EN EN

EUROPEAN COMMISSION



Brussels, 11.3.2011 COM(2011) 113 final

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: Sixth annual report (Reporting year 2007)

EN EN

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: Sixth annual report (Reporting year 2007)

EXECUTIVE SUMMARY

Directive 98/70/EC¹ sets minimum specifications on health and environmental grounds for fuels to be used for vehicles equipped with positive-ignition and compression-ignition engines. Fuel quality is environmentally important because it affects engine pollutant emissions and thus air quality. It also affects the ease and cost with which desired pollutant and greenhouse emission limits can be achieved by manufacturers. Directive 2003/17/EC², amending Directive 98/70/EC, requires a further reduction of the sulphur content of petrol and diesel fuels.

Non-respect of the fuel specification can lead to increased emissions (for example excess oxygenates can increase NOx emissions) and might damage engine and exhaust after-treatment systems (for example excess sulphur damaging catalysts) leading to higher air pollutant emissions. In order to ensure compliance with the fuel quality standards mandatory under this Directive, Member States are required to introduce fuel quality monitoring systems.

Article 8 of Directive 98/70/EC requires the Commission to publish annually a report on fuel quality in the Member States. This sixth Commission Report summarises Member States' submissions on the quality of petrol and diesel, as well as the volumes sold, for the year 2007. All Member States except Luxembourg submitted national reports for 2007.

The quality of Member States' monitoring system design, level of compliance with limit values, and information provided in report submissions is still improving. The Commission will continue monitoring compliance with the requirements laid down in the Directive and propose appropriate and proportionate action where necessary.

As noted in 2006, although sulphur-free fuels³ are accounting for an increasingly significant proportion of fuel grades and sales across Member States, they are still not always labelled at the pump. There are still also significant problems in timely delivery of reports from some Member States. In fact the situation has worsened for these very late reports compared to last year. Ireland, Italy and the Netherlands submitted reports more than 3 months late; and the UK and Malta submitted reports more than 7 months late. Luxembourg did not submit a report in 2007.

The term "sulphur-free" or "zero sulphur" refers to a sulphur content of <10ppm.

Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC O.J. L 350, 28.12.1998, p. 58

Directive 2003/17/EC of the European Parliament and of the Council of 3 March 2003 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels O.J. L 76, 22.3.2003, p. 10

Fuel quality monitoring in 2007 showed that the specifications for petrol and diesel laid down in Directive 98/70/EC are in general met and again few exceedances were identified. For petrol the main parameters where exceedances were identified were research/motor octane number (RON/MON)⁴, summer vapour pressure⁵ and distillation/evaporation at 100/150°C⁶. For diesel the main parameters where exceedances were identified were sulphur content and distillation 95% point.

As exceedances are relatively rare and most Member States take action to remove non-compliant fuel from sale, the Commission is not aware of any negative reprecussions on vehicle emissions or engine functioning due to these exceedances. However, the Commission urges Member States to continue to take action to ensure full compliance so that such problems do not arise in the future. Detail of actions taken by Member States, where available, is given in the individual country chapters of the detailed report for 2007⁷. The Commission will continue monitoring compliance with the fuel quality requirements laid down in the Directive.

Lower sulphur content helps the abatement of air pollution and the introduction of new engine technology. As shown in Table 1, average sulphur content in 2007 is substantially below that reported in 2004 but has not decreased much since 2005. The share of sulphur-free and low-sulphur fuels⁸ increased between 2001 and 2005, when it became mandatory for all fuel to be low-sulphur, and for sulphur-free fuels to be introduced in all Member States.

Table 1: Annual trend in average sulphur content in petrol and diesel fuels

EU		EU15	EU12						
Fuel/Year	2001	2002	2003*	2004*	2005*	2006**	2007***	2007***	2007
Petrol	68	51	37	38	19	18	18	18	18
Diesel	223	169	125	113	25	22	23	23	24

^{*} Excludes France, who did not report in 2003 - 2005. New EU10 joined from 2004.

-

^{**} Excludes Malta, who did not report in 2006.

^{***} Excludes Luxembourg, who did not report in 2007.

Research Octane Number (RON) is a quantitative measure of the maximum compression ratio at which petrol can be used in an engine without some of the mixture self igniting in the engine. Self ignition leads to excess fuel consumption and an increase in Volatile Organic Compound and Carbon Monoxide emissions.

Vapour pressure is a measure of the propensity of the fuel to evaporate. It is regulated in summer because temperatures at that time of year can lead to high emissions of Volatile Organic Compounds, which are a precursor of ground level ozone. Exceedances will result in increased Volatile Organic Compound emissions.

The distillation parameter establishes the proportion of the fuel that evaporates at 100°C and 150°C. It limits the range of lighter components that can be blended in the petrol. Exceedances could lead to vapour locks and driveability problems.

https://circabc.europa.eu/w/browse/5e89b837-2bec-4284-b9fe-c156271268f7

The term "low sulphur" corresponds to a sulphur content of <50ppm.

National fuel quality monitoring systems still differ considerably. However, the Directive requirements are expected to promote greater homogeneity and to improve the quality of reporting.

