

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BLOCKOUT PEN GREEN (ETHANOL FORMULATION)

SYNONYMS: SCREEN PRINTING RETOUCHING PEN,

MANUFACTURER: FIRST PRINT, INC.

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CHEMICAL NAME: SOLVENT BASED BLOCKOUT

PRODUCT USE: RETOUCHING OF SCREEN PRINTING STENCILS

DATE PREPARED: NOVEMBER 2010

PREPARED BY: THOMAS ACCARDO

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>HAZARDOUS INGREDIENTS</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>% WT</u>	<u>NFPA**</u>
ETHYL ALCOHOL	64-17-5	TWA 1000 PPM	TWA 1000 PPM	15-30	0/3/0
ACETONE	67-64-1	TWA 1000 PPM	TWA 500 PPM	15-30	1/3/0
METHYL ISOBUTYL KETONE	108-10-1	TWA 100 PPM	TWA 50 PPM	0-5	2/3/0

** NATIONAL FIRE PROTECTION AGENCY (HAZARD CODE: 0 MINIMAL, 1 SLIGHT, 2 MODERATE, 3 SERIOUS, 4 SEVERE)
(HEALTH/FLAMMABILITY/REACTIVITY)

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

WARNING! FLAMMABLE LIQUID. VAPOR HARMFUL. HARMFUL OR FATAL IF SWALLOWED. KEEP AWAY FROM CHILDREN. KEEP AWAY FROM HEAT, SPARKS, FLAME AND ALL OTHER SOURCES OF IGNITION. DO NOT USE WHILE SMOKING. KEEP OUT OF DIRECT SUNLIGHT. KEEP OUT OF AUTOMOBILES. DO NOT KEEP PEN IN CLOTHING POCKETS. USE WITH ADEQUATE VENTILATION. FOR INDUSTRIAL / PROFESSIONAL USE ONLY. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. IF SWALLOWED, DO NOT INDUCE VOMITING GET IMMEDIATE MEDICAL ATTENTION. FOR CONTACT WITH EYES GET IMMEDIATE MEDICAL HELP.

CLASSIFIED AS HAZARDOUS UNDER OSHA REGULATIONS (29 CFR 1910.1200)

POTENTIAL HEALTH EFFECTS:

EYES: LIQUID AND VAPOR MAY IRRITATE THE EYES.

SKIN: LIQUID IS MILDLY IRRITATING TO SKIN. REPEATED CONTACT MAY CAUSE DEFATTING OF SKIN

INGESTION: INGESTION OF LIQUID MAY CAUSE VOMITING.

INHALATION: HIGH CONCENTRATIONS OF VAPORS MAY CAUSE RESPIRATORY TRACT IRRITATION, HEADACHES, DIZZINESS AND NAUSEA.

ACUTE HEALTH HAZARDS: SEE ABOVE

CHRONIC HEALTH HAZARDS: PROLONGED SKIN CONTACT MAY DEFAT THE SKIN AND PRODUCE DERMATITIS. MAY BE ABSORBED THROUGH SKIN. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING OR INHALING VAPORS MAY BE HARMFUL OR FATAL.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: DERMATITIS

CARCINOGENICITY:

OSHA:	ACGIH:	NTP:	IARC:
NO	NO	NO	NO

SECTION 4: FIRST AID MEASURES

EYES: IMMEDIATELY FLUSH WITH LARGE QUANTITIES OF WATER FOR 15 MINUTES. GET IMMEDIATE MEDICAL ATTENTION.

SKIN: WASH THOROUGHLY WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING.

INGESTION: DO NOT INDUCE VOMITING. GET IMMEDIATE MEDICAL HELP.

INHALATION: REMOVE TO FRESH AIR. IF REQUIRED, PROVIDE ARTIFICIAL RESPIRATION. GET IMMEDIATE MEDICAL ATTENTION.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: UNUSED (NEW) PENS CONTAIN APPROXIMATELY 5 ml OF INK.

SECTION 5: FIRE-FIGHTING MEASURES

NO DATA FOR INK MIXTURE. FLAMMABILITY DATA GIVEN FOR ACETONE.

FLAMMABLE LIMITS IN AIR, (% BY VOLUME)	UPPER: 12.8 @150 C
	LOWER: 2.5 @150 C

FLASH POINT:

F: 16

C: -9

METHOD USED: CLOSED CUP

AUTOIGNITION TEMPERATURE:

F: NO DATA

C: NO DATA

NFPA HAZARD CLASSIFICATION: SEE SECTION 2 FOR RATINGS OF INDIVIDUAL INGREDIENTS.

EXTINGUISHING MEDIA: DRY CHEMICAL, FOAM OR CARBON DIOXIDE. WATER MAY BE INEFFECTIVE. WATER MAY BE USED TO KEEP FIRE EXPOSED PRODUCT COOL.

SPECIAL FIRE FIGHTING PROCEDURES: N/A

UNUSUAL FIRE AND EXPLOSION HAZARDS: PENS EXPOSED TO FIRE MAY BURST.

