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### Potential and Properties of Palm Diesel as Alternative Fuel for Automotive Engines

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#### Abstract

*This paper presents the potential, properties and test results of palm diesel as an alternative fuel for automotive engines. The palm diesel was tested with different blending ratio with diesel fuel as well as with antioxidant additive. Total three fuels were tested such as 100% diesel fuel, 20% palm diesel with 80% diesel fuel (B20); and B20 with 1% antioxidant additive. The pure diesel fuel was used for comparison purposes. A multi cylinder diesel engine was used in this investigation. The data presented are palm diesel production and potential status, physicochemical properties such as fuel standardization, engine brake power, fuel consumption and emissions results. It can be said that the palm diesel production, properties and test results have reached to a point as it is ready to be implemented in diesel engine. According to a stationary dynamometer-engine test, it is found that the 20% palm diesel with antioxidant additive shows better results such as less HC, CO and NO<sub>x</sub> emissions as compared to pure diesel fuel. The details test results including palm diesel price consideration have been presented with discussions.*

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