2. Introduction

The specifications for petrol and diesel sold in the European Union are laid down in annexes to Directive 98/70/EC. From 1 January 2005 only one set of fuel specifications has applied. The Directive requires Member States to report summaries of the quality of fuels sold in their territories. From 2004 onwards, Member States are required to report on their monitoring in accordance with European Standard, EN 14274⁹, or with systems of equivalent confidence. Article 8 of Directive 98/70/EC, as amended by Article 1(5) of Directive 2003/17/EC, requires the Commission to forward the results of Member States' fuel quality reporting. In compliance with this request, this sixth Commission Report summarises the quality of petrol and diesel, as well as the volumes sold, in the EU for the year 2007. Previous years' reports can be found on the Commission's web pages¹⁰.

3. NATIONAL MONITORING SYSTEMS

Revisions, outlined in the Excel reporting template, to the reporting format specified in Commission Decision 2002/159/EC and European Standard EN 14274: 2003 have enhanced the usefulness of the information and facilitated analysis of EU trends. The quality of the monitoring systems' design, compliance with limit values and information provided in report submissions is continuing to improve in most cases. However, there are still a few key areas for improvement, summarised as follows:

Some Member States have submitted reports late; the UK and Malta more than 7 months late; and Ireland, Italy and the Netherlands more than 3 months late. They are encouraged to report on time to avoid undermining the efforts of others.

Several Member States do not fulfil sufficient sampling for all fuel or are not sampling in sufficient numbers at refuelling stations (as opposed to depot/refinery). Figure 2 summarises the sampling rate across the EU in 2007.

Where Member States use their own National Systems, they must be fully described. This description should show the monitoring system's equivalency in statistical confidence to EN 14274: 2003. This has *still* not been provided in most cases for 2004-2007 monitoring and must be provided in future.

Where EN 14274 Statistical Model C is used, Member States should present a clear rationale for its use. For several Member States there appears to be a good case for using Models A or B instead.

It is necessary for sulphur-free fuels to be clearly labelled so that consumers have the opportunity to choose them. In some Member States sulphur content is not clearly labelled at fuel pumps. Reporting on labelling could help the automotive industry gain confidence in the

-

EN 14274:2003 - Automotive fuels - Assessment of petrol and diesel quality - Fuel Quality Monitoring System (FQMS).

https://circabc.europa.eu/w/browse/5e89b837-2bec-4284-b9fe-c156271268f7

availability of sulphur-free fuels so that vehicles taking full advantage of them are more widely introduced.

It would also be valuable, for the Member States not already doing so, to report the results of sulphur content analyses separately for low-sulphur and sulphur-free fuels, to further confirm the quality of sulphur-free fuels.

4. 2007 REPORTING

4.1 Fuel Qualities and Volumes

All petrol and diesel sales in the EU are now of low-sulphur or sulphur-free fuels. Of all petrol sold, 53% was low-sulphur and 47% sulphur-free. Of all diesel sold the equivalent split was 58% and 42%.

The variety of RON and sulphur grade fuels available across the EU decreased in 2005 with the new mandatory limit of <50ppm sulphur. The majority of petrol sales in 2007 comprised RON 95 (85%, with 50% low sulphur and 35% sulphur free), see Figure 1 and the table in the Annex for full details by Member State.

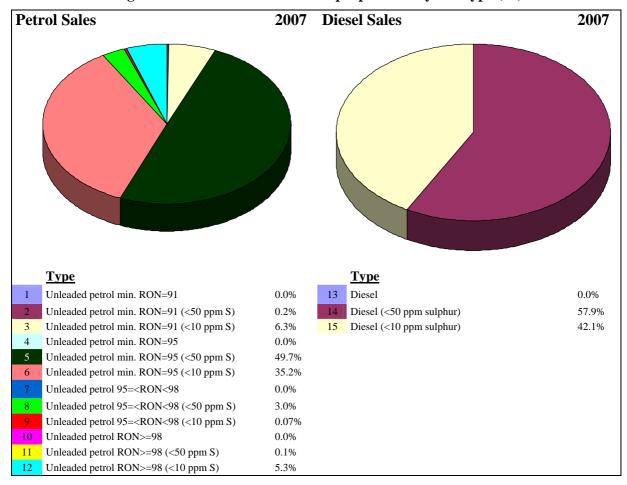


Figure 1: 2007 EU Fuel sales proportions by fuel type (%)

Similarly to 2001 - 2006, France, Germany, Italy, Spain and the United Kingdom saw the largest fuel sales in 2007 (Figure 3). Diesel sales are dominant in almost all Member States. However, the relative sales of petrol and diesel vary significantly.

Sales in EU-12 Member States comprised 12.4% and 12.6% of total petrol and diesel sales in the EU, respectively (compared with 10.1% and 9.9%, respectively, for the EU-10 in 2006). Higher proportions of sulphur-free petrol and diesel grades were sold in the EU-10 (49% and 49%, respectively), compared to the EU-15 (46% and 41%, respectively).

Since 2001 there has been increased homogeneity in the number of grades of fuel reported to be available across the EU (Figure 4). In 2007 there are generally 2-3 petrol grades available in each Member State, mainly a result of different octane levels (RON category). However, separate sulphur-free grades are appearing in some cases.

Member States do not have fully to switch to sulphur-free fuels until 2009. However, Denmark, Finland, Germany, Hungary, the Netherlands and Sweden had already fully moved over to sulphur-free petrol diesel grades in 2007. Austria and Estonia have also fully moved to sulphur-free petrol (see Figures 5 and 6). In Sweden virtually all diesel has been sulphur-free since 1999, and in Germany it has been available from 2003.

