ALCOHOL INK

PRODUCT SAFETY DATA SHEET

1. CHEMICAL, PRODUCT & COMPANY INFORMATION

Product Name:	ALCOHOL INK
Recommended Use:	Ink & ink medium for hard surfaces
Restrictions on use:	None known
Manufacturer:	Made for ResinVentures in the USA
Emergency Number:	ChemTel, Inc Contract #MIS9128344 1-813-248-0585
Email:	info@artresin.com
Web:	http://www.artresin.com

2. HAZARD(S) IDENTIFICATION

GHS classification in accordance	with 29 CFR 1910 (OSHA HCS)		
Toxicological Data on Ingredient	S:		
Hazard Classification			
Physical Hazards:	Flammable liquids	Category 2	
Health Hazards:	Acute toxicity, oral	Category 4	
	Skin Irritant	Category 2	
	Eye Irritant	Category 2A	
Environmental Hazards:	Not Classified	Not Classified	
Label Elements			
Pictogram:			
Signal Words:	DANGER, WARNING	DANGER, WARNING	
Hazard Statements-EU:	H225 Highly flammable liquid and v H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation.	apor.	

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Precautionary Statements-EU:		
Prevention:	P210 Keep away from heat/sparks/open flames/hot surfaces No smoking. P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ventilating/lighting/equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P260 Do not breathe mist/vapors/spray. P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/protective clothing/eye protection.	
Response:	P301+P312 If swallowed: Call a poison center/doctor if you feel unwell. P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting. P302+P352 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a poison center/doctor. P321 Specific treatment (see product label). P332+P313 IF SKIN irritation occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention. P362 Take off contaminated clothing and wash before reuse. P363 Wash contaminated clothing before reuse. P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.	
Storage:	P403+P235 Store in a well-ventilated place. Keep cool.	
Disposal:	P501 Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified:	There are no other hazards not otherwise classified that have been identified.	

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical identity	Content in percent (%)*	CAS #
Ethanol	50-70%	64-17-5
2-(propyloxy)ethanol	10-20%	2807-30-9
propan-1-ol	<10%	71-23-8
isopropyl acetate	<10%	108-21-4
Basic yellow 37	≤ 5%	6358-36-7
Nitrocellulose, colloided, granular	≤ 5%	9004-70-0
Basic Blue 7	≤ 5%	2390-60-5
Propan-2-ol	≤ 5%	67-63-0

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret. For the wording of the listed Hazard Statements, refer to section 16.

4. FIRST AID MEASURES

Description of first aid measures:	
In the event of skin contact:	Immediately remove any clothing soiled by the product. Immediately wash with water and soap and rinse thoroughly. If skin irritation or rash occurs: Get medical advice/attention.
In the event of eye contact:	Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
In the event of swallowing:	Rinse out mouth and then drink plenty of water. Do not induce vomiting; immediately call for medical help.
In the event of exposure by inhalation:	Supply fresh air; consult doctor in case of complaints. Provide oxygen treatment if affected person has difficulty breathing.
Most important symptoms and effects, acute and delayed:	Irritating to eyes and skin. Coughing, dizziness, if inhaled. Breathing difficulty. May cause gastrointestinal irritation if ingested. Nausea in case of ingestion. DANGER: Harmful if swallowed.
Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable extinguishing media:	CO2, extinguishing powder or water spray. Fight larger fire with alcohol resistant foam.
Unsuitable extinguishing media:	Water stream
Special hazards arising from the substance or mixture:	Formation of toxic gases is possible during heating or in case of fire.
Advice for fire fighters:	Protective equipment: Wear self-contained respiratory protective device. Wear fully protective suit. Additional information: Eliminate all ignition sources if safe to do so. Cool endangered receptacles with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Ensure adequate ventilation. Use personal protective equipment as required. Keep away from ignition sources. Protect from heat.
Methods and material for containment and clean up:	Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders). Dispose of the collected material according to regulations.
Environmental procedures:	Avoid release to the environment. Inform respective authorities in case of seepage into water course or sewage system.
Reference to other sections:	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7. HANDLING AND STORAGE

