

MSDS# VYL

FUJIFILM SERICOL USA, INC.
20 WEST 14TH AVENUE
NORTH KANSAS CITY, MISSOURI 64116
(816) 474-0650

HMIS RATINGS
HEALTH-----2
FLAMMABILITY-----2
REACTIVITY-----0

* MATERIAL SAFETY DATA SHEET *

For screen printing inks as required under 29 CFR 1910.1200(g).

UNDER OSHA'S HAZARD COMMUNICATION STANDARD, WHERE COMPLEX MIXTURES
HAVE SIMILAR HAZARDS AND CONTENTS, THE MANUFACTURER MAY PREPARE ONE
MATERIAL SAFETY DATA SHEET TO APPLY TO ALL OF THESE SIMILAR MIXTURES.
THIS DOCUMENT APPLIES TO ALL COLORS AND SPECIALS IN THIS INK LINE.

EMERGENCY PHONE NUMBER PREPARER: CRAIG POGGENPOHL DATE OF PREPARATION
(816) 587-8178 REGULATORY COMPLIANCE MGR. REVISED 09/19/07/CP

REVISIONS: SECTION II, VI, IX AND XIII.

SECTION I--PRODUCT IDENTIFICATION

PRODUCT NAME : VYL
LABEL IDENTITY: VYL FLAT VINYL SERIES
PRODUCT CLASS : SOLVENT EVAPORATIVE SCREEN INK

SECTION II--HAZARDOUS INGREDIENTS

Table with 4 columns: COMMON NAME (CAS REGISTRY #), PERCENT BY WEIGHT, RECOMMENDED EXPOSURE LIMITS (PPM) (ACGIH TLV-TWA, OSHA PEL), and VAPOR PRESSURE (mm Hg @ 20 C). Rows include Ethylene Glycol Monobutyl Ether, Cyclohexanone, Propylene Glycol Methyl Ether AC, and Aromatic Hydrocarbon.

NA - NOT APPLICABLE NE - NOT ESTABLISHED UKN - UNKNOWN
1 UNLESS NOTED OTHERWISE, THE UNITS ARE PPM AND mm Hg @ 20 C, RESPECTIVELY, FOR EXPOSURE LIMITS AND VAPOR PRESSURES.
2 RECOMMENDED BY MANUFACTURER.
3 SKIN ABSORPTION MAY CONTRIBUTE TO THE OVERALL ABSORPTION OF THIS MATERIAL. APPROPRIATE MEASURES SHOULD BE TAKEN TO PREVENT ABSORPTION SO THAT THE TLV AND/OR PEL ARE NOT INVALIDATED.
4 AMERICAN INDUSTRIAL HYGIENE ASSOCIATION WORKPLACE ENVIRONMENTAL EXPOSURE LEVEL (AIHA WEELS).

SECTION III -- PHYSICAL AND CHEMICAL CHARACTERISTICS

BOILING RANGE: 302-350 DEG F.
DENSITY: 8.5 TO 11.5 LB./GAL.
VOC CONTENT OF MATERIAL: 50-70 % BY WEIGHT OR 500-700 GRAMS/LITER.
VOC CONTENT OF COATING LESS WATER AND LESS EXEMPT SOLVENTS: 500-700 G/L.
VAPOR DENSITY: HEAVIER THAN AIR.

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EVAPORATION RATE: SLOWER THAN DIETHYL ETHER.
APPEARANCE AND ODOR: MOBILE LIQUID, VARIOUS COLORS, ETHER-LIKE ODOR.

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SECTION IV -- PHYSICAL HAZARD DATA
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FLAMMABILITY CLASSIFICATIONS: OSHA: CLASS II DOT: COMBUSTIBLE LIQUID
CLOSED CUP FLASH POINT: 111 F. EXPLOSIVE LIMITS: LOWER: 0.8% UPPER: 13.1%

EXTINGUISHING MEDIA: "CLASS B" FIRE EXTINGUISHERS USED IN ACCORDANCE
WITH MANUFACTURERS INSTRUCTIONS.

