this S	son : <u>www.artline-xstamper.com</u>
Emergency informat	ion : Telephone: 0870 600 5 006
Use of the Product	: Permanent marker ink

SECTION 2 HAZARDS IDENTIFICATION

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Xn∶Harmful Xi∶Irritant

Symbols and indications of danger specific



F : Highly flammable

Hazard designation

- R11 : Highly flammable.
- R36 : Irritating to eyes.
- R41 : Risk of serious damage to eyes.
- R67 : Vapours may cause drowsiness and dizziness.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation	: I	Preparation
Ingredients	:	

Chemical Name /	Composition	EC	CAS	EU Symbol/
Generic name	weight %	Registry No.	Registry No.	R -Phrase
Ethanol	$20 \sim 30$	200-578-6	64-17-5	F: R11
Propan-2-ol	30~40	200-661-7	67-63-0	R11-Xi; R36-67
Propan-1-ol	20~30	200-746-9	71-23-8	F; R11 Xi; R41-R67
Carbon black	1~10	215-609-9	1333-86-4	Not required
Synthetic resin	1~10	Confidential	Confidential	Not required
Additive	1~10	Confidential	Confidential	Not required

SECTION 4		
EGHUN 4	FIRST AID MEASURES	
Inhalation	: Supply fresh air. If require Consult a doctor if sympton	ed, provide artificial respiration. Keep patient warm. ms persist.
Ingestion	: Immediately consult a doct	tor.
Еуе	: Wash the eyes immediately and consult a doctor for me	y with large amounts of running water for over 15 minutes, edical advice.
Skin		d wash with soap and water. It a doctor for medical advice.
SECTION 5	FIRE-FIGHTING MEASURE	ES
Suitable extingui	ishing agents	: Dry chemical powder, foam or carbon dioxide.
For safety reason	ns unsuitable extinguishing agents	: Water.
Protective equipr	nent	: Mount respiratory protective device.
SECTION 6	ACCIDENTAL RELEASE M	EASURES
D	·····	
Personal Precaut	ions : Avoid contact v	with skin, eyes and clothing.
Environmental P	'recautions : Do not release	to sewer, surface water or ground water.
Method for Clean	ung Un : Wipe off with y	wet cloth or paper.
SECTION 7	HANDLING AND STORAGE	Ξ
Handling	: Use with adequate ventilation.	
	Avoid contact with skin, eyes and	d clothing.
	A . 1 . 1 . 1	
	Avoid inhalation and ingestion.	
	Avoid inhalation and ingestion. In case of contact, wash out the c	contaminated area immediately.
Storage		
Storage	In case of contact, wash out the c : Keep in a cool and dry place. Pro Keep away from heat and flame.	tect from sunlight.
Storage	In case of contact, wash out the c : Keep in a cool and dry place. Pro	tect from sunlight.
Storage Specific Uses	In case of contact, wash out the c : Keep in a cool and dry place. Pro Keep away from heat and flame.	tect from sunlight.
Specific Uses	 In case of contact, wash out the c Keep in a cool and dry place. Pro Keep away from heat and flame. Keep out of the reach of children Ink for permanent marker 	tect from sunlight.
	In case of contact, wash out the cKeep in a cool and dry place. ProKeep away from heat and flame.Keep out of the reach of children	tect from sunlight.
Specific Uses	In case of contact, wash out the c : Keep in a cool and dry place. Pro Keep away from heat and flame. Keep out of the reach of children : Ink for permanent marker EXPOSURE CONTROLS / P MIT VALUES : EH40/2005 Workp	tect from sunlight.
Specific Uses	In case of contact, wash out the c : Keep in a cool and dry place. Pro Keep away from heat and flame. Keep out of the reach of children : Ink for permanent marker EXPOSURE CONTROLS / P MIT VALUES : EH40/2005 Workp 64-17-5 ethanol	tect from sunlight. PERSONAL PROTECTION place exposure limits
Specific Uses	In case of contact, wash out the c : Keep in a cool and dry place. Pro Keep away from heat and flame. Keep out of the reach of children : Ink for permanent marker EXPOSURE CONTROLS / P MIT VALUES : EH40/2005 Workp 64-17-5 ethanol Long-term exp	tect from sunlight. PERSONAL PROTECTION place exposure limits osure limit (8-hour TWA reference period)
Specific Uses	In case of contact, wash out the c : Keep in a cool and dry place. Pro Keep away from heat and flame. Keep out of the reach of children : Ink for permanent marker EXPOSURE CONTROLS / P MIT VALUES : EH40/2005 Workp 64-17-5 ethanol Long-term exp 1000 ppm	tect from sunlight.
Specific Uses	In case of contact, wash out the c : Keep in a cool and dry place. Pro Keep away from heat and flame. Keep out of the reach of children : Ink for permanent marker EXPOSURE CONTROLS / P MIT VALUES : EH40/2005 Workp 64-17-5 ethanol Long-term exp 1000 ppm 67-63-0 Propan-2	tect from sunlight. PERSONAL PROTECTION place exposure limits osure limit (8-hour TWA reference period) 1920 mg.m ⁻³ col
Specific Uses	In case of contact, wash out the c : Keep in a cool and dry place. Pro Keep away from heat and flame. Keep out of the reach of children : Ink for permanent marker EXPOSURE CONTROLS / P MIT VALUES : EH40/2005 Workp 64-17-5 ethanol Long-term exp 1000 ppm 67-63-0 Propan-2	tect from sunlight.
Specific Uses	In case of contact, wash out the c : Keep in a cool and dry place. Pro Keep away from heat and flame. Keep out of the reach of children : Ink for permanent marker EXPOSURE CONTROLS / P MIT VALUES : EH40/2005 Workp 64-17-5 ethanol Long-term exp 1000 ppm 67-63-0 Propan-2 Long-term exp 400 ppm	tect from sunlight. PERSONAL PROTECTION place exposure limits osure limit (8-hour TWA reference period) 1920 mg.m ⁻³ col osure limit (8-hour TWA reference period) 999 mg.m ⁻³ posure limit (15-minute reference period)
Specific Uses	In case of contact, wash out the c : Keep in a cool and dry place. Pro Keep away from heat and flame. Keep out of the reach of children : Ink for permanent marker EXPOSURE CONTROLS / P MIT VALUES : EH40/2005 Workp 64-17-5 ethanol Long-term exp 1000 ppm 67-63-0 Propan-2 Long-term exp 400 ppm Short-term exp 500 ppm	tect from sunlight. PERSONAL PROTECTION place exposure limits osure limit (8-hour TWA reference period) 1920 mg.m ⁻³ col osure limit (8-hour TWA reference period) 999 mg.m ⁻³ posure limit (15-minute reference period) 1250 mg.m ⁻³
Specific Uses	In case of contact, wash out the c : Keep in a cool and dry place. Pro Keep away from heat and flame. Keep out of the reach of children : Ink for permanent marker EXPOSURE CONTROLS / P MIT VALUES : EH40/2005 Workp 64-17-5 ethanol Long-term exp 1000 ppm 67-63-0 Propan-2 Long-term exp 400 ppm Short-term exp 500 ppm 71-23-8 Propan-1	tect from sunlight. PERSONAL PROTECTION place exposure limits osure limit (8-hour TWA reference period) 1920 mg.m ⁻³ :•ol osure limit (8-hour TWA reference period) 999 mg.m ⁻³ col
Specific Uses	In case of contact, wash out the c : Keep in a cool and dry place. Pro Keep away from heat and flame. Keep out of the reach of children : Ink for permanent marker EXPOSURE CONTROLS / P MIT VALUES : EH40/2005 Workp 64-17-5 ethanol Long-term exp 1000 ppm 67-63-0 Propan-2 Long-term exp 400 ppm Short-term exp 500 ppm 71-23-8 Propan-1 Long-term exp	tect from sunlight. PERSONAL PROTECTION place exposure limits osure limit (8-hour TWA reference period) 1920 mg.m ⁻³ col osure limit (8-hour TWA reference period) 999 mg.m ⁻³ toosure limit (15-minute reference period) 1250 mg.m ⁻³ -ol osure limit (8-hour TWA reference period)
Specific Uses	In case of contact, wash out the c : Keep in a cool and dry place. Pro Keep away from heat and flame. Keep out of the reach of children : Ink for permanent marker EXPOSURE CONTROLS / P MIT VALUES : EH40/2005 Workp 64-17-5 ethanol Long-term exp 1000 ppm 67-63-0 Propan-2 Long-term exp 400 ppm Short-term exp 500 ppm 71-23-8 Propan-1 Long-term exp 200 ppm	tect from sunlight. PERSONAL PROTECTION place exposure limits osure limit (8-hour TWA reference period) 1920 mg.m ⁻³ -ol osure limit (8-hour TWA reference period) 999 mg.m ⁻³ col

