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(54) Title: A LOW PHOSPHORUS LUBRICATING OIL COMPOSITION HAVING LEAD CORROSION CONTROL

(57) Abstract: The present invention provides a low phosphorus lubricating oil composition containing a mixture of zinc dithiophosphates in a certain ratio surprisingly yields improved lead corrosion. The synergistic combination of mixed zinc dithiophosphates containing a zinc primary dialkyl dithiophosphate, zinc secondary dialkyl dithiophosphate and zinc diaryl dithiophosphate in a respective ratio, based on the phosphorus content, of the zinc primary dialkyl dithiophosphate to zinc secondary dialkyl dithiophosphate from about 2:1 to about 1:2 and the ratio of the mixture of zinc primary dialkyl dithiophosphate and zinc secondary dialkyl dithiophosphate to zinc diaryl dithiophosphate from about 6:1 to about 1:1. When used in a lubricating oil composition having a total phosphorus content less than about 0.06 wt %, based on the total weight of the lubricating oil composition to lubricate internal combustion engines. The mixture of zinc dithiophosphates greatly reduces lead corrosion.



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