

# DETERMINATION OF METHANOL CONTENT IN BIODIESEL BY GAS CHROMATOGRAPH HEADSPACE (GC-HS)

YUNG CHEE LIANG and CHOO YUEN MAY

542

MPOB INFORMATION SERIES • ISSN 1511-7871 • JUNE 2010

MPOB TS No. 86

The sample is heated at 80°C in a hermetically sealed vial to allow desorption of the contained methanol into the gas phase. When equilibrium is reached, a defined part of the gas phase is injected into a gas chromatograph (*Figure 1*), and methanol is detected with a flame ionization detector. The amount of methanol is calculated by reference to an external calibration.



Figure 1. Gas chromatograph headspace (GC-HS).

Amount of sample required: 2 ml  
Cost of analysis: RM 300 per sample\*

Note:\* As at June 2010; subject to change.

## REFERENCE

EUROPEAN COMMITTEE FOR STANDARDIZATION (2003). *EN 14110:2003 Fat and Oil Derivatives – Fatty Acid Methyl Esters (FAME) – Determination of Methanol Content.*

ISSN 1511-7871



9 771511 787001

Malaysian Palm Oil Board, Ministry of Plantation Industries and Commodities, Malaysia  
P. O. Box 10620, 50720 Kuala Lumpur, Malaysia. Tel: 03-87694400 Website: www.mpob.gov.my Telefax: 03-89259446



For more information, kindly contact:

Director-General  
MPOB  
P. O. Box 10620  
50720 Kuala Lumpur, Malaysia.  
*Tel:* 03-8769 4400  
*Fax:* 03-8925 9446  
[www.mpob.gov.my](http://www.mpob.gov.my)