EXPOSURE CONTROLS	: Use adequate ventilation.
PERSONAL PROTECTION	: Respiratory Protection
	Use with local exhaust ventilation, when in long use.

[SDS-english-eu] [EK-525T_black_a] [2012/1/11] 3/4

- : 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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Black liquid
Odor	: minor solvent oder
рН:	: Not applicable
Boiling point / boiling range	: No data available
Flash point	: 13 $^{\circ}$ C (closed cup)
Explosive properties	: None
Relative Density (at 25°C)	: $0.9 \sim 1.0 (g/cm^3)$
Solubility in Water	: Insoluble

SECTION 10 STABILITY AND REACTIVITY

Stability	: Stable
Conditions to Avoid	: High temperature, Direct sunlight, Fire
Materials to avoided	: Strong acid and base

Hazardous Decomposition Products : CO, CO2

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity	: LD/LC50 values t [ethanol]	hat are relev	vant for classification
	Oral-rat	LD50	7,060mg/kg
	Inhalation-rat	LC50	20,000ppm/10H
	[Propan-2-ol]		
	Oral-rat	LD50	2,000-5,000mg/kg
	Dermal-rabbit	LD50	>5,000mg/kg
	[Propan-1-ol]		
	Oral-rat	LD50	1,900mg/kg
	Dermal-rabbit	LD50	6,700mg/kg

Other information

: Product specific toxicological data are not known.

General notes	: Do not allow product to reach ground water, water course or sewage system.
Ecotoxicity	: No data available
Bioaccumulation	: No data available
Other Adverse Effects	: No data available

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	:	1210
UN Shipping Name	:	Printing ink
UN Classification	:	3
UN Packing Group	:	П

SECTION 15 REGULATORY INFORMATION

< EU Infor [etha			
Loone	Symbol	:	F : Highly flammable
	R-Phrase		R11 : Highly flammable.
	S-Phrase	:	S2 : Keep out of the reach of children.
	6 I mase	•	S7 : Keep container tightly closed.
			S16 : Keep away from sources of ignition - No smoking.
[Prot	pan-2-ol]		Sio Reep away nom sources of ignation into smoking.
	Symbol	:	F : Highly flammable
			Xi : Irritant
	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.
[Prop	pan-1-ol]		
	Symbol	:	F : Highly flammable
			Xi : Irritant
	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.

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).

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SAFETY DATA SHEET

according to Regulation (EC) 1907/2006

Date of Issue: Jan 11,2012

SECTION 1	IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND
	OF THE COMPANY/UNDERTAKING
Product Name	 Artline WHITEBOARD MARKER EK-525T Artline WHITEBOARD MARKER EK-525TT Artline WHITEBOARD MARKER EK-541T Color : (Blue)
Supplier	Shachihata (Europe) Limited
	Artline Point, Ashville Way, Sutton Weaver, Runcorn, Cheshire WA7 3EZ. UK Telephone: 0870 600 5 006 Fax: 0871 200 5 006
Manufacturer	 Shachihata Inc. [Japan] 4-69,Amazuka-cho,Nishi-ku,Nagoya City,451-0021,Japan Telephone:+ 81- 52- 521- 3600 Fax: +81- 52- 521- 3899
e-mail address of per- responsible for this S	son : <u>www.artline-xstamper.com</u>
Emergency informat	ion : Telephone: 0870 600 5 006
Use of the Product	: Permanent marker ink

SECTION 2 HAZARDS IDENTIFICATION

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Symbols and indications of danger specific



F : Highly flammable





Hazard designation

- R11 : Highly flammable.
- R36 : Irritating to eyes.
- R41 : Risk of serious damage to eyes.
- R67 : Vapours may cause drowsiness and dizziness.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation	:	Preparation
Ingredients	:	

Chemical Name /	Composition	EC	CAS	EU Symbol/
Generic name	weight %	Registry No.	Registry No.	R -Phrase
Ethanol	30~40	200-578-6	64-17-5	F: R11
Propan-2-ol	$35{\sim}45$	200-661-7	67-63-0	R11-Xi; R36-67
Propan-1-ol	5~15	200-746-9	71-23-8	F; R11 Xi; R41-R67
Organic pigment	1~10	Confidential	Confidential	Not required
Synthetic resin	1~10	Confidential	Confidential	Not required
Additive	1~10	Confidential	Confidential	Not required

SECTION 4	FIRST AID MEASURES
Inhalation	: Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult a doctor if symptoms persist.
Ingestion	: Immediately consult a doctor.
Еуе	: Wash the eyes immediately with large amounts of running water for over 15 minutes, and consult a doctor for medical advice.
Skin	: Wipe off with dry cloth and wash with soap and water. If irritation persists, consult a doctor for medical advice.
SECTION 5	FIRE-FIGHTING MEASURES
Suitable extingui	: Dry chemical powder, foam or carbon dioxide.
For safety reason	as unsuitable extinguishing agents : Water.
Protective equipr	nent : Mount respiratory protective device.
SECTION 6	ACCIDENTAL RELEASE MEASURES
Personal Precaut	ions : Avoid contact with skin, eyes and clothing.
Environmental P	recautions : Do not release to sewer, surface water or ground water.
Method for Clear	ing Up : Wipe off with wet cloth or paper.
SECTION 7	HANDLING AND STORAGE
Handling	 Use with adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid inhalation and ingestion. In case of contact, wash out the contaminated area immediately.
Storage	 Keep in a cool and dry place. Protect from sunlight. Keep away from heat and flame. Keep out of the reach of children.
Specific Uses	: Ink for permanent marker
SECTION 8	EXPOSURE CONTROLS / PERSONAL PROTECTION
EXPOSURE LIN	AIT VALUES : EH40/2005 Workplace exposure limits 64·17·5 ethanol Long-term exposure limit (8-hour TWA reference period) 1000 ppm 1920 mg.m ⁻³ 67·63·0 Propan·2·ol Long-term exposure limit (8-hour TWA reference period) 400 ppm 999 mg.m ⁻³ Short-term exposure limit (15-minute reference period) 500 ppm 500 ppm 1250 mg.m ⁻³ 71·23·8 Propan·1·ol Long-term exposure limit (8-hour TWA reference period) 200 ppm 500 mg.m ⁻³ Short-term exposure limit (15-minute reference period)
	250 ppm 625 mg.m^{-3}

Use with local exhaust ventilation, when in long use.

