

Effect of Operating Variables on Regeneration of Base-Oil from Waste Oil by Conventional Acid-Clay Method

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Abstract

Lubricating oil requirement is increasing day by day with the establishment of new industries, increase in number of vehicular transports and mechanization of agriculture. Generated waste oil can be considered as a source of pollution or as a resource depending on the methods of utilization and management. This study compares different end-uses of waste oil and develops a pathway through which basic properties of the base-oil can be retrieved. In this study a pilot scale setup of conventional acid-clay technique was established to recover waste oil collected from different sources and a set of experimental runs were conducted by varying the different process variables. Effects of the operating variables on the product quality are also discussed in this article. The recovery of regenerated base-oil was found to be in between 62 to 66 percent from this experimental study.

Keywords: Waste Oil; Regeneration; Base-oil.

DOI = 10.3329/ceerb.v12i0.1494

Chemical Engineering Research Bulletin 12 (2008) 24-27

References

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Chemical Engineering Research Bulletin ISSN Print:0379-7678 Online: 2072-9510

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