

## PCA 2861 DEO

### High Performance Diesel Engine Oil Additive

**Description:**

PCA 2861 is a high performance diesel engine oil additive manufactured using state of the art technology utilizing components designed for use with Group I and II base oil and non-dispersant VI Improvers. It provides excellent control of deposits, rust oxidation, bearing corrosion, wear and oil consumption in highly supercharged diesel engines operated in severe service.

**Performance Benefits:**

PCA 2861 contains ashless dispersant, alkyl zinc dithiophosphate and metallic detergents. It meets or exceeds the requirements of API, ACEA, Cummins, Daimler Chrysler, Global DHD-1, Mack and Volvo when formulated in industry recognized base stocks

**Typical Properties:**

Property	Method	Typical Value
Specific Gravity @ 15.6 °C	ASTM D-4052	0.97
Pounds per Gallon @ 15.6 °C	--	
Viscosity, cSt @ 100 °C	ASTM D-445	60
Flash Pt., (COC) °F		300
Total Base Number, mg KOH/g	ASTM D-2896	86
Calcium, wt%	ASTM D-	2.75
Nitrogen, wt%	ASTM D-	0.75
Phosphorus, wt%	ASTM D-	1.17
Zinc, wt%	ASTM D-	1.29
Molybdenum, wt%	ASTM D-	0.085

**Storage and Handling:**

Maximum temperatures of 60 °C (140 °F) for handling and 38 °C (100 °F) for long-term storage are recommended. Typical precautions for handling concentrated chemicals and blending additives into base oils and solvents should be observed.

**Availability:**

PCA 2861 is available in drums and in bulk (tank trucks and railcars).  
Samples are available upon request.

**Dosage Chart:**

Field Tested Performance Equivalent	PCA 2861 Dosage Rate	
	Wt %	Vol %
CI-4, CH-4, CG-4, CF-4, CF/SL, SJ, Mack EO-M Plus, Cummins CES20078, Volvo VDS-2, Global DHD-1, ACEA E3-96(issue 3), ACEA E5-99, MB 228.3, Navistar SAE 15W-40; Group I / II Base Oil	12.0%	10.43%
CI-4, CH-4, CG-4, CF-4, CF/SL, SJ, Mack EO-M Plus, Cummins CES20078, Volvo VDS-2, Global DHD-1, ACEA E3-96(issue 3), ACEA E5-99, MB 228.3, Navistar SAE 10W-30; Group II Base Oil	12.0%	10.43%
CG-4, CF-4, CF-2, CF, SL, SJ SAE 30 / 40 / 50; Group I / II Base Oil	8.4%	7.26%
CF-4, CF, SL, SJ SAE 10W / 20W; Group I / II Base Oil	8.4%	7.26%
CF only	5.8%	4.99%

Volumetric percentages based on 31° API Base Oil.

A non-dispersant Viscosity Modifier shear stability index from 24-37 SSI is recommended for multigrades.

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**Date: 07/08/2010**