

Material Safety Data Sheet for  
Printing Ink and Related Materials:

**HEALTH HAZARD**

**Minimal 0**  
**Slight 1**  
**Moderate 2**  
**Serious 3**  
**Severe 4**

**HMIS Rating**

**Health [2]**  
**Flammability [3]**  
**Reactivity [0]**

Information supplied on this form is proprietary and is furnished solely for the use of our customer.

Date of preparation: February 9, 2009  
Prepared by: Don Wright

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**SECTION I – PRODUCT/COMPANY IDENTIFICATION**

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Manufacturer's Name: Universal Stenciling & Marking Systems, Inc  
Street Address: 205 15<sup>th</sup> Avenue S.E.  
City, State, Zip: St. Petersburg, FL 33701

Manufacturer Product Class: Printing Ink – Solvent Based  
Product Name: **Universal Type M No Lead Green**  
Product Code: IU-M3NL4, IU-M3NLQT, IU-M3NLQTH, IU-M3NLGL

Emergency Telephone Number: CHEMTREC EMERGENCY CONTACT ONLY 1-800-424-9300

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**SECTION II – COMPOSITION/INFORMATION ON INGREDIENTS**

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CHEMICAL NAME	CAS#	% WEIGHT	EXPOSURE LIMITS IN AIR (ppm)					OTHER
			ACGIH		OSHA		TWA	
			TLV	STEL	PEL	STEL		
Ethyl Alcohol	64-17-5	16.88%	1000.000	ND	1000.000	ND	ND	1900 mg/m3
N- Propyl Alcohol	71-23-8	19.49%	ND	250.000	ND	200.000	ND	
Ethylene Glycol Monobutyl Ether	111-76-2	18.88%	20.000	ND	50.000	ND	20.000	
Resin	Proprietary	13.94%	NA	NA	NA	NA	NA	
Titanium Dioxide	13463-67-7	14.67%	NA	NA	NA	NA	NA	
Pigment Yellow	5468-75-7	3.67%	NA	NA	NA	NA	NA	
Pigment Blue	147-14-8	1.47%	NA	NA	NA	NA	NA	
Hydrous Aluminum Silicate	1332-58-7	11.00%	NA	NA	NA	NA	NA	

\*NA – Not Applicable    ND – Not Determined

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**SECTION III – HAZARD IDENTIFICATION**

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Emergency Overview:

Eye: Eye contact with liquid should be prevented through the use of splash goggles.

Skin: Skin contact should be prevented through the use of protective clothing. Repeated exposure may cause irritation, even a burn. May cause more severe response on covered skin (under clothing, gloves).

Ingestion: All food should be kept in separate areas from those where the ink is stored or used. Eating, drinking or smoking should be prohibited from these areas. Moderate toxicity if swallowed. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

Inhalation: If use conditions generate vapor in areas where adequate ventilation is not available, NIOSH approved vapor respirator should be worn.

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**SECTION IV – FIRST AID**

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Eyes: Flush eyes thoroughly with copious amounts of water for at least 15 minutes. Consult a physician.

Skin: Wash off with soap in flowing water or shower. If symptoms occur, consult a physician.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Inhalation: Remove to fresh air if effects occur. Consult a physician if breathing is difficult.

Toxicity Information: No specific account of chronic toxicity studies is available.

Effects of Overexposure: Eye contact may result in irritation of the eyes. Low order of toxicity on single gross contact. No experimental exposures or repeated doses of long duration have been performed on this product.

Note to Physician: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

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**SECTION V – FIRE FIGHTING MEASURES**

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Flammable Properties:

Flash Point (method)	68 Deg. F. (ASTM D3828-05)
Auto ignition Temperature	No data
Flammability Limits	No data
Dust Cloud Ignition Temperature	No data
Dust Layer Ignition Temperature	No data

Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds.

Extinguishing Media: Water fog or fine spray, carbon dioxide, dry chemical or foam.

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Fire Fighting Instructions: Keep people away. Isolate fire area and deny unnecessary entry. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire.

Protective Equipment for Fire Fighters: Wear positive pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing. If protective equipment is not available or not used, fight fire from a protected location or safe distance.

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## SECTION VI - ACCIDENTAL RELEASE MEASURES

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Health Precautions: Avoid unnecessary contact and reference the health effects in section III.

Spill Procedures: All personnel involved with spill cleanup should follow good industrial hygiene. Wear protective clothing and eye protection to prevent skin and eye contact. Contain spilled material immediately with an inert substance such as sand, granulated clay or earth. Use plastic or aluminum shovel to transfer waste material into an appropriate container for disposal. Store in appropriate sealed container for proper disposal. Disposal should be made in accordance with all applicable state, local and federal regulations.

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## SECTION VII – HANDLING AND STORAGE

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Handling: Avoid unnecessary exposure through the use of appropriate controls and good industrial hygiene practices. This product is mildly irritating. Adequate ventilation must be furnished to maintain exposure limits. If working directly from container it **must be** grounded.

