



# SigNature® DNA for Document Security and Authentication

**Applied DNA Sciences** ("APDN"), in cooperation with H.W. Sands Security, provides a range of ready-to-use document security and authentication solutions aimed at protecting a diverse range of products. By adding **SigNature DNA** to H.W. Sands Security's portfolio of inks and materials, documents are forensically protected and can be verified as 100% genuine.

**H. W. Sands Corp.**, with over 25 years of knowledge and experience, has grown to be a trusted leader in the global market for the advancing Chemical, Card, and Security industries. Founded in 1983, H.W. Sands Corp. offers a variety of dyes, inks, and chemical solutions for Screen, Gravure, and Flexography printing servicing clients and customers all over the world.

With the increasing threat of fraud, piracy and diversion, H.W. Sands Security provides innovative solutions to the counterfeiting problem. From holograms to UV-Vis pigments to security glitters, SANDS-SECURE® is quickly gaining reputation in the security industry as a leader supplying the most

advanced technology against piracy and diversion. The H.W. Sands Security team has developed a multi-level security feature that prevents all stages of counterfeiting and forged scams. By integrating SigNature DNA with its security platform, H.W. Sands Security maintains its authority, allowing documents to be traced to their original source and authenticated.


## POWER OF SIGNATURE DNA

SigNature DNA is unique and a powerful means to authenticate originality. It can help protect the quality and integrity of documents by safeguarding them against copying or forgery. It is **secure, affordable and forensic**, with an error frequency of less than 1 in a trillion.

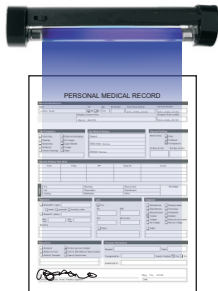
### SigNature DNA provides:

- **Eco-friendly, "green" technology based on botanical DNA**
- **Anti-Counterfeit protection: cannot be copied, viewed under a microscope, or re-engineered**
- **Forensic proof of authenticity**
- **Affordable and accessible**

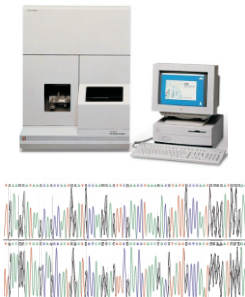
## SigNature® DNA Security Ink: Application to Authentication



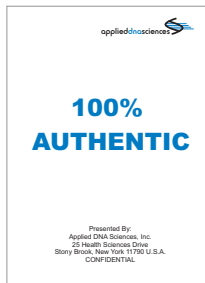
H.W. Sands Security Ink Solutions with SigNature® DNA



UV scan of document



Authenticate SigNature® DNA in printed sample



Verify Authenticity

## PUTTING DNA TO WORK

SigNature DNA uses the DNA from plants to mark and authenticate products in a unique manner that essentially cannot be copied. We create customized, unique SigNature DNA markers that are embedded in inks and applied upon printing.

SigNature DNA is compatible with many different types and forms of ink, varnish, adhesives and textile treatments. It works with a range of flexographic, offset and screen printing processes. For more information, please contact us at [sales@adnas.com](mailto:sales@adnas.com) or [jstrahl@hwsands.com](mailto:jstrahl@hwsands.com)

## AUTHENTICATION IS THE KEY

To ensure that a document is authentic, we recommend regular audits and authentication of documents throughout the logistic chain. We work with each client to tailor a DNA Document Security and Authentication Program that meets their security needs.

## ABOUT APPLIED DNA SCIENCES (OTC Bulletin Board: APDN)

Applied DNA Sciences sells patented DNA security solutions to protect products, brands and intellectual property from counterfeiting and diversion. SigNature DNA is a botanical mark used to authenticate products in a unique manner that essentially cannot be copied. To learn more, go to [www.adnas.com](http://www.adnas.com).

## ABOUT H.W. SANDS CORP.

During its initial years, H.W. Sands Corp. emerged as a supplier of inks and dyes primarily for the imaging industry. This industry created and dedicated its focus to the capture, the transmittance, and the reproduction of various images: medical X-ray films, camera films, ink jet printers, photocopiers and printing plates. The company is a majority woman-owned business.

H.W. Sands Corp. has grown to encompass all areas in printing with our high-quality custom dyes and inks. From silver halides to electrophotography to OLEDs, we supply only the highest quality products.

Our expertise lies in the working knowledge of chemistry that allowed the company to develop and manufacture the first translucent inks for bank transaction (credit, debit, and ATM) cards. This advancement has revolutionized the card market and solidified our role in the industry. H.W. Sands Corp. has continued to expand the card line to include functional inks & dyes (NIR/UV-Vis), decorative features (EZ Texture / Scratch & Sniff), plus a variety of security solutions from the H.W. Sands Security division.



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