

Chapter 4

Conclusion

4.0 Conclusion

The analysis of the anionic surfactant, sodium lauryl sulfate in some household detergents had been carried out by using both the classical titrimetric method as well as the spectrophotometric method. These two methods involved the interaction of sodium lauryl sulfate with a cationic dye.

The spectrophotometric method is based on the use of Azure A to form a complex with sodium lauryl sulfate, which is extracted from the aqueous layer to the chloroform phase. Colorimetric determination of the Azure A in chloroform phase was carried out in order to determine the SLS content in the samples.

The two-phase titration technique is based on the use of methyl yellow as the indicator for the end point of a titration with benzethonium chloride. The change of colour for the chloroform layer was from pink to yellow and was very sharp.

The result obtained from these two techniques indicates that the SLS content in the samples varies according to the types of detergent, with the majority of them are well within the recommended safety level. It was also found that the spectrophotometric method is more reliable because of its better repeatability.