

## Lipozyme- catalysed Ethanolysis of Wheat Germ Oil in Supercritical Carbon Dioxide

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Wheat germ is a by-product of the wheat milling industry. Germ constitutes about 2-3% of the wheat grain and can be separated in a pure form from the grain during the milling process. Wheat germ contains about 11% oil.

The by-products recovered from food processing can be turned into valuable products or at least converted into useful sources. It is possible to convert lipid to monoglyceride and diglyceride by enzymatic ethanolysis. Ester obtained from alcohols and fatty acids have many important applications. For example, those have been widely employed in food, cosmetics and pharmaceutical industries.

Enzymatic ethanolysis of wheat germ oil with Lipozyme TL-IM and Lipozyme RM-IM was investigated for producing diglyceride and monoglyceride and fatty acid ethyl ester and enhancing the function of wheat germ oil. The enzymatic ethanolysis is carried out in an Erlenmeyer flask containing a mixture of wheat germ oil and 99.90% ethanol using 6wt% immobilized lipase as Lipozyme TL-IM and Lipozyme RM-IM and the reaction mixture were incubated at 70°C with 120rpm shaking.