A number of Member States are yet to introduce separately marketed (and labelled) sulphur-free fuels. The average sulphur content of some fuel grades was found to be below 10 ppm where the fuel was marketed as low-sulphur (< 50 ppm), as shown in figure 7. Thus in these countries it appears that fuel sales may be sulphur-free, although they are not labelled as such. In addition, some Member States have not provided sufficient information to judge whether sulphur-free fuels are available "on an appropriately balanced geographical basis", as required by the Directive.

Figure 2: Fuel Quality Monitoring sampling rate across the EU in 2007 (average number of samples per fuel grade)

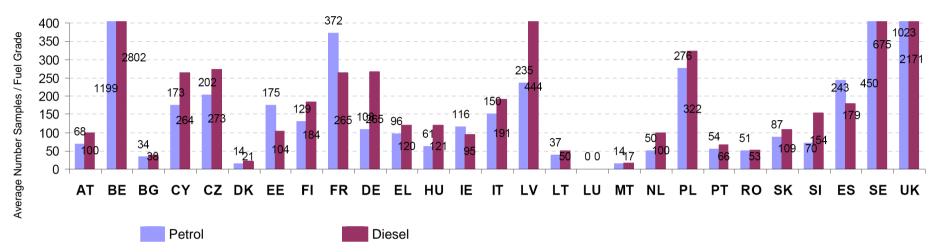
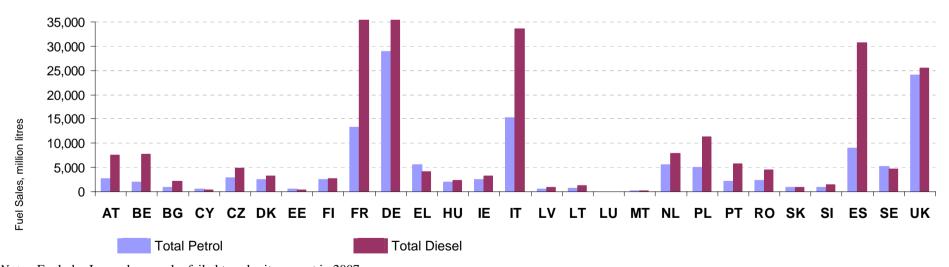


Figure 3: National fuel sales in 2007 by fuel type across the EU (million litres)



 $\it Notes$: Excludes Luxembourg who failed to submit a report in 2007

Figure 4: Number of fuel grades available nationally by fuel type across the EU in 2007

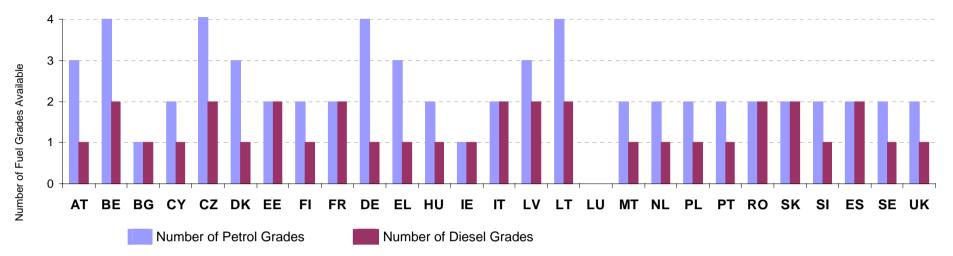
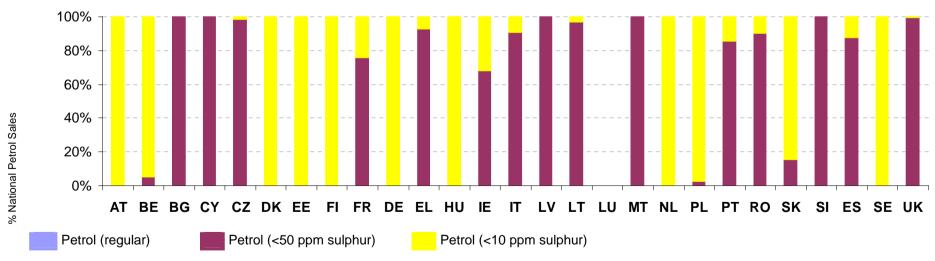


Figure 5: National sales of low sulphur petrol grades across the EU (%) in 2007



Notes: Excludes Luxembourg who failed to submit a report in 2007

Figure 6: National sales of low sulphur diesel grades across the EU (%) in 2007

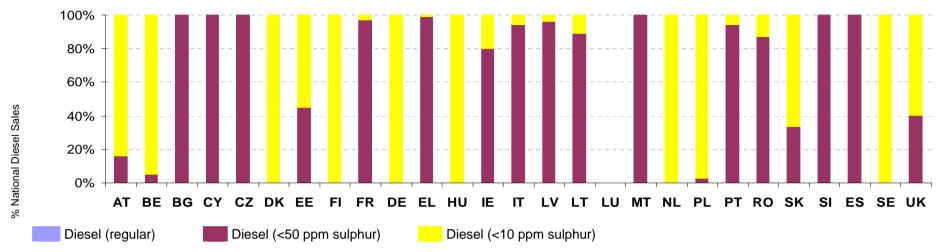
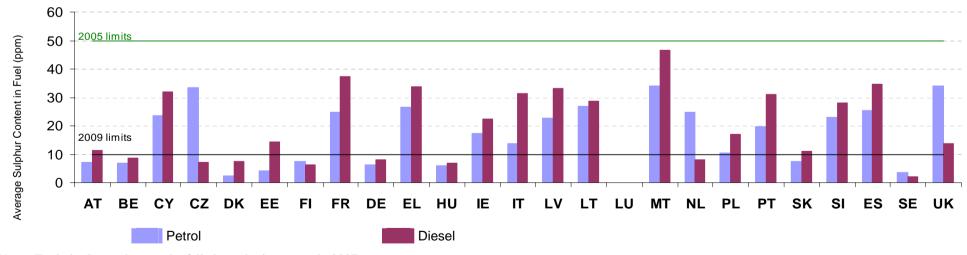


