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Antiwear study on petroleum base oils with esters

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Petroleum based mineral oils have been popularly used for manufacturing lubricants for industrial applications. However, due to concern of environmental pollution, the trend is to attempt to migrate to environment friendly and biodegradable lubricants, by using vegetable oils and synthetic esters, as these too can function as lubricants. This study covers our findings that substantial reduction in friction and wear can be achieved by mixing various proportions of mineral base oils and esters, without adding any conventional antiwear additives. Also, this study reveals the optimum dosage of esters used for reduction of wear and friction. This study is a useful tool for development of lubricants for industrial applications.

Biography

A Rajendiran is presently working as a Chief Manager (R&D) Bharat Petroleum Corporation Ltd in Mumbai, India.

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