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON DIOXIDE, CARBON MONOXIDE, SMOKE, POSSIBLY OTHER TOXIC COMBUSTION PRODUCTS.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: NOT EXPECTED IN NORMAL USE

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: STORE PENS IN COOL DRY PLACE. DO NOT KEEP PENS IN CLOTHING POCKETS. DO NOT USE WHILE SMOKING. DO NOT KEEP PENS IN AUTOMOBILES WHERE ELEVATED TEMPERATURES FROM SOLAR HEATING MAY EXIST.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: NOT REQUIRED UNDER NORMAL USE.

VENTILATION : USE WITH LOCAL VENTILATION.

RESPIRATORY PROTECTION: NOT REQUIRED UNDER NORMAL USE.

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EYE PROTECTION: NOT REQUIRED UNDER NORMAL USE.

SKIN PROTECTION: NOT REQUIRED UNDER NORMAL USE.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: NOT REQUIRED UNDER NORMAL USE.

WORK HYGIENIC PRACTICES: USE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE PRACTICES.
AVOID CONTACT WITH SKIN. WASH HANDS AFTER USE.

EXPOSURE GUIDELINES: SEE SECTION 2

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: GREEN VISCOUS LIQUID

ODOR: STRONG SOLVENT ODOR

PHYSICAL STATE: LIQUID

pH AS SUPPLIED: NO DATA

pH (Other): NO DATA

BOILING POINT:

F: NO DATA

C: NO DATA

MELTING POINT:

F: NO DATA

C: NO DATA

FREEZING POINT:

F: NO DATA

C: NO DATA

VAPOR PRESSURE (mmHg):

@

F: NO DATA

C: NO DATA

VAPOR DENSITY (AIR = 1):

@

F: GREATER THAN 1

C: GREATER THAN 1

SPECIFIC GRAVITY (H₂O = 1):

@

F: GREATER THAN 1

C: GREATER THAN 1

EVAPORATION RATE: GREATER THAN 1
BASIS (BUTYL ACETATE=1)

SOLUBILITY IN WATER: PARTIALLY SOLUBLE

VOLATILE ORGANIC COMPOUNDS (VOC): 705 gr/l ~ 80% BY WT.

MOLECULAR WEIGHT: NO DATA

VISCOSITY: 900 CP

SECTION 10: STABILITY AND REACTIVITY

STABILITY: YES NO

X

CONDITIONS TO AVOID (STABILITY): NONE KNOWN

INCOMPATIBILITY (MATERIAL TO AVOID): STRONG OXIDIZING AGENTS, ACIDS, STRONG ALKALIES, STRONG BASES.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE, NITROGEN OXIDES

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID (POLYMERIZATION): NONE KNOWN

SECTION 11: TOXICOLOGICAL INFORMATION

SEE SECTIONS 2 AND 3. THIS PRODUCT HAS NOT BEEN TESTED FOR TOIXCOLOGICAL EFFECTS. DATA FOR INDIVIDUAL INGREDIENTS IS WIDELY AVAILABLE.

SECTION 12: ECOLOGICAL INFORMATION

THIS PRODUCT HAS NOT BEEN TESTED FOR ECOLOGICAL EFFECTS. DATA FOR INDIVIDUAL INGREDIENTS IS WIDELY AVAILABLE.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

DOMESTIC SURFACE (MOTOR FREIGHT): REQUIRES ORM-D LABEL
PROPER SHIPPING NAME: INK/PAINT
HAZARD CLASS: 3
ID NUMBER: UN1263
PACKING GROUP: 3
LABEL STATEMENT: FLAMMABLE LIQUID (3)

AIR TRANSPORTATION: DO NOT SHIP BY AIR.

SECTION 15: REGULATORY INFORMATION (NOT MEANT TO BE ALL INCLUSIVE, OTHER REGULATIONS MAY APPLY)

U.S. FEDERAL REGULATIONS: THIS MATERIAL IS HAZARDOUS BY DEFINITION OF HAZARDOUS COMMUNICATION STANDARD 29 CFR 1919.1200

STATE REGULATIONS: THIS PRODUCT DOES NOT CONTAIN CHEMICALS LISTED ON CALIFORNIA PROP 65.

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: PREPARED JULY, 2010

DISCLAIMER: THIS MATERIAL SAFETY DATA SHEET IS PREPARED AS AN INFORMATION ONLY RESOURCE. FIRST PRINT, INC. BELIEVES THE INFORMATION CONTAINED HEREIN IS ACCURATE AND COMPILED FROM RELIABLE SOURCES. IT IS THE RESPONSIBILITY OF THE USER TO VERIFY ITS VALIDITY. THE BUYER ASSUMES ALL RESPONSIBILITY OF USING AND HANDLING THE PRODUCT IN ACCORDANCE WITHALL FEDERAL, STATE AND LOCAL REGULATIONS.