



**DNSC**

diversified nano  
solutions corp

Customized digital ink solutions—  
nano-fluid & delivery technology  
*for digital ink platforms of any size  
and performance capability!*

digital **INKS** unlimited

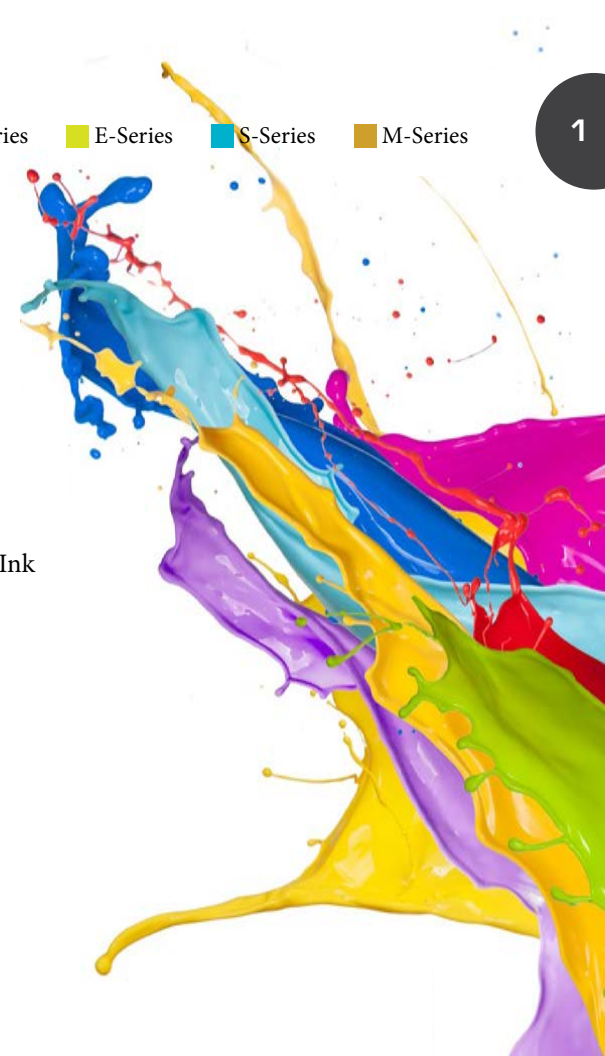
Inks | Dispersions | Powder | Magnetic | Color | Invisible | Custom

Diversified Nano Solutions Corporation (DNSC), based in San Diego, California, specializes in developing and manufacturing nano materials and fluids used in high-performance functional inks for digital printing, unique customer applications, research and surface treatments. DNSC has developed an extensive product line of inks known as x-nano™, providing a range of solutions that utilize nanoparticles in long-term stable suspension, including MICR inks (Magnetic Ink Character Recognition), invisible color (RGB) fluorescent inks (UV [250-365nm] /IR [780-1050nm]), special pigmented/hybrid inks, and special pigmented/hybrid inks for food grade and non-food applications. These digital inks address dot-on-demand inkjet applications based on thermal and piezo print heads using aqueous, oil, energy curable (UV/LED) and eco-solvent based inks. The company maintains high volume manufacturing facilities in Europe and the USA.



■ K-Series ■ I-Series ■ X-Series ■ F-Series ■ T-Series ■ V-Series ■ E-Series ■ S-Series ■ M-Series

■ K-Series .....2-3 MICR Ink & Pigment	■ V-Series .....20-21 Dye & Dye Pigment Hybrid Ink
■ I-Series .....4-5 Invisible UV fluorescent & IR absorbing Dye & Pigment Ink	■ E-Series .....22-23 General Purpose Pigment Ink
■ X-Series .....6-15 <b>Special Materials Pigment Powders</b> PhotoLuminescent – XPL ..... 6-7 UV Fluorescent – XUV ..... 8-9 IR Absorbing – XIR..... 10-11 ThermoChromic – XTC ..... 12-13 PhotoChromic – XPC..... 14-15	■ S-Series .....24-25 Specialty and UltraFast-Drying Ink
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# k-series

General purpose & security  
MICR ink—ideal for professional,  
high speed, high density, industrial  
and business inkjet printing.

## Aqueous Inkjet Ink - Dot on Demand<sup>1</sup>

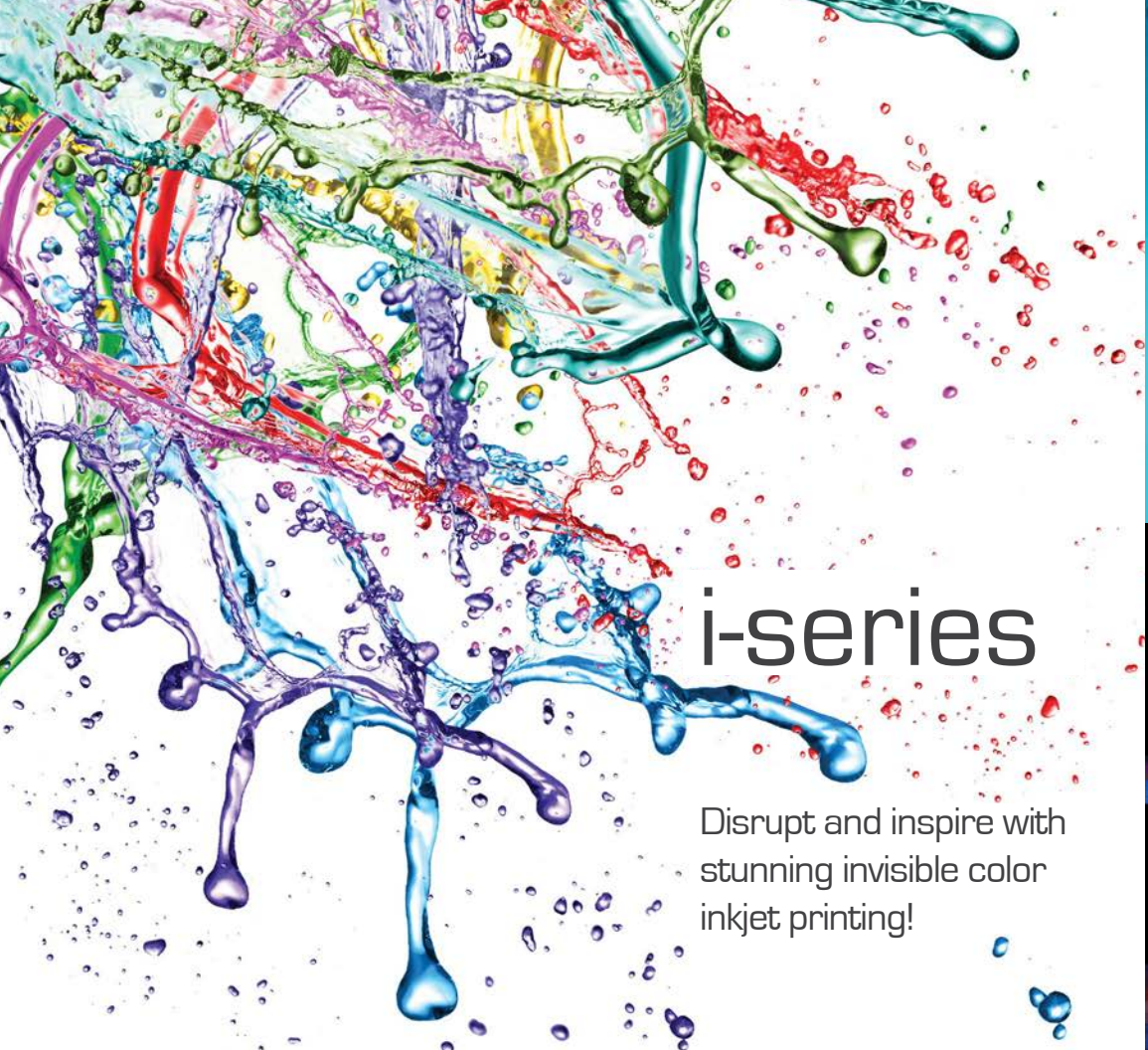
Part No. <sup>2</sup>	Product Name	Ink Type	Viscosity (cPs)	Surface Tension (dyn/cm)	Density (g/mL)	Particle Size (nm)	Magnetic Signal (@600x600-16pL)
● Km1XX	x-nano™ Elite Black MICR K1 (“2a”)	MICR	8.0 - 10.0	30 - 41	1.39 - 1.45	50 ± 20	90 - 110%
● Km3XX	x-nano™ Elite Black MICR K3 (“3X”)	MICR	8.5 - 10.0	30 - 42	1.42 - 1.45	50 ± 20	100 - 130%
● Km4XX	x-nano™ Elite Black MICR K4 (“3a#”)	Pigment	7.0 - 9.5	32 - 42	1.44 - 1.46	50 - 170 ± 20	100 - 120%
● Km5XX	x-nano™ Elite Black MICR K5 (“156”)	MICR	12.0 - 17.1	32 - 42	1.50 - 1.58	50 ± 20	100 - 130%
● Ks6XX	x-nano™ Elite Black Ks6	Pigment	5.0 - 7.0	32 - 42	1.10 - 1.20	50 - 170 ± 20	< 20%
● Km7XX	x-nano™ Elite Black MICR KA40	Pigment	7.0 - 9.5	32 - 42	1.25 - 1.30	50 - 170 ± 20	35 - 45%
● Km8XX	x-nano™ Elite Black MICR KB80	Pigment	7.0 - 9.5	32 - 42	1.25 - 1.30	50 ± 20	75 - 85%

