

Name of Laboratory : Laboratory of Thai Roong Ruang Energy Co., Ltd.  
Address : 188 Moo 1, Tambon Kampran, Amphoe Wangmuang,  
Changwat Saraburi 18220  
Accreditation Number : Testing - 0154  
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Initial Issue Date : 6<sup>th</sup> July 2017  
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Expired date : 21<sup>st</sup> August 2027  
Standard : ISO/IEC 17025:2017  
Reference No. : 0303/13666

### Scope of Testing Laboratory Accreditation

Laboratory Name : Laboratory of Thai Roong Ruang Energy Co., Ltd.

Address : 188 Moo 1, Tambon Kampran, Amphoe Wangmuang,  
Changwat Saraburi 18220

Accreditation Number : Testing - 0154

Laboratory Status :  Permanent  Site  Temporary  Mobile

Item Number	Test Material / Product	Test Item / Range of Testing	Test Method / Technique Used
1	Ethanol and denatured fuel ethanol	- Ethanol plus higher saturated alcohols 99.00 %vol to 99.99 %vol  - pHe 6.50 to 9.00  - Density at 20 °C 0.7893 g/mL to 0.8300 g/mL  - Acidity as acetic acid 7 mg/L to 99 mg/L	EC 2870/2000, Appendix 2, method B    ASTM D 6423-20a   ASTM D 4052-22   In – house method : MNL-001 section 5 based on ASTM D 1613-17

Initial Issue Date 6<sup>th</sup> July 2017

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Bureau of Laboratory Accreditation, Department of Science Service, Ministry of Higher Education, Science, Research and Innovation

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Item Number	Test Material / Product	Test Item / Range of Testing	Test Method / Technique Used
1 (cont.)	Ethanol and denatured fuel ethanol	- Water 0.05 %wt. to 0.5 %wt.	In – house method : MNL-001 section 6 based on ASTM D 6304-20

Initial Issue Date 6<sup>th</sup> July 2017

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