Precautions for safe handling:	Use only in well ventilated areas. Avoid splashes or spray in enclosed areas. Keep out of reach of children.
Information about protection against explosions and fires:	Highly flammable liquid and vapor. Keep ignition sources away - Do not smoke. Protect against electrostatic charges.
Conditions for safe storage including any incompatibilities:	Requirements to be met by storerooms and receptacles: Avoid storage near extreme heat, ignition sources or open flame. Store in cool, dry conditions in well sealed receptacles. Information about storage in one common storage facility: Store away from foodstuffs. Store away from oxidizing agents. Further information about storage conditions: Store locked up.
Specific end use(s):	No relevant information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:			
Components with limit values that require monitoring at the workplace:	64-17-5 Ethanol:	PEL (USA):	Long-term value: 1,900 mg/m³, 1,000 ppm
		REL (USA):	Long-term value: 1,900 mg/m³, 1,000 ppm
		EV (Canada):	Long-term value: 1,900 mg/m³, 1,000 ppm
		LMPE (Mexico):	Long-term value: 1000 ppm A3
	2807-30-9 2 (propyloxy) ethanol:	EV (Canada):	Long-term value: 110 mg/m³, 25 ppm Skin
	71-23-8	PEL (USA):	Long-term value: 500 mg/m³, 200 ppm
	propan-1-ol:	REL (USA):	Short-term value: 625 mg/m³, 250 ppm Long-term value: 500 mg/m³, 200 ppm Skin
		TLV (USA):	Long-term value: 246 mg/m³, 100 ppm
		EL (Canada):	Long-term value: 100 ppm
		EV (Canada):	Long-term value: 100 ppm
		LMPE (Mexico):	Long-term value: 100 ppm A4
	108-21-4	PEL (USA):	Long-term value: 950 mg/m³, 250 ppm
	isopropyl acetate:	TLV (USA):	Short-term value: NIC-626 mg/m³, NIC-150 ppm Long-term value: NIC-417 mg/m³, NIC-100 ppm
		EL (Canada):	Short-term value: 200 ppm Long-term value: 100 ppm
		EV (Canada):	Short-term value: 200 ppm Long-term value: 100 ppm
		LMPE (Mexico):	Short-term value: 200 ppm Long-term value: 100 ppm
	67-63-0	PEL (USA):	Long-term value: 980 mg/m³, 400 ppm
	Propan-2-ol:	REL (USA):	Short-term value: 1225 mg/m³, 500 ppm Long-term value: 980 mg/m³, 400 ppm
		TLV (USA):	Short-term value: 984 mg/m³, 400 ppm Long-term value: 492 mg/m³, 200 ppm BEI
		EL (Canada):	Short-term value: 400 ppm Long-term value: 200 ppm
		EV (Canada):	Short-term value: 400 ppm Long-term value: 200 ppm
		LMPE (Mexico):	Short-term value: 400 ppm Long-term value: 200 ppm A4, IBE
Ingredients with biological limit values:	67-63-0 Propan-2-ol:	BEI (USA):	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)

Individual protection measures, such as personal protective equipment:		
General protective and hygienic measures:	The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Do not eat, drink or smoke while using the product. Immediately remove all soiled and contaminated clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with the eyes and skin.	
Eye/face protection:	Safety glasses. Follow relevant national guidelines concerning the use of protective eye wear.	
Skin protection:	Protective work clothing	
Hand protection:	Protective gloves. The glove material has to be impermeable and resistant to the product/the substance/ the preparation.	
Limitation and supervision of exposure into the environment:	No relevant information available.	
Risk management measures:	No relevant information available.	

9. PHYSICAL AND CHEMICAL PROPERTIES

General information:	
Appearance and physical state:	Liquid
Color:	According to product specification.
Type of Odor:	Not determined
Odor threshold:	Not determined
Important health, safety and environmental info	ormation:
Initial Boiling Point and Boiling Range:	>35°C (>95°F)
Melting Point/Freezing Point:	Not determined
Flammability Classification:	Not applicable
Flash Point:	14°C (57.2°F)
Auto-ignition Temperature:	Not determined
Decomposition Temperature:	Not determined
Flammability Limits (lower/upper):	Not determined
Evaporation rate:	Not determined
Vapor Pressure:	Not determined
Vapor Density (Air=1):	Not determined
Octanol/Water Partition Coefficient (log Pow):	Not determined
Specific Gravity:	Not determined
Bulk Density:	Not determined

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Water Solubility:	Not miscible or difficult to mix.
pH:	Not determined
Viscosity (dynamic, kinematic):	Not determined
Explosive Properties:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
Oxidizing Properties:	Non-oxidizing
Molecular Formula:	Not determined
Molecular Weight:	Not determined
Relative Density:	Not determined

