DATE OF LAST CHANGE: 04/27/06

DATE PRINTED.....: 04/27/06

MANUFACTURER'S NAME:

NAZDAR CANADA
925 ROSELAWN AVE.
TORONTO, ONTARIO CANADA
M6B 1B7 CAN

EMERGENCY TELEPHONE #: (800)424-9300
(U.S. and Canada)
EMERGENCY TELEPHONE #: (703)527-3887
(Outside U.S. and Canada, collect calls are accepted)
INFORMATION TELEPHONE #: (800)387-2894

SECTION 1 -- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CODE: VPNL

TRADE NAME...: VP SERIES VINYL PLUS SCREEN INK

PRODUCT CLASS: SCREEN INK

INK SERIES...:

- H M I S C O D E S -
HEALTH - 2*
FLAMMABILITY - 2
REACTIVITY - 0
PPE - X

-------Item Description-------	WT lb/gal	VOC g/L	VOC lb/gal	% VOC volume
VP091 FLUORESCENT ORANGE RED*	9.2	572	4.8	59
VP094 FLUORESCENT CHARTREUSE*	9.4	566	4.7	58
VP097 FLUORESCENT PINK*	9.2	572	4.8	59
VP099 FLUORESCENT BLUE*	9.1	569	4.7	59
VP108 TRANSPARENT MAROON*	8.9	647	5.4	67
VP111 OPAQUE BLACK	9.0	634	5.3	65
VP113 PROCESS BLACK	9.3	610	5.1	63
VP130 PRIMROSE YELLOW	9.2	618	5.2	63
VP139 TRANSPARENT PRIMROSE*	9.0	622	5.2	64
VP145 FOREST GREEN	9.3	622	5.2	64
VP153 PROCESS CYAN	9.4	603	5.0	62
VP156 BRILLIANT BLUE	9.1	629	5.2	65
VP159 TRANSPARENT BLUE	9.1	622	5.2	64
VP163 PROCESS MAGENTA	9.3	611	5.1	63
VP166 MAGENTA*	9.4	640	5.3	68
VP170 MIXING CLEAR	8.8	656	5.5	67
VP179 TRANSPARENT ORANGE*	9.0	632	5.3	65
VP199 TRANSPARENT PURPLE*	8.9	656	5.5	68
VP212 EXTRA OPAQUE WHITE	11.5	547	4.6	67
VP611 RED*	8.9	616	5.1	63
VP900 YELLOW*	8.9	620	5.2	64
VP902 RUBINE RED*	9.0	640	5.3	66
VP904 PURPLE*	8.9	644	5.4	66
VP906 REFLEX BLUE*	9.0	640	5.3	66
VP908 GREEN*	9.0	634	5.3	65
VPLF 105 PERMANENT RED	9.3	618	5.2	63
VPLF 132 LEMON YELLOW	9.2	599	5.0	62

-------Item Description- ------	WT lb/gal	VOC g/L	VOC lb/gal	% VOC volume
VP092 FLOURESCENT GREEN*	9.3	574	4.8	59
VP095 FLUORESCENT RED*	9.2	575	4.8	59
VP098 FLUORESCENT ORANGE*	9.2	569	4.7	59
VP103 BRILLIANT RED	9.0	616	5.1	63
VP109 TRANSPARENT RED*	8.7	702	5.9	73
VP112 OPAQUE WHITE	11.0	592	4.9	70
VP129 TRANSPARENT MED YELLOW	9.0	636	5.3	65
VP133 PROCESS YELLOW	9.3	606	5.1	62
VP142 EMERALD GREEN	9.3	610	5.1	63
VP149 TRANSPARENT GREEN	9.2	632	5.3	65
VP154 PEACOCK BLUE	9.7	618	5.2	67
VP157 ROYAL BLUE*	9.2	630	5.3	66
VP162 PURPLE*	9.1	644	5.4	67
VP164 CERISE	9.5	641	5.3	69
VP169 TRANSPARENT CERISE*	8.9	642	5.4	66
VP173 PROCESS CLEAR	9.3	622	5.2	64
VP186 ANTI SCUFF*	8.5	447	3.7	46
VP211 EXTRA OPAQUE BLACK	9.1	632	5.3	65
VP610 ORANGE*	9.0	626	5.2	64
VP613 COOL RED*	9.0	630	5.3	65
VP901 WARM RED*	8.9	628	5.2	64
VP903 RHODAMINE RED*	8.9	637	5.3	66
VP905 VIOLET*	8.9	638	5.3	66
VP907 PROCESS BLUE*	8.9	639	5.3	66
VPLF 102 FIRE RED	9.2	611	5.1	63
VPLF 124 VERMILLION	9.4	619	5.2	64
VPLF 134 MEDIUM YELLOW	9.2	597	5.0	61