Storage: Store closed container in a moderately cool, dry well-ventilated area away from heat and sources of ignition.

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## SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

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Engineering Controls: Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

Personal Protective Equipment:

Eye/Face – Use safety glasses.

Skin – Usually not a skin hazard, however use of gloves is helpful in avoiding unnecessary skin contact. Thoroughly wash hands after handling material and before eating and drinking.

Respiratory – NIOSH-approved vapor respirator is recommended with handling in areas where adequate ventilation is not available.

Exposure Limits: None established.

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## SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

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Appearance: Green liquid

Odor: Alcohol Odor

Vapor Density vs Air: Heavier

Density: 9.69 Lbs/GL

Boiling Point: No data

Volatile Percent by Weight: 55.25%

VOCS: 55.25%

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## SECTION X – STABILITY AND REACTIVITY

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General: Stable under recommended storage conditions.

Conditions to Avoid: Heat, sparks, electrical equipment and open flames.

Incompatibility With Other Materials: Avoid contact with oxidizing materials.

Hazardous Polymerization: No data.

Hazardous Decomposition Products: None known.

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## SECTION XI – TOXICOLOGICAL INFORMATION

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Although this product has not been tested, materials contained in the formulation have the following information:

PERORAL: Rat; LD50 (470 – 3000) mg/kg

PERCUTANEOUS: Rabbit; LD50 = 220 mg/kg Guinea Pig; LD50 = 2000 mg/kg

INHALATION: Vapor study Rat; 7 hours LC50 = 700 ppm

Sensitization (Animal And Human Studies) – Did not cause allergic skin reactions when tested in humans.

Developmental Toxicity - Did not cause birth defects in lab animals. Has been toxic to the fetus in lab animals at doses toxic to the mother.

Reproductive Toxicity – In animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animal.

Chronic Toxicity and Carcinogenicity – In long-term animal studies with ethylene glycol butyl ether, small but statistically significant increases in tumors were observed in mice but not rats. The effects are not believed to be relevant to humans. If the material is handled in accordance with proper industrial handling, exposures should not pose a carcinogenic risk to man.

Genetic Toxicology – In Vitro mutagenicity studies were predominantly negative. Animal mutagenicity studies were negative.

Significant Data With Possible Relevance To Humans - In animals, effects have been reported on the following organs:

Blood (hemolysis).

Secondary effects to the kidney and liver.

Human red blood cells have been shown to be significantly less sensitive to hemolysis than those of rodents and rabbits.

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## SECTION XII – ECOLOGICAL INFORMATION

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Keep out of waterways as this product has not been evaluated for ecotoxicity.

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**SECTION XIII – DISPOSAL CONSIDERATIONS**

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Disposal: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State and Local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

Unused & Uncontaminated Product: The preferred options include sending to a licensed, permitted: recycler, reclaimer, incinerator or other thermal destruction device.

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**SECTION XIV – TRANSPORT INFORMATION**

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Product Label.....Printing Ink  
D.O.T. Shipping Name..... N/A  
Technical Shipping Name.....N/A  
D.O. T. Hazard Class.....Flammable Liquid  
UN Number.....UN1210  
D.O.T. Label.....Flammable Liquid  
D.O. T. Placecard.....Flammable Liquid

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**SECTION XV – REGULATORY INFORMATION**

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OSHA Hazard Communication Standard Status: This product is considered to be a hazardous substance under OSHA’s Federal Hazard Communication Standard 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA) Status: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

CERCLA Reportable Quantity (RQ): This product contains Glycol Ether(s) which, although included as a broad category on the CERCLA hazardous substance list, has not been assigned a reportable quantity.

**SARA Title III:**

Section 302 (EHS).....None  
Section 311/312 (Acute).....Delayed (Chronic) Health Hazard : Yes  
Fire Hazard: Yes  
Immediate (Acute) Health Hazard: Yes  
Reactive Hazard: No  
Sudden Release of Pressure Hazard: No  
Section 313 .....Ethylene Glycol Monobutyl Ether      CAS # 111-76-2      18.88%

RCRA: Hazardous Waste D001, per 40CFR 261.32 and cannot be disposed by landfill, until treated to standards per Section 268.43.

CONEG Status: Materials used in the formulation of this product are in full compliance with CONEG Model Legislation for packaging and packaging ink components.

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**SECTION XVI – OTHER INFORMATION**

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FDA Status: This product, when used in food packaging, is permitted for INDIRECT PRINTING only. A barrier must exist between printing and food. This product HAS NOT been evaluated by the FDA.

The information contained herein is based on data considered accurate and is presented in good faith. No warranty is expressed or implied regarding the accuracy of this data or results to be obtained from the use thereof. Universal assumes no responsibility for personal injury or property damage caused by the material. Users assume all risks associated with the use of the product.