Stability	High (no agitation required)
Shelf Life	>24 months
Media Compatibility	Porous, non-porous paper & corrugated
Print Head Compatibility	Piezo & Thermal for Industrial, Commercial, Office and Consumer printing platforms*

<sup>1</sup> Optional: Solvent, Oil and UV curable vehicle – contact DNSC for more information.

<sup>2</sup> Part numbers include a variable component “X” which changes based on print heads and target print systems.

\* Details on Page 34



# i-series

Disrupt and inspire with stunning invisible color inkjet printing!



**I-Series** - UV fluorescent and IR absorbing invisible ink—ideal for general purpose, high-definition inkjet printing—for security, authenticating, tracking, decorative, textile, life science and many other special effect applications.

## Aqueous Inkjet Ink - Dot on Demand<sup>1</sup>

Part No. <sup>2</sup>	Product Name	Ink Type	Viscosity (cPs)	Surface Tension (dyn/cm)	Density (g/mL)	Particle Size (nm)	Detection (Type, nm)
● B1XI	x-nano™ UV Blue 460	Dye	3.0 - 8.0	32 - 42	1.1 - 1.2	NA	UV, 365
● G1XI	x-nano™ UV Green 545	Pigment	3.0 - 8.0	35 - 45	1.1 - 1.2	170 ± 50	UV, 365
● G2XI	x-nano™ UV Green-Yellow 550	Pigment	3.0 - 8.0	35 - 45	1.1 - 1.2	170 ± 50	UV, 365
● Y1XI	x-nano™ UV Yellow-Green 560	Pigment	3.0 - 8.0	35 - 45	1.1 - 1.2	190 ± 50	UV, 365
● R1XI	x-nano™ UV Red 615	Pigment	3.0 - 8.0	35 - 45	1.1 - 1.2	190 ± 50	UV, 365
● W1XI	x-nano™ UV White 400-800	Pigment	3.0 - 8.0	35 - 45	1.1 - 1.2	190 ± 50	UV, 365
● K1XI	x-nano™ IR 783	Dye	3.0 - 8.0	32 - 42	1.0 - 1.1	NA	IR, 783
● K2XI	x-nano™ IR 820	Dye	3.0 - 8.0	32 - 42	1.0 - 1.1	NA	IR, 820
● K4XI	x-nano™ IR 1040	Dye	3.0 - 8.0	30 - 40	1.0 - 1.1	NA	IR, 1040

Stability

High (no agitation required)

Shelf Life

>24 months

Media Compatibility

Porous, non-porous paper & corrugated

Print Head Compatibility

Piezo & Thermal for Industrial, Commercial, Office and Consumer printing platforms\*

<sup>1</sup> Optional: Solvent, Oil and UV curable vehicle – contact DNSC for more information.

<sup>2</sup> Part numbers include a variable component “X” which changes based on print heads, target print system and other properties.

\* Details on Page 34

# x-series

Special Effect Materials

PhotoLuminescent Pigment Powder — Glow-In-The-Dark

**X-Series** - PhotoLuminescent (PL) pigment powder—ideal for ink (digital, offset, flexo), paint, paste, dispersions, gel, and powder compositions delivered in bulk as base components—for users looking to develop, produce and market applications based on the special effect of photoluminescence (glow-in-the-dark).

Part No.	Product Name	Body Color	Luminescent Color	Luminescent Decline over time <sup>1</sup> 10 -> 60min (mcd/m <sup>2</sup> )	After Glow <sup>2</sup> (min)	Particle Size <sup>3</sup> (µm)	Product Vehicle
● XPLG-001/999	PL Green	Lt Yellow - White	Green	130/340 → 16/47	1800 - 5500	2 - 20	DNSC offers custom development and production of ink, paint, paste, dispersion, gel, cream and powder with photoluminescent properties.
● XPLB-001/999	PL Blue	Lt Yellow - White	Blue	90-280 → 15/38	1500 - 5000	10 - 30	
● XPLV-001/999	PL Violet	Lt Yellow - White	Violet	8 → 2	360	20 - 40	
● XPLR-001/999	PL Red	Lt Yellow - White	Red	18 → 2	400	20 - 40	
● XPLW-001/999	PL White	Lt Yellow - White	White	66/69 → 8/12	890 - 1000	25 - 45	

<sup>1</sup> Technical data obtained in accordance with DIN67510 Part I.

