

## **Lubricating grease from spent bleaching earth and waste cooking oil: Tribology properties**

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### **ABSTRACT**

The recovery of waste from many industrial production plants and its applicability in product development may be an incentive to industry, since the use of such squander could represents a cheaper source of raw material for many of the important processes utilized in further manufacturing. This paper presents the incorporated of wastes in industries particularly palm oil industries for new multi-purpose grease. Spent bleaching earth (SBE) from local palm oil refinery is used as thickener for this newly formulated grease while waste cooking oil is used as base oil. The properties of the produced grease are studied deeply in this article. Since SBE is found to be an effective thickener to newly multi-purpose formulated grease while fumed silica act as rheology modifier. So this novel idea can bring the most effective solution to convert the industrial wastage to the usable form.

### **KEYWORDS:**

Grease; spent bleaching earth; lubricants; vegetable oil

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