"ALCOHOL" FOAM CO2 DRY CHEMICAL WATER FOG

UNUSUAL FIRE OR EXPLOSION HAZARDS: KEEP CONTAINERS TIGHTLY CLOSED.
ISOLATE FROM HEAT, SPARKS, ELECTRICAL EQUIPMENT AND OPEN FLAMES.
CLOSED CONTAINERS MAY RUPTURE OR EXPLODE WHEN EXPOSED TO EXTREME HEAT.
APPLICATION TO HOT SURFACES REQUIRES SPECIAL PRECAUTIONS.
DURING EMERGENCY CONDITIONS, OVEREXPOSURE TO DECOMPOSITION PRODUCTS MAY
CONSTITUTE A HEALTH HAZARD. SYMPTOMS MAY NOT BE IMMEDIATELY APPARENT.
OBTAIN MEDICAL ATTENTION.

SPECIAL FIREFIGHTING PROCEDURES: FULL PROTECTIVE EQUIPMENT IS
RECOMMENDED TO PROTECT FIRE FIGHTERS FROM ANY HAZARDOUS DECOMPOSITION
PRODUCTS.

WATER MAY BE UNSUITABLE FOR USE ON BURNING LIQUIDS. IF WATER MUST BE
USED, FOG NOZZLES ARE HIGHLY PREFERABLE. WATER MAY BE USED TO COOL
CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTO-
IGNITION, EXPLOSION, OR RUPTURE WHEN EXPOSED TO EXTREME HEAT.

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SECTION V -- EMERGENCY AND FIRST-AID PROCEDURES
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PRIMARY ROUTES OF ENTRY ARE DERMAL AND INHALATION.

FOR SWALLOWING: DRINK TWO GLASSES OF WATER TO DILUTE. DO NOT INDUCE
VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. CONSULT
PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. TREAT SYMPTOMATICALLY. BE
PREPARED TO PROVIDE THE ATTENDING PHYSICIAN WITH A COPY OF THIS DOCUMENT.

FOR SKIN CONTACT: REMOVE CONTAMINATED CLOTHING. WASH THOROUGHLY WITH
MILD SOAP AND WARM WATER. CONSULT A PHYSICIAN IF THERE IS ANY
PERSISTING IRRITATION.

FOR INHALATION: REMOVE VICTIM TO A WELL VENTILATED AREA. GIVE OXYGEN
OR ARTIFICIAL RESPIRATION AS REQUIRED. TREAT SYMPTOMATICALLY AND
CONSULT PHYSICIAN.

FOR EYE CONTACT: FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST
FIFTEEN MINUTES. CONSULT PHYSICIAN FOR MEDICAL TREATMENT, IF NECESSARY.

SPECIAL NOTES TO ATTENDING PHYSICIAN: THERE IS NO SPECIFIC ANTIDOTE.
TREATMENT OF OVEREXPOSURE SHOULD BE DIRECTED AT CONTROL OF THE SYMPTOMS
AND THE CLINICAL CONDITION.

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SECTION VI -- SIGNS AND SYMPTOMS OF OVEREXPOSURE
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ACUTE EFFECTS:

SWALLOWING: MAY CAUSE HEADACHE, NAUSEA, VOMITING, DIZZINESS, IRRITATION
OF THE DIGESTIVE TRACT. SIGNS OF NERVOUS SYSTEM DEPRESSION (E.G.,
DROWSINESS, DIZZINESS, LOSS OF COORDINATION, AND FATIGUE). POSSIBLE KIDNEY
DAMAGE MAY RESULT FROM INGESTION OF LARGE QUANTITIES OF MATERIAL.

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ASPIRATION HAZARD - THIS MATERIAL CAN ENTER LUNGS DURING SWALLOWING OR VOMITING AND CAUSE LUNG INFLAMMATION AND DAMAGE.

