

Product x-nano™ MICR Black HD-2X
Revision Date 02/19/2016
Revision 3
SDS Number 1501



Safety Data Sheet

SECTION 1: IDENTIFICATION

Product Name	x-nano™ MICR Black HD-2X / Alternative Trade Name: MICR Black K1
Product Code	xnMB-0102-E2X / Abbreviated Part # xnMB-1
Identifier Uses	Inkjet printing.
Supplier	Diversified NANO Solutions Corporation 10531 4S Commons Drive Suite 522 San Diego CA 92127 Tel: 1-858-924-1005
Contact Person	info@diversifiednano.com
Emergency Telephone	1-858-924-1005

SECTION 2: HAZARDS IDENTIFICATION

Appearance	Liquid.
Color	Black
Odor	Odorless
Pictogram(s)	No pictogram required
Signal Word	Warning
Hazard Statements	H303 May be harmful if swallowed
Precautionary Statements	P102 Keep out of reach of children. P264 Wash [*] thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P281 Use personal protective equipment as required.
Contains	Ethanediol Ethylene Glycol
GHS Classification	
Physical and Chemical Hazards	Not classified
Human Health	Acute Tox. 5 - H303
Environment	Not classified
OSHA Regulatory Status	This product is Hazardous under the OSHA Hazard communication Standard.
Inhalation	Prolonged inhalation may result in irritation of the respiratory tract.
Ingestion	May cause irritation of digestive tract. May be harmful if swallowed.
Skin contact	May stain skin and cause skin irritation.
Eye contact	May cause eye irritation.
Routes of Exposure	No Information available.
Other Hazards	Not applicable.

SECTION 3: Composition/Information on Ingredients

Name	Product Identifier	GHS Classification	%
Trade secrets materials	CAS-No.: Proprietary EC No.:		30-60%
Glycerol	CAS-No.: 56-81-5 EC No.: 200-289-5		1-10%
Water	CAS-No.: 7732-18-5 EC No.: 231-791-2		10-30%
Ethanediol Ethylene Glycol	CAS-No.: 107-21-1 EC No.: 203-473-3	Acute Tox. 4 - H302	10-30%

Composition Comments**SECTION 4: FIRST AID MEASURES**Description of first aid measures

General Information	General first aid, rest, warmth and fresh air.
Inhalation	Move the exposed person to fresh air at once.
Ingestion	If ingestion of large amount, wash mouth out with water, and seek medical attention.
Skin contact	Wash affected skin with water and soap to remove stain.
Eye contact	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.

Most important symptoms and effects, both acute and delayed

General Information	No information available.
Inhalation	Prolonged inhalation may result in irritation of the respiratory tract.
Ingestion	May cause irritation of digestive tract. May be harmful if swallowed.
Skin contact	May stain skin and cause skin irritation.
Eye contact	May cause eye irritation.
Routes of Exposure	No Information available.

Most important symptoms and effects, both acute and delayed

Notes To The Physician	Treat Symptomatically.
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SECTION 5: Firefighting Measures

Auto Ignition Temperature (°C)	No Information available.
Flammability Limit - Lower (%)	No Information available.
Flammability Limit - Upper (%)	No Information available.
Flash point	300.0 °F
Extinguishing Media	Use water spray, dry chemical, carbon dioxide, or chemical foam.
Hazardous combustion products	No information available.
Unusual Fire & Explosion Hazards	No unusual fire or explosion hazards noted.
Special Fire Fighting Procedures	If possible, fight fire from protected position. Ventilate closed spaces before entering them. Containers close to fire should be removed immediately or cooled with water.
Protective equipment for fire-fighters	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

SECTION 6: Accidental Release Measures

Personal Precautions	Use proper personal protection (refer to Section 8).
Environmental Precautions	Avoid discharge into drains, water courses or onto the ground.
Spill Clean Up Methods	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.

SECTION 7: Handling and Storage

Handling	Wear gloves while handling, to avoid staining of skin. Avoid contact with eyes, and skin. Avoid ingestion.
Usage Description	Use only according to directions.
Storage Precautions	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
Specific End Use(s)	The identified uses are in section 1 of this Safety Data Sheet.

SECTION 8: Exposure Controls/Personal Protection

Protective Equipment



Component	STD	TWA (8 Hrs)		STEL (15mins)		Notes
Glycerol	OSHA		15mg/m3			Inhalable Dust.
Glycerol	OSHA		5mg/m3			Respirable Dust

Ingredient Comments

OSHA

Process Conditions

Keep container tightly sealed when not in use. Provide eyewash, quick drench.

Engineering Measures

Provide adequate ventilation.

Respiratory Equipment

Not normally required if good ventilation is maintained.

Hand Protection

Wear appropriate protective gloves to prevent skin exposure.

Eye Protection

Wear protective goggles to minimize exposure to eyes.