SECTION 2 -- COMPOSITION, INFORMATION ON INGREDIENTS

CHEMICAL NAME; COMMON NAME; CAS NUMBER	PERCENT BY WEIGHT	OCCUPATIONAL EXPOSURE LIMITS -------ACGIH------- TLV	-------OSHA-------- PEL	VAPOR PRESSURE IN mmHg	NOTES
RESIN MIXTURES; CAS #: NOT AVAILABLE	19-32	NOT ESTABLISHED	NOT ESTABLISHED	<1 @ 20C	
* 2-BUTOXYETHANOL ACETATE; ETHYLENE GLYCOL BUTYL ETHER ACETATE; CAS #: 112-07-2	13-27	20 ppm	NOT ESTABLISHED	1.0 @ 20C	(1)
PROPYLENE GLYCOL METHYL ETHER ACET.; PM ACETATE; CAS #: 108-65-6	11-26	NOT ESTABLISHED	NOT ESTABLISHED	3.8 @ 20C	(2)
CYCLOHEXANONE; PIMELIC KETONE; CAS #: 108-94-1	5-11	20 ppm Skin STEL: 50ppm	25 ppm Skin	2.0 @ 20C	
GAMMA-BUTYROLACTONE; DIHYDRO-2(3H)-FURANONE; CAS #: 96-48-0	4-10	NOT ESTABLISHED	NOT ESTABLISHED	1.5 @ 20C	
* 1-METHYL-2-PYRROLIDONE;	< 4	NOT	NOT	0.29 @ 20C	(3)

M-PYROL; CAS #: 872-50-4		ESTABLISHED	ESTABLISHED		
TITANIUM DIOXIDE; CAS #: 13463-67-7	0-29	10 mg/m3	10 mg/m3	N/A	
PIGMENTS; MIXTURE; CAS #: NOT AVAILABLE	0-23	10 mg/m3	15 mg/m3 Total dust	N/A	(4)
CARBON BLACK; PIGMENT BLACK; CAS #: 1333-86-4	0-8	3.500 mg/m3	3.500 mg/m3	N/A	
PETROLEUM DISTILLATE; AROMATIC HYDROCARBON; CAS #: 64742-94-5	0-5	NOT ESTABLISHED	NOT ESTABLISHED	<1 @ 20C	(5)
* ANTIMONY COMPOUNDS; CAS #: 7440-36-0	0-1	.500 mg/m3	.500 mg/m3	N/A	(6)
* ETHYL BENZENE; CAS #: 100-41-4	0-.50	100 ppm STEL: 125 ppm	100 ppm STEL: 125 ppm	7.1 @ 20C	(7)

* SUBJECT TO REPORTING REQUIREMENT OF SECTION 313 OF TITLE III OF SARA (40 CFR PART 372).

