

One can measure cetane numbers using a cetane engine. They are difficult to use and very demanding. To my knowledge there are two in Australia, one at Caltex lubrication Labs, Sydney. The other location is unknown. The Caltex machine is useable but hardly ever used.

Cetane index is measured either using the ASTM 1976 standard or the four variable equation.. Low sulphur diesel does not give good correlation with the 4 variable equation, and there is a good case that the 4 variable equation only measures aromatics in diesel.

This is satisfactory in the States where some aromatics with short side chains are present, but tends to break down as the side chain length builds up. There appears to be particular problems with cetane ranges of 40-42.. The 4 variable is used widely in Australia.

There has been a realisation in Europe that light diesels have little in common with the diesel check engine and IQT is becoming more accepted.

If one wants to test biodiesel and diesel with additives etc, then the engine or the IQT appears to be the only way to go.

The cost of preapring diesel with water or diesel with alcohol is high and no-one is likely to take that route unless they wish to reduce NOx

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