AUTOMOTIVE LPG

TEST	METHOD	SPECIFICATION
Vapour Pressure @ 40°C, kPa, gauge[1]	ISO 4256	Min. 520 (75.4 psi)
		Max. 1050 (152.3 psi)
C5 Hydrocarbons and heavier, %w	ASTM D 2163	Max. 2.0
Dienes (as 1:3 Butadiene), %w	ISO 7941	Max. 0.5
Total volatile sulphur, ppm	ASTM D 3246	Max. 150
Copper Strip Corrosion at 40°C for 1 hour	ISO 6251	Max. Class 1
Hydrogen sulphide	ISO 8819	Pass the test
Evaporation residue, mg/kg	ISO 13757	Max. 100
Free water content	ASTM E 700	Nil
Motor Octane Number (MON)	ISO 7941 + Annex A of IS14861:2000	Min. 88
Odour[2 & 3]		Unpleasant and distinctive down to 20% lower explosive limit (LEL)

Note:

1. In winter vapour pressure shall be min. 700 Kpa (101.5 psi), at 40°C. Winter period is 1st Nov. to 15th Feb.
2. Product shall contain minimum 10 ppm Mercaptans as Sulphur at the first despatching location to ensure the detection of odour.
3. To detect the odour, the following procedures shall be adopted:
5 ml Doctor Solution + 8 ml Iso-Octane + Pinch of Flower Sulphur in 25 ml stoppered cylinder. Shake and add 2 ml LPG (Aq). Shake slowly by releasing pressure. Odour is adequate if sulphur turns yellowish-brown. IS 1448 [P:75]. Odour test method is also adequate as an alternate method.