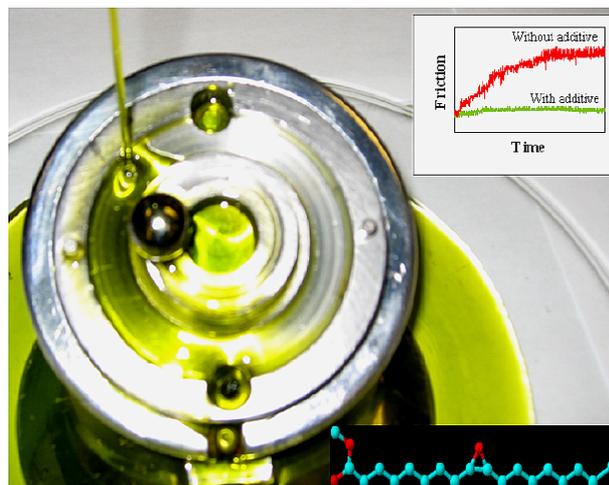


## Lubrication Fluids from Branched Fatty Acid Methyl Esters

### What is this technology?

A method to synthesize natural lubrication fluids.



### A. What is this technology?

We have developed a new lubrication fluid based on vegetable oil. Our technology utilizes methyl esters with a branched chemical structure that gives them properties that are necessary for effective lubricants.

### B. What problem does it address?

- Most lubricants currently on the market are petroleum-based. Due to increasing costs, alternative technologies are needed.
- Soybean oil is naturally a good lubricant. However, in its native state, it tends to oxidize, forming sludge-like materials which are not good for performance.
- The new material delivers much greater stability, yet retains the lubrication ability of the native oil.

### C. What is the significance of this solution?

The global lubrication market is projected to reach \$47.2 billion by 2010. Replacement of even a small fraction of this market would be of value to manufacturers as well as to United States agriculture.

### D. Who could use this technology?

This technology could be used by a lubricant manufacturer looking to expand its product lines, especially into environmentally friendly markets.

### E. How is this technology unique?

Our technology uses an easily performed synthesis, which can be much simpler than other methods used to modify vegetable oils.

### Moving Forward

An industrial partner is needed for scale-up and field testing of these fluids.

### Contact Information

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