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(54) Title: GEL-FREE ETHYLENE INTERPOLYMER DISPERSANT ADDITIVES USEFUL IN OLEAGINOUS COMPOSITIONS

(57) Abstract

Gel-free dispersant additives for lubricating and fuel oil compositions comprise at least one adduct of (A) α-olefin homopolymer or interpolymer of 700 to 10,000 $\overline{M}_n$, free radically grafted with an average of from about 0.5 to about 5 carboxylic acid producing moieties per polymer chain, and (B) at least one non-aromatic nucleophilic post-treating reactant selected from (i) amine compounds containing only a single reactive amino group per molecule, (ii) alcohol compounds containing only a single hydroxy group per molecule, (iii) polyamine compounds containing at least two reactive amino groups per molecule, (iv) polyol compounds containing at least two reactive hydroxy groups per molecule, (v) aminoalcohol compounds containing at least one reactive amino group and at least one reactive hydroxy group per molecule, and (vi) mixtures of (i) to (v); provided that when said post-treating reactant includes one or more of (iii), (iv) or (v), the reaction between (A) and (B) is conducted in the presence of sufficient chain-stopping or end-capping co-reactant (C) to ensure that the grafted and post-reacted product mixture is gel-free.

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INTERNATIONAL SEARCH REPORT

Inte: ɔnal Application No
PCT/US 93/11917

A. CLASSIFICATION OF SUBJECT MATTER
IPC 5 C08F255/00 C08F8/46 C10M129/91 C10L1/18 C10L1/22
C10M133/52

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 5 C08F C10M C10L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO,A,90 01503 (EXXON) 22 February 1990 see page 7, line 5 - line 36; claims 1,9	1-12
Y	GB,A,2 055 852 (EXXON) 11 March 1981 see claim 1	1-12
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A	EP,A,0 441 548 (EXXON) 14 August 1991 see claim 1	1
A	US,A,4 557 847 (EXXON) 10 December 1985 see column 5, line 13 - line 33	1-12

☐ Further documents are listed in the continuation of box C.

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Date of the actual completion of the international search	Date of mailing of the international search report
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Name and mailing address of the ISA	Authorized officer
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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