# PENGARUH SUHU PENGKRISTALAN DAN WAKTU PENDINGINAN PADA PROSES PEMISAHAN STEARIN DARI MINYAK JARAK MENGGUNAKAN METODE FRAKSINASI KERING

## EFFECT OF CRYSTALIZATION TEMPERATURE AND COOLING TIME IN SEPARATION PROCESS OF STEARIN FROM CASTOR OIL USING DRY FRACTINATION METHODE

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**ABSTRACT**

Stearin is a fat which is solid in room temperature and commonly used in making candles and soap. Stearin is usually separated using one of these three methodes ; wet method (lipofractination), dry method and fractionating with solvent. Among these methods, the dry method is commonly used to separate stearin from crude palm oil, because this process is simple and no chemical is used and produced. The dry fractionation method was been applied to castor oil, to separate the stearin from its olein. First, the oil was heated at $70^0$C and then cooled down to $45^0$C in stirring, the cooling process hence separated stearin from the oil. After that, The crystallization was carried in temperature that was varied from $10^0$C to $20^0$C in range $5^0$C. The processes were varied from 2 hours, 5 hours and 8 hours. The best result obtained at temperature $10^0$C for 8 hours which yielded 34.8% rendemen with 0.255 % water content, having density of 0.8925g/ml and free fatty acid content of 11.177 %. The Iodine value was 55.518. These data were closed to the stearin data of stearin from crude palm oil.

Key words : Stearin, castor oil, dry fractionation