1) NIOSH has set a Recommended Exposure Limit (REL) of 5 ppm.
   This chemical is included on the list of Hazardous Air Pollutants (HAPs) from Title III of the Clean Air Act Amendments of 1990 (Glycol Ethers Category).
2) AIHA recommended exposure limit is 100 ppm TWA.
3) Manufacturer's recommended exposure limit of 100 ppm.
4) The above ACGIH TLV exposure limit of 10 mg/m3 is for inhalable fraction. See Section 8 Exposure Controls, Personal Protection - Exposure Guidelines for more information on exposure limits.
5) Industry recommended exposure limit of 100 ppm.
6) Exposure limits are for antimony and compounds, as Sb.
   This chemical is included on the list of Hazardous Air Pollutants (HAPs) from Title III of the Clean Air Act Amendments of 1990 (Antimony Compounds).
7) This chemical is included on the list of Hazardous Air Pollutants (HAPs) from Title III of the Clean Air Act Amendments of 1990.

The recommended permissible exposure limits (PEL) indicated above reflect the levels adopted by OSHA in 1989. Although, some of the 1989 levels have since been vacated, the Nazdar Company recommends that the lower exposure levels be observed as reasonable worker protection.
NOTE: Due to the broad spectrum of colors each MSDS may represent, ranges of some ingredients listed in Section 2 may exceed those specified in the Canadian Controlled Product Regulations. If specific concentration information is needed to comply with this regulation contact Nazdar's Regulatory Compliance Department at 913-422-1735.

SECTION 3 -- HAZARDS IDENTIFICATION

GENERAL HEALTH EFFECTS
THE FOLLOWING INFORMATION HAS BEEN DEVELOPED BASED UPON USING THE PRODUCT AS INTENDED BY THE MANUFACTURER. The potential health effects of this product are based on the hazards of its components. The use of this product in combination with other products may produce synergistic (additive) health effects. Cautionary labeling and material safety data sheets of all materials used with this product should be reviewed before use.

EYES
Eye contact with liquid, vapors or mists may cause moderate to severe irritation, including burning, tearing, redness or swelling and reversible eye damage.

SKIN
Skin contact may cause irritation. Symptoms may include dryness, chapping and redness. Repeated or prolonged overexposure may cause burns to the skin. Toxic and may be harmful if absorbed through the skin. Penetrates the skin readily.

INHALATION
Repeated and prolonged overexposure by inhalation may cause respiratory tract irritation. Symptoms may include central nervous system disorders such as headaches, dizziness, weakness and fatigue.

INGESTION
Ingestion may cause gastrointestinal tract irritation. Symptoms may include headaches, nausea and vomiting. Contains material that may be moderately toxic if ingested.

CHRONIC EFFECTS/TARGET ORGANS
Reports have associated repeated and prolonged 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. Antimony Compounds have caused damage to the heart with altered EKG, high blood pressure, ulcers and disturbances in menstruation after chronic exposure. Ethylbenzene is possibly carcinogenic to humans (IARC Group 2B).

ANIMAL STUDIES

2-Butoxyethanol acetate has caused reproductive and blood disorders resulting in kidney, liver and lung damage in lab animals. Propylene glycol methyl ether acetate (PM acetate) has been suggested as a cause of the following effects in laboratory animals, and may aggravate preexisting disorders of these organs in humans: mild, reversible liver effects, mild, reversible kidney effects, nasal damage. PM acetate has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain. Cyclohexanone has caused liver and kidney damage in animal tests. 1-Methyl-2-pyrrolidone (M-Pyrol) has been suggested as a cause of the following effects, after overexposure in laboratory animals, and may aggravate pre-existing disorders of these organs in humans; male and female reproductive fertility effects and damage to the blood forming system. M-Pyrol has been shown to cause birth defects in lab animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain. For animal studies, reference TSCA Section 4 Test Rule Results or contact the manufacturer for further details.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Pregnant women and persons with pre-existing health disorders should consult their physician before using this product. Repeated and prolonged overexposure and/or individual sensitivity may increase the potential for and degree of adverse health effects. See Section 3 "Hazards Identification" for effects of certain hazardous ingredients.

ROUTES OF EXPOSURE

Primary exposure routes: Inhalation-Dermal (Contact/Absorption)-Ingestion

SECTION 4 -- FIRST AID MEASURES

EYES

After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If irritation persists have eyes examined and tested by medical personnel.

SKIN

In case of contact, immediately wash skin with a mild soap and plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Cool water is initially suggested to prevent the pores of the skin from opening. This will minimize both the area and time of skin contact. Lukewarm water may then be used to ensure all contaminants are removed. Skin should be monitored for reddening or chemical burns. Mild soap is suggested to help prevent abrading the skin or rubbing the chemicals into pores during cleansing. Get medical attention if irritation persists or significant contact has occurred. Thoroughly wash (or discard) clothing and shoes before reuse.

INHALATION

Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention if breathing difficulty is experienced.

INGESTION

If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

OTHER COMMENTS

No Data Available

SECTION 5 -- FIRE FIGHTING MEASURES

FLASH POINT

131 Degrees Fahrenheit (Closed Cup)

OSHA FLAMMABILITY CLASSIFICATION (NFPA)

Class II Combustible Liquid

LEL - LOWER EXPLOSIVE LIMIT / UEL - UPPER EXPLOSIVE LIMIT

0.9% volume in air / No Data Available

EXTINGUISHING MEDIA

Foam-CO2-Dry Chemical-Water Spray

FIRE AND EXPLOSION HAZARDS

Isolate from heat, electrical equipment, sparks, and open flame. Keep containers tightly closed. Vapors may be heavier than air and can travel to a source of ignition then flash back. Closed containers may explode when exposed to extreme heat.

FIRE FIGHTING EQUIPMENT

Full protective equipment including self-contained breathing apparatus (SCBA) is recommended to protect firefighters.

SPECIAL FIRE FIGHTING PROCEDURES

Water may be ineffective but may be used to cool containers. Fumes released on burning may be toxic and dangerous.

SECTION 6 -- ACCIDENTAL RELEASE MEASURES

RELEASE MANAGEMENT MEASURES

Remove all sources of ignition (flames, hot surfaces and electrical, static or frictional sparks). Avoid contact or breathing vapors. Ventilate area. Contain release and remove with inert absorbent. Use non-sparking tools to place material in appropriate container for disposal. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. The National Response Center (800-424-8802) and local authorities should be contacted for any reportable spill/release.

SECTION 7 -- HANDLING AND STORAGE

HANDLING AND STORAGE METHODS

Use in a well ventilated area. Follow all MSDS/label precautions even after container is emptied; container may retain product residues. Store in closed containers in cool, dry, well ventilated area away from sources of ignition. Keep containers closed when not in use. Smoke in designated areas only. Avoid prolonged or repeated overexposure to this product. Keep out of reach of children. Follow label directions carefully. Do not take internally. Harmful or fatal if swallowed.

SECTION 8 -- EXPOSURE CONTROLS, PERSONAL PROTECTION

RESPIRATORY PROTECTION

If concentrations of hazardous ingredients exceed exposure limits listed in Section 2 an appropriate NIOSH (National Institute for Occupational Safety and Health) approved respirator with an organic vapor cartridge should be used. If material is handled under mist, spray or dust forming conditions, a P100 (99.97% efficiency) filter should be used in addition to the organic vapor cartridge. Protection provided by air-purifying respirators is limited. If no exposure limits are listed in Section 2, follow general safety guidelines in 29 CFR 1910.134 Respiratory Protection or other applicable respiratory standard.

SKIN PROTECTION

Use neoprene, nitrile or other gloves resistant to chemicals listed in Section 2. Contact a reputable safety supply company for appropriate gloves. Solvent resistant aprons are recommended. Prevent prolonged skin contact with contaminated clothing.

EYE PROTECTION

Use ANSI (American National Standards Institute) approved safety glasses, faceshield or splash proof goggles to prevent eye contact. Contact a reputable safety supply company for appropriate eye protection. The availability of an eye wash is highly recommended.

