

Title (en)  
Lubricant formulations and methods

Title (de)  
Schmiermittelformulierungen und -verfahren

Title (fr)  
Formulations de lubrifiant et procédés

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**EP 2251401 A3 20110105 (EN)**

Application  
**EP 10161225 A 20100427**

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Abstract (en)  
[origin: EP2251401A2] The embodiments described herein relate to particular formulations and methods that may provide improved fuel economy characteristics for an engine lubricant. The compositions and methods include a (a) a base oil; (b) a zinc dialkyldithiophosphate compound; and (c) a hydrocarbon soluble metal compound. The hydrocarbon soluble metal compound is devoid of phosphorus and sulfur atoms and the metal is selected from the group consisting essentially of selected from the group consisting essentially of cobalt, nickel, zinc, zirconium, manganese, vanadium, scandium, yttrium, tungsten, gold, platinum, and iron. A weight ratio of total metal in the lubricant composition from the zinc dialkyldithiophosphate compound and the hydrocarbon soluble metal compound to phosphorus in the lubricant composition ranges from greater than 1.5 to 1 to 15 to 1.

IPC 8 full level  
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