Hygiene Measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

SECTION 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Appearance	Liquid.
Color	Black
Odor	Odorless
Odor Threshold - Lower	No Information available.
Odor Threshold - Upper	No Information available.
pH-Value, Conc. Solution	7.1-7.6
Melting point	No Information available.
Initial boiling point and boiling range	205.0 - 208.0 °F
Flash point	300.0 °F
Evaporation rate	No Information available.
Flammability State	No Information available.
Flammability Limit - Lower (%)	No Information available.
Flammability Limit - Upper (%)	No Information available.
Vapor pressure	Not determined.
Vapor Density (air=1)	1
Relative density	1.39-1.45 g/ml
Bulk Density	No Information available.
Solubility	Soluble in water

Decomposition temperature	No Information Available
Partition coefficient; n-octanol/water	Not known.
Auto Ignition Temperature (°C)	No Information available.
Viscosity	8.0-10.0 cPs
Explosive Properties	No information available.
Oxidizing Properties	No Information available.
Molecular Weight	No Information available.
Volatile Organic Compound	3.0

SECTION 10: Stability and Reactivity

Reactivity	Reactions may occur with strong oxidizers.
Stability	Stable at recommended storage conditions.
Hazardous Polymerization	Hazardous polymerization is not expected to occur under normal temperatures and pressures..
Hazardous Decomposition Products	Oxides of carbon and water.
Conditions to Avoid	Avoid contact with strong oxidizers.
Materials to Avoid	Keep away from strong oxidizers.

SECTION 11: Toxicological Information

Toxicological Information	No Information available.
Acute Toxicity (Oral LD50)	No Information available.
Acute Toxicity (Dermal LD50)	No Information available.
Acute Toxicity (Inhalation LC50)	No Information available.
Skin Corrosion/Irritation	No Information available.
Respiratory Sensitization	No Information available.
Skin Sensitization	No Information available.
Reproductive Toxicity:	No Information available.
Germ Cell Mutagenicity:	
Genotoxicity - In Vitro	
Genotoxicity - In Vivo	
Carcinogenicity:	
Carcinogenicity	No Information available.
NTP - Carcinogenicity	The product and its components are not listed.
OSHA - Carcinogenicity	The product and its components are not listed.
IARC Carcinogenicity	The product and its components are not listed.
Specific Target Organ Toxicity - Single Exposure:	
STOT -Single Exposure	No Information available.
Specific Target Organ Toxicity - Repeated Exposure:	
STOT - Repeated Exposure	No Information available.

SECTION 12: Ecological Information

Eco toxicity	No Information available.
Acute Toxicity - Fish	No Information available.
Acute Toxicity - Aquatic	No Information available.

Invertebrates	
Acute Toxicity - Aquatic Plants	No Information available.
Degradability	No information available.
Bio accumulative Potential	No Information available.
Mobility	Completely soluble in water.
Results of PBT and vPvB Assessment	No information available.
Other Adverse Effects	No information available

SECTION 13: Disposal Considerations

Waste Management	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
Disposal Methods	Waste disposal must be in accordance with appropriate federal, state, and local regulations.

SECTION 14: Transport Information

UN Number

UN No. (DOT/TDG)	Not applicable.
UN No. (IMDG)	Not applicable.
UN No. (IATA)	Not applicable.

Proper Shipping Name

DOT/TDG Proper Shipping Name	Not applicable.
IMDG Proper Shipping Name	Not applicable.
IATA Proper Shipping Name	Not applicable.

Transport Hazard Class(es)

DOT/TDG Class	Not applicable.
IMDG Class	Not applicable.
IATA Class	Not applicable.
Transport Labels	Not applicable

Packing Group(s)

DOT Packing Group	Not applicable.
IMDG Packing Group	Not applicable.
IATA Packing Group	Not applicable.

Special Precautions for User

EMS	Not applicable.
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Environmentally Hazardous Substance/Marine Pollutant

ADR	No
IMDG	No
IATA	No

SECTION 15: Regulatory Information

CAA Accidental Release Prevention	
The Following ingredients are listed	ethanediol ethylene glycol
OSHA Highly Hazardous Chemicals	
The Following ingredients are listed	None Listed.

US State Regulations**California Proposition 65 Carcinogens and Reproductive Toxins**

The Following ingredients are listed None Listed.

California Air Toxics "Hot Spots" (A-I)

The Following ingredients are listed None Listed.

California Air Toxics "Hot Spots" (A-II)

The Following ingredients are listed None Listed.

Massachusetts "Right To Know" List

The Following ingredients are listed Glycerol
Ethenediol Ethylene glycol

Minnesota "Right To Know" List

The Following ingredients are listed Glycerol
Ethenediol Ethylene Glycol

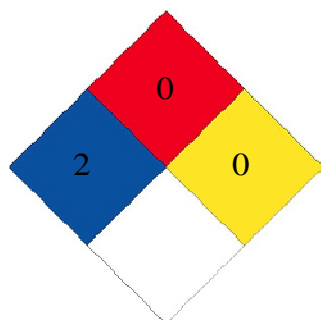
New Jersey "Right To Know" List

The Following ingredients are listed Glycerol
Ethenediol Ethylene Glycol

Pennsylvania "Right To Know" List

The Following ingredients are listed Glycerol
Ethenediol Ethylene Glycol

SECTION 16: Other Information

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)**HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)**

Health	2
Flammability	0
Physical Hazard	0
Personal Protection	B

Revision Comments	No Information available.
Revision Date	02/19/2016
Supersedes Date	12/02/2015
Revision	3

Disclaimer

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