EXPOSURE GUIDELINES

See Section 2 "Composition, Information on Ingredients" for occupational exposure limits. Excessive concentrations of nuisance dusts or particulates not otherwise classified (PNOC) or regulated (PNOR) may reduce visibility and cause unpleasant deposits in the eyes, ears, and nasal passages. The TLV and PEL has been established for all non-toxic "nuisance dusts" that are not otherwise classified and refers to both organic and inorganic dusts. Exposure or generation of these dusts is not anticipated during normal printing operations. The use of dry pigments and powders, grinding or sanding of printed products may generate quantities of these particulates. Refer to Section 2 Composition, Information on Ingredients for exposure limits.

HYGIENIC PRACTICES

Wash with soap and water before eating, smoking or using toilet facilities. Separately wash or discard clothing and footwear before reuse. NEVER try to remove product from the skin by using solvent or thinner. Such action is likely to increase the possibility of undesirable effects. Remove contaminated clothing to prevent prolonged skin contact.

ENGINEERING CONTROLS

Use applicable engineering controls, work practices and personal protective equipment to ensure all concentrations are kept below the exposure limits listed in Section 2. Adequate controls should be implemented to ensure employee safety from fine mists which may be produced under some printing conditions.

OTHER PROTECTION

No Data Available

SECTION 9 -- PHYSICAL AND CHEMICAL PROPERTIES

**

APPEARANCE:

Viscous liquid

ODOR:

Characteristic

PHYSICAL STATE:

Liquid

pH

Not applicable

VAPOR PRESSURE
See Section 2 for individual ingredients.

VAPOR DENSITY
Heavier than air

BOILING POINT
Greater than 300 degrees Fahrenheit

FREEZING POINT
Not available

SOLUBILITY IN WATER
Not tested

EVAPORATION RATE
Slower than ether

VISCOSITY
Greater than water

PERCENT VOLATILE BY VOLUME: SEE SECTION ONE

WEIGHT PER GALLON: SEE SECTION ONE

VOC: SEE SECTION ONE

PHOTOCHEMICALLY REACTIVE
No

Percent volatile = Percent VOC

SECTION 10 -- STABILITY AND REACTIVITY

CHEMICAL STABILITY
Stable

CONDITIONS TO AVOID
Avoid excessive heat, ignition sources, sparks and open flame.

INCOMPATIBILITY WITH OTHER MATERIALS
Strong acids/bases, oxidizing/reducing agents and reactive chemicals.

HAZARDOUS DECOMPOSITION PRODUCTS
May produce hazardous fumes when heated to decomposition e.g. carbon monoxide, carbon dioxide and other noxious gases.

HAZARDOUS POLYMERIZATION
Not anticipated during normal printing and storage conditions.

SECTION 11 -- TOXICOLOGICAL INFORMATION

EXPERIMENTAL TOXICITY DATA
Refer to Section 3 Hazards Identification for additional toxicological data. Experimental toxicity data on 2-butoxyethanol acetate has given the following results: Oral LD50 Rat; 2400 mg/kg: Dermal LD50 Rabbit; 1500 mg/kg. Experimental toxicity data on cyclohexanone has given the following results: Oral LD50 Rat; 1620 mg/kg: Dermal LD50 Rabbit; 1000 mg/kg: Inhalation TCLO Human; 75 ppm. Experimental toxicity data on gamma butyrolactone has given the following results: Oral LD50 Rat; 1.8 g/kg. Experimental toxicity data on 1-methyl 2-pyrrolidone has given the following results: Oral LD50 Rat; 7000 mg/kg: Intraperitoneal LD50 Mouse: 15000 mg/kg. Experimental toxicity data on petroleum distillate CAS# 64742-94-5 has given the following results: Oral LD50 Rat; 10 ml/kg; Dermal LD50 Rabbit 4 ml/kg: Inhalation LC50 Rat; 3800 mg/m3 4 hours.

SECTION 12 -- ECOLOGICAL INFORMATION

ECOTOXICITY
Because this product may be a mixture of chemicals, some of which may be ecologically toxic, it is strongly suggested that it not be disposed of into the environment, i.e. soil, water courses, lakes, landfills, sewers, etc.

