



Quality data for petrol and diesel fuel in Iceland 2021

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1. Introduction

1.1. Background Information

This report contains information on quality of fuel marketed in Iceland in the year 2021 as required by Article 8(3) of Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels.

2. General information

2.1. Short description of fuel grades and distribution of fuels in Iceland

In Iceland, the main fuel grades are 95 octane (Mogas 95/EN228) and auto diesel. Over 95% of all gasoline sold is Mogas 95/EN228.

There are four main oil companies in Iceland, i.e. Atlantsolía ehf, Seljungur hf, Olíuverzlun Íslands hf and N1 hf. In 2021 the total amount of fuel delivered to road transport was 326.771 tons and the distribution of fuel was covered from multiple depots that are spread around the country.

2.1.1. Description of fuel monitoring system

In Iceland, each fuel batch delivery is controlled by Fjölver laboratory and fuel inspection. The testing results of the fuel products are directly compared with the agreed product requirements and are accepted if the result is within given specifications. The data of delivered fuel batches are reported to the competent authority, The Environment Agency of Iceland.

2.1.2. Total sales of petrol and diesel

The total sales of petrol and diesel in 2020 in Iceland are summarized in table 2.1.

Table 2.1 Total sales of petrol and diesel in 2020

Fuel grade	Total national sales (ltr at 15°C)	Total national sales (tones)
Unleaded petrol (95≤RON≤98)	151.324.111	99.042
Diesel fuel (Road transport only)	271.571.560	227.729

2.1.3. Definition of summer period for petrol volatility

Due to low ambient summer temperatures in Iceland, the summer period is from 1 June to 31 August and the maximum vapor pressure is 70 kPa.

3. Quality data for petrol and diesel fuel

3.1. Quality data for petrol

The summary report for the quality monitoring data for petrol collected in the year 2020 is shown in table 3.1 and table 3.2.

Table 3.1. Number of petrol samples taken per month.

Month	Number of samples taken
January	2
February	3
March	2
April	2
May	2
June	4
July	3
August	4
September	2
October	3
November	3
December	4
Total	34

Table 3.2 Quality monitoring data for petrol.

Parameter	Unit	Analytical and statistical results				Limiting value	
		No. Of samples	Minimum	Maximum	Mean	Minimum	Maximum
							According to 2009/30/EC
Density	kg/l	34	0,7202	0,747	0,7322		
Research octane No	-	34	95,0	96,5	95,6	95,0	
Motor octane No	-	34	85,0	85,5	85,1	85,0	
Vapour pressure, DVPE	kPa	34	69,5	100,0	88,2		70,0*
Distillation							
-evaporated at 100°C	%(v/v)	34	51,1	66,4	59,3	46,0	
-evaporated at 150°C	%(v/v)	34	86,3	94,2	88,3	75,0	
Hydrocarbon analysis:							
-alken (olefin)	%(v/v)	34	5,6	18,0	15,1		18,0
-aromatics	%(v/v)	34	17,8	30,1	23,8		35,0
-benzene	%(v/v)	34	0,57	1,0	0,8		1,0
Oxygen content	%(m/m)	34	1,6	2,0	1,8		3,7
Oxygenates:							
-Methanol	%(v/v)						3
-Ethanol	%(v/v)	34	4,3	5,0	4,7		10
-Iso-propyl alcohol	%(v/v)	-	-	-	-		12
-Tert-butyl alcohol	%(v/v)	-	-	-	-		15
-Iso-butyl alcohol	%(v/v)	-	-	-	-		15
-Ethers with five or more carbon atoms per molecule	%(v/v)	-	-	-	-		22
-other oxygenates	%(v/v)	-	-	-	-		15
Sulphur content	mg/kg	34	4,7	9,6	8,1		10
Lead content	g/l	34	<0,003	<0,003	<0,003		0,01

*Iceland is an outermost region with maximum vapour pressure of 70 kPa during the summer time.

3.2. Quality data for diesel fuel

The summary report for the quality monitoring data for diesel fuel in the year 2020 is shown in table 3.3 and 3,4 for diesel and in table 3,5 and 3,6 for diesel B7.

Table 3.3. Number of diesel fuel samples taken each month.

Month	Number of samples taken
January	2
February	3
March	2
April	2
May	3
June	4
July	3
August	4
September	2
October	3
November	2
December	4
Total	34

Table 3.4. Quality monitoring data for diesel fuel.

Parameter	Unit	Analytical and statistical results				Limiting value	
		No. Of samples	Minimum	Maximum	Mean	Minimum	Maximum
						According to 2009/30/EC	
Cetane No	-	34	51	53	51,79	51	
Density at 15°C	kg/l	34	0,832	0,841	0,837		0,845
Distillation -95% point	°C	0					360
Polycyclic aromatic hydrocarbons	%(m/m)	34	2,0	3,0	2,353		8,0
Sulphur content	mg/kg	34	3,0	10,0	8,618		10,0

Table 3.5. Number of diesel B7 fuel samples taken each month.

Month	Number of samples taken
January	2
February	3
March	2
April	2
May	3
June	4
July	4
August	4
September	2
October	3
November	3
December	3
Total	35

Table 3.6. Quality monitoring data for diesel B7 fuel.

Parameter	Unit	Analytical and statistical results				Limiting value	
		No. Of samples	Minimum	Maximum	Mean	Minimum	Maximum
						According to 2009/30/EC	
Cetane No	-	35	51	53	51,829	51	
Density at 15°C	kg/l	35	0,835	0,844	0,839		0,845
Distillation -95% point	°C	0					360
Polycyclic aromatic hydrocarbons	%(m/m)	35	2,0	3,0	2,257		8,0
Sulphur content	mg/kg	35	4,0	10,0	8,4		10,0
FAME Content	mg/kg	35	6,5	7,0	6,846		7,0