<sup>2</sup> The after-glow time refers to the time it takes for the luminance to reduce to 0.32mcd/m<sup>2</sup> from the time when the light exciting source was moved.

<sup>3</sup> Other larger or finer particle sizes are also available to meet customer's actual application needs.

Packaging: sample 10g / 1kg / 5kg / 10kg / 25kg / drum

Suggested end-user price: visit [diversifiednano.com](http://diversifiednano.com) for up-to-date pricing information and terms.

# X-series

Special Effect Materials

UV-Fluorescent Pigment Powder — Photon Energy Conversion



**X-Series** - UltraViolet (UV) fluorescent pigment powder and base dispersions in a variety of colors—ideal for ink (digital, offset, flexo), paint, paste, dispersions, gel, and powder compositions delivered in bulk as base components—for users looking to develop, produce and market applications based on the special effect of UV fluorescence (photon reactive).

Part No. <sup>1</sup>	Product Name	Powder/Dispersion Color	Fluorescent Color <sup>2</sup>	Exciting wavelength → emitting wave length (nm)	Compatibility Range	Particle Size <sup>3</sup> Powder (nm) / Dispersion (nm)	Product Vehicle
● XUVG-510-540/# (D)	UVF Green (D)	White Colorless	Green	254/365/385 → 510 - 540	Aqueous Solvent UV curing	2000 - 5000/ 150 - 200	DNSC offers custom development and production of ink, paint, paste, dispersion, gel, cream and powder with UV fluorescent properties.
● XUVB-460-480/# (D)	UVF Blue (D)	White Colorless	Blue	365/385 → 460 - 480	"	"	
● XUVR-620-640# (D)	UVF Red (D)	White Colorless	Red	254/365/385 → 620 - 640	"	"	
● XUVO-590-610X (D)	UVF Orange (D)	White Colorless	Orange	365/385 → 590 - 610	"	"	
● XUVY-560-580# (D)	UVF Yellow (D)	White Colorless	Yellow	365/385 → 560 - 580	"	"	

<sup>1</sup> Part Number determination subject to specific user criteria – contact DNSC for more information.  
<sup>2</sup> DNSC is able to formulate and match a large variety of fluorescent colors not listed on this chart.  
<sup>3</sup> Other larger or finer particle sizes are also available as to customer's actual application needs.

Packaging: sample 10g / 1kg / 5kg / 10kg / 25kg / drum  
Suggested end-user price: visit [diversifiednano.com](http://diversifiednano.com) for up-to-date pricing information and terms.

# x-series

Special Effect Materials  
IR - Absorbing Pigment Powder — Infrared Absorption

**X-Series** - Infrared-absorbing (IR) pigment powder and base dispersions in a large variety of absorbing wavelengths (780-1070nm)—ideal for ink (digital, offset, flexo), paint, paste, dispersions, gel, and powder compositions delivered in bulk as base components—for users looking to develop, produce and market applications based on the special effect of infrared absorption.

Part No. <sup>1</sup>	Product Name	Powder/ Dispersion Color	Absorbance Maxima (nm) → Absorbing Color	Compatibility Range	Particle Size <sup>3</sup> Powder (nm) / Dispersion (nm)	Product Vehicle
● XIRK-780-790 (D)	IR 780-790 (D)	Brown-Black	780 - 790 → Black	Aqueous Solvent UV curing	2000 - 5000/ 150 - 200	DNSC offers custom development and produc- tion of ink, paint, paste, dispersion, gel, cream and powder with infrared absorbing properties.
● XIRK-810-850 (D)	IR 810-850 (D)	Brown-Black	810 - 850 → Black	"	"	
● XIRK-880-940 (D)	IR 880-940 (D)	Brown-Black	880 - 940 → Black	"	"	
● XIRK-1000-1040 (D)	IR 1000-1040 (D)	Brown-Black	1000 - 1040 → Black	"	"	
● XIRK-1070 (D)	IR 1070 (D)	Brown-Black	1070 → Black	"	"	

<sup>1</sup> Part Number determination subject to specific user criteria – contact DNSC for more information.

<sup>2</sup> DNSC is able to formulate and match a large variety of IR absorbing colors not listed on this chart.

<sup>3</sup> Other larger or finer particle sizes are also available as to customer's actual application needs.

Packaging: sample 10g / 1kg / 5kg / 10kg / 25kg / drum

Suggested end-user price: visit [diversifiednano.com](http://diversifiednano.com) for up-to-date pricing information and terms.

# X-series

Special Effect Materials

ThermoChromic Pigment Powder — Temperature Induction

**X-Series** - ThermoChromic (TC) pigment powder in a large variety of colors—ideal for ink (digital, offset, flexo), paint, paste, dispersions, gel, and powder compositions delivered in bulk as base components—for users looking to develop, produce and market applications based on the special effect of thermoChromic (temperature induced) color change.

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Part No. <sup>1</sup>	Product Name	Powder/Dispersion Color	Exciting Color <sup>2</sup>	Exciting Temperatures (°C)	Compatibility Range	Particle Size <sup>3</sup> (µm)	Product Vehicle
● XTCG-001/999	TC Green	White Colorless	Green	12/15/18/22/25 /28/31/33/45 /50/65	Aqueous Solvent UV curing	3 - 7	DNSC offers custom development and production of ink, paint, paste, dispersion, gel, cream and powder with thermoChromic properties.
● XTCL-001/999	TC Blue	White Colorless	Blue	10/15/18/22/25 /31/33/38/45 /50/65/70	"	"	
● XTCL-001/999	TC Red	White Colorless	Red	10/12/15/18/22 /25/28/31/33 /38/40/45	"	"	
● XTCL-001/999	TC Orange	White Colorless	Orange	18/22/31/33 /45/65	"	"	
● XTCL-001/999	TC Yellow	White Colorless	Yellow	15/22/28/31/33 /45/65	"	"	

- 1 Part Number determination subject to specific user criteria – contact DNSC for more information.  
2 DNSC is able to formulate and match a large variety of thermoChromic colors not listed on this chart.  
3 Other larger or finer particle sizes are also available as to customer's actual application needs.

Packaging: sample 10g / 1kg / 5kg / 10kg / 25kg / drum  
Suggested end-user price: visit [diversifiednano.com](http://diversifiednano.com) for up-to-date pricing information and terms.



# x-series

Special Effect Materials

PhotoChromic Pigment Powder — Photon Induction

**X-Series** - PhotoChromic (PC) pigment powder in a large variety of colors—ideal for ink (digital, offset, flexo), paint, paste, dispersions, gel, and powder compositions delivered in bulk as base components—for users looking to develop, produce and market applications based on the special effect of photochromic (photon induced) color change.