ENVIRONMENTAL FATE
No Data Available

SECTION 13 -- DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

This product is considered hazardous for disposal purposes by the U.S. Environmental Protection Agency Resource Conservation and Recovery Act (RCRA). Contact Nazdar's Regulatory Compliance Department or refer to the regulations located in 40 CFR Part 261 for additional waste disposal information, including appropriate hazardous waste codes. It is the responsibility of the user to determine if local, county, state, or provincial regulations may also apply to the disposal of this product and/or container. Empty containers may retain hazardous properties and should be disposed of in an environmentally safe manner in accordance with applicable regulations.

SECTION 14 -- TRANSPORT INFORMATION

TRANSPORT INFORMATION

DOT Proper Shipping Description: Printing Ink, 3, UN1210, PG III. In the U.S. and Canada, this material may be reclassified as a combustible liquid and is not regulated, via surface transportation, in containers less than 119 gallons or 450 liters [per 49 CFR 173.150(f)] [per Transportation of Dangerous Goods Regulations/Clear Language Part 1.33]. Questions concerning transportation requirements should be directed to Nazdar's Regulatory Compliance Department 913-422-1735.

SECTION 15 -- REGULATORY INFORMATION

SARA TITLE III 313 INFORMATION

See Section 2 "Composition, Information on Ingredients" for applicable chemicals.

TOXIC SUBSTANCES CONTROL ACT STATUS

All ingredients in Section 2 are listed on the U.S. Environmental Protection Agency's Toxic Substances Control Act (TSCA) Inventory and the Canadian Domestic Substance List.

OTHER REGULATORY INFORMATION

OCCUPATIONAL SAFETY and HEALTH ADMINISTRATION (OSHA) - MSDS is compliant with Occupational Safety and Health Administration Hazard Communication Standard - 29 CFR 1910.1200. AMERICAN NATIONAL STANDARDS INSTITUTE - This MSDS follows the ANSI Z400.1-1998 format. WORKPLACE HAZARDOUS MATERIAL INFORMATION SYSTEM (WHMIS) - This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS CLASSIFICATION (CANADA):

B3 _ Combustible Liquids; D1B _ Material causing immediate and serious toxic effects, toxic material; D2A _ Materials causing other toxic effects, very toxic material; D2B _ Materials causing other toxic effects, toxic material;

SECTION 16 -- OTHER INFORMATION

DISCLOSURE

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind express or implied is made with respect to the information contained herein. The data in this MSDS relates only to the specific material designated herein and does not apply to use in combination with any other material or process.

DEFINITIONS

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CEILING: (TLV-Ceiling and PEL Ceiling Limit) The ceiling exposure limit or concentration not to be exceeded for even brief times.

DOT: Department of Transportation

HMIS: The Hazardous Materials Identification System (HMIS) developed by the National Paint and Coatings Association (NPCA) to provide information on the acute health hazards, reactivity and flammability of products encountered in the workplace at room temperatures.

HMIS codes assigned for this product are only suggested ratings based on anticipated normal screen printing applications. The employer has the ultimate responsibility for assigning these ratings and should fully evaluate the MSDS, work practices and environmental conditions prior to assigning the appropriate ratings.

HMIS rating involves data interpretations that may vary from company to company.

HMIS Personal Protection Index of "X-Ask your supervisor" is given on this MSDS due to varying work conditions which may dictate different levels of protection. Please review this MSDS before determining appropriate protective equipment and beginning work.

IARC: International Agency for Research on Cancer

NFPA: National Fire Protection Association

NTP: National Toxicology Program

STEL: Short-Term Exposure Limit: ACGIH terminology for the short-term exposure limit or maximum concentration for a continuous exposure period of 15 minutes.

TLV: Threshold Limit Value. A term ACGIH uses to express the airborne concentration of a material to which most workers can be exposed during a normal daily and weekly work schedule without adverse effects.

TWA: Time-Weighted Average

VOC: Volatile Organic Compound