EXPOSURE CONTROLS	: Use adequate ventilation.
PERSONAL PROTECTION	: Respiratory Protection

[SDS-english-eu] [EK-525T_blue_a] [2012/1/11] 3/4

- : 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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Blue liquid
Odor	: minor solvent oder
рН:	: Not applicable
Boiling point / boiling range	: No data available
Flash point	: 13 $^{\circ}$ C (closed cup)
Explosive properties	: None
Relative Density (at 25°C)	: $0.9 \sim 1.0 (g/cm^3)$
Solubility in Water	: Insoluble

SECTION 10 STABILITY AND REACTIVITY

Stability	: Stable
Conditions to Avoid	: High temperature, Direct sunlight, Fire
Materials to avoided	: Strong acid and base

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	2,000-5,000mg/kg	
	Dermal-rabbit	LD50	>5,000mg/kg	
	[Propan-1-ol]			
	Oral-rat	LD50	1,900mg/kg	
	Dermal-rabbit	LD50	6,700mg/kg	

Other information

: Product specific toxicological data are not known.

General notes	: Do not allow product to reach ground water, water course or sewage system.
Ecotoxicity	: No data available
Bioaccumulation	: No data available
Other Adverse Effects	: No data available

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	:	1210
UN Shipping Name	:	Printing ink
UN Classification	:	3
UN Packing Group	:	П

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SECTION 15 REGULATORY INFORMATION

	rmation > anol]		
Lonin	Symbol	:	F: Highly flammable
	R-Phrase		R11 : Highly flammable.
	S-Phrase	•	S2 : Keep out of the reach of children.
	DIMASE	•	S7 : Keep container tightly closed.
			S16 : Keep tontainer tightly closed. S16 : Keep away from sources of ignition - No smoking.
[Pro	pan-2-ol]		510 · Reep away nom sources of ignition into smoking.
[110	Symbol	:	F: Highly flammable
		-	Xi : Irritant
	R-Phrase	:	R11 : Highly flammable.
	10 1 11 1400	-	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.
[Pro	pan-1-ol]		
	Symbol	:	F : Highly flammable
			Xi : Irritant
	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.
			$\mathrm{S26}$: In case of contact with eyes, rinse immediately with plenty of water
			and seek medical advice.
			S39 : Wear eye/face protection.

Refer to any other federal , state , ${\rm EU}$, 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).

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Date of Issue: Jan 11,2012

SAFETY DATA SHEET

according to Regulation (EC) 1907/2006

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING WHITEBOARD MARKER 20 Artline WHITEBOARD MARKER EK-525T **Product Name** ٠ Artline WHITEBOARD MARKER EK-541T Color : (Brown) Supplier Shachihata (Europe) Limited : Artline Point, Ashville Way, Sutton Weaver, Runcorn, Cheshire WA7 3EZ. UK Telephone: 0870 600 5 006 Fax: 0871 200 5 006 Manufacturer Shachihata Inc. [Japan] ÷ 4-69, Amazuka-cho, Nishi-ku, Nagoya City, 451-0021, Japan WHITEBOARD PEN Telephone:+ 81- 52- 521- 3600 Fax: +81- 52- 521- 3899 www.artline-xstamper.com e-mail address of person ÷ responsible for this SDS **Emergency** information Telephone: 0870 600 5 006 ÷ Permanent marker ink Use of the Product :

SECTION 2 HAZARDS IDENTIFICATION

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Symbols and indications of danger specific



F : Highly flammable



Hazard designation

- R11 : Highly flammable.
- R36 : Irritating to eyes.
- R41 : Risk of serious damage to eyes.
- R67 : Vapours may cause drowsiness and dizziness.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation	:	Preparation
Ingredients	:	

Chemical Name /	Composition	EC	CAS	EU Symbol/
Generic name	weight %	Registry No.	Registry No.	R-Phrase
Ethanol	$35{\sim}45$	200-578-6	64-17-5	F: R11
Propan-2-ol	30~40	200-661-7	67-63-0	R11-Xi; R36-67
Propan-1-ol	5~15	200-746-9	71-23-8	F; R11 Xi; R41-R67
Organic pigment	1~10	Confidential	Confidential	Not required
Synthetic resin	1~10	Confidential	Confidential	Not required
Additive	1~10	Confidential	Confidential	Not required

TOTION 4			
ECTION 4	FIRST AID MEASURES		
Inhalation	: Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult a doctor if symptoms persist.		
Ingestion	: Immediately consult a doct	or.	
Еуе		Wash the eyes immediately with large amounts of running water for over 15 minutes, and consult a doctor for medical advice.	
Skin		l wash with soap and water. lt a doctor for medical advice.	
SECTION 5	FIRE-FIGHTING MEASURE	ē s	
Suitable extingui	shing agents	: Dry chemical powder, foam or carbon dioxide.	
For safety reason	s unsuitable extinguishing agents	: Water.	
Protective equipr	nent	: Mount respiratory protective device.	
SECTION 6	ACCIDENTAL RELEASE MI	EASURES	
Personal Precaut	ions : Avoid contact v	with skin, eyes and clothing.	
Environmental P	recautions : Do not release	to sewer, surface water or ground water.	
Method for Clean	ing Up : Wipe off with v	vet cloth or paper.	
		-	
SECTION 7	HANDLING AND STORAGE	<i>`</i>	
Handling	: Use with adequate ventilation.		
0	Avoid contact with skin, eyes and	d clothing.	
	Avoid inhalation and ingestion.		
	In case of contact, wash out the c	ontaminated area immediately.	
Storage	: Keep in a cool and dry place. Prot	teet from sunlight	
Diolage	Keep away from heat and flame.	teet nom sumgnt.	
	Keep out of the reach of children.		
Specific Uses	: Ink for permanent marker		
SECTION 8	EXPOSURE CONTROLS / P	ERSONAL PROTECTION	
EXPOSURE LIN	-	place exposure limits	
	64-17-5 ethanol	osure limit (8-hour TWA reference period)	
	1000 ppm	1920 mg.m ⁻³	
		0	
		-01	
	67-63-0 Propan-2	osure limit (8-hour TWA reference period)	
	67-63-0 Propan-2		
	67-63-0 Propan-2 Long-term expo 400 ppm	osure limit (8-hour TWA reference period)	
	67-63-0 Propan-2 Long-term exp 400 ppm Short-term exp 500 ppm	osure limit (8-hour TWA reference period) 999 mg.m ⁻³ posure limit (15-minute reference period) 1250 mg.m ⁻³	
	67-63-0 Propan-2 Long-term expo 400 ppm Short-term exp 500 ppm 71-23-8 Propan-1	osure limit (8-hour TWA reference period) 999 mg.m ⁻³ oosure limit (15-minute reference period) 1250 mg.m ⁻³ -ol	
	67-63-0 Propan-2 Long-term exp 400 ppm Short-term exp 500 ppm 71-23-8 Propan-1 Long-term exp	osure limit (8-hour TWA reference period) 999 mg.m ⁻³ oosure limit (15-minute reference period) 1250 mg.m ⁻³ -ol osure limit (8-hour TWA reference period)	
	67-63-0 Propan-2 Long-term exp 400 ppm Short-term exp 500 ppm 71-23-8 Propan-1 Long-term exp 200 ppm	osure limit (8-hour TWA reference period) 999 mg.m ⁻³ oosure limit (15-minute reference period) 1250 mg.m ⁻³ -ol osure limit (8-hour TWA reference period) 500 mg.m ⁻³	
	67-63-0 Propan-2 Long-term exp 400 ppm Short-term exp 500 ppm 71-23-8 Propan-1 Long-term exp 200 ppm	osure limit (8-hour TWA reference period) 999 mg.m ⁻³ oosure limit (15-minute reference period) 1250 mg.m ⁻³ -ol osure limit (8-hour TWA reference period)	

