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**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND  
THE COUNCIL**

**Quality of petrol and diesel fuel used for road transport in the European Union  
(Reporting year 2016)**

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## Quality of petrol and diesel fuel used for road transport in the European Union (Reporting years 2016)

### 1. INTRODUCTION

Pursuant to Article 8(3) of Directive 98/70/EC<sup>1</sup> relating to the quality of petrol and diesel fuels (henceforth the "Fuel Quality Directive"), Member States are required to report annually information on the total volumes and the quality of petrol and diesel fuels sold for use in road transport.

This report is based on the data submitted by Member States to the European Environment Agency (EEA) for the year 2016. The compilation and analysis of the data reported by Member States is presented in the EEA Technical report No 24/2017 on 'Fuel quality in the EU in 2016'.

Member States assess the quality of fuels through a Fuel Quality Monitoring System (FQMS)<sup>2</sup>. Member States must sample fuels each year and analyse their technical characteristics to ensure that they are consistent with the requirements of the Fuel Quality Directive. The limiting values set out by the Fuel Quality Directive concern parameters such as:

- for petrol fuels: distillation value, hydrocarbon analysis, lead content, manganese content, motor octane number (MON), oxygen content, oxygenates, research octane number (RON), sulphur content and the vapour pressure for the summer period;
- for diesel fuels: cetane number, density at 15 °C, distillation, fatty acid methyl esters (FAME) content, manganese content, polycyclic aromatic hydrocarbons and sulphur content.

### 2. OVERVIEW OF THE 2016 FUEL QUALITY DATA IN THE EU

All EU Member States, plus Norway and Iceland, submitted fuel quality reports for 2016.

#### Fuels sales, types and biocomponent content

EU fuel sales continue to be dominated by diesel: 71.8 % (257 206 million litres) of fuel sold was diesel and 28.2 % was petrol (100 838 million litres). Total fuels sales increased by 2.7 % as compared to 2015. Petrol sales in 2016 remained almost unchanged, whereas diesel sales increased by 3.8 %.

The share of diesel fuel sales has increased over the years, from a share of total sales in 2001 of 55.6 % to a share of 71.8 % in 2016. This reflects to a large degree the increasing dieselisation of Europe's vehicle fleet during that period. Diesel fuel consumption is significant in most of the 28 EU Member States (> 60 % of total fuel sales) with the exception of Cyprus, Greece, Malta and the Netherlands.

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<sup>1</sup> Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC, OJ L 350 of 28.12.1998, p. 58.

<sup>2</sup> European Standard EN 14274 provides information on how to set up a FQMS depending on the country size and statistical model used, as well as guidance on determining the minimum number of samples to be taken.

The majority of petrol sales in 2016 comprised fuels with a petrol grade RON of 95, which accounted for 86.3 % of the total petrol fuel sales; 7.6% of sales were  $95 < \text{RON} < 98$ ; and 5.8 % were  $\text{RON} \geq 98$ . There was an insignificant proportion of  $\text{RON} = 91$  sales.

Almost all diesel sold in the EU contains biodiesel, whereas 85 % of petrol sold contains bioethanol. 75 % of petrol fuel sold in the EU in 2016 had up to a 5 % ethanol content by volume and 10% had up to 10% of ethanol content. 83 % of diesel fuel sold contained up to 7 % of fatty acid methyl esters (FAME) and 17 % contained more.

### **Compliance of fuel sold with Fuel Quality Directive limits**

Five Member States reported full compliance for petrol (Greece, Lithuania, Netherlands, Slovenia and Sweden) and 9 for diesel (Bulgaria, Croatia, Finland, Germany, Ireland, Lithuania, Malta, Slovenia and Sweden). Lithuania, Slovenia and Sweden reported full compliance for both fuels. On the other hand, one Member State (Belgium) reported more than 100 non-compliances for petrol in 2016.

Member States reported a total of 507 non-compliances for petrol and 101 for diesel for the year 2016. For petrol, the most common parameters falling outside the specifications were summer vapour pressure (in 14 Member States), RON (in 11 Member States) and MON (in 7 Member States). 14 Member States reported exceedances of aromatics, oxygen content or distillation parameters. For diesel, the most common parameters falling outside the specifications were sulphur content (in 7 Member States) and fatty acid methyl ester (FAME) content (in 7 Member States).

All Member States have described the actions taken when non-compliant samples were identified. These included informing the competent authorities, initiating investigations, imposing penalties and fines, or resampling. For a small number of cases no action has been taken where the non-compliant parameters were found to be very close to the tolerance limits.

There was therefore no need for the Commission to launch any new investigation in this area.