Part No. <sup>1</sup>	Product Name	Powder/ Dispersion Color	Exciting Color <sup>2</sup>	Exciting UV Light → Resulting Color (nm)	Compatibility Range	Particle Size <sup>3</sup> (µm)	Product Vehicle
● XPCG-001/999	PC Green	White Colorless	Green	250 - 440 → 510 - 540	Aqueous Solvent UV curing	3 - 10	DNSC offers custom development and production of ink, paint, paste, dispersion, gel, cream and powder with photochromic properties.
● XPCB-001/999	PC Blue	White Colorless	Blue	250 - 440 → 460 - 480	"	"	
● XPCR-001/999	PC Red	White Colorless	Red	250 - 440 → 620 - 640	"	"	
● XPCO-001/999	PC Orange	White Colorless	Orange	250 - 440 → 590 - 610	"	"	
● XPCY-001/999	PC Yellow	White Colorless	Yellow	250 - 440 → 560 - 580	"	"	

<sup>1</sup> Part Number determination subject to specific user criteria – contact DNSC for more information.

<sup>2</sup> DNSC is able to formulate and match a large variety of photochromic colors not listed on this chart.

<sup>3</sup> Other larger or finer particle sizes are also available as to customer's actual application needs.

Packaging: sample 10g / 1kg / 5kg / 10kg / 25kg / drum

Suggested end-user price: visit [diversifiednano.com](http://diversifiednano.com) for up-to-date pricing information and terms.



# f-series

Food Grade Materials & Pigments

**F-Series** - food grade pigment powder in a large variety of colors—ideal for ink (dot-on-demand, offset, flexo), paint, paste, dispersions, gel, and powder compositions delivered in bulk as base components—for users looking to develop, produce and market applications based on the properties and regulatory compliance requirements associated with food and food packaging.

Part No. <sup>1</sup>	Product Name	Pigment Powder Color <sup>2</sup>	Compatible Substrates	Composition Summary	Compatibility Range	Particle Size <sup>3</sup> Powder (nm) / Dispersion (nm)	Product Vehicle
● FGK-001/999	FG Black (P)	Black	Bioorganic Surfaces & Packaging	Biocompatible Organic Compounds & Metal Oxides	Aqueous	3000 - 10000/ 150 - 250	DNSC offers custom development and production of ink, paint, paste, dispersion, gel, cream and powder with food grade and food packaging properties.
● FGB-001/999	FG Blue (P)	Blue	"	"	"	"	
● FGR-001/999	FG Red (P)	Red	"	"	"	"	
● FGO-001/999	FG Orange (P)	Yellow	"	"	"	"	
● FGY-001/999	FG Yellow (P)	Orange	"	"	"	"	

<sup>1</sup> Part Number determination subject to specific user criteria – contact DNSC for more information.  
<sup>2</sup> DNSC is able to formulate and match a large variety of food grade pigment colors not listed on this chart.  
<sup>3</sup> Other larger or finer particle sizes are also available as to customer's actual application needs.

Packaging: sample 10g / 1kg / 5kg / 10kg / 25kg / drum  
 Suggested end-user price: visit [diversifiednano.com](http://diversifiednano.com) for up-to-date pricing information and terms.



# t-series

Textile Pigment Powders

**T-Series** - textile pigment powder in a large variety of colors—ideal for ink (digital, offset, flexo), paint, paste, dispersions, gel, and powder compositions delivered in bulk as base components—for users looking to develop, produce and market applications based on printing on textiles.

Textile Pigment Powder <sup>1</sup>	
Part No. <sup>1</sup>	Product Name & Color
● TK-001/999	T Black (P)
● TB-001/999	T Blue (P)
● TR-001/999	T Red (P)
● TO-001/999	T Orange (P)
● TY-001/999	T Yellow (P)

<sup>1</sup> Part Number determination subject to specific user criteria – contact DNSC for more information.  
<sup>2</sup> DNSC is able to formulate and match a large variety of textile pigment colors not listed on this chart.  
<sup>3</sup> Other larger or finer particle sizes are also available as to customer’s actual application needs.

Packaging: sample 10g / 1kg / 5kg / 10kg / 25kg / drum  
 Suggested end-user price: visit [diversifiednano.com](http://diversifiednano.com) for up-to-date pricing information and terms.

<b>Powder Type</b>	Pigment
<b>Pigment Type</b>	Organic, Inorganic, Synthetic
<b>Colors<sup>2</sup></b>	Variety of colors
<b>Particle Size<sup>3</sup></b>	0.1 - 3.0 µm
<b>Water Resistance</b>	Very good
<b>Chemical Resistance</b>	Very good
<b>Abrasion Resistance</b>	Very good
<b>Lightfastness</b>	Very good
<b>Media Compatibility</b>	Various textiles, fibers, fabrics, cotton & more



# v-series

**V-Series** - value general purpose dye and dye/pigment hybrid ink—ideal for economical, high-quality, desktop inkjet printing.

### Aqueous Inkjet Ink - Dot on Demand<sup>1</sup>

Part No. <sup>2</sup>	Product Name
● K1XV	x-nano™ Premium Black
● C1XV	x-nano™ Premium Cyan
● M1XV	x-nano™ Premium Magenta
● Y1XV	x-nano™ Premium Yellow
● R1XV	x-nano™ Premium Red (Spot)
● B1XV	x-nano™ Premium Blue (Spot)
● B1XV	x-nano™ Premium Green (Spot)

<b>Ink Type</b>	Dye & Dye Pigment Hybrid
<b>Viscosity</b>	2.0 - 6.5 cPs*
<b>Surface Tension</b>	32 - 42 dyn/cm*
<b>pH</b>	7.0 - 8.5*
<b>Density</b>	1.0 - 1.2 g/mL*
<b>Particle Size</b>	N/A
<b>Waterfastness</b>	Very good
<b>Detection</b>	Visible light range
<b>Stability</b>	High (no agitation required)
<b>Shelf Life</b>	>24 months
<b>Media Compatibility</b>	Porous, non-porous paper & corrugated
<b>Print Head Compatibility</b>	Piezo & Thermal for Industrial, Commercial, Office and Consumer printing platforms*

<sup>1</sup> Optional: Solvent, Oil and UV curable vehicle – contact DNSC for more information.

<sup>2</sup> Part numbers include a variable component “X” which changes based on print heads, target print system and other properties.

\* Details on Page 34

# e-series



**E-Series** - elite general purpose pigment ink—ideal for professional, high-speed, high-density, industrial inkjet printing.

## Aqueous Inkjet Ink - Dot on Demand<sup>1</sup>

Part No. <sup>2</sup>	Product Name
● K1XE	x-nano™ Elite Black
● C1XE	x-nano™ Elite Cyan
● M1XE	x-nano™ Elite Magenta
● Y1XE	x-nano™ Elite Yellow
● R1XE	x-nano™ Elite Red (Spot)
● B1KE	x-nano™ Elite Blue (Spot)
● G1KE	x-nano™ Elite Green (Spot)

<b>Ink Type</b>	Pigment
<b>Viscosity</b>	2.0 - 6.5 cPs*
<b>Surface Tension</b>	32 - 42 dyn/cm*
<b>pH</b>	7.0 - 8.5*
<b>Density</b>	1.0 - 1.2 g/mL*
<b>Particle Size</b>	100 - 200 nm
<b>Waterfastness</b>	Excellent
<b>Detection</b>	Visible light range
<b>Stability</b>	High (no agitation required)
<b>Shelf Life</b>	>24 months
<b>Media Compatibility</b>	Porous, non-porous, coated, glossy and offset
<b>Print Head Compatibility</b>	Piezo & Thermal for Industrial, Commercial, Office and Consumer printing platforms*

<sup>1</sup> Optional: Solvent, Oil and UV curable vehicle – contact DNSC for more information.

