ABSTRACT

A new study noted the alarming findings. About 100 million birds die each year sharks. (National Geographic, 2013). Various exploitation has been done for human purposes, one of them with shark liver oil trade, which is called squalene. Nowadays, Squalene being one of the expensive material for the manufacture of cosmetics and moisturizers, and are often sold in pill form as a supplement and is able to treat a variety of diseases. In this study, it is expected that squalene (non polar compounds) can be separated and known levels in nyamplung oil through the most effective method. Nyamplung oil is extracted, the ratio of solvent to oil ratio of solvent at 5 and 98% of PE-methanol 75:25. Extraction is done until wash 8th. PE phase was collected and evaporated to obtain fat fraction of non-polar (Non-Polar Lipid fraction, NPLF). Furthermore, applying the method of batch-wise stirred with a ratio NPLF / silica gel = 1:6 (g/g), the ratio Hexana / NPLF = 40 (ml / g), at variable temperature of 0 °C, -6 °C and -15 °C. A mixture of silica gel and the solution was stirred at 1000 rpm for 10 minutes to a few batches and separation of squalene. Squalene fraction was tested by TLC and GC-MS. In this study, the best conditions are -6 °C, 1.71% of the levels obtained nyamplung oil with 100% recovery because squalene can tersisolasi all up into 5 batches. Nyamplung oil has great potential as a producer of squalene shark liver oil substitutes. It only takes nyamplung oil for Rp. 110,253.58 to obtain 100 ml squalene. It's cheaper than the price of shark liver oil Rp. 240,000.

Keywords: Non polar lipids fraction, nyamplung, squalene, stirred batch-wise.