



# Product Data Sheet

## OPTIMA D5 (SHPD)

### Product Description:

**Optima D5 (SHPD) is formulated using a robust additive package and hydro-treated base oil to deliver real performance in today's heavy-duty diesel engines, especially those fitted with modern features like Super-charger, Turbo-charger and multi-valves drive trains.**

Optima D5 (SHPD) is a proven choice with the transportation industry in Asian region. It minimizes high temperature carbon deposits, which is by far the most concerned issue for today's heavily loaded modern diesel engines. The reduced carbon build-up means less rings wear and cylinder bore polishing resulting in much reduced diesel consumption, less ring breakage and piston skirt scuffing. Its high ability to neutralize acidic by-products from the diesel combustion ensures minimum corrosion of the engine parts throughout the lengthy oil drain interval.

### Applications / Benefits:

- Minimizes oil consumption.
- Protects against ring and cylinder wear.
- Keeps piston clean.
- Neutralizes acids from high sulfur fuel.
- Maintains efficient fuel consumption.

### Typical Characteristics:

Test Description	Method	15W40	15W50	20W50
SAE Viscosity Grade	SAE J 300	15W40	15W50	20W50
Specific Gravity @ 15 °C	ASTM D 4052	0.873	0.877	0.883
Flash Point, °C	ASTM D 92	220	224	244
Pour Point , °C	ASTM D 97	-27	-27	-21
Kinematic Viscosity, cSt @ 40°C	ASTM D 445	113.7	142.2	177.7
cSt @ 100°C	ASTM D 445	14.8	18.1	19.8
Viscosity Index	ASTM D 2270	134	142	129
TBN, mgKOH/g	ASTM D 2896	10.0	10.0	10.0
Color	ASTM D 1500	≤ 4.0	≤ 4.0	≤ 4.0

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## Specifications, Approvals & Recommendations:

- API CH4/SJ
- Caterpillar ECF-1a
- Cummins 20077
- Deutz DQC II
- MAN M3275
- Mack EO-M
- Mercedes-Benz 228.3
- MTU Type 2

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