<sup>2</sup> Part numbers include a variable component “X” which changes based on print heads, target print system and other properties.

\* Details on Page 34

# s-series

**S-Series** - specialty Fast-Dry pigment ink—ideal for professional, high-speed, industrial inkjet printing.

## Aqueous Inkjet Ink - Dot on Demand<sup>1</sup>

Part No. <sup>2</sup>	Product Name
● K1XS	x-nano™ Elite Black Fast-Dry
● K2XS	x-nano™ Elite Black FDX UltraFast-Dry
● R1XS	x-nano™ Elite Red Fast-Dry
● R2XS	x-nano™ Elite Red FDX UltraFast-Dry
● B1XS	x-nano™ Elite Blue Fast-Dry
● B2XS	x-nano™ Elite Blue FDX UltraFast-Dry
● G1XS	x-nano™ Elite Green Fast-Dry
● G2XS	x-nano™ Elite Green FDX UltraFast-Dry

<b>Ink Type</b>	Pigment
<b>Viscosity</b>	3.0 - 7.0 cPs*
<b>Surface Tension</b>	25 - 35 dyn/cm*
<b>pH</b>	7.0 - 9.0*
<b>Density</b>	1.1 - 1.2 g/mL*
<b>Particle Size</b>	130 ± 20 nm
<b>Waterfastness</b>	Excellent
<b>Detection</b>	Visible light range
<b>Stability</b>	High (no agitation required)
<b>Shelf Life</b>	>24 months
<b>Media Compatibility</b>	Porous, non-porous paper & corrugated
<b>Print Head Compatibility</b>	Piezo & Thermal for Industrial, Commercial, Office and Consumer printing platforms*

<sup>1</sup> Optional: Solvent, Oil and UV curable vehicle – contact DNSC for more information.

<sup>2</sup> Part numbers include a variable component “X” which changes based on print heads, target print system and other properties.

\* Details on Page 34

# m-series Magnetic Fluid



### Magnetic Fluid - Convertible Aqueous Dispersion<sup>1</sup>

Part No. <sup>2</sup>	Product Name	Type	Viscosity (cPs)	Surface Tension (dyn/cm)	Density (g/mL)	Particle Size (nm)
● MFI-X	x-nano™ Magnetic Fluid Iron Oxide	Nano Particle Dispersion	7.0 - 18.0	55 - 65	1.4 - 1.7	50 ± 20
● MFM-X	x-nano™ Magnetic Fluid Multi-Metal	Nano Particle Dispersion	7.0 - 18.0	55 - 65	1.4 - 2.0	50 ± 20

- Stability: High (no agitation required)
- Shelf Life: >24 months
- Media Compatibility: Porous, non-porous paper & corrugated
- Print Head Compatibility: Piezo & Thermal for Industrial, Commercial, Office and Consumer printing platforms\*

<sup>1</sup> Optional: can be customized and converted for various applications – contact DNSC for more information.  
<sup>2</sup> Part numbers include a variable component “X” which changes based on print heads and target print systems.  
 \* Details on Page 34

Unlimited choice of standard INKVERSE™ to make container ready



## — Gateway to the Universe of Inks

### Open Connect to Shared INKVERSE™ Modules



Connect INKVERSE™ modules with easy snap-on attachments using magnetic adhesives direct-to-printer frame, wall, or stainless steel mounting board. Replace individual modules, or expand INKVERSE™ system during print operation.

*For inkjet system integrators and manufacturers: visit [diversifiednano.com](http://diversifiednano.com) or contact us at [info@diversifiednano.com](mailto:info@diversifiednano.com) for pricing and more details.*

#### TIJ Printing Systems



#### High Speed Production/Continuous Feed



#### Industrial Specialty



#### Business / Enterprise



**INKVERSE™ Infinite Ink Infuser Blade System:** 360, 760, 1000, 2000, 5000, 10000ml inter-connectable, endlessly expandable and shared for infusion of ink into existing delivery containers or directly to print head feed lines.



#### Economical

Shared, bulk volume discount, any ink type, standard low-cost container choice.

#### Flexible

Supports any size and performance printer and print head platform. Available with black, color, invisible and magnetic ink (water based).

#### Sustainable

Easy recycle for re-use and eliminates cartridge waste.

#### Unlimited

Inter-connectable and built with sharing and extension in mind to support unlimited printers and print heads simultaneously in shared environment.

#### Easy-to-Install and Use

One-push/pull quick release and connect—air free! Snap-on system installs using Mag-Pak and stainless steel mounting board.

#### Robust

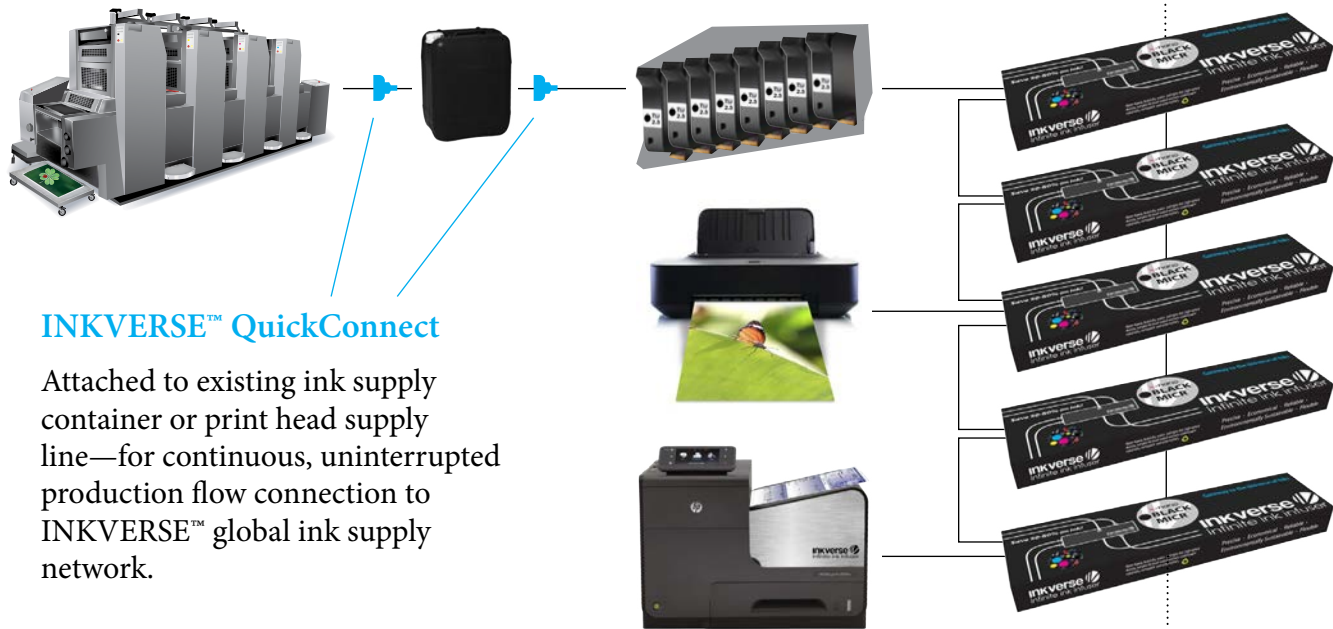
Stainless steel master containers with magnetic attachment to frame and stainless steel mounting board. Easy to adjust length and neat integrated storage of excess tubing.

