SGS



Test Report: OV19-00702.001

Date: 16/Jul/2019 CONG TY CP DAU KHI BINH MINH

The results shown in this test report specifically refer to the sample(s) tested as received unless otherwise stated. All tests have been performed using the latest revision of the methods indicated, unless specifically marked otherwise on the report. Precision parameters apply in the determination of the below results. Users of analytical results, when establishing conformance with commercial or regulatory requirements should note the full provisions of ASTM D3244, IP 367 and ISO 4259 in that context, the default confidence level of petroleum testing having been set at the 95% confidence level. Your attention is specifically drawn to Sections 7.3.6., 7.3.7 and 7.3.8 of ASTM D3244. With respect to the UOP methods listed in the report below the user is referred to the method and the statement within it specifying that the precision statements were determined using UOP Method 999. This Test Report is issued under the Company's General Conditions of Service (copy available upon request or on the company website at www.sgs.com). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. This report shall not be reproduced except in full, without the written approval of the laboratory.

The sample(s) to which the findings recorded herein (the "Findings") relate was(were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted.

This laboratory is accredited under ISO/IEC 17025. The results reported herein have been performed in accordance with the laboratory's term of accreditation except calibrations/tests marked with an asterisk (*) in this report which are not within the scope of accreditation for our laboratory.

| REPORT COMMENT : | Upon Client's request, this REPORT has been issued in more than one original. Only the first original is a legally binding document and may be used for any legal purpose, including payment | | |
|-----------------------|---|-----------------------|-------------------------------|
| | Client) | | |
| SEAL NO: | 028677;028678;028679;028680 (Seal of | | |
| ANALYSED : | 12/Jul/2019 - 16/Jul/2019 | COMPLETED : | |
| SAMPLED : | 10/Jul/2019 | RECEIVED : | 12/Jul/2019 |
| SAMPLE TYPE : | NA | SAMPLE BY : | Client |
| SAMPLE SOURCE : | As Supplied | SOURCE ID : | B4 |
| LOCATION : | NA | PRODUCT DESCRIPTION : | MIXED ACROMATICS - BMSOL-A100 |
| CLIENT ORDER NUMBER : | 131102324 | SGS ORDER NO.: | 314692 |

| PROPERTY | METHOD | RESULT | UNITS |
|---|---------------------|----------|-----------|
| Density at 15°C | ASTM D4052-18a | 0.8181 | g/cm³ |
| API at 60°F | ASTM D4052-18a | 41.2 | °API |
| Bromine Number * | ASTM D1159-07(2017) | <0.5 | gBr2/100g |
| Existent Gum Content * | ASTM D381-12(2017) | <0.5 | mg/100mL |
| Research Octane Number of Spark-Ignition | ASTM D2699-16e1 | | |
| Engine Fuel * | | | |
| Research Octane Number * | | 100.0 | Rating |
| Copper Strip corrosion (3h / 50°C {122°F}) | ASTM D130-19 | 1a | Rating |
| Doctor Test * | ASTM D4952-12(2017) | Negative | |
| | | (sweet) | |
| Vapor Pressure of Gasoline and | ASTM D4953-15 | | |
| Gasoline-Oxygenate Blends (Dry Method) | | | |
| Vapor Pressure | | 30.75 | kPa |
| Distillation of Petroleum Products at Atmospheric | ASTM D86-18 | | |
| Pressure | | | |
| Initial boiling point (IBP) | | 39.3 | °C |
| 5 % Recovered at | | 61.7 | °C |
| 10 % Recovered at | | 74.9 | °C |
| 50 % Recovered at | | 162.0 | °C |
| 90 % Recovered at | | 167.4 | °C |
| Final boiling point (FBP) | | 188.9 | C° |
| Sulfur Content | ASTM D5453-19 | 11 | mg/kg |
| Free Water and Particulate Contamination * | ASTM D4176-04(2014) | | |
| Appearance § * | | Pass | |
| (Clear & Bright) | | | |

§ - Analyte not in published method scope

AUTHORISED SIGNATORY

AUTHORISED SIGNATORY

| LE DANG CS/Report Supervisor | - | HEN PHAM Dil, Gas & Chemicals Lab Manager | |
|---------------------------------|-----------------|---|-------------------------------|
| 1607201908020000024764 | | Page 1 of 2 | OGC-En_report-2014-10-10_v59K |
| | SGS VIETNAM LTD | Lot III/21.19/5A St. Industrial Group III. Tan Binh IZ. Tan Phu District. Ho Chi Minh City. S.R. Vietnam t (84)2838160999 f (84)2838160996 www.sgs.vn | |



PROPERTY



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| | Client) | | |
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binding document and may be used for any legal purpose, including payment
METHOD RESULT UNITS

| Saybolt Color of Petroleum Products | ASTM D156-15 | | |
|-------------------------------------|------------------------|-------|---------|
| Saybolt Color | | +21 | |
| Water Content | ASTM D6304-16e1(Pro A) | 152 | mg/kg |
| Aromatics in Hydrocarbons by GC * | UOP 744-06 | | |
| Total Aromatics * | | 77.2 | % (m/m) |
| Xylene (p,o,m-Xylene) * | | 2.46 | % (m/m) |
| Toluene * | | 0.47 | % (m/m) |
| Styrene * | | <0.01 | % (m/m) |
| Ethylbenzene Content * | | 0.07 | % (m/m) |
| Benzene * | | 0.57 | % (m/m) |
| Total Trimethylbenzene * | | 38.9 | % (m/m) |
| Total Methyl Ethyl Benzene * | | 24.2 | % (m/m) |
| Total Propyl Benzene * | | 3.53 | % (m/m) |
| C10 Aromatics * | | 6.72 | % (m/m) |
| C11 & C11+ Aromatics * | | 0.20 | % (m/m) |
| ** End of Analytical Results ** | | | |

This document is only valid in its entirety and your attention is drawn to the Terms and Conditions on Page 1 of this report.

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LE DANG CS/Report Supervisor 1607201908020000024764 HIEN PHAM Oil, Gas & Chemicals Lab Manager

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