

# Certificate of Analysis

PRODUCT : S-OIL 7 RED #9 SP OW-16-EX (P1x12)

CERT. NO. : 20200609-0009

D A T E : 2020/06/09

CUSTOMER : S-OIL

TANK No. : IBT-04

DATE SAMPLED : 2020/06/05

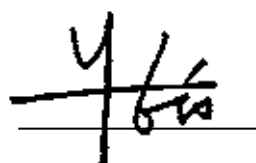
LOT No. : 201863

| TEST ITEMS                                     | UNIT              | TEST METHOD | RESULTS |
|------------------------------------------------|-------------------|-------------|---------|
| Color                                          |                   | ASTM D 1500 | L3.0    |
| Density, 15                                    | g/cm <sup>3</sup> | ASTM D 4052 | 0.8444  |
| Viscosity, 40                                  | cSt               | ASTM D 445  | 38.13   |
| Viscosity, 100                                 | cSt               | ASTM D 445  | 7.356   |
| Viscosity Index                                |                   | ASTM D 2270 | 162     |
| C.C.S., -35                                    | cP                | ASTM D 5293 | 5340    |
| T.B.N                                          | mgKOH/g           | ASTM D 2896 | 7.34    |
| Flash Point, COC                               |                   | ASTM D 92   | 230     |
| Pour Point                                     |                   | ASTM D 97   | -42     |
| Foaming Test<br>Tendency/Stability, Sequence 1 | ml                | ASTM D 892  | 10/0    |
| Foaming Test<br>Tendency/Stability, Sequence 2 | ml                | ASTM D 892  | 20/0    |
| Foaming Test<br>Tendency/Stability, Sequence 3 | ml                | ASTM D 892  | 10/0    |

- End of analytical results -

I CERTIFY THE ABOVE TEST RESULTS ARE TRUE AND CORRECT.

Chief Chemist  
JB.Shin



**S-OIL TOTAL LUBRICANTS CO., LTD.**

Head Office : 16F, HSBC Building, 37, Chilpae-ro, Jung-gu, Seoul, Korea Tel.+82 2 6320 2000 Fax. +82 2 6320 2100  
Plant : 436, Dangwol-ro, Onsan-eup, Ulju-gun, Ulsan, Korea Tel.+82 52 240 3133 Fax. +82 52 240 3134