EXPOSURE CONTROLS	:	Use adequate ventilation.
PERSONAL PROTECTION	:	Respiratory Protection

Use with local exhaust ventilation, when in long use.

[SDS-english-eu] [EK-525T_brown_a] [2012/1/11] 3/4

- : 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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Brown liquid
Odor	: minor solvent oder
рН:	: Not applicable
Boiling point / boiling range	: No data available
Flash point	: $13 ^{\circ}{ m C}$ (closed cup)
Explosive properties	: None
Relative Density (at 25°C)	: 0.9 \sim 1.0 (g/cm ³)
Solubility in Water	: Insoluble

SECTION 10 STABILITY AND REACTIVITY

Stability	: Stable
Conditions to Avoid	: High temperature, Direct sunlight, Fire
Materials to avoided	: Strong acid and base

Hazardous Decomposition Products : CO, CO2

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity	: LD/LC50 values t [ethanol]	hat are relev	vant for classification
	Oral-rat	LD50	7,060mg/kg
	Inhalation-rat	LC50	20,000ppm/10H
	[Propan-2-ol]		
	Oral-rat	LD50	2,000-5,000mg/kg
	Dermal-rabbit	LD50	>5,000mg/kg
	[Propan-1-ol]		
	Oral-rat	LD50	1,900mg/kg
	Dermal-rabbit	LD50	6,700mg/kg

Other information

: Product specific toxicological data are not known.

General notes	: Do not allow product to reach ground water, water course or sewage system.
Ecotoxicity	: No data available
Bioaccumulation	: No data available
Other Adverse Effects	: No data available

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	:	1210
UN Shipping Name	:	Printing ink
UN Classification	:	3
UN Packing Group	:	П

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SECTION 15 REGULATORY INFORMATION

	rmation > anol]		
Lonin	Symbol	:	F: Highly flammable
	R-Phrase		R11 : Highly flammable.
	S-Phrase	•	S2 : Keep out of the reach of children.
	DIMASE	•	S7 : Keep container tightly closed.
			S16 : Keep tontainer tightly closed. S16 : Keep away from sources of ignition - No smoking.
[Pro	pan-2-ol]		510 · Reep away nom sources of ignition into smoking.
[110	Symbol	:	F: Highly flammable
		-	Xi : Irritant
	R-Phrase	:	R11 : Highly flammable.
	10 1 11 1400	-	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.
[Pro	pan-1-ol]		
	Symbol	:	F : Highly flammable
			Xi : Irritant
	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.
			$\mathrm{S26}$: In case of contact with eyes, rinse immediately with plenty of water
			and seek medical advice.
			S39 : Wear eye/face protection.

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).

😼 Shachihata



Date of Issue: Jan 11,2012

SAFETY DATA SHEET

according to Regulation (EC) 1907/2006

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING WINITESSARD MARKER ST. Artline WHITEBOARD MARKER EK-525T **Product Name** ٠ Artline WHITEBOARD MARKER EK-525TT Artline WHITEBOARD MARKER EK-541T Color : (Green) Supplier Shachihata (Europe) Limited : Artline Point, Ashville Way, Sutton Weaver, Runcorn, Cheshire WA7 3EZ. UK Telephone: 0870 600 5 006 Fax: 0871 200 5 006 Manufacturer Shachihata Inc. [Japan] ÷ 4-69, Amazuka-cho, Nishi-ku, Nagoya City, 451-0021, Japan WHITEBOARD PEN Telephone:+ 81- 52- 521- 3600 Fax: +81- 52- 521- 3899 www.artline-xstamper.com e-mail address of person ÷ responsible for this SDS **Emergency** information Telephone: 0870 600 5 006 ÷ Permanent marker ink Use of the Product :

SECTION 2 HAZARDS IDENTIFICATION

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Symbols and indications of danger specific



F : Highly flammable





Hazard designation

- R11 : Highly flammable.
- R36 : Irritating to eyes.
- R41 : Risk of serious damage to eyes.
- R67 : Vapours may cause drowsiness and dizziness.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation	:	Preparation
Ingredients	:	

Chemical Name /	Composition	EC	CAS	EU Symbol/
Generic name	weight %	Registry No.	Registry No.	R -Phrase
Ethanol	$35{\sim}45$	200-578-6	64-17-5	F: R11
Propan-2-ol	$30 \sim 40$	200-661-7	67-63-0	R11-Xi; R36-67
Propan-1-ol	$5 \sim 15$	200-746-9	71-23-8	F; R11 Xi; R41-R67
Organic pigment	1~10	Confidential	Confidential	Not required
Synthetic resin	1~10	Confidential	Confidential	Not required
Additive	1~10	Confidential	Confidential	Not required

