

DATE OF LAST CHANGE: 04/08/02

DATE PRINTED.....: 04/08/02

DISTRIBUTOR'S NAME:

NAZDAR CHICAGO
1087 N. NORTHBRANCH ST.
CHICAGO
IL 60622 4292 USA

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)736-7636

SECTION 1 -- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CODE: 85NL

TRADE NAME...: AQUAPRINT II SUPER CONCENTRATE

- H M I S C O D E S -
HEALTH - 1
FLAMMABILITY - 0
REACTIVITY - 0
PPE - X

PRODUCT CLASS: WATERBASE SCREEN INK

INK SERIES...: 8500

Item Description	WT lb/gal	VOC g/L	VOC lb/gal	% VOC volume	Item Description	WT lb/gal	VOC g/L	VOC lb/gal	% VOC volume
8512 CONC BLUE 2G	9.1	9	.1	1	8514 CONC RED YR	9.0	11	.1	1
8516 CONC VIOLET 4B	8.6	165	1.4	17	8517 CONC SCARLET LF	9.2	12	.1	1
8518 CONC SCARLET YDC	9.2	12	.1	1	8519 CONC ORANGE R	8.9	45	.4	5
8520 CONC BLUE R	10.1	138	1.2	14	8525 CONC WHITE BR	12.5	265	2.2	28
8526 CONC FUCHSIA	9.3	140	1.2	2	8536 CONC YELLOW 3RH	9.1	76	.6	8
8542 CONC YELLOW 2G	9.1	73	.6	8	8543 CONC NAVY BLUE	8.3	10	.1	1
8544 CONC BLUE 3G	9.4	9	.1	1	8545 CONC GREEN B	9.6	50	.4	5
8546 CONC BLACK L	10.9	458	3.8	48	8547 CONC BROWN SR	9.1	193	1.6	20
8551 CONC RED 2B	8.7	64	.5	7	8580 CONC FL GREEN	9.1	0	.0	0
8581 CONC FL YELLOW	9.1	0	.0	0	8582 CONC FL PUMPKIN ORANGE	9.1	0	.0	0
8584 CONC FL RED ORANGE	9.1	0	.0	0	8585 CONC FL RED	9.1	0	.0	0
8586 CONC FL PINK	9.1	0	.0	0	8588 CONC FL BLUE	9.1	0	.0	0
8589 CONC FL VIOLET	9.6	0	.0	0		.0	0	.0	0

SECTION 2 -- COMPOSITION, INFORMATION ON INGREDIENTS

CHEMICAL NAME; COMMON NAME; CAS NUMBER	PERCENT BY WEIGHT	OCCUPATIONAL EXPOSURE LIMITS -----ACGIH----- TLV	OSHA -----OSHA----- PEL	VAPOR PRESSURE IN mmHg	NOTES
WATER; CAS #: 7732-18-5	26-88	NOT ESTABLISHED	NOT ESTABLISHED	24 @ 25C	
PIGMENTS; MIXTURE; CAS #: NOT AVAILABLE	7-50	10 mg/m3 Total dust	15 mg/m3 Total dust	N/A	(1)
DIETHYLENE GLYCOL; 2,2'-DIHYDROXYDIETHYL ETHER; CAS #: 111-46-6	0-23	NOT ESTABLISHED	NOT ESTABLISHED	<0.01 @ 20C	(2)
RESIN MIXTURES; CAS #: NOT AVAILABLE	0-13	NOT ESTABLISHED	NOT ESTABLISHED	<1 @ 20C	
2-AMINO-2-METHYL-1-PROPANOL; AMINO ALCOHOL; CAS #: 124-68-5	0-5	NOT ESTABLISHED	NOT ESTABLISHED	N/A	

- 1) See Section 8 Exposure Controls, Personal Protection - Exposure Guidelines for more information on exposure limits.
- 2) AIHA recommended exposure limit of 50 ppm.

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: Diethylene Glycol is contained only in products 8520 at 2.8% and 8546 at 23.0%.

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 irritation, including burning, tearing, redness or swelling.

SKIN

Skin contact may cause irritation. Symptoms may include dryness, chapping and redness.

INHALATION

Inhalation may cause respiratory tract irritation.

INGESTION

Ingestion may cause gastrointestinal tract irritation.

CHRONIC EFFECTS/TARGET ORGANS

Diethylene glycol has been shown to cause kidney and liver damage to humans after overexposure by ingestion. Overexposure by this route should not occur during normal use.

ANIMAL STUDIES

Diethylene glycol exposure has caused birth defects in laboratory animals only at doses toxic to the mother. 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

Greater than 200 Degrees Fahrenheit

OSHA FLAMMABILITY CLASSIFICATION (NFPA)

Class IIIB Combustible Liquid

LEL - LOWER EXPLOSIVE LIMIT / UEL - UPPER EXPLOSIVE LIMIT

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. Avoid prolonged exposure to excessive cold. Protect from freezing.

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:

Mild amine odor

PHYSICAL STATE:

Liquid

pH

7-9

VAPOR PRESSURE

See Section 2 for individual ingredients.

VAPOR DENSITY

Heavier than air

BOILING POINT

Greater than 300 degrees Fahrenheit

FREEZING POINT

32 degrees Fahrenheit

SOLUBILITY IN WATER

Complete - 100%

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

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.

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, as supplied, is considered non-hazardous for disposal purposes by the U.S. Environmental Protection Agency Resource Conservation and Recovery Act (RCRA). If combined with other products, the user should determine if hazardous waste codes are required. 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 the container.

SECTION 14 -- TRANSPORT INFORMATION

TRANSPORT INFORMATION

Not regulated. The product(s) described by this Material Safety Data Sheet do not meet the definition of nor are they classified as a hazardous material/dangerous good as defined by the United States Department of Transportation (DOT), the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO) or the Canadian Transportation of Dangerous Goods Act (TDG). 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):

D2B - Materials causing other toxic effects, toxic material;

Amount of VOC per unit of material (including water and exempt compounds):

Listed in order of Product #, VOC (lbs/gal) and VOC (g/L)

8512	0.03	4.0	***	8514	0.03	4.0	***	8516	0.13	15.0	***	8517	0.04	4.0	***	8518	0.04	4.0	***	8519	0.09	11.0
8520	0.28	34.0	***	8525	0.58	69.0	***	8526	0.05	6.0	***	8536	0.15	18.0	***	8542	0.18	22.0	***	8543	0.03	4.0
8544	0.04	5.0	***	8545	0.10	13.0	***	8546	2.50	300.0	***	8547	0.23	27.0	***	8551	0.14	17.0	***	8580	0.0	0.0
8581	0.0	0.0	***	8582	0.0	0.0	***	8584	0.0	0.0	***	8585	0.0	0.0	***	8586	0.0	0.0	***	8588	0.0	0.0
8589	0.0	0.0	***																			

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