

### CERTIFICATE OF ANALYSIS

Date : October 5, 2015

Report No. : 07/16

Applicants : Messrs. ECOPRANA CO., LTD.  
Description : SN OIL

.....  
【 Items 】

Density at 15°C, g/cm <sup>3</sup> .....	0.8384
Flash Point (PMCC) °C .....	68
Viscosity (Kinematic) at 50°C, mm <sup>2</sup> /s .....	2.285
Pour Point, °C .....	- 15.0
Water Content (by Distillation) vol.% .....	Less than 0.05
Sulphur (X-ray fluorescence) wt.% .....	0.099
Carbon Residue, wt.% .....	0.05
Ash Content, wt.% .....	Less than 0.01
Distillation	
IBP °C .....	166.5
10% Evap. °C .....	209.5
50% Evap. °C .....	271.0
90% Evap. °C .....	339.0
EP °C .....	368.0
Residue, % Vol. .....	2.0
Loss, % Vol. .....	0.5
Electrical Conductivity pS/m .....	60
Total Acid Number mgKOH/g .....	0.06
<u>Calculated values</u>	
Gross Calory, MJ/kg .....	46.11
cal./g .....	11010
Cetane Index .....	51.6

We hereby certify that above are the results of analysis made faithfully by us upon your request.

N.B. Above sample was submitted by the applicants on September 29, 2015



SEKIYU KENTEI SHA

H.Hiro

Laboratory Manager

## CERTIFICATE OF ANALYSIS

Date : October 5, 2015

Report No. : 08/16

Applicants : Messrs. ECOPRANA CO., LTD.  
Description : BASE OIL

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【 Items 】

Density at 15°C, g/cm <sup>3</sup> .....	0.8306
Flash Point (PMCC) °C .....	74
Viscosity (Kinematic) at 50°C, mm <sup>2</sup> /s .....	2.513
Pour Point, °C .....	- 17.5
Water Content (by Distillation) vol.% .....	Less than 0.05
Sulphur (X-ray fluorescence) wt.% .....	0.10
Carbon Residue, wt.% .....	0.05
Ash Content, wt.% .....	Less than 0.01
<b>Distillation</b>	
IBP °C .....	187.0
10% Evap. °C .....	227.5
50% Evap. °C .....	283.0
90% Evap. °C .....	341.0
EP °C .....	368.0
Residue, % Vol. .....	2.0
Loss, % Vol. .....	0.5
Electrical Conductivity pS/m .....	20
Total Acid Number mgKOH/g .....	0.04
<b>Calculated values</b>	
Gross Calory, MJ/kg .....	46.23
cal./g .....	11040
Cetane Index .....	58.9

We hereby certify that above are the results of analysis made faithfully by us upon your request.

N.B. Above sample was submitted by the applicants on September 29, 2015



SEKIYU KENTEI SHA

*[Handwritten Signature]*  
H.Hiro  
Laboratory Manager