SKIN ABSORPTION: PROLONGED OR WIDESPREAD CONTACT WITH SKIN MAY LEAD TO ABSORPTION OF HARMFUL AMOUNTS OF MATERIAL WITH ACCOMPANYING SIGNS AND SYMPTOMS OF TOXICITY AS DESCRIBED FOR SWALLOWING.

INHALATION: VAPORS ARE IRRITATING TO EYES, NOSE AND RESPIRATORY TRACT. OVEREXPOSURE MAY RESULT IN HEADACHE, NAUSEA, VOMITING, SIGNS OF NERVOUS SYSTEM DEPRESSION AND ANEMIA. VAPORS HAVE AN OBJECTIONABLE ODOR.

SKIN CONTACT: MAY CAUSE SLIGHT IRRITATION WITH PROLONGED CONTACT. PROLONGED AND REPEATED OVEREXPOSURE MAY RESULT IN REDNESS, BURNING, DRYING AND CRACKING.

EYE CONTACT: CAUSES IRRITATION, BURNING, TEARING, REDNESS AND SWELLING.

MEDICAL CONDITIONS KNOWN TO BE AGGRAVATED BY OVEREXPOSURE: LUNG CONDITIONS, SENSITIZATIONS, OR ALLERGIES.

CHRONIC EFFECTS: REPEATED OVEREXPOSURE MAY CAUSE RED BLOOD CELL HEMOLYSIS, LIVER AND KIDNEY DAMAGE.

ADDITIONAL KNOWN HEALTH HAZARDS:
REPORTS HAVE ASSOCIATED PROLONGED AND REPEATED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

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SECTION VII -- REACTIVITY DATA
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THIS MIXTURE IS STABLE AND HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

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

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE, VARIOUS HYDROCARBONS, ACRID SMOKE.

CONDITIONS TO AVOID: EXTREME TEMPERATURES, SPARKS, OPEN FLAMES OR ANY OTHER IGNITION SOURCES.

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SECTION VIII -- SPILL OR LEAK PROCEDURES
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STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED: USING NON-SPARKING TOOLS, PLACE LEAKING CONTAINERS IN A WELL VENTILATED AREA. AVOID BREATHING VAPORS.
ELIMINATE ALL SOURCES OF HEAT, SPARKS, OR IGNITION.
NOTIFY PROPER AUTHORITIES IF PUBLIC WATERS OR SEWERS ARE CONTAMINATED.

WASTE DISPOSAL METHOD: AS A HAZARDOUS WASTE, THIS MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL ORDINANCES. INQUIRE OF YOUR LOCAL ENVIRONMENTAL AGENCIES FOR THE EXACT LEGAL REQUIREMENTS IN YOUR AREA.
REFER TO SECTIONS IV, V, VI, VII AND IX OF THIS DOCUMENT BEFORE ATTEMPTING ANY CLEANUP.

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SECTION IX -- SAFE HANDLING AND USE INFORMATION
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RESPIRATORY PROTECTION: WHERE CONCENTRATIONS IN AIR MAY EXCEED THE LIMITS GIVEN IN SECTION II AND ENGINEERING, WORK PRACTICE OR OTHER

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MEANS OF EXPOSURE REDUCTION ARE NOT ADEQUATE, NIOSH/MSHA APPROVED RESPIRATORS MAY BE NECESSARY TO PREVENT OVEREXPOSURE. VENTILATION REQUIREMENTS: LOCAL EXHAUST RECOMMENDED WHEN APPROPRIATE TO CONTROL EXPOSURE TO MIST OR AEROSOLS. GENERAL EXHAUST IS NORMALLY ADEQUATE TO MINIMIZE EXPOSURE TO VAPORS.

