



MATERIAL SAFETY DATA SHEET
NANotij Ultra Black Pigmented Ink
 According to Regulation (EU) No. 453/2010

THIS MATERIAL SAFETY DATA SHEET CONFORMS TO THE REQUIREMENTS OF ANSI 2400.1.
 THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (OSHA HAZARD COMMUNICATION STANDARD)
 IMPORTANT: READ THIS MSDS BEFORE HANDLING OR DISPOSING OF THIS PRODUCT

SECTION I – PRODUCT & COMPANY IDENTIFICATION

MANUFACTURER Digital Ink Technologies Pty Ltd
 1&2, 74 Mason Street
 Campbellfield, Victoria, Australia, 3061

PRODUCT NAME NANotij Ultra Black Pigmented Ink

MATERIAL USES Industrial coding applications; Ink Jet Printers

PRODUCT CODE

NON-EMERGENCY PHONE (03) 9357 5533

EMERGENCY PHONE **13 11 26 (24 hours)**

SECTION II - HAZARDS IDENTIFICATION

Classification according to Directive 1999/45/EC [DPD]
 HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS)

HEALTH	1	FLAMMABILITY	0	REACTIVITY	0	PERSONAL PROTECTION	B
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NOTICE: THESE RATINGS ARE FOR GENERAL RAPID INTERPRETATION. THE END-USER IS RESPONSIBLE FOR DETERMINING THE PROPER PROTECTIVE PROCEDURES.

EMERGENCY OVERVIEW Skin, Eye and Mucous Membrane Irritant. Do not use near fire or flame. May be fatal or cause blindness if swallowed. Avoid contact with skin, eyes and mucous membranes. If skin contact occurs, wash skin with mild soap and water. If splashed in eyes, flush with water. If inhaled, remove to fresh air. In medical emergency contact Poison Information Center (Australia **13 11 26**). Read MSDS before using.

EXPOSURE EFFECTS AND RELATED SYMPTOMS

ETHYLENE GLYCOL Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of inhalation.

2-PYRROLIDONE Eye contact (irritant). Hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant). Slightly hazardous in case of skin contact (permeator). Inflammation of the eye is characterized by redness, watering, and itching.

GLYCOL ETHER DB Ingestion may cause headache, weakness, uncoordination, nausea, vomiting, diarrhea, dizziness and drowsiness. Inhalation may cause irritation of the respiratory tract.



T - Toxic

RISK STATEMENTS

R23/25R21/22 Toxic by inhalation and if swallowed R21/22 Harmful in contact with skin and if swallowed
 R36/37 Irritating to eyes and respiratory system

SAFETY STATEMENTS

S7/9 Keep away from children.
 S7/9 Keep container tightly closed and in a well-ventilated place
 S24/25 Avoid contact with skin and eyes

SECTION III – COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	CAS#	EINECS# INDEX	PERCENT RANGE (%)	67/548/EEC	EC 1272/2008	TYP E
ETHYLENE GLYCOL	107-21-1	203-473-3 603-027-00-1	10-30	Xn; R22	Eye Irrit. 2, H319	1
2-PYRROLIDONE	616-45-5	210-483-1	5-10		Eye Irrit. 2, H319	1

TYPE

1. Substance classified with a health or environmental hazard
2. Substance with a workplace exposure limit
3. Substance meets criteria for PBT EC 1907/2006
4. Substance meets criteria for vPbV EC 1907/2006

SECTION IV - FIRST AID MEASURES

ORAL INGESTION	Do not induce vomiting unless directed to do so by medical personnel. Seek immediate medical attention.
EYE CONTACT	Flush with water for 15 minutes and seek medical attention.
SKIN CONTACT	Wash with soap and water. Wash contaminated clothing before reuse. Seek immediate medical attention.
INHALATION	Remove to fresh air, if not breathing, give artificial respiration and seek medical attention.

SECTION V - FIREFIGHTING MEASURES

EXTINGUISHING MEDIA	Alcohol Resistant foam or dry chemical
HAZARDOUS COMBUSTION PRODUCTS	Carbon Monoxide, Carbon Dioxide
FIRE FIGHTING PROCEDURES	Wear self-contained breathing apparatus with full face piece operated in the positive pressure demand mode.

SECTION VI - ACCIDENTAL RELEASE MEASURES

Keep away all sources of ignition from spill. If spill is indoors, ventilate areas of spill and soak up the spill with absorbent material. Do not let spilled or leaking material enter watercourse.

SECTION VII - HANDLING AND STORAGE

HANDLING	Avoid contact with eyes. Wash hands thoroughly with soap and water after handling. Utilize proper grounding with containers of material.
STORAGE	Protect from freezing. Overheating may cause container to rupture. Covered storage in a cool, dry place out of direct sunlight is preferable. Keep container tightly sealed until ready for use. Store away from ignition sources.

