

## ● DATA SHEETS FOR ENGINEERS

**TABLE 6: CHEMICAL PROPERTIES OF PALM OIL**

|   | <b>Mean</b> | <b>Range</b>  |
|---|-------------|---------------|
| Iodine Value (Wij's)                      | 53.3        | 51.0 - 55.3   |
| Saponification Value (mg KOH/g oil)       | 195.7       | 190.1 - 201.7 |
| Unsaponifiable Matter (%)                 | 0.5         | 0.15 - 0.99   |
| Moisture & Impurities (%)                 |             | max 0.1       |
| <b>Fatty Acid Composition (Wt %):</b>     |             |               |
| Lauric            C12                     | 0.2         | 0.1 - 1.0     |
| Myristic        C14                       | 1.1         | 0.9 - 1.5     |
| Palmitic        C16                       | 44.0        | 41.8 - 46.8   |
| Palmitoleic    C16:1                      | 0.1         | 0.1 - 0.3     |
| Stearic         C18                       | 4.5         | 4.2 - 5.1     |
| Oleic            C18:1                    | 39.2        | 37.3 - 40.8   |
| Linoleic        C18:2                     | 10.1        | 9.1 - 11.0    |
| Linolenic      C18:3                      | 0.4         | 0.0 - 0.6     |
| Arachidic      C20                        | 0.4         | 0.2 - 0.7     |
| <b>Triglyceride Composition (Mole %):</b> |             |               |
| C46                                       | 0.8         | 0.4 - 1.2     |
| C48                                       | 7.4         | 4.7 - 10.8    |
| C50                                       | 42.6        | 40.0 - 45.2   |
| C52                                       | 40.5        | 38.2 - 43.8   |
| C54                                       | 8.8         | 6.4 - 11.4    |

(Data compiled from PORIM surveys)