

ACCUTRACE™ Plus Fuel Marker The new common fiscal marker for the European Union

Following an EU public tender process, the European Commission selected ACCUTRACE™ Plus Fuel Marker as the new common fiscal marker for the European Union, effective January 2024 after a 24-month transition period during which ACCUTRACE™ PLUS Fuel Marker and the incumbent marker will co-exist.

The decision by the European Commission to adopt a new fiscal marker, also known as Euromarker, aims at providing Member States with a marker that is safer to use and more resilient to illegal removal methods.

With fuel fraud estimated to cause tax losses of

€ 7-10 billion each year in the EU1, ACCUTRACE™

Plus Fuel Marker technology will play a key role in

supporting EU governments in their fuel laundering

and theft prevention programs.

ACCUTRACE™ Plus Fuel Marker key benefits

Dow's patented ACCUTRACE™ Plus Fuel Marker uses molecular marking technology to enable petroleum product identification for brand authentication, fuel laundering prevention and petroleum product tracking.



Resilient: Highly resistant to common chemical and physical laundering techniques. The marker maintains a unique fingerprint in the fuel, alerting authorities to its intended use, enhancing supply chain governance and product identification.



No harmful additives: Contains only elements commonly found in petroleum and petroleum derivatives (carbon, hydrogen and oxygen), without any known ozone-depleting additives. It does not present the dioxin-emitting or corrosive properties of halocarbons, nor the health risks associated with some metals.



Flexible detection: Though invisible to the naked eye, can be detected quickly using common laboratory and portable gas chromatography systems.



Easy to handle: Non-flammable and blended in a high flash solvent system making it easy to handle and to apply by the end user thanks to its excellent soluble, pumpable and pourable qualities even at low temperatures.



Cost-effective: Can be used to differentiate various grades or tax classifications of heating oil, diesel fuel and kerosene. Its low part per million dosage rates of the active marker makes this a highly cost-effective solution for tax and brand ID programs.

Proven effectiveness against fuel laundering techniques

The adoption of ACCUTRACE™ Plus Fuel Marker as the new Euromarker follows extensive independent technical and safety assessments of the latest fuel marking technologies conducted by the Joint Research Centre (JRC) and the Scientific Committee on Health, Environmental and Emerging Risks (SCHEER).

Assessment results demonstrated that ACCUTRACE™ Plus Fuel Marker provides unique resilience to the most common illegal removal techniques, outperforming alternative technologies including the incumbent Euromarker, Solvent Yellow 124 (SY124)2.

Key product features

- Blended in a high flash solvent system for ease of handling and application.
- Excellent soluble, pumpable and pourable qualities even at low temperatures.
- · Sample size required for detection is drastically reduced (1/1000000 of a L).
- Can be detected at extremely low levels, below 2% of the recommended dosage3.
- · Can detect traces of the markers even after removal
- Does not require the use of dangerous reagents for detection.
- Compatible with existing dyes and markers already in use.



Success in the United Kingdom & Ireland

Dow's ACCUTRACE™ molecular fuel marker technologies have already been used for years by governments, including in the United Kingdom and the Republic of Ireland. Since its introduction in 2015, all the evidence indicates that the marker is effective in helping reduce fuel laundering.

In Ireland, the ACCUTRACE™ fuel marker has even been credited with generating for the Irish exchequer a revenue windfall estimated at € 300 million⁴.

The novel ACCUTRACE™ Plus Fuel Marker builds upon the proven success and effectiveness of these technologies, with added unique resistance to vacuum distillation removal methods.

ACCUTRACE™ Plus Fuel Marker is a **Dow patented technology** (WO 2014/081556, EP2904072 B1 and EP3564344 B1).

About Dow

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¹ Ecorys (2019): Study on the estimated economic implications of fuel laundering & wider fuel fraud in the EU

² European Commission, JRC report: Evaluation of the performance of the short-listed candidate markers regarding the technical requirements (2017) 3 ISO17025:2005 by South West Research Institute, Texas, USA

^{4 &}quot;Blitz on laundering a boost to Dail's coffers", Tom Brady, Belfast Telegraph (Dec 26, 2015)