Figure 7: Average sulphur content of petrol and diesel grades across the EU (%) in 2007



Notes: Excludes Luxembourg who failed to submit a report in 2007

4.2 Compliance with Directive 98/70/EC in 2007

Table 2 summarises the compliance of Member States with Directive 98/70/EC in 2007. It reports both the results of the analysis of samples against limit values and the compliance of the reporting format and content. As in 2001 - 2006, some Member States provided incomplete and / or late information and this affected the quality of the compliance assessment. The Commission will therefore work with Member States in order to improve their reporting where necessary.

Pursuant to Article 9a, it is the responsibility of the Member States to determine the penalties applicable to breaches of the Directive. Details of any action taken with regard to limit value non-compliance are included where provided in the individual country chapters of the detailed report for the year 2007¹¹.

7 Member States are in complete compliance with limit values for both petrol and diesel (compared to 8 in 2006). 19 Member States also provided complete reporting across the range of parameters specified for monitoring in the Directive. As a result of the monitoring arrangements in place, Belgium undertakes substantially more sampling than other Member States. Therefore, if these values were simply aggregated with monitoring results from other Member States it would skew the results and hide trends in the EU as a whole. In view of this, Belgian exceedances and samples are excluded from the analysis of exceedances reported below. 12

For petrol, 17 of the Member States (8 of the EU-15) reported at least 1 sample that was non-compliant with Directive 98/70/EC, compared to 16 in 2006 (8 of the EU-15). Of these, the main parameters of concern were again research/motor octane number (RON/MON, 68 samples), summer vapour pressure (DVPE, 43 samples) and distillation - evaporation at 100/150°C (14 samples).

This represents an increase in both the number and the proportion of non-compliant petrol samples in EU-15 and EU-12 Member States. In EU-15 Member States the proportion of samples exceeding limit values nearly doubled from around 0.55% in 2006 to 1.0% in 2007. This increase is primarily attributable to more samples exceeding limit values for "other" parameters¹³. In EU-12 Member States the proportion of samples exceeding limit values increased from around 2% in 2006 to 3.5% in 2007, with the increase mainly coming from samples that exceeded MON/RON limit values.

For diesel, 12 of the Member States (4 of the EU-15) reported at least 1 sample that was non-compliant with Directive 98/70/EC, compared to 10 in 2006 (3 of the EU-15). Of these, the main parameters of concern were sulphur content (28 samples) and distillation 95% point (11 samples).

https://circabc.europa.eu/w/browse/5e89b837-2bec-4284-b9fe-c156271268f7

The detailed 2007 monitoring report contains several errors in the manner in which this adjustment has been performed. As a result, the proportion of the samples exceeding limit values had been miscalculated in the 2007 detailed report, and the detailed reports for previous years. The exceedance rates below have been corrected from those in the detailed report and this error will be corrected as from the 2008 version of the detailed report.

The 'other' parameters category represents aromatics, oxygenates and lead content.

Diesel limit value exceedances increased in 2007 in EU-15 Member States. However, the proportion of samples exceeding limit values is still below that seen before 2006. In 2005, EU-10 Member States had a particular problem with sulphur content due to the mandatory <50 ppm level introduced at the start of that year. This issue appears to have been resolved as EU-12 Member States have maintained the lower level of exceedances seen in 2006.

Table 2: Summary of Member State compliance with 98/70/EC for 2007 reporting.

Member State	(95% confi (Non-complian sam	on-compliance ⁽¹⁾ dence limits) t samples / Total uples)	Incomplete (Number of not measur	parameters ed / Total)	Late report (Due by	
	Petrol	Diesel	Petrol	Diesel	30/6/2008) (2)	Notes
Austria		2 / 100			<1 month	(1)
Belgium	39 / 4795	39 / 5604	2 / 18	1 / 4	<2 months	(2) (3)
Bulgaria	8 / 34	2/38	5 / 18	2/5		(20) (21)
Cyprus	2 / 346	2 / 264	1 / 17		<4 months	(10)(11)
Czech Republic	43 / 1008	7 / 545				
Denmark					<1 month	
Estonia	17 / 350					(12)(13)
Finland		1 / 184				(4)
France	44 / 744					(4)
Germany					<3 months	
Greece					<1 month	(4)
Hungary	2 / 121					
Ireland	5 / 116				<4 months	(5)
Italy	9 / 299	5 / 382	5 / 13		<4 months	(6) (4)
Latvia	2 / 705	1 / 888			<1 month	(14) (15)
Lithuania						
Luxembourg						(24)
Malta	3 / 28	3 / 17			<12 months	(16) (17)
Netherlands	5 / 100		1 / 17		<4 months	(4)
Poland	30 / 551	2 / 322				(18)
Portugal			3 / 15		<1 month	
Romania	5 / 101	15 / 105				(22) (23)
Slovakia	17 / 174					(19)
Slovenia	5 / 139	2 / 154			<1 month	, ,
Spain						
Sweden			7 / 11			(7) (8)
UK	1 / 2046				<12 months	(9)
No. Countries	17	12	7	2	14	` ′

