

Title (en)  
LUBRICATING OIL ADDITIVE CONCENTRATE COMPOSITION

Publication  
**EP 0342871 B1 19930414 (EN)**

Application  
**EP 89304814 A 19890511**

Priority  
GB 8811473 A 19880514

Abstract (en)  
[origin: EP0342871A1] A concentrate composition for use as a multifunctional additive in finished lubricating oils comprising as a first component an oil of lubricating viscosity, as a second component a derivative of a polyisobutylene (PIB) substituted succinic acylating agent wherein the PIB substituent has a number average molecular weight (Mn) in the range from about 700 to about 1475, as a third component a derivative of a PIB substituted succinic acylating agent wherein the PIB has an Mn in the range from about 1500 to about 5000 and as a fourth component a PIB having an Mn in the range from about 40,000 to about 400,000, the derivatives being formed by reacting the acylating agents either individually or in combination with either (a) an amine having within its structure at least one H-N group, (b) an alcohol, (c) a reactive metal or reactive metal compound, or (d) a mixture of at least two of (a) to (c), the components of (d) being reacted with the acylating agent(s) either simultaneously or sequentially in any order, the PIB substituent of the second component forming from 30 to 94.8 % by weight of the total PIB present in the composition, the PIB substituent of the third component forming from 5 to 69.8% by weight of the total PIB present in the composition and the PIB forming the fourth component forming from 0.2 to 5% by weight of the total PIB present in the composition.

IPC 1-7  
**C10M 161/00**; **C10N 20/04**

IPC 8 full level  
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Cited by  
EP0532179A1; US5500062A

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