10. STABILITY AND REACTIVITY

Reactivity:	No relevant information available.
Stability:	Stable under normal temperatures and pressures.
Possibility of hazardous reactions:	Highly flammable liquid and vapor. Reacts violently with oxidizing agents. Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized. Toxic fumes may be released if heated above the decomposition point. Used empty containers may contain product gases which form explosive mixtures with air.
Conditions to avoid:	Excessive heat
Incompatible materials:	Oxidizers, strong bases, strong acids
Hazardous decomposition products (under fire conditions only):	Carbon monoxide, carbon dioxide, oxides of nitrogen and sulfur Chlorine compounds

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:	
Acute toxicity: Harmful if swallowed LD/LC50 values that are relevant for classification:	
64-17-5 Ethanol:	Oral: LD50 7,060 mg/kg (rat)
	Inhalative: LC50/4h 20,000 mg/l (rat)
2807-30-9 2-(propyloxy)ethanol:	Oral: LD50 2,260 mg/kg (mouse); 3,100 mg/kg (rat)
	Dermal: LD50 1,300 mg/kg (rabbit)
2390-60-5 Basic Blue 7:	Oral: LD50 100 mg/kg (rat)
	Dermal: LD50 >2,500 mg/kg (rabbit)
6358-36-7 Basic yellow 37:	Oral: LD50 >50-300 mg/kg (rat)

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Primary irritant effects:			
Skin Contact:	Irritant to skin and mucous men	Irritant to skin and mucous membranes.	
Eye Contact:	Causes eye irritation.	Causes eye irritation.	
Sensitization:	Based on available data, the cla	Based on available data, the classification criteria are not met.	
Carcinogenic categories:			
IARC (International Agency for Research on	64-17-5 Ethanol 1	1	
Cancer):	13463-67-7 titanium dioxide	2B	
NTP (National Toxicology Program):	None of the ingredients are liste	None of the ingredients are listed.	
OSHA-Ca (Occupational Safety & Health Administration):	None of the ingredients are liste	None of the ingredients are listed.	
Possible routes of exposure:	Ingestion, inhalation, eye contac	Ingestion, inhalation, eye contact, skin contact.	
Germ cell mutagenicity:	Based on available data, the cla	Based on available data, the classification criteria are not met.	
Carcinogenicity:	Based on available data, the cla	Based on available data, the classification criteria are not met.	
Reproductive toxicity:	Based on available data, the cla	Based on available data, the classification criteria are not met.	
STOT-single exposure:	Based on available data, the classification criteria are not met.		
STOT-repeated exposure:	Based on available data, the cla	Based on available data, the classification criteria are not met.	
Aspiration hazard:	Based on available data, the cla	Based on available data, the classification criteria are not met	

12. ECOLOGICAL INFORMATION

Toxicity:	
Aquatic toxicity:	Toxic to aquatic life with long lasting effects: 2390-60-5 Basic Blue 7 LC50 <1mg/l (daphnia)
Persistence and degradability:	No relevant information available.
Bioaccumulative potential:	No relevant information available.
Mobility in soil:	No relevant information available.
Other adverse effects:	No relevant information available.
Additional information:	Avoid release to the environment. Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment cannot be excluded.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:	
Disposal:	The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and non-hazardous wastes.
Container Disposal:	Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

PACKING GROUP (DOT, ADR, IMDG, IATA):	2
DOT:	
DOT Proper Shipping Description:	Printing Ink
Hazard Class:	3
Placard:	Flammable Liquids
Marine Pollutant:	Yes - Product contains environmentally hazardous substances: Basic yellow 37, Basic Blue 7
Transport/additional information:	Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each. Labeling as a Marine Pollutant is only required for bulk single package shipments. Bulk packaging consists of a maximum capacity of greater than 450 L (119 gallons) for a liquid and a maximum net mass greater than 400 kg (882 pounds) for a solid. (See 171.4(c)).
IMDG:	
UN number:	UN1210
UN proper shipping name:	Printing Ink
Hazard Class:	3
Placard:	Flammable Liquids
EMS No.:	F-E, S-D
Marine Pollutant:	Yes - Product contains environmentally hazardous substances: Basic yellow 37, Basic Blue 7
Transport/additional information:	Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each. Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to provisions relevant to marine pollutants. (See 2.10.2.7)
IATA:	
UN No:	UN1210