Detailed notes on this table can be found on page 197 of the detailed report for 2007

5. CONCLUSIONS

Fuel quality is environmentally important because it affects engine pollutant emissions and thus air quality as well as the ease and cost with which pollutant and greenhouse gas emission limits can be achieved by manufacturers. The monitoring of fuel quality in 2007 shows that the specifications for petrol and diesel laid down in Directive 98/70/EC are in general met and very few exceedances were identified. As exceedances are relatively rare and most Member States take action to remove non-compliant fuel from sale, the Commission is not aware of any negative reprecussions on vehicle emissions or engine functioning due to these exceedances. However, the Commission urges Member States to continue to take action to ensure full compliance so that such problems do not arise in the future. The Commission will continue monitoring compliance with the fuel quality requirements laid down in the Directive and propose appropriate and proportionate action where necessary.

The share of sulphur-free and low-sulphur fuels increased from 2001 to 2005. The average sulphur content of fuels has stabilised since 2005, when low-sulphur fuels became mandatory and sulphur-free fuels were introduced across the EU. However in a number of Member States they are still not always labelled properly at the pump.

Without labelling, consumers have no possibility to choose sulphur-free fuels and are less likely to utilise technology requiring these fuels. This significantly undermines the value of having fuels meeting this criterion available. Therefore, this lack of labelling could hamper the introduction of vehicles using technology requiring sulphur-free fuels. As a result the full potential offered for reductions in CO_2 from the road transport sector may not be realised.

Reporting on labelling could help the automotive industry gain confidence in fuel availability so that vehicles taking full advantage of the sulphur-free fuels are more widely introduced, leading to lower pollutant and greenhouse gas emissions. Very limited information has been provided by Member States on the geographical availability of sulphur-free fuels; most Member States simply stated that they were widely available, but provided no supplementary information to provide a measure of the geographical availability.

The fuel quality monitoring systems established at national level differ considerably and require further uniformity in order to provide transparent and comparable results. The implementation of Directive 2003/17/EC has led to improved quality of reporting as it requires Member States to report on monitoring in accordance to the new European Standard, EN 14274, or with systems of equivalent confidence. Where Member States do not report according to EN 14274 format, justification for this must be provided.

ANNEX: 2007 EU fuel sales by fuel type (million litres)

