

MATERIAL SAFETY DATA SHEET

UNIVERSAL STENCILING & MARKING SYSTEMS
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SECTION I: PRODUCT IDENTIFICATION

PRODUCT NAME: UNIVERSAL TYPE "M" NO LEAD RED STENCILING AND MARKING INK

HEALTH HAZARD
MINIMAL 0
SLIGHT 1
MODERATE .. 2
SERIOUS 3
SEVERE 4

HEALTH (2)
FLAMMABILITY (3)
REACTIVITY (0)

DOT CLASSIFICATION: UN-1210 FLAMMABLE LIQUID

SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT NAME	%	CAS #	TLV/IPEL
ANHYDROUS ALCOHOL	36.4	64-17-5	1000.000 ppm ACGIH TWA 1000.00 ppm OSHA TWA
ETHYLENE GLYCOL MONOBUTYL ETHER	19.1	111-76-2	25.0 ppm ACGIH-TWA 50 ppm OSHA-TWA 75 ppm ACGIH-STEL
ISOPROPYL ALCOHOL	11.6	67-63-0	400.000 PPM ACGIH STEL 500.000 PPM OSHA STEL
2 ETHYL HEXANOL	8.0	111-76-02	25.000 ppm ACGIH TWA 25.000 ppm MSHA TWA-SKIN 25.000 ppm OSHA-TWA SKIN 25.000 ppm CAL OSHA-TWA
YELLOW PIGMENT #14	4.2	5567-15-7	10mg/m3- ACGIH / 5mg/m3 - OSHA
RED PIGMENT #48:2	8.0	7585-41-3	10mg/m3- ACGIH / 5mg/m3 - OSHA
RESIN	10.0	Proprietary mix	15mg/m3 OSHA PEL
N-PROPYL ALCOHOL	2.4	71-23-8	250.000 PPM ACGIH STEL 250.000 PPM OSHA STEL

SECTION III: PHYSICAL DATA

BOILING POINT	Above 198 DEG. F.
VAPOR DENSITY	vs. AIR - HEAVIER
EVAPORATION RATE	vs. BUTYL ACETATE - SLOWER
% VOLATILE/VOL	78% - 80% +/-2%
% SOLIDS	19% - 21% +/-2%

WEIGHT/GALLON	APPROX: 7.9 LBS/GAL
APPEARANCE & ODOR	RED LIQUID WITH ALCOHOL ODOR

SECTION IV: FIRE & EXPLOSION HAZARD DATA

FLASH POINT	APPROX. 60 DEG. F. ASTM D-3828-05
EXTINGUISHING MEDIA	USE CARBON DIOXIDE, DRY CHEMICAL OR FOAM
SPECIAL FIRE FIGHTING PROCEDURES	WATER SPRAY MAY SPREAD FIRE. WATER MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILDUP AND POSSIBLE AUTO IGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT. IF WATER IS USED, FOG NOZZLES ARE PREFERABLE. USE SELF CONTAINED BREATHING APPARATUS & FULL PROTECTIVE EQUIPMENT RECOMMENDED.
UNUSUAL FIRE & EXPLOSION HAZARDS	THIS PRODUCT IS FLAMMABLE AND WILL ENHANCE BURNING. BURNING OF THIS PRODUCT WILL PRODUCE TOXIC VAPORS/FUMES. WHEN HEATED IN SEALED CONTAINERS, THE CONTAINER WILL LIKELY BURST UNLESS PRESSURE RELIEF VALVES ARE USED ON THE CONTAINER.

SECTION V: HEALTH HAZARD DATA

PRIMARY ROUTES OF ENTRY

INHALATION	IF USE CONDITIONS GENERATE VAPORS IN AREAS WHERE ADEQUATE VENTILATION IS NOT AVAILABLE, NIOSH APPROVED VAPOR RESPIRATOR SHOULD BE WORN.
SKIN CONTACT	SKIN CONTACT SHOULD BE PREVENTED THROUGH US OF PROTECTIVE CLOTHING.
SKIN ABSORPTION	MAY BE ABSORBED IN HARMFUL AMOUNTS.
EYE CONTACT	CONTACT MAY CAUSE SEVERE IRRITATION.
INGESTION	ALL FOOD SHOULD BE KEPT IN SEPARATE AREAS FROM THOSE WHERE INK IS STORED OR USED. INGESTION CAN LEAD TO IRRITATION OF THE DIGESTIVE TRACT AND COULD EVEN BE FATAL IN EXTREME CASES.
TOXICITY INFORMATION	ANIMAL STUDIES HAVE SHOWN SOME LIVER AND REPRODUCTIVE ORGAN DAMAGES WITH LONG TERM EXPOSURE. AS TO HOW THIS AFFECTS THE INDUSTRIAL USE OF THESE INGREDIENTS IS UNCLEAR.