Hazard Class:	3
Packing group (DOT):	2
Placard:	Flammable Liquids
EMS No.:	F-E, S-D
Transport/additional information:	Limited Quantity for packages less than 30 kg gross and inner packagings less than 0.5 L each /1 L net.
ADR:	
Hazard Class:	3 (F1) Flammable liquids
Label:	3
Transport/additional information:	Limited Quantity for packages less than 30kg gross and inner packagings less than 5 L each. Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to provisions relevant to marine pollutants (See 5.2.1.81.).
Special precautions for user:	
Warning: Flammable Liquids	
Danger code (Kemler):	33
EMS number:	F-E,-S-D
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	Not applicable

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legis	lation specific for the substance or mixture:
Hazard categories	
Section 302 (extremely hazardous substances):	None of the ingredients are listed.
Section 355 (extremely hazardous substances):	None of the ingredients are listed.
Section 313 (specific toxic chemical listings):	67-63-0 Propan-2-ol
TSCA (Toxic Substances Control Act):	All ingredients are listed.
Proposition 65 (California):	Used as directed, this product will NOT expose you to chemicals known to cause cancer. Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product. Reference to titanium dioxide is based on unbound respirable particles and is not generally applicable to product as supplied. 64-17-5 Ethanol 13463-67-7 Titanium dioxide
Chemicals known to cause developmental toxicity for females:	None of the ingredients are listed.

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Chemicals known to cause developmental toxicity for males:	None of the ingredients are listed.
Chemicals known to cause developmental toxicity:	Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product. 64-17-5 Ethanol
EPA (Environmental Protection Agency):	None of the ingredients are listed.
IARC (International Agency for Research on Cancer):	64-17-5 Ethanol 13463-67-7 titanium dioxide
NIOSH-Ca (National Institute for Occupational Safety and Health):	Present in trace quantities: 13463-67-7 titanium dioxide

16. OTHER INFORMATION

HMIS Hazard ID:	
Health:	No information available
Flammability:	No information available
Reactivity:	No information available
Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; *Chronic health effect	

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Disclaimer: The information contained in this SDS is based on data from sources considered to be reliable but ArtResin, Inc. does not guarantee the accuracy or completeness thereof. ArtResin, Inc. urges each customer or recipient of this SDS to study it carefully to become aware of and understand the hazards associated with this product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology or fire and understand the data in this SDS.

National Chemical Inventories: All components of this product are listed on the following chemical substance inventories: TSCA (USA)		
DSL	(Canada)	
EINECS	(Europe)	
ENCS	(Japan)	
ECL	(Korea)	
AICS	(Australia)	
NZIoC	(New Zealand)	
PICCS	(Philippines)	
IECSC	(China)	

Abbreviations:	
ACGIH	American Conference of Governmental Industrial Hygienists
ADR	International carriage of Dangerous goods by Road
AICS	Australian Inventory of Chemical Substances
ATE	Acute Toxicity Estimate
BfR	Bundesinstitut für Risikobewertung recommendations for food contact materials
BCF	Bioconcentration Factor
BOD5	5-day Biochemical Oxygen Demand
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CLP	Classification, Labeling and Packaging regulation
COD	Chemical Oxygen Demand
DOT	Department of Transportation
DSL	Domestic Substances List
EINECS	European Inventory of Existing Chemical Substances
ECL	Existing Chemicals List (Korea)
ENCS	Existing and New Chemical Substances Inventory (Japan)
EN 689	Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy.
ERG	Emergency Response Guide
GHS	Globally Harmonized System
HMIS	Hazardous Materials Information System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICA0	International Civil Aviation Organization
IDLH	Immediately Dangerous to Life and Health
IMDG	International Maritime Dangerous Goods

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LD50	Lethal Dose to 50% of test animal population
MAK	Maximale Arbeitsplatz Konzentration
NTP	National Toxicology Program
0EL	Occupational Exposure Limit
OSHA	Occupational Safety & Health Administration
PBT	Persistent, Bioaccumulative and Toxic
vPvB	Very Persistent and Very Bioaccumulative
PEL	Permissible exposure limit
PICCS	Philippine Inventory of Commercial Chemical Substances
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemical Substances
RID	International carriage of dangerous goods by Rail
SARA	Superfund Amendments and Reauthorization Act
STEL	Short Term Exposure Limit
SVHC	Substance of Very High Concern
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
VOC	Volatile Organic Compound
WGK	Wassergefahrdungsklasse (Water Hazard Class)
WHMIS	Workplace Hazardous Material Identification System