PROTECTIVE GLOVES: RUBBER OR NEOPRENE TO MINIMIZE SKIN CONTACT. EYE PROTECTION: SAFETY GOGGLES OR FULL FACE SHIELD. HYGIENIC SAFETY PRACTICES: WASH HANDS BEFORE EATING, USING TOBACCO PRODUCTS, OR USING THE WASHROOM. TOBACCO AND FOOD SHOULD BE CONSUMED IN DESIGNATED AREAS ONLY. ADDITIONAL SAFETY EQUIPMENT: IMPERMEABLE APRONS AND BOOTS. SAFETY SHOWER AND EYE BATH SHOULD BE MADE AVAILABLE.

SECTION X -- SPECIAL PROCEDURES

TRANSPORTATION, STORAGE, AND HANDLING: AVOID CONDITIONS LISTED IN SECTION VII. AVOID PROLONGED STORAGE AT TEMPERATURES IN EXCESS OF 100 F.

OTHER PRECAUTIONS: PROTECT AGAINST THE INHALATION OF DUST OR PARTICLES GENERATED BY SANDING, BLASTING, OR ABRADING OF THE DRIED COATING.

SECTION XI -- DISCLAIMER

SERICOL, INC. MAKES NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ACCURACY OR RELIABILITY OF INFORMATION CONTAINED HEREIN, EXCEPT THAT SUCH INFORMATION IS, TO THE BEST OF SERICOL'S KNOWLEDGE AND BELIEF, ACCURATE AS OF THE DATE INDICATED ON THIS DOCUMENT. FINAL DETERMINATION OF SUITABILITY OF ANY MATERIAL IS THE SOLE RESPONSIBILITY OF THE USER. ALL MATERIALS MAY PRESENT UNKNOWN HEALTH HAZARDS AND SHOULD BE USED WITH CAUTION. ALTHOUGH CERTAIN HAZARDS ARE DESCRIBED HEREIN, WE CANNOT GUARANTEE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

SECTION XII -- CUSTOMER'S OBLIGATIONS

SERICOL INC. URGES THE CUSTOMER RECEIVING THIS MATERIAL SAFETY DATA SHEET TO STUDY IT CAREFULLY TO BECOME AWARE OF HAZARDS, IF ANY, OF THE PRODUCTS INVOLVED. IN THE INTEREST OF SAFETY, YOU SHOULD, (1) NOTIFY YOUR EMPLOYEES, AGENTS, AND CONTRACTORS OF THE INFORMATION ON THIS SHEET, (2) FURNISH A COPY TO EACH OF YOUR CUSTOMERS FOR THIS PRODUCT, AND (3) REQUEST YOUR CUSTOMERS TO INFORM THEIR EMPLOYEES, CUSTOMERS, AND AGENTS, AS WELL.

SECTION XIII -- REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA) STATUS: THE INGREDIENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY.

THIS PRODUCT CONTAINS A TOXIC CHEMICAL OR CHEMICALS SUBJECT TO THE ANNUAL REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372.

CONTAINS: ETHYLENE GLYCOL MONOBUTYL ETHER
CAS# 111-76-2
20 % MAXIMUM BY WEIGHT

THIS NOTIFICATION MUST NOT BE DETACHED FROM THE MATERIAL SAFETY DATA SHEET (MSDS) AND ANY COPYING AND REDISTRIBUTION OF THE MSDS SHALL INCLUDE COPYING AND REDISTRIBUTION OF THE NOTICE ATTACHED TO COPIES OF THE MSDS SUBSEQUENTLY REDISTRIBUTED.

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STATE OF CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 (PROPOSITION 65): THIS PRODUCT MAY CONTAIN TRACE AMOUNTS OF NAPHTHALENE, A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

STATE OF CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 (PROPOSITION 65): THIS PRODUCT MAY CONTAIN TRACE AMOUNTS OF TOLUENE, A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE REPRODUCTIVE TOXICITY.