*For inkjet system integrators and manufacturers: visit [diversifiednano.com](http://diversifiednano.com) or contact us at [info@diversifiednano.com](mailto:info@diversifiednano.com) for pricing and more details.*



## Example QuickConnect Configurations

### N Blades in M Printers / Print Heads with Global Supply Source



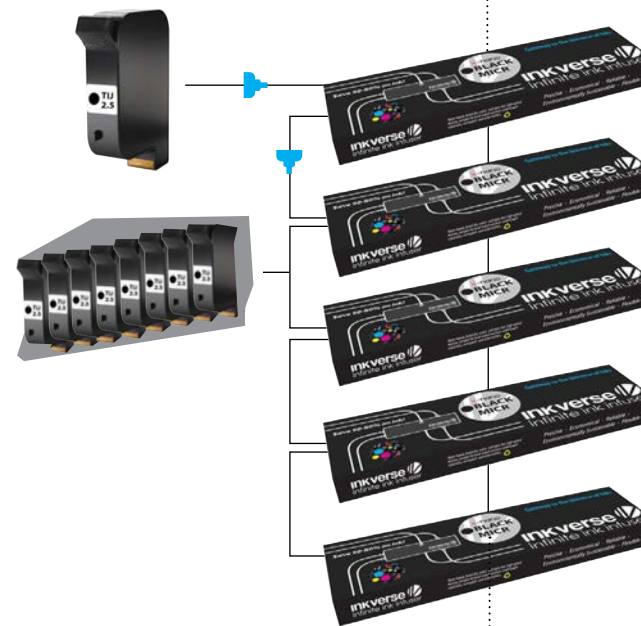
#### INKVERSE™ QuickConnect

Attached to existing ink supply container or print head supply line—for continuous, uninterrupted production flow connection to INKVERSE™ global ink supply network.

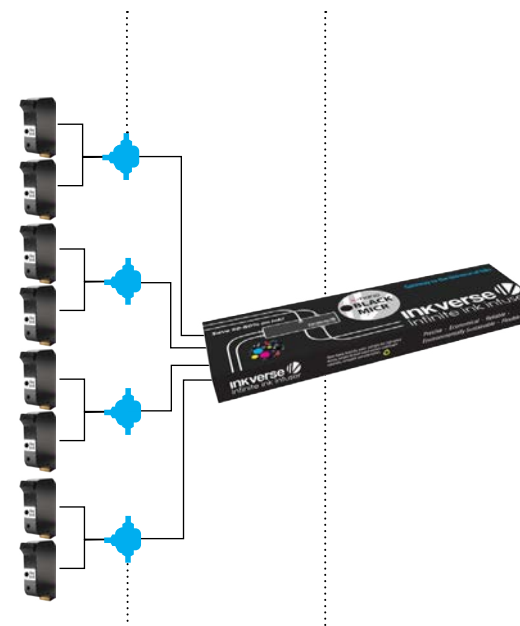
For inkjet system integrators and manufacturers: visit [diversifiednano.com](http://diversifiednano.com) or contact us at [info@diversifiednano.com](mailto:info@diversifiednano.com) for pricing and more details.

## Example QuickConnect Configuration – TIJ 2.5

### N Blades in 1 Print Head



### Up to 8 Connections Per Blade



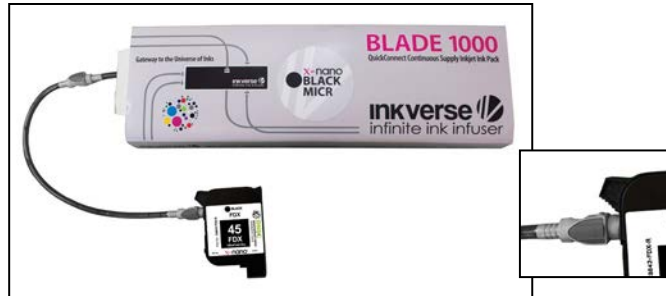
For inkjet system integrators and manufacturers: visit [diversifiednano.com](http://diversifiednano.com) or contact us at [info@diversifiednano.com](mailto:info@diversifiednano.com) for pricing and more details.

## QuickConnect Configurations – TIJ 2.5

Cartridge and Blade 1000 not connected



Cartridge connected to Blade 1000



Cartridge and Blade 1000 priming tool



Cartridge and Blade 1000 primed



For inkjet system integrators and manufacturers. Visit [diversifiednano.com](http://diversifiednano.com) or contact us at [info@diversifiednano.com](mailto:info@diversifiednano.com) for pricing and more details.

