

## **Biolubricants From Palm Oil**

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Lubricant is used in many areas, mainly to reduce friction and dissipate heat. It is also used to transmit power. The world's demand for lubricant is about 37.5 million metric tonnes per annum. Lubricants are mainly formulated using mineral oil. Basically mineral oil is cheap and durable and at the same time able to provide good performance. Lubricants made from mineral oils are usually less biodegradable and tends to remain in the environment for a long time. This causes problems when it comes to loss lubrication, accidental spillage and disposal. Currently there is a renewed interest in using vegetable oils as lubricants, basically due to its inherent good biodegradability. The use of biolubricant is still very small, 3.6% in the Western European market and 1.5% in the US market. Biolubricant is mainly derived from rapeseed oil. Palm oil is less favourable because it tends to solidify at low temperatures. However palm oil does possess good properties for lubricants, such as good oxidative stability, good adherence to metal and lower price. This paper will discuss the advantages and limitations of palm-based lubricant and how modification could be carried out to improve the properties. This paper will also deal with some of the applications of palm oil in the lubricant sector such as grease, hydraulic fluid and others.