

Title (en)
Lubricating oil compositions.

Title (de)
Schmierölszusammensetzungen.

Title (fr)
Compositions d'huile lubrifiante.

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Application
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Abstract (en)
A lubricating oil composition having excellent oxidation stability and reduced sludge formation which comprises (I) a base oil which is a mineral oil having an aromatic content of up to 30 wt.%, a synthetic oil having no aromatic rings in the structural units or a mixture thereof, and, as essential additives, (II) an N-p-alkylphenyl-alpha-naphthylamine and (III) a p,p min -dialkyldiphenylamine each in a specific minor amount.

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• [YD] EP 0232154 A2 19870812 - NIPPON OIL CO LTD [JP]
• [YD] EP 0097118 A2 19831228 - CIBA GEIGY AG [CH]
• [A] US 4096078 A 19780620 - YAFFE ROBERTA

Cited by
US8999903B2; WO2008154334A1; EP0716141A3; US5658866A; US2010173811A1; WO9516765A3; US8318645B2

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