SECTION VIII - EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION	If workplace exposure limit(s) of product or any other component is exceeded, a NIOSH/OSHA approved respirator is advised. (See your safety equipment supplier for specific details.)
VENTILATION	Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below PEL/ TLV.
PROTECTIVE GLOVES	Wear chemical resistant gloves. (Consult your safety equipment supplier.)
EYE PROTECTION	Wear chemical splash goggles in compliance with OSHA regulations. However, OSHA regulations also permit other types of safety glasses.
OTHER PROTECTIVE EQUIPMENT	Wear impervious clothing and boots to prevent prolonged exposure.

OCCUPATIONAL EXPOSURE LIMITS:

INGREDIENT	ACGIH TLV*	OSHA PEL*
Ethylene Glycol	50	50
2-pyrrolidone	Not Established	Not Established
Glycol Ether DB	Not Established	Not Established

SECTION IX - PHYSICAL & CHEMICAL PROPERTIES

PHYSICAL STATE	Liquid
COLOR	Dark
ODOR	Slight Solvent odor
BOILING RANGE	Not Available
MELTING RANGE	Not Available
SPECIFIC GRAVITY (WATER=1)	1.05
DENSITY (lbs / gal)	8.62

EVAPORATION RATE (N-BUTYL ACETATE=1)	Not Determined
PERCENT VOLATILE BY VOLUME (%)	13.00%
VAPOR PRESSURE	Not Determined
VAPOR DENSITY (AIR=1)	Greater than air
FLASH POINT (TCC)	>200° C
AUTO IGNITION TEMPERATURE	Not Available
UPPER FLAMMABLE LIMIT (%BY VOL.)	Not Available
LOWER FLAMMABLE LIMIT (%BY VOL.)	Not Determined
SOLUBILITY IN WATER	Soluble
SOLUBILITY IN ORGANIC SOLVENTS	Not Determined
pH	8.38

SECTION X - STABILITY & REACTIVITY

CONDITION OF INSTABILITY	None Known
CONDITIONS OF REACTIVITY	Not applicable
INCOMPATIBILITY	Strong oxidizing agents
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon Monoxide, Carbon Dioxide
EXPLOSION DATA (SENSITIVE TO MECHANICAL IMPACT)	No
EXPLOSION DATA (SENSITIVE TO STATIC DISCHARGE)	Yes

SECTION XI - TOXICOLOGICAL INFORMATION

INGREDIENT	TOXICOLOGICAL INFORMATION**
Ethylene Glycol	LD ₅₀ Oral (rat) - 4700 mg / kg LD ₅₀ Intravenous (rat) 3260mg / kg
2-pyrrolidone	LD ₅₀ Oral (rat) - 6500 mg / kg
Glycol Ether DB	LD ₅₀ Oral (rat) - 12565 mg / kg LD ₅₀ Skin (rabbit) - 11890 mg / kg

SECTION XII - ECOLOGICAL INFORMATION

ECOTOXICITY	Not Available
PERSISTANCE / DEGRADABILITY	Not Available

SECTION XIII - DISPOSAL CONSIDERATIONS

Absorb in vermiculite, floor absorbent or other non-combustible absorbent material and dispose in licensed facility. Observe all federal, state and local regulations.

SECTION XIV - TRANSPORT INFORMATION

DOT / TDG UN NUMBER & PROPER SHIPPING NAME	NON-REGULATED NON-HAZARDOUS
DOT / TDG HAZARD CLASS	N/A
DOT / TDG LABEL	NON-REGULATED
PACKING GROUP	III
EMERGENCY RESPONSE GUIDEBOOK NUMBER	129

SECTION XV - REGULATORY INFORMATION

TSCA	All chemicals used are listed on the TSCA Inventory.
CERCLA	The following product(s) is (are) listed by CERCLA:
SARA 313	The following product(s) is (are) listed on SARA 313:
California Prop 65	This product contains the following ingredients that the State of California has found to cause cancer, birth defects, or other reproductive harm, which requires a warning under the statute:
International Regulations	The components of this product are listed on the chemical inventories of the following countries:
	Australia, Canada, Europe (EINECS), Japan, Korea, United Kingdom

SECTION XVI - OTHER INFORMATION

ISSUE DATE December 2012
REVISION NUMBER 1
SUPERSEDES NA
PREPARED BY Bill Kong,
Chief Chemist

CONFORMS TO REGULATION (EC) No. 1907/2006 (REACH)**DISCLAIMER**

Every effort has been made to ensure that the information in this MSDS is accurate and as complete as reasonably possible and of course all data herein are given in good faith. However, all information is furnished without warranty of any kind, and Digital Ink Technologies Pty Ltd expressly negates any warranty of accuracy, expressed or implied; and Digital Ink Technologies Pty Ltd assumes no responsibility for personal injury or damage to property to customers, vendors, or third parties if any information herein proves to be incorrect in any respect. Purchasers are encouraged to make independent determination of suitability and completeness of information from all sources to assure proper use and compatibility of product.

*NIOSH Publication #94-116

**Sax's Dangerous Properties of Industrial Mts. 11th Ed.