| ID | Million litres | Austria | Belgium | Denmark | Finland

418

4,769

447

2,408

933

1,273

Total Diesel

	Fuel grade	AT	BE	DK	FI	FR	DE	EL	IE	IT	LU	NL	PT	ES	SE	UK	EU15	%
1	Unleaded petrol min. RON=91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0%
2	Unleaded petrol min. RON=91 (<50 ppm S)	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	0	0.0%
3	Unleaded petrol min. RON=91 (<10 ppm S)	642	-	507	-	-	7,548	-	-	-	-	-	-	-	-	-	8,697	7.2%
4	Unleaded petrol min. RON=95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0%
5	Unleaded petrol min. RON=95 (<50 ppm S)	-	71	-	-	10,145	-	4,744	1,680	13,816	0	-	-	7,917	-	22,890	61,264	50.6%
6	Unleaded petrol min. RON=95 (<10 ppm S)	1,944	1,358	1,917	2,272	-	20,458	-	792	1,423	-	5,418	-	-	4,914	-	40,498	33.4%
7	Unleaded petrol 95= <ron<98< td=""><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>0</td><td>0.0%</td></ron<98<>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0%
8	Unleaded petrol 95= <ron<98 (<50="" ppm="" s)<="" td=""><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>453</td><td>-</td><td>-</td><td>-</td><td>-</td><td>1,845</td><td>0</td><td>-</td><td>1,129</td><td>3,427</td><td>2.8%</td></ron<98>	-	-	-	-	-	-	453	-	-	-	-	1,845	0	-	1,129	3,427	2.8%
9	Unleaded petrol 95= <ron<98 (<10="" ppm="" s)<="" td=""><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>92</td><td>92</td><td>0.1%</td></ron<98>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	92	92	0.1%
10	Unleaded petrol RON>=98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0%
11	Unleaded petrol RON>=98 (<50 ppm S)	-	23	-	-	-	-	-	-	-	0	-	-	-	-	-	23	0.0%
12	Unleaded petrol RON>=98 (<10 ppm S)	76	435	11	209	3,210	824	401	-	-	-	166	305	1,137	322	-	7,096	5.9%
	Petrol (regular)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
	Petrol (<50 ppm sulphur)	0	94	0	0	10,145	0	5,197	1,680	13,816	0	0	1,845	7,917	0	24,019	64,714	53.4%
	Petrol (<10 ppm sulphur)	2,662	1,793	2,435	2,481	3,210	28,829	401	792	1,423	0	5,585	305	1,137	5,236	92	56,383	46.6%
	Total Petrol	2,662	1,888	2,435	2,481	13,354	28,829	5,598	2,472	15,239	0	5,585	2,150	9,054	5,236	24,111	121,097	100%
13	Diesel	-	-	-	-	-	- 1	-	-	-	-	-	-	-	-	-	0	0.0%
14	Diesel (<50 ppm sulphur)	1,132	387	-	-	38,461	-	4,131	2,558	31,573	0	-	5,491	30,773	-	10,285	124,790	58.9%
15	Diesel (<10 ppm sulphur)	6,338	7,361	3,191	2,607	1,061	35,524	36	645	1,982	-	7,979	317	0	4,679	15,216	86,936	41.1%
	Total Diesel	7,469	7,748	3,191	2,607	39,521	35,524	4,167	3,203	33,555	0	7,979	5,808	30,773	4,679	25,501	211,726	100%
ID	Million litres	Cyprus	Czech Republic	Estonia	Hungary	Latvia	Lithuania	Malta	Poland	Slovakia	Slovenia	Bulgaria	Romania	EU12	EU12		EU	EU
ID	Fuel grade	Cyprus CY	Czech Republic CZ	Estonia EE	Hungary HU	Latvia LV	Lithuania LT	Malta MT	Poland PL	Slovakia SK	Slovenia SI	Bulgaria BG	Romania RO	EU12 EU12	%		EU EU	%
ID	Fuel grade Unleaded petrol min. RON=91	-71	CZ -				LT -							EU12 0	0.0%		EU 0	% 0.0%
1 1 2	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S)	-71								SK - 19				EU12 0 272	% 0.0% 1.6%		EU 0 272	% 0.0% 0.2%
1 2 3	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S)	-71	CZ -			LV -	LT -			SK -	SI -	BG -		EU12 0	% 0.0% 1.6% 0.1%		EU 0	% 0.0% 0.2% 6.3%
1 2	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=95	CY	CZ - 161 0			LV - 12	LT - 80	MT	PL	SK - 19 23 -	SI -	BG	RO	EU12 0 272 23 0	% 0.0% 1.6% 0.1% 0.0%		EU 0 272 8,720 0	% 0.0% 0.2% 6.3% 0.0%
1 2 3	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=95 Unleaded petrol min. RON=95 (<50 ppm S)	-71	CZ - 161	EE	HU	LV -	LT - 80 695		PL 93	SK - 19 23 - 105	SI	BG	RO 2,070	EU12 0 272 23 0 7,473	% 0.0% 1.6% 0.1% 0.0% 43.7%		EU 0 272 8,720 0 68,737	% 0.0% 0.2% 6.3% 0.0% 49.7%
1 2 3 4	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=95 Unleaded petrol min. RON=95 Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<10 ppm S)	CY	CZ - 161 0			LV - 12	LT - 80	MT	PL	SK - 19 23 -	SI	BG	RO	EU12 0 272 23 0	% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0%		EU 0 272 8,720 0	% 0.0% 0.2% 6.3% 0.0% 49.7% 35.2%
1 2 3 4 5	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol 95= <ron<98< td=""><td>CY</td><td>CZ - 161 0 - 2,732</td><td>EE</td><td>HU</td><td>LV - 12</td><td>LT - 80 695</td><td>MT 77</td><td>PL 93</td><td>SK - 19 23 - 105</td><td>SI</td><td>BG</td><td>RO 2,070</td><td>EU12 0 272 23 0 7,473 8,217</td><td>% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0% 0.0%</td><td></td><td>EU 0 272 8,720 0 68,737 48,715 0</td><td>% 0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0%</td></ron<98<>	CY	CZ - 161 0 - 2,732	EE	HU	LV - 12	LT - 80 695	MT 77	PL 93	SK - 19 23 - 105	SI	BG	RO 2,070	EU12 0 272 23 0 7,473 8,217	% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0% 0.0%		EU 0 272 8,720 0 68,737 48,715 0	% 0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0%