VYL SCREEN INKS

VOC INFORMATION (REV.09/19/07/cdp)

PRODUCT DESCRIPTION	! WPG INK ! ! IN LBS !	! % VOC ! ! BY WT !	! LBS VOC ! ! PER GAL !	! GRAMS VOC ! ! PER LITRE !
K21693 SP PMS 500U PINK	9.44	67.76	6.40	768
K22526 HAT-6-3005-H BEIGE	11.85	40.7	4.82	579
K23302 SP FV PMS 229 BURGANDY	8.61	72.7	6.26	751
K23947 SP OPQ WHITE	11.47	44.9	5.14	617
K23948 SP OPQ BLACK	9.36	57.7	5.40	648
K24370 SP PGH 52788 BLACK	8.82	73.64	6.50	779
K27854 SP PMS 222 MAROON	8.60	72.6	6.24	749
K28736 SP FV PMS 222 MAROON	8.81	71.8	6.32	759
K30425 SP VYL HARLEY BLUE	9.64	53.2	5.13	615
K37283 501 LIGHT BLUE	10.586	50.4	5.34	641
K37287 700 BLACK	8.633	53.4	4.61	553
K37288 800 WHITE	11.65	43.32	5.05	606
K37446 900 BASE	8.61	69.2	5.96	715
K53019 SP MIXING VEHICLE	8.434	73.2	6.18	742
K60266 WARM RED	10.000	44.6	4.46	535
K67238 PERM RED TONER	9.60	53.8	5.16	619
K72408 504 ULTRA BLUE	8.471	42.9	3.63	436
K76178 1001 FLAT OP CLEAR	8.800	64.2	5.65	678
K76816 PGH 52876 RUG BLUE	9.15	70.7	6.47	776
K77133 901 MIXING VEHICLE	8.48	70.1	5.94	713
K77547 30 YS RED TONER	9.49	55.3	5.24	629
K77548 31 BS RED TONER	9.52	54.1	5.15	618
K77549 40 BS GREEN TONER	9.71	54.4	5.28	634
K77550 35 MAGENTA TONER	9.55	54.4	5.20	623
K77551 14 RS YELLOW TONER	10.06	48.1	4.84	580
K77552 41 YS GREEN TONER	9.84	54.4	5.35	642
K77553 50 GS BLUE TONER	9.598	54.4	5.22	627
K77554 52 RS BLUE TONER	9.507	53.8	5.11	613
K77778 70 BLACK TONER	9.579	55.3	5.29	635
K77901 80 WHITE TONER	11.695	43.4	5.07	609
K77902 10 GS YELLOW TONER	9.648	55.3	5.38	645
K79335 IRON YELLOW	10.896	47.3	5.15	618
K79336 RED TONER	10.982	47.3	5.19	623
K82248 VERY OPAPUE BLACK	9.55	54.1	5.17	620
K84777 801 OPAQUE WHITE	12.148	40.7	4.94	593
K85821 701 HI-HIDE BLACK	9.853	48.8	4.81	577
K90719 PGH 52788 BLACK	8.68	72.5	6.29	755
K90720 PGH 52789 WHITE	9.70	66.7	6.47	776
K90723 PGH 52914 RUG BLACK	8.84	69.5	6.15	738
K90724 RUG BLUE	9.11	70.7	6.44	773
K90725 PGH 53313 RUG WHITE	9.66	66.5	6.42	771
K91175 CLOTH MARK BLUE	9.00	71.4	6.43	771
K91821 350 FIRE RED	9.54	55.8	5.32	638
K91956 150 PRIMROSE YELLOW	10.30	49.2	5.06	607
K91957 151 LEMON YELLOW	10.16	49.8	5.06	607
K92044 RUG MARKING ORANGE	9.00	68.96	6.21	745
K92424 PGH 53437 GREEN	8.88	72.5	6.44	772
K92430 PGH 55074 PINK	9.28	71.97	6.68	801
K92512 PGH LF 52875 MED YELL	8.87	70.4	6.24	749

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K92513	LF RUG MARKING RED	9.12	65.1	5.94	712
K92899	RUG MARKING BROWN	9.17	69.27	6.35	762
K94496	TAG MARKING RED	8.52	74.1	6.31	758
K95604	CABLETRON DRIFTWOOD	11.68	43.4	5.07	608