



MATERIAL SAFETY DATA SHEET

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

Section I. Chemical Product and Company Identification

Product Name xNano™ MICR Black HD
Part Number xnMB-0102-S
Product Use Inkjet Printing
Company Identification Diversified Nano Corporation
11956 Bernardo Plaza, Suite 304
San Diego, CA 92128
For information in U.S. call (858) 217-3128

Section II. Composition / Information on Ingredients

Component	CAS #	% by Weight	TLV-TWA
Surfynol 485	9014-85-1	< 0.50	Not established
Glycerin	56-81-5	< 21.35	Not established
Ethylene Glycol	107-21-1	< 9.15	Not established
Trade secret materials	Not specified	< 35.00	Not established
Water	7732-18-5	Balance	Not established

Composition Note: This ink supply contains an aqueous ink formulation.

Section III. Hazards Identification

EMERGENCY OVERVIEW: xNano™ MICR Black HD is a black, odorless liquid. It is non-volatile, non-flammable, and generally not harmful. There is no danger from chronic exposure, and no target organs at risk.

Potential Health Effects

Eye	May cause eye irritation.
Skin	May stain skin and cause skin irritation.
Ingestion	May cause irritation of digestive tract. May be harmful if swallowed.
Inhalation	Prolonged inhalation may result in irritation of the respiratory tract.
Chronic Exposure	None noted.

HAZARDOUS MATERIAL INFORMATION SYSTEM

HEATH	1
FLAMMABILITY	0
REACTIVITY	0
PROTECTIVE EQUIPMENT	1

Section IV. First Aid Measures

Eye:	Do not rub eyes. Flush eyes with clean, lukewarm water for at least 15 minutes, occasionally lifting upper and lower eyelids to remove particles. If irritation persists seek medical attention.
Skin:	Wash affected skin with water and soap to remove stain.
Ingestion:	If ingestion of large amount, wash mouth out with water, and seek medical attention.

Section V. Fire Fighting Measures

General Information	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
Extinguishing Media	Use water spray, dry chemical, CO ₂ , or chemical foam.
Flash Point	> 300°F (> 148°C)
Auto-ignition Temperature	Not determined.
Explosion Limits (LEL/UEL)	Not determined.
NFPA Rating	Not published.

Section VI. Accidental Release Measures

Spill/Leak Response	Wear gloves (rubber, nitrile, or latex) while handling spills. Clean spilled area with absorbent materials, and wash with soap and water. Dispose of spill residue in accordance with federal, state, and local hazardous waste disposal regulations (see Section XIII. Disposal Considerations). Affected area may remain stained.
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Section VII. Handling and Storage

Handling	Wear gloves while handling, to avoid staining of skin. Avoid contact with eyes, and skin. Avoid ingestion.
Storage	Store in tightly closed container. Optimal temperature range for storage is 41°F - 95°F (5°C - 35°C). Keep out of reach of children. Keep away from sparks and open flames.

Section VIII. Exposure Controls / Personal Protection

Engineering Controls	Use adequate ventilation.
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Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA-Final PELs
xNano™ MICR Black HD	None listed	None listed	None listed

OSHA Vacated PELs No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes	Wear protective goggles to minimize exposure to eyes.
Skin	Wear appropriate protective gloves to prevent skin exposure.
Clothing	Wear appropriate clothing to prevent skin exposure.
Inhalation	Use in well ventilated area.

Section IX. Physical and Chemical Properties

Vapor Density	> 1 (air = 1)	pH	7.1 - 7.6
Vapor Pressure	Not determined	Viscosity	8 - 9 cPs
Specific Gravity	1.55 g/mL – 1.65 g/mL (water = 1g/mL)	Physical State	Liquid at STP
Solubility	Soluble in water	Boiling Point	205 – 208 °F (93 – 97 °C)
Evaporation Rate	Not determined	Surface Tension	27 - 35 Dyne/cm
Expansion Rate	Not determined	VOC Content	< 3%

Section X. Stability and Reactivity

Chemical Stability	Stable at recommended storage conditions.
Incompatibilities	Strong oxidizers.
Hazardous Decomposition Products	Oxides of carbon and water.
Hazardous Polymerization	Will not occur.

Section XI. Toxicological Information

Carcinogenicity	No data available.
Epidemiology	No data available.
Teratogenicity	No data available.
Reproductive Effects	No data available.
Mutagenicity	No data available.
Neurotoxicity	No data available.

Other Studies No data available.

Section XII. Ecological Information

Environmental Stability	Components of material are environmentally stable at standard temperatures and pressures.
Effect of Material on Animals or Plants	Not harmful.
Effect of Material on Aquatic Life	Not harmful.

Section XIII. Disposal Considerations

Disposal Instructions	Waste disposal must be in accordance with appropriate federal, state, and local regulations.
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Section XIV. Transport Information

Proper Shipping Name	xNano™ MICR Black HD
Hazardous Classification	Not DOT regulated.
Identification Number	None.
Packing Group	None.

Section XV. Regulatory Information

US FEDERAL

TSCA	xNano™ MICR Black HD is not listed on the TSCA inventory. It is for research and development use only.
Health & Safety Reporting	None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules	None of the chemicals in this product are under a Chemical Test Rule.
Section 12b	None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule	None of the chemicals in this material have a SNUR under TSCA.
CERCLA Hazardous Substances and Corresponding RQs	None of the chemicals in this material have an RQ.
SARA Section 302 - Extremely Hazardous Substances	None of the chemicals in this product have a TPQ.
Section 313	No chemicals are reportable under Section 313.

Clean Air Act	CAS# 107-21-1 is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.
Clean Water Act	None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA	None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

California Prop 65	California No Significant Risk Level: None of the chemicals in this product are listed.
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EUROPEAN / INTERNATIONAL REGULATIONS

European Labeling in Accordance with EC Directives

Hazard Symbols	Not available.
Risk Phrases	
Safety Phrases	S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

Canada - DSL/NDSL	None of the chemicals in this product are listed on the DSL or NDSL list.
Canada - WHMIS	WHMIS: Not available. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Section XVI. Additional Information

Date Revised	1 April 2008
Revision #	3
Date Created	11 March 2008
Disclaimer	

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages.