

Title: Recovery of Glycerine from Spent Palm Kernel Soap and Palm Oil Soap Lye.

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Abstract: The recovery of glycerine from spent soap lye has been done using soap lye samples obtained from the cold process of soap production using palm kernel oil (PKO) and palm oil (PO). The overall weight of glycerine recovered per 200g of oil used, was 9.8g (4.9%) and 9.4g (4.7%) from PKO and PO soap lye respectively. Thus an average of 56.3% and an average of 53.9% of the glycerine in spent soap lye were recovered from PKO and PO soap lye respectively. Higher quantity of brine (200g at 8% concentration) was needed to recover 9.8g of glycerine from PKO soap lye than that (50g at 12% concentration) required to recover 9.4g of glycerine from PO soap lye. The weight of glycerine obtained from palm kernel soap lye increased steadily going through some maxima at various brine concentrations before they began to drop. At 8% concentration, the maximum value of glycerine obtained was 9.8g, 7.9g at 10% concentration, 8g at 12 and 15% concentrations respectively. While the weight of glycerine recovered from palm oil soap lye increased minimally at all concentrations. At 8% concentration the maximum value of glycerine recovered was 8.2g, 9g at 10% concentration, 9.4g at 12% concentration and 9.1g at 15% concentration.