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Lotion from palm oil / Mazlin Haryati Mohd Shaffei.



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(KUSTEM)

Pengarang MAZLIN HARYATI MOHD SHAFFEI		No. Panggilan LP 25 FST 4	
Judul Lotion from palm oil			
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HAK MILIK  
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2002

# LOTION FROM PALM OIL

BY

MAZLIN HARYATI BINTI MOHD SHAFFEI

Thesis submitted in partial fulfillment of the requirement for the Degree  
Bachelor Of Science (Hons) Chemistry

PUSAT PEMBELAJARAN DIGITAL SULTANAH NUR ZAHIRAH

FACULTY OF SCIENCE AND TECHNOLOGY  
UNIVERSITY COLLEGE OF SCIENCE AND TECHNOLOGY MALAYSIA  
UNIVERSITY PUTRA MALAYSIA

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Approved By,

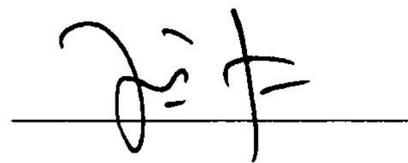
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## ABSTRAK

Kajian yang dibuat dalam projek ini ialah penghasilan losen daripada minyak kelapa sawit. Minyak kelapa sawit yang digunakan dalam kajian ini ialah minyak masak. Barangan kosmetik berdasarkan minyak kelapa sawit lebih baik daripada minyak mineral. Bahan untuk fasa minyak adalah alkohol setil, Tween 80 dan minyak kelapa sawit. Untuk fasa air pula ialah air dan gliserol. Dalam kajian ini, lima gambarajah fasa dibina dan ditentukan kawasan emulsi. Hanya gambarajah fasa CA/Tween 80/Gly yang mengandungi tiga fasa. Untuk menyediakan emulsi, 12 titik telah ditentukan iaitu titik 60%, 70% dan 80% air pada nisbah 70:30 serta 50:50 Tween 80 nisbah gliserol. Selepas proses pengemulsaan, emulsi disimpan pada suhu 30<sup>0</sup>C. Kestabilan emulsi ditentukan dengan mengukur peratusan isipadu bagi fasa pemisahan minyak dan air dalam selinder penyukat. Mikroskop optical digunakan untuk menentukan sifat emulsi.

## ABSTRACT

The study of the project is the production of lotion from palm oil. The type of palm oil was used from cooking oil. The cosmetic product based from palm oil has better than mineral oil based product. The ingredients for oil phase were cetyl alcohol, Tween 80 and palm oil. Water phase were are used water and glycerol. In this study, five phase diagrams were constructed to determine the emulsions regions only. In the phase diagram, only CA/Tween 80/Gly system have three region. To prepare the sample of emulsion, twelve point were chosen. The points were 60%, 70% , 80% water by weight ratio of Tween 80, and glycerol on 70:30 and 50:50. After the emulsification process, the emulsion were kept at 30<sup>0</sup>C. The emulsions stability were determined by measuring the percentage of volume in the separation phase between oil and water in the measuring cylinder. Optical microscope was used to determine the characteristics of emulsion.