ECTION 4	FIRST AID MEASURES	
Inhalation	: Supply fresh air. If require Consult a doctor if symptor	d, provide artificial respiration. Keep patient warm. ns persist.
Ingestion	: Immediately consult a doct	or.
Еуе	: Wash the eyes immediately and consult a doctor for me	y with large amounts of running water for over 15 minutes, edical advice.
Skin		l wash with soap and water. lt a doctor for medical advice.
SECTION 5	FIRE-FIGHTING MEASURE	E S
Suitable extingu	ishing agents	: Dry chemical powder, foam or carbon dioxide.
For safety reason	ns unsuitable extinguishing agents	: Water.
Protective equip	ment	: Mount respiratory protective device.
SECTION 6	ACCIDENTAL RELEASE M	EASURES
Personal Precau	cions : Avoid contact v	with skin, eyes and clothing.
Environmental I	recautions : Do not release	to sewer, surface water or ground water.
Method for Clear	ning Up : Wipe off with w	vet cloth or paper.
SECTION 7	HANDLING AND STORAGE	2
	TT ' 1'	
Handling	: Use with adequate ventilation. Avoid contact with skin, eyes and	l clothing.
	Avoid inhalation and ingestion.	
	In case of contact, wash out the c	ontaminated area immediately.
Storage : Keep in a cool and dry place. Protect from sunli		tect from sunlight.
	Keep away from heat and flame.	
	Keep out of the reach of children.	
Specific Uses	: Ink for permanent marker	
SECTION 8	EXPOSURE CONTROLS / P	ERSONAL PROTECTION
EXPOSURE LI	MTT VALUES · EH40/2005 Works	place exposure limits
	64-17-5 ethanol	
	Long-term expe	osure limit (8-hour TWA reference period)
	1000 ppm	1920 mg.m^{-3}
	67-63-0 Propan-2	
		osure limit (8-hour TWA reference period) $000 \text{ mm} \text{ m}^{-3}$
	400 ppm	999 mg.m ⁻³ oosure limit (15-minute reference period)
	Shout-town own	
		1250 mg m^{-3}
	Short-term exp 500 ppm 71-23-8 Propan-1	1250 mg.m ⁻³ -ol
	500 ppm 71-23-8 Propan-1	-ol osure limit (8-hour TWA reference period)
	500 ppm 71-23-8 Propan-1 Long-term expo 200 ppm	-ol osure limit (8-hour TWA reference period) 500 mg.m ⁻³
	500 ppm 71-23-8 Propan-1 Long-term expo 200 ppm	-ol osure limit (8-hour TWA reference period)

EXPOSURE CONTROLS	: Use adequate ventilation.
PERSONAL PROTECTION	: Respiratory Protection Use with local exhaust ventilation, when in long use.

[SDS-english-eu] [EK-525T_green_a] [2012/1/11] 3/4

- : 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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Green liquid
Odor	: minor solvent oder
рН:	: Not applicable
Boiling point / boiling range	: No data available
Flash point	: $13 ^{\circ}{ m C}$ (closed cup)
Explosive properties	: None
Relative Density (at 25°C)	: 0.9 \sim 1.0 (g/cm ³)
Solubility in Water	: Insoluble

SECTION 10 STABILITY AND REACTIVITY

: Stable
: High temperature, Direct sunlight, Fire
: Strong acid and base

Hazardous Decomposition Products : CO, CO2

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity	: LD/LC50 values t [ethanol]			
	Oral-rat	LD50	7,060mg/kg	
	Inhalation-rat	LC50	20,000ppm/10H	
	[Propan-2-ol]			
	Oral-rat	LD50	2,000-5,000mg/kg	
	Dermal-rabbit	LD50	>5,000mg/kg	
	[Propan-1-ol]			
	Oral-rat	LD50	1,900mg/kg	
	Dermal-rabbit	LD50	6,700mg/kg	

Other information

: Product specific toxicological data are not known.

General notes	: Do not allow product to reach ground water, water course or sewage system.
Ecotoxicity	: No data available
Bioaccumulation	: No data available
Other Adverse Effects	: No data available

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	:	1210
UN Shipping Name	:	Printing ink
UN Classification	:	3
UN Packing Group	:	П

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SECTION 15 REGULATORY INFORMATION

EU Inforr			
[etha:	-		
	Symbol	:	F: Highly flammable
	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.
[Prop	an-2-ol]		
	Symbol	:	F : Highly flammable
			Xi : Irritant
	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.
[Prop	an-1-ol]		
	Symbol	:	F : Highly flammable
	-		Xi : Irritant
	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.
			······································

Refer to any other federal , state , ${\rm EU}$, 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).

😼 Shachihata



Date of Issue: Jan 11,2012

SAFETY DATA SHEET

according to Regulation (EC) 1907/2006

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING WHITTEDARD MARKER 20 Artline WHITEBOARD MARKER EK-525T **Product Name** ٠ Artline WHITEBOARD MARKER EK-541T Color : (Orange) Supplier Shachihata (Europe) Limited : Artline Point, Ashville Way, Sutton Weaver, Runcorn, Cheshire WA7 3EZ. UK Telephone: 0870 600 5 006 Fax: 0871 200 5 006 Manufacturer Shachihata Inc. [Japan] ÷ 4-69, Amazuka-cho, Nishi-ku, Nagoya City, 451-0021, Japan WHITEBOARD PEN Telephone:+ 81- 52- 521- 3600 Fax: +81- 52- 521- 3899 www.artline-xstamper.com e-mail address of person ÷ responsible for this SDS **Emergency** information Telephone: 0870 600 5 006 • Permanent marker ink Use of the Product :

SECTION 2 HAZARDS IDENTIFICATION

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Symbols and indications of danger specific



F : Highly flammable



Hazard designation

- R11 : Highly flammable.
- R36 : Irritating to eyes.
- R41 : Risk of serious damage to eyes.
- R67 : Vapours may cause drowsiness and dizziness.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation	:	Preparation
Ingredients	:	

Chemical Name /	Composition	EC	CAS	EU Symbol/
Generic name	weight %	Registry No.	Registry No.	R-Phrase
Ethanol	$35{\sim}45$	200-578-6	64-17-5	F: R11
Propan-2-ol	30~40	200-661-7	67-63-0	R11-Xi; R36-67
Propan-1-ol	$5 \sim 15$	200-746-9	71-23-8	F; R11 Xi; R41-R67
Organic pigment	1~10	Confidential	Confidential	Not required
Synthetic resin	1~10	Confidential	Confidential	Not required
Additive	1~10	Confidential	Confidential	Not required

[SDS-english-eu] [[EK-525T_orange_a] [2012/1/11] 2/4	
SECTION 4	FIRST AID MEASURES	
Inhalation	: Supply fresh air. If require Consult a doctor if symptor	d, provide artificial respiration. Keep patient warm. ns persist.
Ingestion	: Immediately consult a doct	or.
Eye	: Wash the eyes immediately and consult a doctor for me	with large amounts of running water for over 15 minutes, dical advice.
Skin		wash with soap and water. It a doctor for medical advice.
SECTION 5	FIRE-FIGHTING MEASURE	ZS
Suitable extingui	shing agents	: Dry chemical powder, foam or carbon dioxide.
For safety reason	s unsuitable extinguishing agents	: Water.
Protective equipr	nent	: Mount respiratory protective device.
SECTION 6	ACCIDENTAL RELEASE MI	EASURES
Personal Precaut	ions : Avoid contact v	vith skin, eyes and clothing.
Environmental P	recautions : Do not release	to sewer, surface water or ground water.
Method for Clear	ing Up : Wipe off with w	vet cloth or paper.
SECTION 7	HANDLING AND STORAGE	
Handling	: Use with adequate ventilation. Avoid contact with skin, eyes and Avoid inhalation and ingestion. In case of contact, wash out the c	
Storage	: Keep in a cool and dry place. Pro Keep away from heat and flame. Keep out of the reach of children.	tect from sunlight.
Specific Uses	: Ink for permanent marker	
SECTION 8	EXPOSURE CONTROLS / P	ERSONAL PROTECTION
EXPOSURE LIN	64-17-5 ethanol Long-term expo 1000 ppm 67-63-0 Propan-2	osure limit (8-hour TWA reference period) 1920 mg.m ⁻³

	250 ppm 625 mg.m ⁻³
EXPOSURE CONTROLS	: Use adequate ventilation.
PERSONAL PROTECTION	: Respiratory Protection

Use with local exhaust ventilation, when in long use.

