

MATERIAL SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI and Canadian WHMIS Standards

PART I *What is the material and what do I need to know in an emergency?*

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED): 4500 Black

SYNONYM/CHEMICAL CLASS: Solution of dyes

PRODUCT USE: Ink Jet Printing Ink

MANUFACTURER'S NAME: Digital Design Inc.
ADDRESS: 67 Sand Park Road
Cedar Grove, NJ 07009

MANUFACTURER'S PHONE: 973-857-9500
EMERGENCY PHONE: 1-800-255-3925 (Chem-Tel Inc.)

DATE OF PREPARATION: November 17, 2005

HMIS Codes	
HEALTH (BLUE)	1
FLAMMABILITY (RED)	0
REACTIVITY (YELLOW)	0

2. COMPOSITION, INFORMATION ON HAZARDOUS INGREDIENTS

CHEMICAL FAMILY	CAS #	% w/w	EXPOSURE LIMITS IN AIR (ppm)					OTHER
			ACGIH		OSHA			
			TLV	STEL	PEL	STEL	IDLH	
Lactam	872-50-4	< 3	N/L	N/L	N/L	N/L	N/L	100

N/L = Not Listed

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This material presents mild health hazards when used in the prescribed manner.

POTENTIAL HEALTH EFFECTS FROM ACUTE AND CHRONIC EXPOSURE

Inhalation: This product produces a low odor and should not cause any respiratory problems when used in the prescribed manner.

Contact with Skin or Eyes: Due to the colorant components, skin contact will cause discoloration of the skin and may be removed by washing. Contact may also cause slight irritation of the skin. Contact with the eyes will cause irritation and may impair vision by staining the eye.

Ingestion: Ingestion of this material may stain the mouth and esophagus and may cause irritation of the upper gastrointestinal tract, which can cause difficulty in swallowing. Minute amounts aspirated into the lungs during ingestion or vomiting may cause pulmonary injury.

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: For incidental spills, use professional equipment such as rubber gloves and rubber apron, splash goggles or safety glasses. Trained personnel that use pre-planned procedures should respond to uncontrolled or large releases. Proper protective equipment should be used. In case of any spill, clear the affected area, protect people, and respond with trained personnel. Respiratory protection should be used to protect against potentially irritating contaminated dust.

Absorb spilled liquid with polypads or other appropriate materials. Avoid splashing or spraying liquid. Clean area thoroughly by rinsing with water. It may not be possible to decolorize stains. Place all spill residues in a double plastic bag, in appropriate sealed container. Dispose of in accordance with Federal, State, and local waste disposal regulations.

PART III *How can I prevent hazardous situations from occurring?*

7. HANDLING AND STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: Avoid getting chemicals ON YOU or IN YOU. Wash hands after handling chemicals. Do not eat or drink while handling chemicals. Avoid breathing mists of this ink.

STORAGE AND HANDLING PRACTICES: Store product in properly labeled, closed, containers in cool location. Avoid oxidizing and reducing agents and alkalies.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED

EQUIPMENT: Follow practices indicated in Section 6 (Accident Release Measures). Make certain application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Clean equipment with appropriate flushing solution before maintenance begins. Collect all rinsates and dispose of according to applicable Federal, State, or local procedures.

8. EXPOSURE CONTROLS – PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation. Use a mechanical fan or vent area to outside.

RESPIRATORY PROTECTION: None required under routine conditions of use. It is advisable to use respiratory protection during the release response procedures.

EYE PROTECTION: Splash goggles or safety glasses.

HAND PROTECTION: Use of butyl gloves is recommended. Check gloves for leaks. Wash hands after removing gloves.

BODY PROTECTION: Use body protection appropriate for task. Cover-alls, rubber aprons, or chemical protective clothing made from natural rubber are generally acceptable, depending upon the task.

9. MATERIAL CHARACTERISTICS

PHYSICAL STATE:	Liquid	% VOLITILE (by weight):	< 90 %
SPECIFIC GRAVITY:	0.90 – 1.1	MELTING POINT:	-30 to -10 °C
WATER SOLUBILITY:	Miscible	BOILING POINT:	> 90 °C

APPEARANCE, ODOR AND COLOR: This ink is a black liquid and has a mild odor.

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Extreme heat may cause material to decompose, producing acrid smoke and hazardous byproducts of carbon monoxide, nitrogen oxides and carbon dioxide.

HAZARDOUS POLYMERIZATION: Will not occur.

PART IV *Is there any other useful information about this material?*

11. TOXICOLOGICAL INFORMATION

CARCINOGENITY: This product's ingredients are not found on the following lists: FEDERAL OSHA 2 LIST, NTP, IARC, CAL/OSHA.

IRRITANCY OF PRODUCT: Listed below are the potential reproductive effects which may occur after exposure to this product.

Mutagenicity: While no data exist for the product, this ink is not expected to cause any fetal toxicity problems related to mutagenicity.

Teratogenicity: While no data exist for this product, this ink is not expected to cause any fetal toxicity problems related to teratogenicity.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: There are no known chemical conditions, which would be aggravated by exposure to this product.

TOXICOLOGICALLY SYNERGISTIC PRODUCTS: None known.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms. No specific medical procedures are available.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL STABILITY: Currently, there are no adverse environmental effects, which have been reported for this ink, except discoloration. All work practice should be aimed at eliminating environmental contamination.

EFFECT OF MATERIAL ON PLANTS OR ANIMALS: Animal studies on components of this ink indicate that it is a mild skin and eye irritant and moderately toxic by ingestion. No detailed studies have been performed for environmental effects.

EFFECT OF CHEMICAL ON AQUATIC LIFE: There are no reported adverse effects on aquatic life due to exposure to this ink. It is expected that this material will float near the surface of water and dissipate in a time-frame dependent upon the magnitude of the release and the movement of the water.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This chemical, if unaltered by handling, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Discharge into a sanitary sewer or storm drain may violate local ordinance.

EPA WASTE NUMBER: Not Applicable.

14. REGULATORY INFORMATION

TSCA INVENTORY STATUS: The chemicals in this compound ARE listed on the TSCA Inventory.

SARA Title III – Section 313, Emissions Reporting: N-methyl-2-pyrrolidone (CAS 872-50-4)

MARINE POLLUTANT: This product contains no chemicals which have been designated by the Department of Transportation to be Marine Pollutants in 49 CFR 172.101, Appendix B.

CALIFORNIA PROPOSITION 65: Proposition 65 requires manufacturers or distributors of consumer products into the State of California to provide a warning statement if the product contains ingredients for which the state has found to cause cancer, birth defects, or other reproductive harm. This ink contains N-methyl-2-pyrrolidone (CAS 872-50-4)

CERCLA REPORTABLE QUANTITIES (RO): Not Applicable.

15. OTHER INFORMATION

PREPARED BY: Digital Design Inc.
67 Sand Park Road
Cedar Grove, NJ 07009

<p>The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all other sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment.</p>
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