

# DETERGENT TESTING SERVICES

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**D**etergents are commonly used in our daily life. In Malaysia, the detergent market value in 2002 was RM 486.5 million with powder formulation constituting 72.5%, liquid 11.6% and bar 15.6%, corresponding to 78 700 t, 11 952 t and 19 600 t respectively (AC Nielsen, 2003). To maintain the interest and loyalty of consumers who have many choices in the market, detergent companies are introducing more varieties of surfactants and ingredients in their products. Cleaning performance remains an important basic requirement, but subtle quality such as appearances and foaming property are also critical for a successful product. To keep up with the changing market trend, detergent producers are constantly updating their product lines to cater for the needs of consumers of diversified cultural and religious backgrounds.

## THE IMPORTANCE OF DETERGENT TESTING SERVICES

The fundamental questions on detergents are (i) will the product perform and function as claimed by the manufacturer and as expected by the consumer, and (ii) is the buyer getting value for money.

Most of the manufacturers continue to sell sub-standard products, so this will force consumers to lose confidence

in their products and switch to a competitor's product. It is important for manufacturers to ensure that product performs as claimed.

The detergent testing services are therefore offered to the industry, especially cleaning products manufacturers for an independent body to evaluate the performance of their products and to substantiate claims.

## DETERGENT TESTING SERVICES

A complete analysis of a detergent is a very specialized area requiring many advanced analytical techniques, a good knowledge of the chemistry and physics of the detection methods (Milwidsky and Gabriel, 1994). Currently, detergent formulations tend to be rather complex and this means that highly sophisticated methods are required to give a complete elucidation of their composition.

A laboratory has been set up in AOTC, MPOB to provide the analysis of detergents. The laboratory is well equipped to carry out the important quality parameters of detergents.

The test of important quality parameters and the cost for each test are indicated in *Table 1*.



Figure 1. Laboratory for detergent testing services.



**TABLE 1. DETERGENT TESTING SERVICES AVAILABLE IN MPOB**

Parameter	Method of Analysis	Cost/test (RM)
Washing performance	ASTM D 3050-92(1997)	70
Foaming property	Based on ASTM	30
Anti-rust property	Based on ASTM	170
Type of surfactants	Milwidsky and Gabriel (1994)	
- Anionic, cationic	ASTM D 3049-89 (1997)	1 400
- Nonionic	ASTM D 2959-95 (1997)	
pH	pH meter	20
Sodium carbonate	Milwidsky and Gabriel (1994)	30
Oxidizing agent	Milwidsky and Gabriel (1994)	30
Chelating agent	Milwidsky and Gabriel (1994)	40
Carboxymethyl cellulose	BS 3762:Section 3.15	30
Complex phosphate	Milwidsky and Gabriel (1994)	40
Chlorine releasing agent	Milwidsky and Gabriel (1994)	20
Sulphate	Milwidsky and Gabriel (1994)	30

Companies needing this service are requested to deliver their samples with a written instruction stating the test(s) required. All samples received will be checked to ensure that they are in good condition for the analysis. The results of analysis in the form of certificate of analysis will be ready in two days to three weeks depending on the type of analysis.

The invoice will be sent together with the certificate of analysis. The company can use the results of analysis to evaluate the performance of his product, whether it is satisfactory or its quality needs to be further improved.

For more information, kindly contact Dr. Mohtar Yusof at mohtar@mpob.gov.my or Dr. Salmiah Ahmad at

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