[SDS-english-eu] [EK-525T_orange_a] [2012/1/11] 3/4

- : 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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Orange liquid
Odor	: minor solvent oder
рН:	: Not applicable
Boiling point / boiling range	: No data available
Flash point	: 13 $^{\circ}$ C (closed cup)
Explosive properties	: None
Relative Density (at 25°C)	: $0.9 \sim 1.0 (g/cm^3)$
Solubility in Water	: Insoluble

SECTION 10 STABILITY AND REACTIVITY

unlight, Fire
1

Hazardous Decomposition Products : CO, CO2

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity		hat are relev	vant for classification
	[ethanol]		_
	Oral-rat	LD50	7,060mg/kg
	Inhalation-rat	LC50	20,000ppm/10H
	[Propan-2-ol]		
	Oral-rat	LD50	2,000-5,000mg/kg
	Dermal-rabbit	LD50	>5,000mg/kg
	[Propan-1-ol]		
	Oral-rat	LD50	1,900mg/kg
	Dermal-rabbit	LD50	6,700mg/kg

Other information

: Product specific toxicological data are not known.

General notes	: Do not allow product to reach ground water, water course or sewage system.
Ecotoxicity	: No data available
Bioaccumulation	: No data available
Other Adverse Effects	: No data available

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	:	1210
UN Shipping Name	:	Printing ink
UN Classification	:	3
UN Packing Group	:	П

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SECTION 15 REGULATORY INFORMATION

EU Inforr			
[etha:	-		
	Symbol	:	F: Highly flammable
	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.
[Prop	an-2-ol]		
	Symbol	:	F : Highly flammable
			Xi : Irritant
	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.
[Prop	an-1-ol]		
	Symbol	:	F : Highly flammable
	-		Xi : Irritant
	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.
			······································

Refer to any other federal , state , ${\rm EU}$, 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).

😼 Shachihata



Date of Issue: Jan 11,2012

SAFETY DATA SHEET

according to Regulation (EC) 1907/2006

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING WINTERNARD MARKER 32 Artline WHITEBOARD MARKER EK-525T **Product Name** ٠ Artline WHITEBOARD MARKER EK-541T Color : (Pink) Supplier Shachihata (Europe) Limited : Artline Point, Ashville Way, Sutton Weaver, Runcorn, Cheshire WA7 3EZ. UK Telephone: 0870 600 5 006 Fax: 0871 200 5 006 Manufacturer Shachihata Inc. [Japan] ÷ 4-69, Amazuka-cho, Nishi-ku, Nagoya City, 451-0021, Japan WHITEBOARD PEN Telephone:+ 81- 52- 521- 3600 Fax: +81- 52- 521- 3899 www.artline-xstamper.com e-mail address of person ÷ responsible for this SDS **Emergency** information Telephone: 0870 600 5 006 ÷ Permanent marker ink Use of the Product :

SECTION 2 HAZARDS IDENTIFICATION

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Symbols and indications of danger specific



F : Highly flammable



Hazard designation

- R11 : Highly flammable.
- R36 : Irritating to eyes.
- R41 : Risk of serious damage to eyes.
- R67 : Vapours may cause drowsiness and dizziness.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation	:	Preparation
Ingredients	:	

Chemical Name /	Composition	EC	CAS	EU Symbol/
Generic name	weight %	Registry No.	Registry No.	R-Phrase
Ethanol	$35{\sim}45$	200-578-6	64-17-5	F: R11
Propan-2-ol	30~40	200-661-7	67-63-0	R11-Xi; R36-67
Propan-1-ol	$5 \sim 15$	200-746-9	71-23-8	F; R11 Xi; R41-R67
Organic pigment	1~10	Confidential	Confidential	Not required
Synthetic resin	1~10	Confidential	Confidential	Not required
Additive	1~10	Confidential	Confidential	Not required

(SDS-english-eu) (E	K-525T_pink_a] [2012/1/11] 2/4
SECTION 4	FIRST AID MEASURES
Inhalation	: Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult a doctor if symptoms persist.
Ingestion	: Immediately consult a doctor.
Еуе	: Wash the eyes immediately with large amounts of running water for over 15 minutes, and consult a doctor for medical advice.
Skin	: Wipe off with dry cloth and wash with soap and water. If irritation persists, consult a doctor for medical advice.
SECTION 5	FIRE-FIGHTING MEASURES
Suitable extinguis	shing agents : Dry chemical powder, foam or carbon dioxide.
For safety reason	s unsuitable extinguishing agents : Water.
Protective equipm	nent : Mount respiratory protective device.
SECTION 6	ACCIDENTAL RELEASE MEASURES
Personal Precaut	ions : Avoid contact with skin, eyes and clothing.
Environmental P	recautions : Do not release to sewer, surface water or ground water.
Method for Clean	ing Up : Wipe off with wet cloth or paper.
SECTION 7	HANDLING AND STORAGE
Handling	 Use with adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid inhalation and ingestion. In case of contact, wash out the contaminated area immediately.
Storage	 Keep in a cool and dry place. Protect from sunlight. Keep away from heat and flame. Keep out of the reach of children.
Specific Uses	: Ink for permanent marker
SECTION 8	EXPOSURE CONTROLS / PERSONAL PROTECTION
EXPOSURE LIM	IIT VALUES : EH40/2005 Workplace exposure limits 64-17-5 ethanol Long-term exposure limit (8-hour TWA reference period) 1000 ppm 1920 mg.m ⁻³ 67-63-0 Propan-2-ol Long-term exposure limit (8-hour TWA reference period) 400 ppm 999 mg.m ⁻³ Short-term exposure limit (15-minute reference period) 500 ppm 1250 mg.m ⁻³ 71-23-8 Propan-1-ol Long-term exposure limit (8-hour TWA reference period) 200 ppm 500 mg.m ⁻³ Short-term exposure limit (15-minute reference period)
EXPOSURE CO	250 ppm 625 mg.m ⁻³ NTROLS : Use adequate ventilation.

Use with local exhaust ventilation, when in long use.

EXPOSURE CONTROLS	: Use adequate ventilation.
PERSONAL PROTECTION	: Respiratory Protection

[SDS-english-eu] [EK-525T_pink_a] [2012/1/11] 3/4

- : 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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Pink liquid
Odor	: minor solvent oder
рН:	: Not applicable
Boiling point / boiling range	: No data available
Flash point	: $13 ^{\circ}\text{C}$ (closed cup)
Explosive properties	: None
Relative Density (at 25°C)	: $0.9 \sim 1.0 (g/cm^3)$
Solubility in Water	: Insoluble

SECTION 10 STABILITY AND REACTIVITY

Stability	: Stable
Conditions to Avoid	: High temperature, Direct sunlight, Fire
Materials to avoided	: Strong acid and base

Hazardous Decomposition Products : CO, CO2

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity	: LD/LC50 values t [ethanol]	hat are relev	vant for classification
	Oral-rat	LD50	7,060mg/kg
	Inhalation-rat	LC50	20,000ppm/10H
	[Propan-2-ol]		
	Oral-rat	LD50	2,000-5,000mg/kg
	Dermal-rabbit	LD50	>5,000mg/kg
	[Propan-1-ol]		
	Oral-rat	LD50	1,900mg/kg
	Dermal-rabbit	LD50	6,700mg/kg

Other information

: Product specific toxicological data are not known.

