

## ROMPETROL RAFINARE SA COMPANY OF THE KMG INTERNATIONAL GROUP

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**Revision 8** 

## **AUTOMOTIVE LPG FUEL**<sup>4, 5, 7</sup>

USE: FUEL FOR USE IN LPG VEHICLES DESIGNED TO RUN ON AUTOMOTIVE LPG FUEL

- GRADE A (WINTER) PROPANE RICH
- GRADE C, D (SUMMER) BUTANE RICH

PROPERTY	MU	LIMITS		TEST METHOD
		Min.	Max.	_
Motor octane number, MON		89,0	-	SR EN 589:19 (Anexa B)
Total dienes content	% m/m	-	0.5	SR EN 27941:00 <sup>3</sup>
1,3 Butadiene	% m/m	-	0,10	SR EN 27941:00 <sup>3</sup> / SR 13594:19
Propane content	% m/m			SR EN 27941:00 <sup>3</sup>
- until 2022-04-30		20	-	
- from 2022-05-01		30	-	
Hydrogen sulphide		negative		SR EN ISO 8819:02 / ASTM D 2420-13(18)
Total sulfur content (after odorization) <sup>1</sup>	mg/kg	-	50	ASTM D 6667:14 <sup>3</sup>
Cooper strip corrosion (1 h at 40°C)	rating	class 1		ASTM D 1838-16 <sup>3</sup> / SR EN ISO 6251:02 <sup>3</sup>
Evaporation residue	mg/kg	-	60	SR EN 15471:17 <sup>3</sup>
Vapour pressure <sup>6</sup> , gauge at 40°C	kPa	-	1550	ASTM D 1267-12 <sup>3</sup> / SR EN ISO 4256:02 <sup>3</sup>
				SR EN ISO 8973:02 <sup>3</sup> (pct.6.3)
				SR EN 589:19 (Anexa C)
Vapour pressure gauge, min 150 kPa	°C			
at a temperature of $^2$ :				SR EN ISO 8973:02 <sup>3</sup> (pct.6.3)
-for grade A		-	-10	SR EN 589:19 (Anexa C)
-for grade C		-	0	SK EN 309.19 (Allexa C)
for grade D		-	+10	
Water content		pass		EN ISO 13758:96 / ASTM D 2713:15 <sup>3</sup>
				SR EN ISO 13758:03 / SR EN 15469:08
Odour	Unpleasant and distinctive at 20% LII			SR EN 589:19 (pct.6.3 and Anexa A)

NOTES: 1) In order to provide a specific odour, permitting the detection of the possible leaks, a sufficient amount of ethylmercaptan is added to the product. 2) Winter: from October, 1 to April, 30; for Summer: from May, 1 to September, 30 - no minimum vapour pressure limit is specified. 3) Accredited test by RENAR 4) The manufacturer warrants that product is unadditivated with methanol or other anti freezing agents. 5) Certified product by RAR. 6) It must be observed that minimum limits of vapour pressure at 40°C to be according to: for type A - 950kPa; for type C - 700 kPa; for type D - 500 kPa. 7) Name at the distribution pump: AUTOMOTIVE LPG FUEL

## Quality control: control is done on lot.

Each batch will have max. one wagon for delivery in railway tank wagons / auto tank wagons or max. 5,000 LPG bottles for delivery in LPG bottles. The lot will have product of same type.

During testing, the product must comply with all parameters depicted in standard specification for corresponding product / type. If not, the batch is rejected. In case of litigation, quality control will be made on samples taken in accordance with sampling procedure and hold for this case.

Sampling procedure: according to ASTM D 1265-11(17)e1 / SR EN ISO 4257:2002/AC:2007

Information on product classification, packing, labelling, handling, transport and storage: according to SDS - 1.4.2 T.

The integrated Quality-Environment-Occupational Health and Safety Management System is certified by DNV-GL according to the following standards:

- ➤ ISO 9001
- ➤ ISO 14001
- ➤ BS OHSAS 18001

The test lab is accredited by RENAR, in compliance with SR EN ISO/CEI 17025.

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