## Printing Applications

Industry	Printer	Function	Examples	Ink Series	
Desktop	Dot on Demand Inkjet Printer	<ul style="list-style-type: none"> <li>• General purpose</li> <li>• Business</li> <li>• Commercial</li> </ul>	<ul style="list-style-type: none"> <li>• Books</li> <li>• Transactional</li> </ul>	<ul style="list-style-type: none"> <li>• Images</li> <li>• PDFs</li> </ul>	• Value-Series
		<ul style="list-style-type: none"> <li>• MICR compliant</li> </ul>	<ul style="list-style-type: none"> <li>• Check printing</li> </ul>		• K-Series
		<ul style="list-style-type: none"> <li>• UV printing</li> </ul>	<ul style="list-style-type: none"> <li>• IDs</li> <li>• Checks</li> </ul>	<ul style="list-style-type: none"> <li>• Images</li> <li>• Documents</li> </ul>	• I-Series
Commercial	Dot on Demand Digital Inkjet Press (Mono & Color)	<ul style="list-style-type: none"> <li>• High speed</li> <li>• High resolution</li> <li>• High quality</li> <li>• General purpose</li> </ul>	<ul style="list-style-type: none"> <li>• Marketing materials (brochures, catalogs, DM, etc.)</li> <li>• Photos</li> <li>• TransPromo</li> <li>• Transactional</li> </ul>		<ul style="list-style-type: none"> <li>• K-Series</li> <li>• I-Series</li> <li>• Value-Series</li> <li>• Elite-Series</li> </ul>
Industrial	Dot on Demand Industrial Inkjet Systems	<ul style="list-style-type: none"> <li>• High speed tracking</li> <li>• Non-overt detection &amp; sorting</li> <li>• Multi-layer</li> </ul>	<ul style="list-style-type: none"> <li>• Packaging</li> <li>• Documents</li> <li>• Envelopes &amp; mailing</li> </ul>		• K-Series
		<ul style="list-style-type: none"> <li>• UV security</li> </ul>	<ul style="list-style-type: none"> <li>• IDs &amp; passports</li> <li>• Checks</li> <li>• Images &amp; documents</li> <li>• Lottery &amp; currency</li> </ul>		• I-Series
		<ul style="list-style-type: none"> <li>• High speed</li> <li>• Large format/quantity</li> </ul>	<ul style="list-style-type: none"> <li>• 400 pages @ maximum resolution</li> </ul>		• S-Series
		<ul style="list-style-type: none"> <li>• Research &amp; development of magnetic fluids</li> </ul>	<ul style="list-style-type: none"> <li>• Chemistry, biochemistry, material science, molecular biology</li> </ul>		• M-Series
Textile	Dot on Demand Industrial Inkjet Systems / Wide Format	<ul style="list-style-type: none"> <li>• Direct to Garment (DTG)</li> <li>• Large format rolls</li> </ul>	<ul style="list-style-type: none"> <li>• Wallpaper</li> <li>• Fabric</li> </ul>	<ul style="list-style-type: none"> <li>• Pillows</li> <li>• Furniture</li> </ul>	• T-Series
Foodservice	Dot on Demand Industrial Inkjet Systems / Single Head Mount	<ul style="list-style-type: none"> <li>• Edible food decoration</li> <li>• Track 'n Trace</li> </ul>	<ul style="list-style-type: none"> <li>• Cakes</li> <li>• Eggs</li> </ul>	<ul style="list-style-type: none"> <li>• Desserts</li> <li>• Produce</li> </ul>	• F-Series

All x-nano™ inks and ink parameters are specifically adjusted to meet the requirements of print-head types and manufacturers listed.

## Print Head Manufacturers

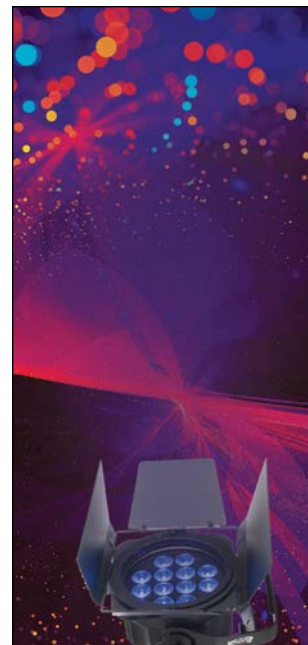
Piezo	Thermal
Brother	Canon
Epson	Hewlett Packard
Fujifilm Dimatix	Lexmark
Konica Minolta	Memjet
Kyocera	
Panasonic	
Ricoh	
Xerox	

## Machine Type

Amica Systems	All piezo inkjet platforms and models
Brother	All desktop inkjet models
Canon	All piezo based inkjet platforms and models, including JetStream/ColorStream/VarioPrint Series
Domino/Brother	MonoCube
Epson	All piezo inkjet models
Hewlett Packard	Web Press T-Series
Hewlett Packard	OfficeJet/Deskjet
Hewlett Packard	TIJ 2.5 and 4.0
Impika/Xerox	iPrint/iEngine
Infoprint/Ricoh	Infoprint 5000 series
Kodak	VersaMark VL series
Lexmark	All thermal desktop and industrial inkjet models
Pitney Bowes	IntelliJet series
RR Donnelley	Custom inkjet presses
Screen	All piezo inkjet platforms and models
Xerox	All piezo based inkjet platform and models suitable for water based ink

\*FlexAdapt™ is a proprietary DNSC process which allows efficient adaption of physical and chemical properties of individual inks to meet the specific requirements of print system implementations and print head operating parameters.

## UV Stage Light



High-energy UV lights for large format posters and wall displays.

## UV / MICR Scanners



## UV Light Source & IR Laser Pointer



## Smartphone Scanning



## UV Key Chain & UV Flashlight



Specialty Inkjet Paper



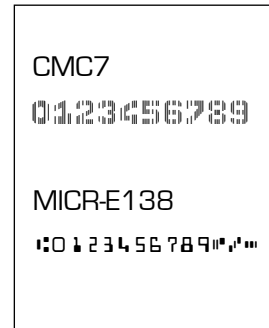
Complete Desktop Inkjet Test System: DNSC 1000 Series



- DNSC 1000 MXT Inkjet system based on thermal print heads
- DNSC 1000 MXP Inkjet system based on piezo print heads
- MICR print software with MICR font
- Refillable MICR ink cartridges

For supplies: visit [diversifiednano.com](http://diversifiednano.com) or contact us at [info@diversifiednano.com](mailto:info@diversifiednano.com).

MICR Fonts  
#xnA-E13B



Professional Loupe  
#xnA-PL



JetFix 2A – High Performance  
Aqueous Ink Flush #N2XS



**Peace Of Mind Ink Program**  
A smart choice!

- Manufacturing
- INKVERSE™
- Custom Containers
- Assembly & Fulfillment
- Turn Key Private Label Service

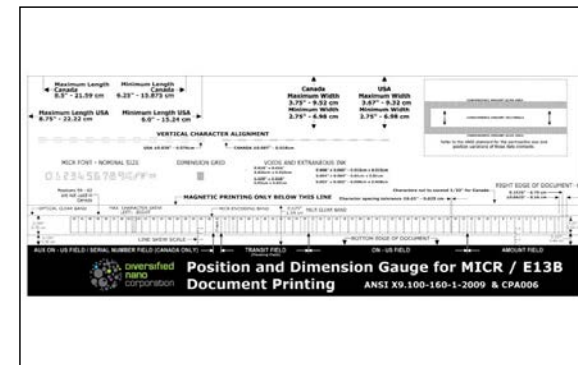
HP TIJ 2.5/4.0 Compatible Solution

TIJ 2.5 Printing Solutions for:  
• Industrial • Security • Financial

MICR    Black    Spot    Invisible    Ultra

Optional: Private Branding

MICR Line Gauge #xnA-MG



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- Invisible UV fluorescent full-color imaging
- Invisible UV & IR ink for premium security applications
- Invisible Ink for thermal and piezo dot-on-demand print heads