General notes	: Do not allow product to reach ground water, water course or sewage system.
Ecotoxicity	: No data available
Bioaccumulation	: No data available
Other Adverse Effects	: No data available

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	:	1210
UN Shipping Name	:	Printing ink
UN Classification	:	3
UN Packing Group	:	П

SECTION 15 REGULATORY INFORMATION

< EU Info	rmation > anol]		
[00110	Symbol	:	F : Highly flammable
	R-Phrase		R11 : Highly flammable.
	S-Phrase		S2 : Keep out of the reach of children.
	6 i mase		S7 : Keep container tightly closed.
			S16 : Keep away from sources of ignition - No smoking.
[Pro	pan-2-ol]		sie noop ana, nom sources of gineton ine smelling.
•	Symbol	:	F : Highly flammable
	Ū		Xi : Irritant
	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.
[Pro	pan-1-ol]		
	Symbol	:	F : Highly flammable
			Xi : Irritant
	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.

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).

😼 Shachihata



SAFETY DATA SHEET

according to Regulation (EC) 1907/2006

Date of Issue: Jan 11,2012

SECTION 1	IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND
	OF THE COMPANY/UNDERTAKING
Product Name	: Artline WHITEBOARD MARKER EK-525T Artline WHITEBOARD MARKER EK-541T
	Color : (Purple)
Supplier	: Shachihata (Europe) Limited
	Artline Point, Ashville Way, Sutton Weaver, Runcorn, Cheshire WA7 3EZ. UK Telephone: 0870 600 5 006 Fax: 0871 200 5 006
Manufacturer	: Shachihata Inc. [Japan] 4-69,Amazuka-cho,Nishi-ku,Nagoya City,451-0021,Japan
	Telephone:+ 81- 52- 521- 3600 Fax: +81- 52- 521- 3899
e-mail address of pers responsible for this S	active and a
Emergency informat	ion : Telephone: 0870 600 5 006
Use of the Product	: Permanent marker ink

SECTION 2 HAZARDS IDENTIFICATION

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Symbols and indications of danger specific



F : Highly flammable



Hazard designation

- R11 : Highly flammable.
- R36 : Irritating to eyes.
- R41 : Risk of serious damage to eyes.
- R67 : Vapours may cause drowsiness and dizziness.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation	:	Preparation
Ingredients	:	

Chemical Name /	Composition	EC	CAS	EU Symbol/
Generic name	weight %	Registry No.	Registry No.	R -Phrase
Ethanol	$45 \sim 55$	200-578-6	64-17-5	F: R11
Propan-2-ol	$30 \sim 40$	200-661-7	67-63-0	R11-Xi; R36-67
Organic pigment	1~10	Confidential	Confidential	Not required
Synthetic resin	1~10	Confidential	Confidential	Not required
Additive	1~10	Confidential	Confidential	Not required

The wording of the symbol(s) and risk phrase(s) is specified in 15.REGULATORY INFORMATION.

SECTION 4 FIRST AID MEASURES

Inhalation

: Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult a doctor if symptoms persist. [SDS-english-eu] [EK-525T_purple_a] [2012/1/11] 2/4

Ingestion	:	Immediately consult a doctor.
Еуе	:	Wash the eyes immediately with large amounts of running water for over 15 minutes, and consult a doctor for medical advice.
Skin	:	Wipe off with dry cloth and wash with soap and water. If irritation persists, consult a doctor for medical advice.

SECTION 5 FIRE-FIGHTING MEASURES

Suitable extinguish	ing agents		: Dry chemical powder, foam or carbon dioxide.
For safety reasons	unsuitable ext	inguishing agents	: Water.
Protective equipme	nt		: Mount respiratory protective device.
SECTION 6	ACCIDEN	TAL RELEASE ME	ASURES
Personal Precaution	ns	: Avoid contact wi	th skin, eyes and clothing.
Environmental Pre	cautions	: Do not release to	o sewer, surface water or ground water.
Method for Cleanin	ıg Up	: Wipe off with we	et cloth or paper.
SECTION 7	HANDLIN	G AND STORAGE	
Handling	Avoid con Avoid inh	adequate ventilation. tact with skin, eyes and alation and ingestion. contact, wash out the co	clothing. ntaminated area immediately.
Storage	Keep awa	cool and dry place. Prote y from heat and flame. of the reach of children.	et from sunlight.
Specific Uses	: Ink for pe	ermanent marker	
SECTION 8	EXPOSU	RE CONTROLS / PE	CRSONAL PROTECTION
EXPOSURE LIMI	T VALUES	1000 ppm 67-63-0 Propan-2-c Long-term expos 400 ppm	sure limit (8-hour TWA reference period) 1920 mg.m ⁻³
EXPOSURE CON	FROLS	: Use adequate venti	lation.
PERSONAL PROT	ECTION	 Hand Protection Not required, but v Eye Protection Not required, but v Skin Protection 	tion haust ventilation, when in long use. wear safety gloves, if necessary. wear safety glasses, if necessary. ntact,wear impervious clothing such as gloves, apron, as

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Other Adverse Effe	cts : No data available	е		
Bioaccumulation	: No data available	е		
Ecotoxicity	: No data available	: No data available		
General notes	: Do not allow produ	uct to reach	ground water, water course or sewage system.	
SECTION 12	ECOLOGICAL INFORM	IATION		
Other information	: Product specific toxic	-	a are not known.	
	Dermal-rabbit	LD50	>5,000mg/kg	
	[Propan-2-ol] Oral-rat	LD50	2,000-5,000mg/kg	
	Inhalation-rat	LC50	20,000ppm/10H	
	[ethanol] Oral-rat	LD50	7,060mg/kg	
Acute toxicity		hat are relev	vant for classification	
SECTION 11	TOXICOLOGICAL INF	ORMATI	ON .	
Hazardous Decomp	osition Products : CO, C	O2		
Materials to avoide	d : Strong	g acid and b	ase	
Conditions to Avoid	: High t	temperature	e, Direct sunlight, Fire	
Stability	: Stable	9		
SECTION 10	STABILITY AND REAC	TIVITY		
Solubility in Water	· Insolu	lble		
Relative Density	(at 25℃) : 0.9~1	$.0 (g/cm^3)$		
Explosive propertie	s : None			
Flash point	: 13 °C	(closed cuj	p)	
Boiling point / boili	n g range : No da	ata availabl	e	
рН:	: Not aj	oplicable		
Odor	: minor	solvent ode	r	
Appearance	: Purple	liquia		

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	: 1	210
UN Shipping Name	: P	rinting ink
UN Classification	: 3	
UN Packing Group	: I	I

SECTION 15 REGULATORY INFORMATION

< EU Information	>	
[ethanol]		
Symbo	ol :	F : Highly flammable
R-Phra	ase :	R11 : Highly flammable.
S-Phra	ase :	S2 : Keep out of the reach of children.
		S7 : Keep container tightly closed.
		S16 : Keep away from sources of ignition - No smoking.
[Propan-2-ol]	
Symbo	ol :	F : Highly flammable
		Xi : Irritant
R-Phra	ase :	R11 : Highly flammable.
		R36 : Irritating to eyes.
		R67 : Vapours may cause drowsiness and dizziness.
S-Phra	ase :	$\mathrm{S2}$: 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.