EFFECTS OF OVEREXPOSURE	<p>INHALATION OF VAPORS OR MIST MAY IRRITATE NOSE & THROAT. INHALATION OF HIGH CONCENTRATIONS MAY CAUSE CENTRAL NERVOUS SYSTEM (CNS) DEPRESSION. SYMPTOMS OF EARLY TO MODERATE CNS DEPRESSION INCLUDE GIDDINESS, DIZZINESS, CONFUSION, DRUNKEN BEHAVIOR, HEADACHE, NAUSEA, DIARRHEA, VOMITING, TIREDNESS AND DROWSINESS. IN EXTREME CASES, SYMPTOMS OF CNS DEPRESSION INCLUDE STUPOR, CONVULSIONS, UNCONSCIOUSNESS, COMA AND EVEN DEATH. SKIN CONTACT MAY CAUSE IRRITATION AND REDDENING. PROLONGED CONTACT MAY CAUSE SWELLING AND SKIN DAMAGE. THIS PRODUCT IS READILY ABSORBED THROUGH THE SKIN. FREQUENT OR WIDESPREAD CONTACT MAY ABSORB HARMFUL AMOUNTS. THIS MATERIAL MAY BE HARMFUL IF SWALLOWED. BASED ON LABORATORY TEST DATA, OVEREXPOSURE MAY CAUSE DAMAGE TO, DISORDERS OF, OR ADVERSELY AFFECT THE FOLLOWING SYSTEMS, FUNCTIONS OR ORGANS: BLOOD, BLOOD FORMING ORGANS, LIVER, REPRODUCTIVE SYSTEMS.</p>
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EMERGENCY AND FIRST AID PROCEDURES

INHALATION	REMOVE FROM EXPOSURE. RESTORE BREATHING IF REQUIRED. TAKE TO A PHYSICIAN FOR DEFINITIVE MEDICAL TREATMENT.
SPLASH (EYES)	FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS APART. TAKE TO A PHYSICIAN FOR DEFINITIVE MEDICAL TREATMENT.
SPLASH (SKIN)	WASH WITH SOAP & WATER. REMOVE CONTAMINATED CLOTHING. DESTROY CONTAMINATED SHOES. CONSULT A PHYSICIAN IF IRRITATION OCCURS.
INGESTION	CALL POISON CONTROL CENTER IMMEDIATELY. DO NOT INDUCE VOMITING UNLESS TOLD BY COMPETENT MEDICAL AUTHORITY.

SECTION VI: REACTIVITY DATA

STABILITY	STABLE. CONDITIONS TO AVOID: EXTREME HEAT, IGNITION SOURCE
INCOMPATIBILITY (MATERIALS TO AVOID)	ALKALI AGENTS AND STRONG OXIDIZING AGENTS
HAZARDOUS DECOMPOSITION PRODUCTS	WHEN INVOLVED IN A FIRE, BURNING ORGANIC PIGMENTS MAY EVOLVE NOXIOUS FUMES WHICH MAY INCLUDE CARBON MONOXIDE, NITROUS OXIDES, OR OTHER TOXIC COMPOUNDS DEPENDING ON THE PIGMENT TYPE. HOWEVER, ALL OF THE WATER MUST BE DRIVEN OFF FIRST FOR THIS TO OCCUR.
CONDITIONS TO AVOID	HEAT, SPARKS AND OPEN FLAMES

SECTION VII: SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	REMOVE ALL SOURCES OF IGNITION (FLAMES, HOT SURFACES AND ELECTRICAL, STATIC OR FRICTIONAL SPARKS). AVOID BREATHING VAPORS AND CONTACT WITH SKIN. RECOVER AS MUCH FREE LIQUID AS POSSIBLE WITH NON-SPARKING TOOLS. REMOVE REMAINDER WITH INERT ABSORBENT. ALL PERSONNEL INVOLVED WITH SPILL CLEANUP SHOULD FOLLOW GOOD INDUSTRIAL HYGIENE.
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WASTE DISPOSAL METHOD	DISPOSE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. DO NOT INCINERATE CLOSED CONTAINERS. ALL MATERIAL INCLUDING CLEAN UP MATERIAL SHOULD BE PLACED IN A CONTAINER FOR PROPER DISPOSAL.
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SECTION VIII: SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION	USE ONLY IN WELL VENTILATED AREA TO KEEP VAPOR CONCENTRATION BELOW PEL.
IF SPRAYED	USE NIOSH APPROVED SELF CONTAINED BREATHING APPARATUS IN THE PRESSURE DEMAND MODE OR A SUPPLIED AIR RESPIRATOR.
VENTILATION	USE ADEQUATE VENTILATION TO PREVENT HIGH CONCENTRATION OF VAPOR.
PROTECTIVE GLOVES	REQUIRED FOR PROLONGED OR REPEATED CONTACT
EYE PROTECTION	IF SPLASH HAZARD EXISTS, USE SAFETY EYEWEAR.
OTHER PROTECTIVE EQUIPMENT	USE PROTECTIVE GARMENT AS REQUIRED.

SECTION IX: SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING & AND STORING	KEEP CONTAINERS CLOSED. STORE IN COOL, WELL VENTILATED AREA. OBSERVE SAFE HANDLING & STORING METHODS FOR FLAMMABLES.
OTHER PRECAUTIONS	CONTAINERS SHOULD BE GROUNDED WHEN POURING. THIS INK HAS NOT BEEN EVALUATED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) FOR USE IN PACKAGING MATERIAL IN DIRECT/INDIRECT CONTACT WITH FOOD PRODUCTS.
DOT HAZARD CLASSIFICATION	FLAMMABLE LIQUID UN1210
DOT LABELS REQUIRED	YES, FLAMMABLE LIQUID

SECTION X: OTHER REGULATORY INFORMATION

THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372:
 GLYCOL ETHERS: 19.1%

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