1 2 3 4 5	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol 95= <ron<98 (<50="" 95="<RON<98" petrol="" ppm="" s)<="" td="" unleaded=""><td>CY</td><td>CZ - 161 0 - 2,732</td><td>EE</td><td>HU</td><td>LV - 12</td><td>LT - 80 695 7</td><td>MT</td><td>PL 93</td><td>SK - 19 23 - 105 646</td><td>SI</td><td>BG 822</td><td>RO 2,070 227</td><td>EU12 0 272 23 0 7,473 8,217</td><td>% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0% 0.0% 4.4%</td><td></td><td>EU 0 272 8,720 0 68,737 48,715 0 4,186</td><td>% 0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0% 3.0%</td></ron<98>	CY	CZ - 161 0 - 2,732	EE	HU	LV - 12	LT - 80 695 7	MT	PL 93	SK - 19 23 - 105 646	SI	BG 822	RO 2,070 227	EU12 0 272 23 0 7,473 8,217	% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0% 0.0% 4.4%		EU 0 272 8,720 0 68,737 48,715 0 4,186	% 0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0% 3.0%
1 2 3 4 5 6 7 8	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol p5= <ron<98 (<10="" (<50="" 95="<RON<98" petrol="" ppm="" s)="" s)<="" td="" unleaded=""><td>CY</td><td>CZ - 161 0 - 2,732</td><td>EE</td><td>HU</td><td>LV - 12</td><td>LT - 80 695 7</td><td>MT 77</td><td>PL 93</td><td>SK - 19 23 - 105 646</td><td>SI</td><td>BG 822</td><td>RO 2,070 227</td><td>EU12 0 272 23 0 7,473 8,217 0 759 0</td><td>9% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0% 0.0% 4.4% 0.0%</td><td></td><td>EU 0 272 8,720 0 68,737 48,715 0 4,186 92</td><td>96 0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0% 3.0% 0.1%</td></ron<98>	CY	CZ - 161 0 - 2,732	EE	HU	LV - 12	LT - 80 695 7	MT 77	PL 93	SK - 19 23 - 105 646	SI	BG 822	RO 2,070 227	EU12 0 272 23 0 7,473 8,217 0 759 0	9% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0% 0.0% 4.4% 0.0%		EU 0 272 8,720 0 68,737 48,715 0 4,186 92	96 0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0% 3.0% 0.1%
1 2 3 4 5 6 7 8	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=95 Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol 95= <ron<98 (<10="" (<50="" 95="<RON<98" petrol="" ppm="" s)="" s)<="" td="" unleaded=""><td>CY 427</td><td>CZ - 161 0 - 2,732</td><td>EE</td><td>HU</td><td>LV - 12</td><td>LT - 80 695 - 7</td><td>MT 77</td><td>PL 93 4,964</td><td>SK - 19 23 - 105 646</td><td>SI</td><td>BG 822</td><td>RO 2,070 227</td><td>EU12 0 272 23 0 7,473 8,217 0 759 0 0</td><td>% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0% 0.0% 4.4% 0.0%</td><td></td><td>EU 0 272 8,720 0 68,737 48,715 0 4,186 92 0</td><td>% 0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0% 3.0% 0.1% 0.0%</td></ron<98>	CY 427	CZ - 161 0 - 2,732	EE	HU	LV - 12	LT - 80 695 - 7	MT 77	PL 93 4,964	SK - 19 23 - 105 646	SI	BG 822	RO 2,070 227	EU12 0 272 23 0 7,473 8,217 0 759 0 0	% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0% 0.0% 4.4% 0.0%		EU 0 272 8,720 0 68,737 48,715 0 4,186 92 0	% 0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0% 3.0% 0.1% 0.0%
1 2 3 4 5 6 7 8	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=95 Unleaded petrol min. RON=95 Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol 95= <ron<98 (<10="" (<50="" 80n="" 95="<RON<98" petrol="" ppm="" s)="" unleaded="">=98 Unleaded petrol 80N>=98</ron<98>	CY	CZ - 161 0 - 2,732 0	EE 404	HU	LV - 12	LT - 80 695 7	MT 77	PL 93	SK - 19 23 - 105 646	SI	BG 822	RO 2,070 227	EU12 0 272 23 0 7,473 8,217 0 759 0 0 162	% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0% 0.0% 4.4% 0.0% 0.0% 0.0%		EU 0 272 8,720 0 68,737 48,715 0 4,186 92 0 185	0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0% 0.1% 0.1%
1 2 3 4 5 6 7 8	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol 95= <ron<98 (<10="" (<50="" 80n="" 95="<RON<98" petrol="" ppm="" s)="" unleaded="">=98 Unleaded petrol RON>=98 (<10 ppm S)</ron<98>	CY 427	CZ - 161 0 - 2,732	EE	HU	LV - 12 453	LT - 80 695 7 18	MT 77	PL 93 4,964	SK - 19 23 - 105 646	SI	BG 822	RO 2,070 227	EU12 0 272 23 0 7,473 8,217 0 759 0 0	% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0% 0.0% 4.4% 0.0% 0.0% 0.0% 0.0%		EU 0 272 8,720 0 68,737 48,715 0 4,186 92 0	% 0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0% 3.0% 0.1% 0.1% 5.3%
1 2 3 4 5 6 7 8 9 10	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol 95= <ron<98 (<10="" (<50="" 95="<RON<98" petrol="" ppm="" ron="" s)="" unleaded="">=98 Unleaded petrol RON>=98 (<50 ppm S) Unleaded petrol RON>=98 (<50 ppm S)</ron<98>	CY 48 - 0	CZ - 161 0 40 0	EE	HU	LV - 12 - 453 3 - 0	LT - 80 695 7 18 0	MT	PL 93 4,964 30 0 0	SK - 19 23 105 646 1 16 0	SI	BG	RO 2,070 227 0	EU12 0 272 23 0 7,473 8,217 0 0 0 162 203 0	% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0% 0.0% 4.4% 0.0% 0.0% 0.0% 0.09%		EU 0 272 8,720 0 68,737 48,715 0 4,186 92 0 185 7,299 0	% 0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0% 3.0% 0.1% 0.0% 0.1% 0.0% 0.1%