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)

😼 Shachihata



SAFETY DATA SHEET

according to Regulation (EC) 1907/2006

Date of Issue: Jan 11,2012

SECTION 1 I	NTIFICATION OF THE SUBSTANCE/PREPARATION AND	
6	THE COMPANY/UNDERTAKING	
Product Name	: Artline WHITEBOARD MARKER EK-525T Artline WHITEBOARD MARKER EK-525TT Artline WHITEBOARD MARKER EK-541T Color : (Red)	
Supplier	 Shachihata (Europe) Limited Artline Point, Ashville Way, Sutton Weaver, Runcorn, Cheshire WA7 3EZ. UK Telephone: 0870 600 5 006 Fax: 0871 200 5 006 	
Manufacturer	: Shachihata Inc. [Japan] 4-69,Amazuka-cho,Nishi-ku,Nagoya City,451-0021,Japan Telephone:+ 81- 52- 521- 3600 Fax: +81- 52- 521- 3899	
e-mail address of perso responsible for this SI	Telephone:+ 81- 52- 521- 3600 Fax: +81- 52- 521- 3899 : www.artline-xstamper.com : Telephone: 0870 600 5 006	
Emergency information	: Telephone: 0870 600 5 006	
Use of the Product	: Permanent marker ink	

SECTION 2 HAZARDS IDENTIFICATION

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Symbols and indications of danger specific



F : Highly flammable

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- Hazard designation R11 : Highly flammable.
 - R36 : Irritating to eyes.
 - R56 · Irritating to eyes.
 - R41 : Risk of serious damage to eyes.
 - $R67 \qquad \because \text{Vapours may cause drowsiness and dizziness.}$

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation	: F	Preparation
Ingredients	:	

Chemical Name /	Composition	EC	CAS	EU Symbol/
Generic name	weight %	Registry No.	Registry No.	R -Phrase
Ethanol	$30{\sim}40$	200-578-6	64-17-5	F: R11
Propan-2-ol	$35{\sim}45$	200-661-7	67-63-0	R11-Xi; R36-67
Propan-1-ol	$5 \sim 15$	200-746-9	71-23-8	F; R11 Xi; R41-R67
Organic pigment	1~10	Confidential	Confidential	Not required
Synthetic resin	1~10	Confidential	Confidential	Not required
Additive	1~10	Confidential	Confidential	Not required



SECTION 4	FIRST AID MEASURES	
Inhalation	: Supply fresh air. If require Consult a doctor if sympton	d, provide artificial respiration. Keep patient warm. ms persist.
Ingestion	: Immediately consult a doct	cor.
Еуе	: Wash the eyes immediately and consult a doctor for me	y with large amounts of running water for over 15 minutes, edical advice.
Skin		l wash with soap and water. lt a doctor for medical advice.
SECTION 5	FIRE-FIGHTING MEASURE	ES
Suitable extingu	ishing agents	: Dry chemical powder, foam or carbon dioxide.
For safety reason	ns unsuitable extinguishing agents	: Water.
Protective equip	ment	: Mount respiratory protective device.
SECTION 6	ACCIDENTAL RELEASE M	EASURES
Personal Precau	tions · Avoid contacts	with skin, eyes and clothing.
r ersonar r recau		
Environmental H	Precautions : Do not release	to sewer, surface water or ground water.
Method for Clear	ning Up : Wipe off with v	vet cloth or paper.
SECTION 7	HANDLING AND STORAGE	Ε
Handling	: Use with adequate ventilation. Avoid contact with skin, eyes and	d clothing.
	Avoid inhalation and ingestion.	
	In case of contact, wash out the c	contaminated area immediately.
Storage	: Keep in a cool and dry place. Pro	tect from sunlight.
	Keep away from heat and flame.	
	Keep out of the reach of children.	
Specific Uses	: Ink for permanent marker	
SECTION 8	EXPOSURE CONTROLS / P	PERSONAL PROTECTION
EXPOSURE LI	MTT VALUES · FH40/2005 Work	place exposure limits
	64-17-5 ethanol	
		osure limit (8-hour TWA reference period)
	1000 ppm	1920 mg.m^{-3}
	67-63-0 Propan-2	
		osure limit (8-hour TWA reference period) 999 mg.m ⁻³
	400 ppm Short-term exp	999 mg.m ⁻ posure limit (15-minute reference period)
	500 ppm	1250 mg.m^{-3}
	71-23-8 Propan-1	
	Long-term exp	osure limit (8-hour TWA reference period)
	200 ppm	500 mg.m ⁻³
		500 mg.m ⁻³ posure limit (15-minute reference period) 625 mg.m ⁻³

Use with local exhaust ventilation, when in long use.

EXPOSURE CONTROLS	: Use adequate ventilation.
PERSONAL PROTECTION	: Respiratory Protection

[SDS-english-eu] [EK-525T_red_a] [2012/1/11] 3/4

- : 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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Red liquid
Odor	: minor solvent oder
рН:	: Not applicable
Boiling point / boiling range	: No data available
Flash point	: $13 ^{\circ}\mathrm{C}$ (closed cup)
Explosive properties	: None
Relative Density (at 25°C)	: $0.9 \sim 1.0 (g/cm^3)$
Solubility in Water	: Insoluble

SECTION 10 STABILITY AND REACTIVITY

Stability	: Stable
Conditions to Avoid	: High temperature, Direct sunlight, Fire
Materials to avoided	: Strong acid and base

Hazardous Decomposition Products : CO, CO2

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity	: LD/LC50 values t [ethanol]	hat are relev	vant for classification
	Oral-rat	LD50	7,060mg/kg
	Inhalation-rat	LC50	20,000ppm/10H
	[Propan-2-ol]		
	Oral-rat	LD50	2,000-5,000mg/kg
	Dermal-rabbit	LD50	>5,000mg/kg
	[Propan-1-ol]		
	Oral-rat	LD50	1,900mg/kg
	Dermal-rabbit	LD50	6,700mg/kg

Other information

: Product specific toxicological data are not known.

General notes	: Do not allow product to reach ground water, water course or sewage system.
Ecotoxicity	: No data available
Bioaccumulation	: No data available
Other Adverse Effects	: No data available

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	:	1210
UN Shipping Name	:	Printing ink
UN Classification	:	3
UN Packing Group	:	П

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SECTION 15 REGULATORY INFORMATION

	rmation >		
leth	anol]		
	Symbol	:	F: Highly flammable
	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.
[Pro	pan-2-ol]		
	Symbol	:	F : Highly flammable
			Xi : Irritant
	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.
[Pro	pan-1-ol]		
	Symbol	:	F : Highly flammable
			Xi : Irritant
	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.

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).