

ATC comments on the ACEA position paper of March 2022 on the revision of the Fuel Quality Directive (FQD)

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ATC Fuel Additive Group

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Introduction

The Technical Committee of Petroleum Additive Manufacturers in Europe (ATC) was established in 1974 for member companies to discuss topics of a technical and statutory nature which are a concern to our industry.

ATC works to develop common industry approaches in response to health, safety and regulatory legislation which are based on scientific and technical principles, to the benefit of end consumers and environmental protection. ATC provides its members with a platform to build and share high-level technical expertise and to cooperate with relevant stakeholders active in the development of petroleum additive specifications and testing.

Specifically, the Fuel Additives Group (FAG) is a subcommittee of the ATC dealing with issues relating to fuel quality, transport and the environment impacting the fuel additives business. The committee reviews transport and fuel developments within Europe, assesses current and proposed legislation.

ATC comments on the ACEA position paper

ATC supports the objective of ACEA to contribute to the revision of the Fuel Quality Directive, however on page 7 of its position paper dated March 2022, ACEA states that "detergents are mostly welcome components to improve fuel cleanliness, but we are seeing an overdosing of detergents in EU petrol that will lead to cases of higher exhaust ultra-fine particle emissions (particle number, PN)" and suggests on page 8 that the European Commission requests "CEN to deliver a more controlled approach to useful detergent dosing rates (such as adding an unwashed gum limit of maximum 30 mg/100ml)".

ATC disagrees with the assertion that high dosages of DCA lead to higher exhaust ultra-fine particle emissions (particle number, PN). On the contrary, several recently published studies demonstrate that high dosages of DCA make it possible to control the level of PN emissions and avoid a substantial increase of emitted particulates over time as opposed to what is observed with non-additivated fuels^{*}.

ATC does not support the wording of the type of additives this statement refers to. The word "Detergent" is a non-appropriate designation for deposit control additives (DCA) used to maintain or restore cleanliness of sensitive parts of engine intake systems, since such substances do not fall under the definition of chemicals within the scope of the Detergents Regulation.

Conclusion

To conclude, ATC disagrees with the view that high dosages of DCA unequivocally lead to higher exhaust ultra-fine particle emissions (particle number, PN).and asks the European Commission to avoid the inclusion in the FQD of regulatory limits for the use of DCA in petrol. The European Commission and the member states can rely on the expertise of fuel marketers and additive suppliers to ensure the fitness for purpose of the products commercialised in the European Union.

* References :

JSAE technical paper 20225160, Impact of Gasoline Performance Packages on Particulate Emissions in Direct Injection Spark Ignition Engine, M. Walter et al.

SAE technical paper 2022-01-0490, Assessing the Importance of Injector Cleanliness in Minimising Particulate Emissions in Gasoline Direct Injection Engines, R. Cracknell et al.

JSAE technical paper 20185344, *Evaluation of Injector Fouling in Vehicles powered by a Direct Injection Spark Ignition Engine, M. Walter et al.*

SAE technical paper 2017-01-2294, Injector Fouling in Direct Injection Spark Ignition Engines - A New Test Procedure for the Evaluation of Gasoline Additives, J. Gueit et al.

SAE technical paper 2017-01-2247, Effect of Fuel Detergent on Injector Deposit Formation and Engine Emissions in a Gasoline Direct Injection (GDI) Engine, W. Zhang et al.