1 2 3 4 5 6 7 8 9 10	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol 95= <ron<98 (<10="" 95="<RON<98" petrol="" ppm="" ron="" s)="" unleaded="">=98 Unleaded petrol RON>=98 Unleaded petrol RON>=98 (<10 ppm S) Petrol (regular) Petrol (<50 ppm sulphur)</ron<98>	CY 48 0 475	CZ - 161 0 - 2,732 0 40 0 2,893	EE	HU	LV - 12 - 453 3 - 0 468	LT - 80 695 7 18 0 775	MT	PL 93 4,964 30 0 0 123	SK - 19 23 - 105 646 1 16 0 126	SI	BG	RO 2,070 227 0 2,070	EU12 0 272 23 0 7,473 8,217 0 759 0 0 162 203 0 8,666	% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0% 0.0% 4.4% 0.0% 0.0% 0.9% 1.2% 0.0% 50.7%		EU 0 272 8,720 0 68,737 48,715 0 4,186 92 0 185 7,299 0 73,380	% 0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0% 3.0% 0.1% 0.0% 0.1% 0.0% 0.1% 0.0% 0.1%
1 2 3 4 5 6 7 8 9 10	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol 95= <ron<98 (<10="" (<50="" 95="<RON<98" petrol="" ppm="" ron="" s)="" unleaded="">=98 Unleaded petrol RON>=98 (<50 ppm S) Unleaded petrol RON>=98 (<50 ppm S)</ron<98>	CY	CZ - 161 0 - 2,732 0 40 0 2,893 40	EE	HU	LV - 12 - 453 3 - 0	LT - 80 695 7 18 0 775 25	MT	PL 93 4,964 30 0 0	SK - 19 23 - 105 646 1 16 0 126 685	SI	BG	RO 2,070 227 0	EU12 0 272 23 0 7,473 8,217 0 759 0 0 162 203 0 8,666 8,443	% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0% 0.0% 4.4% 0.0% 0.0% 0.9% 0.9% 1.2% 0.0% 4.4%		EU 0 272 8,720 0 68,737 48,715 0 4,186 92 0 185 7,299 0	% 0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0% 3.0% 0.1% 0.0% 0.1% 0.0% 0.1% 0.0%
1 2 3 4 5 6 7 8 9 10	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol 95= <ron<98 (<10="" 95="<RON<98" petrol="" ppm="" ron="" s)="" unleaded="">=98 Unleaded petrol RON>=98 Unleaded petrol RON>=98 (<10 ppm S) Unleaded petrol RON>=98 (<10 ppm S) Petrol (c50 ppm sulphur) Petrol (<10 ppm sulphur) Total Petrol</ron<98>	CY 48 0 475	CZ - 161 0 - 2,732 0 40 0 2,893	EE	HU	LV - 12 - 453 3 - 0 468	LT - 80 695 7 18 0 775	MT	PL 93 4,964 30 0 0 123	SK - 19 23 - 105 646 1 16 0 126	SI	BG	RO 2,070 227 0 2,070	EU12 0 272 23 0 7,473 8,217 0 759 0 0 162 203 0 8,666	% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0% 0.0% 4.4% 0.0% 0.0% 0.9% 1.2% 0.0% 50.7%		EU 0 272 8,720 0 68,737 48,715 0 4,186 92 0 185 7,299 0 73,380	% 0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0% 3.0% 0.1% 0.0% 0.1% 5.3% 0.0% 53.1% 46.9%
1 2 3 4 5 6 7 8 9 10	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol 95= <ron<98 (<10="" 95="<RON<98" petrol="" ppm="" ron="" s)="" unleaded="">=98 Unleaded petrol RON>=98 Unleaded petrol RON>=98 (<10 ppm S) Unleaded petrol RON>=98 (<10 ppm S) Petrol (regular) Petrol (<50 ppm sulphur) Total Petrol Diesel</ron<98>	CY 427 48 - 0 475 - 0 475	CZ - 161 0 - 2,732 0 40 0 2,893 40 2,933 -	EE	HU	LV - 12 - 453 3 - 0 468	LT - 80 695 7 18 0 775 25	MT	PL 93 4,964 30 0 0 123 4,964 5,087	SK - 19 23 - 105 646 1 16 0 126 685 811	SI	BG	RO 2,070 227 0 2,070 227	EU12 0 272 23 0 7,473 8,217 0 759 0 0 162 203 0 8,666 8,443 17,109	% 0.0% 1.6% 0.1% 0.19% 43.7% 48.0% 0.0% 4.4% 0.0% 0.0% 0.9% 1.2% 0.0% 50.7% 49.3%		EU 0 272 8,720 0 68,737 48,715 0 4,186 92 0 185 7,299 0 73,380 64,826 138,21	% 0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0% 3.0% 0.1% 0.0% 0.1% 5.3% 0.0% 53.1% 46.9% 100% 0.0%
1 2 3 4 5 6 7 8 9 10	Fuel grade Unleaded petrol min. RON=91 Unleaded petrol min. RON=91 (<50 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=91 (<10 ppm S) Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<50 ppm S) Unleaded petrol min. RON=95 (<10 ppm S) Unleaded petrol 95= <ron<98 (<10="" 95="<RON<98" petrol="" ppm="" ron="" s)="" unleaded="">=98 Unleaded petrol RON>=98 Unleaded petrol RON>=98 (<10 ppm S) Unleaded petrol RON>=98 (<10 ppm S) Petrol (c50 ppm sulphur) Petrol (<10 ppm sulphur) Total Petrol</ron<98>	CY	CZ - 161 0 - 2,732 0 40 0 2,893 40	EE	HU	LV - 12 - 453 3 - 0 468 0	LT - 80 695 7 18 0 775 25	MT	PL 93 4,964 30 0 0 123 4,964	SK - 19 23 105 646 1 16 0 126 685 811	SI	BG	RO 2,070 227 0 2,070 227	EU12 0 272 23 0 7,473 8,217 0 759 0 0 162 203 0 8,666 8,443 17,109	% 0.0% 1.6% 0.1% 0.0% 43.7% 48.0% 0.0% 4.4% 0.0% 0.0% 0.9% 1.2% 0.0% 50.7% 49.3%		EU 0 272 8,720 0 68,737 48,715 0 4,186 92 0 185 7,299 0 73,380 64,826	% 0.0% 0.2% 6.3% 0.0% 49.7% 35.2% 0.0% 3.0% 0.1% 0.0% 0.1% 5.3% 0.0% 53.1% 46.9%

France

Germany

Greece Ireland Italy

Luxembourg Netherlands Portugal

Spain Sweden UK

EU15 EU15

242,35 100%

110

11,316 954

1,366

2,228

4,404

30,625 100.0%