

Products and Services

TraceTag is a leading provider of highly effective security marking and tracing solutions to combat counterfeiting, fraud, parallel trading, smuggling and adulteration.

We provide a range of tailored solutions to suit individual customers' requirements in a cost effective manner.

Behind TraceTag are several strong international organisations that are an important source of strength for the group.

Vision: *To be the leading provider of the most effective security marking and tracing solutions in the world to combat counterfeit, fraud and parallel trading in order to protect customer brand equity and prevent erosion of value.*

CypherMark

The **CypherMark** system works on three levels

DETER

The effectiveness of the system and the high likelihood of perpetrators being caught and convicted reduces smuggling or adulteration.

DETECT

The ability to undertake roadside verification (using portable qPCR equipment) determines what further action to take.

PROSECUTE

The forensic nature of DNA allows absolute authentication of the product which can subsequently provide strong evidence to secure conviction of perpetrators in a court of law.



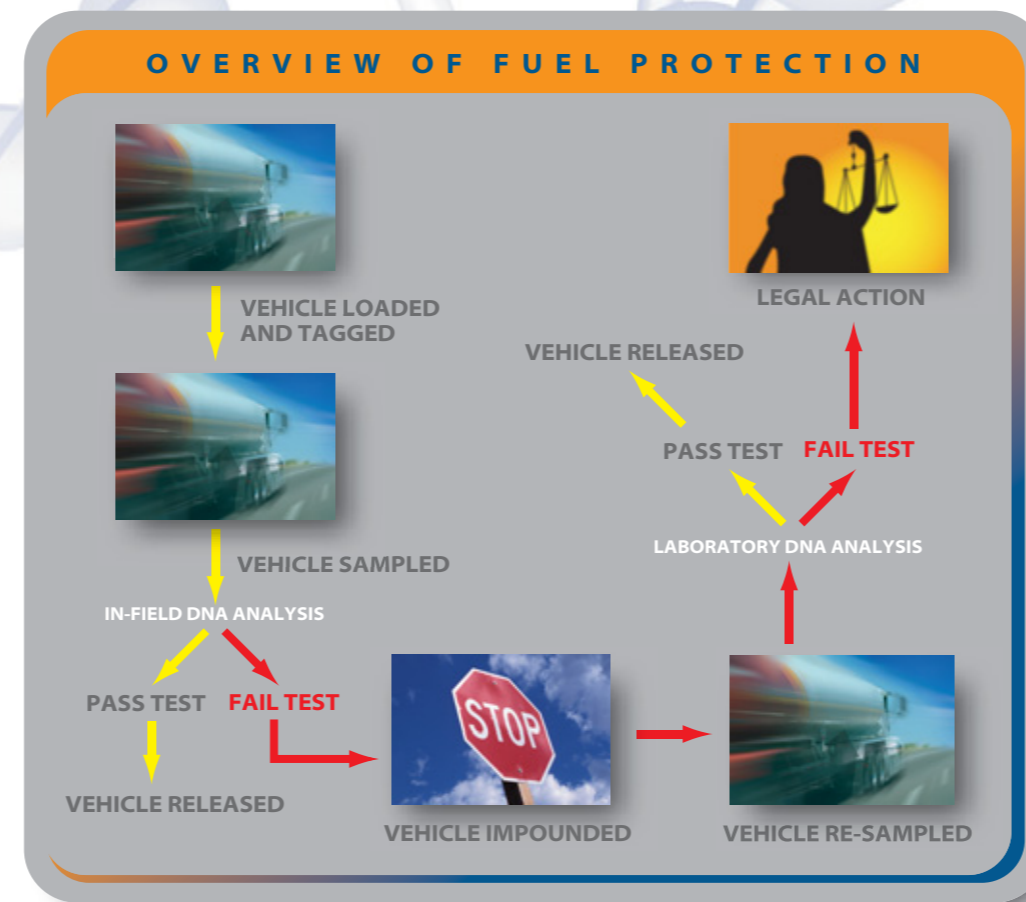
TraceTag International Ltd

THE WORLD'S MOST ADVANCED SECURITY SOLUTION

Smuggling or adulteration of fuel is a major problem in many parts of the world.

The varying tax regimes in neighbouring countries provide an enormous incentive to smugglers. It is vital to be able to determine the legitimacy of the material. There is also a need to maintain the integrity of high quality branded fuels.

Under these circumstances it is vital for authorities to have the ability to determine the origin, fiscal status and legitimacy of fuel and fuel companies to maintain the integrity of their high-quality brands.



CypherMark

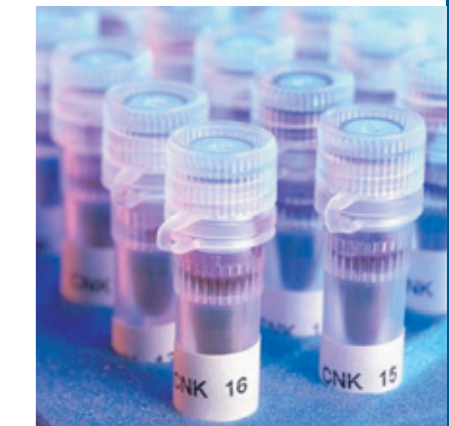
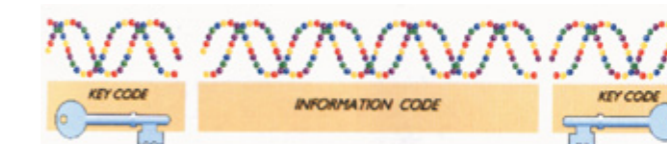
CypherMark is a novel system which allows the application of unique codes to fuels and oil products - allowing unequivocal identification of the source of the fuel.

CypherMark is available in an unlimited number of unique batches, with billions of codes available.

- *Is totally secure and uncounterfeitable.*
- *Is used in tiny concentrations, less than parts per billion.*
- *Is stable and permanent.*
- *Is environmentally safe and non toxic.*
- *Is a product whose formulation is variable to suit specific application needs.*

CypherMark is based on the design, production, application, recovery and identification of unique DNA molecules. DNA is built up of four distinct chemicals (whose shorthand notation are A, T, C, and G). A **CypherMark** tag also comprises of two key sequences whose identity must be known before the unique code sequence can be accessed, and this information/capability is only available to **TraceTag**.

The order of these chemicals in the DNA molecule provides the uniqueness and specificity to the DNA tags.



Simple to apply, CypherMark features a unique coding capacity

CypherMark

The detection system uses well proven and patented technologies that allow for the identification of DNA codes from very small levels of tracers, and this enables extremely low concentrations to be employed in the original marking (less than parts per billion).

The analysis can be undertaken by the customer, either in strategically located facilities, or from kitted-out vehicles using portable qPCR systems.

TraceTag owns a number of key patents covering both enabling technology, and the usage of qPCR for amplification and sequencing.



Benefits of using the **CypherMark** system include:

- **Reduction in evasion of tax and customs duties**
- **Increased cargo traceability**
- **Reduction in fuel adulteration**
- **Improved fuel quality and safety standards country-wide**
- **Consumer gets what he pays for**
- **Brand image of major oil companies protected**
- **Ability to successfully prosecute perpetrators giving strong disincentive to illegal activities**

CypherMark can be utilised in a wide range of finished fuels, lubricants, solvents, and crude oil shipments.



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