

Title (en)
USE OF SELECTED ACRYLIC AND/OR METHACRYLIC ACID ESTER COPOLYMERS AS FLOW ENHANCERS IN PARAFFIN-RICH MINERAL OILS AND MINERAL-OIL FRACTIONS (II)

Publication
EP 0332002 B1 19920415 (DE)

Application
EP 89103385 A 19890227

Priority
DE 3807395 A 19880307

Abstract (en)
[origin: EP0332002A2] The use of copolymers of acrylic and/or methacrylic acid esters of higher alcohols or alcohol cuts having at least 16 C atoms in the alcohol radical and not more than 20% by weight, preferably about 0.5 to 15% by weight, of free acrylic acid and/or methacrylic acid - the per cent by weight relating to the copolymer weight - as additives for crude oils and petroleum fractions containing paraffins and/or asphaltenes for depressing the pour point or solidification point thereof and for improving the flow properties, especially in the temperature range just above the solidification point, is described. The flow enhancers are preferably used in paraffin-rich oils or oil fractions having normal pour points above 20 DEG C, especially above 25 DEG C, a depression of the pour points to values below 15 DEG C and especially below 10 DEG C becoming possible.

IPC 1-7
C10L 1/18

IPC 8 full level
E21B 43/22 (2006.01); **C08F 220/04** (2006.01); **C08F 220/06** (2006.01); **C08F 220/10** (2006.01); **C08F 220/12** (2006.01); **C10L 1/18** (2006.01); **C10L 1/192** (2006.01); **C10L 1/196** (2006.01); **C10L 10/16** (2006.01)

CPC (source: EP US)
C10L 1/1963 (2013.01 - EP US); **C10L 10/16** (2013.01 - EP US); **Y10S 507/93** (2013.01 - EP US); **Y10S 507/931** (2013.01 - EP US); **Y10T 137/0391** (2015.04 - EP US)

Cited by
FR2982872A1; WO2013076424A1; WO2021228701A1

Designated contracting state (EPC)
DE FR GB IT NL

DOCDB simple family (publication)
EP 0332002 A2 19890913; **EP 0332002 A3 19900328**; **EP 0332002 B1 19920415**; **EP 0332002 B2 19970502**; AU 3102589 A 19890907; AU 611265 B2 19910606; BR 8901034 A 19891024; CA 1327538 C 19940308; DE 3807395 A1 19890921; DE 58901132 D1 19920521; DK 110789 A 19890908; DK 110789 D0 19890307; JP H01287393 A 19891120; MX 171036 B 19930927; NO 176413 B 19941219; NO 176413 C 19950329; NO 890938 D0 19890306; NO 890938 L 19890908; TR 24478 A 19911011; US 5039432 A 19910813

DOCDB simple family (application)
EP 89103385 A 19890227; AU 3102589 A 19890306; BR 8901034 A 19890306; CA 592935 A 19890307; DE 3807395 A 19880307; DE 58901132 T 19890227; DK 110789 A 19890307; JP 5360989 A 19890306; MX 1513789 A 19890303; NO 890938 A 19890306; TR 21789 A 19890303; US 32012289 A 19890307