

Comparative Study of Various Methods Used for Recycling of Used Engine Oil

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ABSTRACT

Used engine oil is a high pollutant material and its impact on the environment is hazardous. It causes humungous damage to the environment as well as to the biodiversity which includes all the living organisms. Mismanagement of used engine oil poses a serious environmental problem. The effect of the pollutants on the human health is extremely toxic as the used oil contains some of the deadly carcinogenic pollutants. This paper presents an overview on the possible damage that can occur to the environment by improper disposal of the waste engine oil that has been used for a certain period of the time and has accumulated harmful pollutants along the way during the process. Oil once used does not wear, rather it just gets dirty. So, the used oil should not be thrown away. It can be cleaned of its contaminants and recycled and reused for various purposes. The process will prove to be very beneficial to the environment and billions of living organisms and overall, economically efficient as well. In this research study a sample of used engine oil is recycled by various methods and results are analyzed by comparing the parameters of recycled oils with that of the virgin oil and used engine oil and thus the best outcome is discussed among the methods used.

Keywords: Engine oil; FTIR; Recycling; environment; pollution; clay; charcoal

