

CROWN-JEWEL R&D AND TRADE SECRETS

Protect what you cannot rebuild.

Years of research can come down to a few files.

DNA Shield keeps a sealed, approved copy of them offline in DNA, out of reach of any network attack.

WHY THIS MATTERS

Most R&D data can be rebuilt, re-run or bought again. A small part cannot: the approved formula, the key process settings, the core source code. It usually lives in the same systems as everything else, and so do its backups. Product, lab and production systems, offsite backups and access control cover most risks.

RISK CAN REMAIN

An attack that reaches the backups

Ransomware and industrial spies often reach the backups too.

Knowledge that leaves with people

Experts retire, and their know-how can go with them.

Proof of what you had

It is hard to show which version was approved, and when.

WHAT DNA SHIELD DOES

We work with you to choose the small set of files that matters, and your owners approve the exact version to protect. You encrypt it, and DNA Shield writes it into DNA once, together with the notes that explain it. Each copy is dated in the portal, which helps you show what your formula, design or code was, and when. Biomemory never sees the contents.

1

Choose

2

Approve

3

Encrypt

4

Store in DNA

5

Recover

Chosen with you, encrypted by you, written once into DNA.

WHAT WE PROTECT

- Master formulas and recipes
- Core source code
- The notes that explain them
- Process settings and calibration
- Approved designs
- Key algorithms

KB to MB

typical package size

Air-gapped

offline by design

Written once

and dated

0

energy used at rest

HOW IT WORKS FOR YOU

1

Workshop

Together we choose the few files that matter.

2

Approve

Your owners sign off the exact version to protect.

3

Encrypt

You encrypt the package and send it through the portal.

4

Store in DNA

Written once, sealed and kept offline in a vault.

5

Recover

We read it back. It takes time. It is not instant.

WHAT CHANGES

	Today	With DNA Shield
Where the copy is	On your network, next to everything else	Offline, in a vault
If ransomware hits	Files and backups may both be encrypted	The DNA copy cannot be reached
When experts leave	Their knowledge can leave too	The files and notes stay
Proving what you had	Hard to show which version was approved	Written once, and dated

NO NEW DEPENDENCY Your recovery still works without DNA Shield. Biomemory will hold the codec in escrow, so your data can be decoded even if Biomemory no longer exists, and will follow the SNIA DNA Data Storage Alliance standards.

WHO IT IS FOR

Semiconductors

Chemicals and materials

Pharmaceuticals

Aerospace, defense and nuclear

Oil, gas and heavy industry

Software and technology

Usually led by the Head of R&D or Engineering, with the CISO and the Head of IP.

THE RULES THAT ALREADY ASK FOR THIS



EU Trade Secrets reasonable steps



US DTSA reasonable measures



TRIPS, Article 10 copyright for software



ISO 15489-1 authentic records



IEC 62443 industrial recovery



NIS2, Article 21 backup and recovery

DNA Shield supports these controls. It does not by itself make an organization compliant.

Let's protect what makes your company unique.

Start with an early access pilot: one crown-jewel package, stored in DNA, and one recovery test.

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AIR-GAPPED | BIOSECURE | IMMUTABLE | 150-YEAR MOLECULAR RETENTION