Red i1



Green i1



Blue i1



Yellow i1



Orange i1



White i1



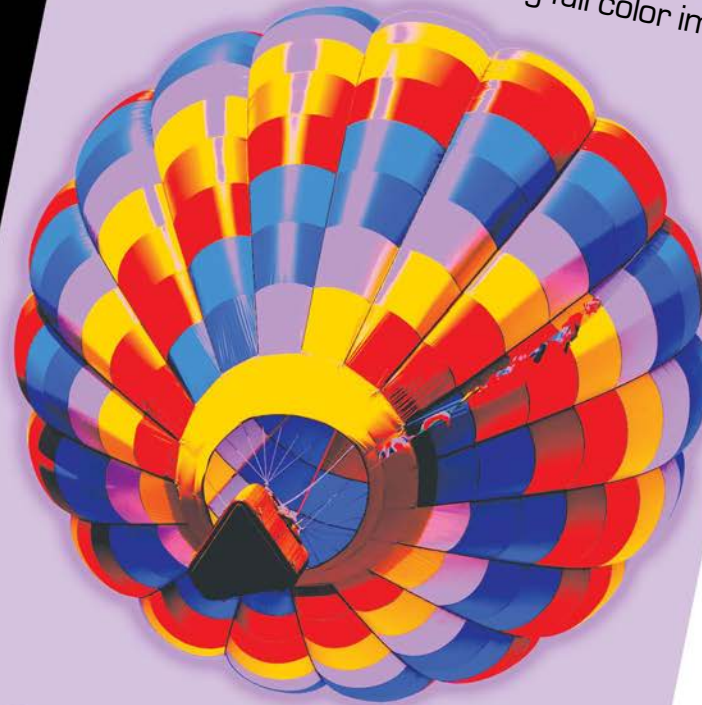
- Sample UV barcodes
- Sample Passport BEFORE and AFTER showing UV printing



Original full color image without UV light



Invisible image in daylight  
UV light excited self-illuminating full color image



- Sample check with hidden UV DNA security—BEFORE



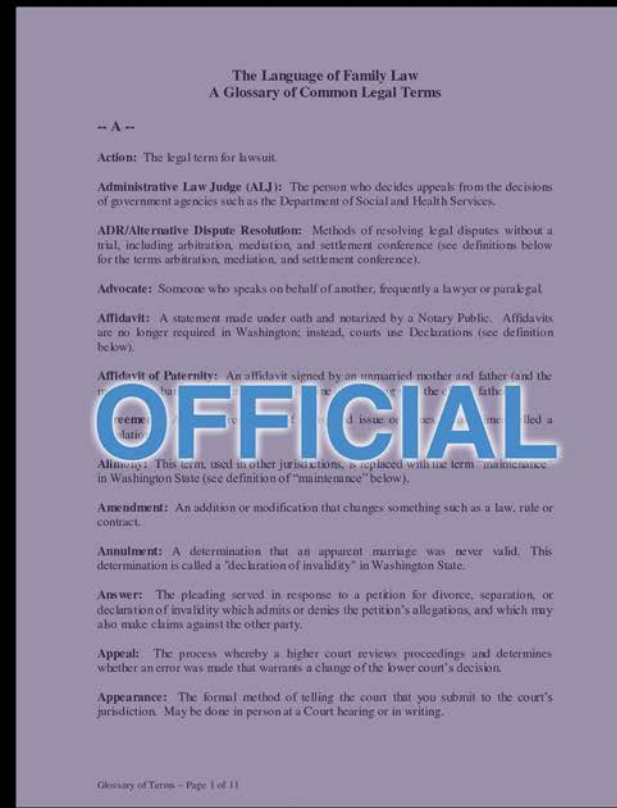
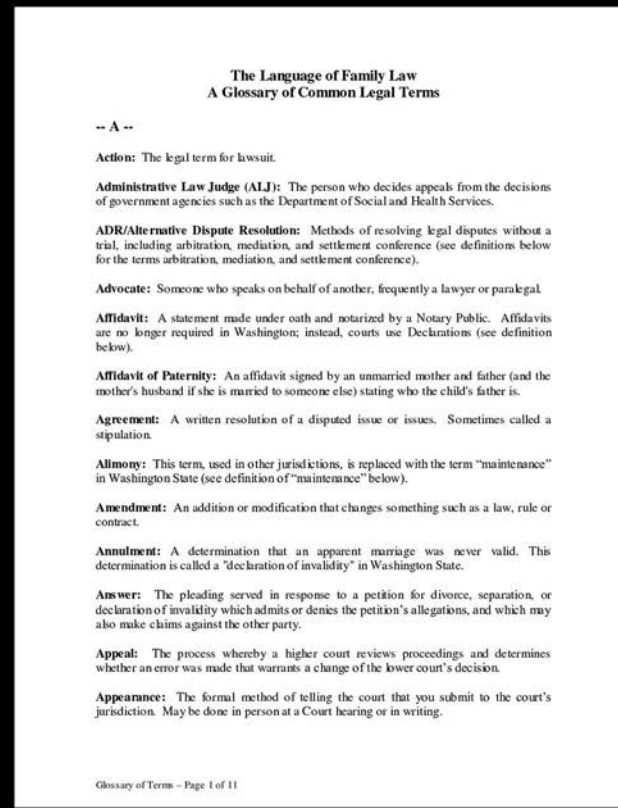
- Sample check with visible UV DNA security under UV light—AFTER



- Sample tickets with hidden & visible UV content—BEFORE & AFTER



- Sample letter with hidden & visible UV content—BEFORE & AFTER





**About MICR Ink**

DNSC K-Series MICR inks are created using high-density, ultra-stable magnetic nanoparticles. MICR inks are widely used today by industrial and commercial users of high-speed inkjet presses, as well as home and office users of desktop inkjet printers for bank compliant check printing, long lasting archival documentation, security applications, payments and premium quality prints. Digital inkjet printers, All-in-One systems and fax machines can be equipped with MICR ink cartridges.

**About CMYK-Channel & Specialty Ink**

DNSC V-Series, E-Series and S-Series inks are based on dye and pigment nanoparticles formulated with special ingredients to achieve an unprecedented coverage and ultra-smooth appearance on various substrates. Both Value and Elite inks are available for desktop, industrial and commercial print applications utilizing thermal and piezo print heads that are compatible with a variety of manufacturers.

**About Invisible IR/UV Fluorescent Ink**

DNSC I-Series are invisible digital inkjet inks that allow for enhanced security printing applications and features with detection by UV or IR light. Security data could include: "stealth" tracking (1D and 2D barcodes, signatures, watermarks), document authenticity (tickets, passport, driver's licenses, currency), secret information delivery, entertainment and fun applications. These inks can be printed, airbrushed, or hand-drawn on a variety of media without interfering with other content.

**About Special Effect Materials**

DNSC X-Series offers a new family of pigment powders and dispersions as base components for custom development and production of ink, paint, paste, dispersion, gel, cream and powder. These special effect raw materials: glow in the dark, fluoresce, absorb IR, and change color with light or heat. X-Series materials have extraordinary properties for various unique market applications.

**Contact Us**

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 diversifiednano.com

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IR 820 Ink	5	PhotoLuminescent Green Pigment Powder	7
IR 880-940 (D) Pigment Powder	11	PhotoLuminescent Blue Pigment Powder	7
IR 1000-1040 (D) Pigment Powder	11	PhotoLuminescent Violet Pigment Powder	7
IR 1040 Ink	5	PhotoLuminescent Red Pigment Powder	7
IR 1070 (D) Pigment Powder	11	PhotoLuminescent White Pigment Powder	7
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