

# HI-PUMP

## Zinc-FREE INDUSTRIAL HYDRAULIC FLUID for WIDE TEMPERATURE RANGE

### Product Description

HI-PUMP is high performance hydraulic fluid under both severe mechanical stress and across a wide range of temperature conditions. It formulated from S-OIL's ULTRA-S\* base stocks and exclusive Ash-less technology additive system designed for providing outstanding protection and performance in most mobile applications. It's excellent thermal and oxidation resistance delivers good performance and extended oil drain intervals. HI-PUMP also provides effective low and high ambient temperature performance due to high viscosity index and shear stability. \* The trade-mark of S-OIL's Group-III base oils

### Applications

- Mobile/exterior hydraulic application: Suitable for a wide range of hydraulic power applications under wide temperature range
- Any hydraulic system where risk of contamination of the environment and water exist
- Any application where an anti-wear, high VI, high-performance oil is necessary
- Low toxicity towards the environment

### Features and potential benefits

- Outstanding wear protection: Advanced Zinc-free additives ensure protection of machine parts.
- Long fluid life: Reducing maintenance costs
- Maintaining system efficiency: Superior cleanliness, excellent filterability
- Environmentally friendly formulation: Prevent formation of deposit
- Extended temperature range capability

### Performance level

- ISO 11158 (HV)
- ASTM D6158 (HV)
- SAE MS 1004 (HV)
- DIN 51524 PART III (HV)
- Denison HF-0, HF-1, HF-2
- Five Cincinnati P68, P69, P70
- Eaton Vickers I-286-S, M-2950-S
- Bosch Rexroth RE 90220
- US steel 127, 136

### Typical Properties

| Test Items       | Method     | Unit  | 15     | 22     | 32     | 46     | 68     | 100    |
|------------------|------------|-------|--------|--------|--------|--------|--------|--------|
| Specific gravity | ASTM D1298 | -     | 0.8369 | 0.8364 | 0.8459 | 0.8475 | 0.8639 | 0.8730 |
| Color            | ASTM D1500 | -     | L0.5   | L0.5   | L0.5   | L0.5   | L0.5   | L0.5   |
| Viscosity        | ASTM D445  | 40°C  | 15.55  | 22.25  | 32.63  | 46.24  | 67.96  | 98.87  |
|                  |            | 100°C | 3.97   | 4.93   | 6.39   | 8.20   | 10.86  | 14.50  |
| Viscosity index  | ASTM D2270 | -     | 161    | 153    | 151    | 153    | 150    | 152    |
| Flash point      | ASTM D92   | °C    | 206    | 230    | 244    | 250    | 252    | 256    |
| Pour point       | ASTM D97   | °C    | -50    | L-40   | -45    | -40    | -40    | -37.5  |

S-OIL CORPORATION  
192, Baekbeom-ro, Mapo-gu,  
Seoul, 04196, Korea

HI-PUMP  
2017.1.10.



This lubricant used as recommended and for the application for which it has been designed does not present any particular risk. A material safety data sheet is obtainable via your commercial adviser.