

Title (en)  
FUEL COMPOSITIONS

Publication  
**EP 0360419 B1 19920930 (EN)**

Application  
**EP 89308510 A 19890822**

Priority  
GB 8820071 A 19880824

Abstract (en)  
[origin: EP0360419A1] Cold flow properties are improved by adding in minor proportion by weight to a distillate fuel oil a polymer of a C1 to C17 alkyl vinyl ether. This polymer may be a homopolymer, a mixture of homopolymers, a copolymer of alkyl vinyl ethers of different alkyl chain length, a copolymer of one or more alkyl vinyl ethers with one or more copolymerisable monomers or a mixture of such copolymers. Typical copolymers are copolymers of alkyl vinyl ethers with alkyl acrylates, alkyl methacrylates, olefins, dialkyl fumarates or maleates, eg copolymers of n-butyl vinyl ether with di(n-tetradecyl) fumarate. Other polymers are copolymers of an alkyl vinyl ether with an ethylenically unsaturated carboxylic acid or anhydride, subsequently reacted with an alcohol or an amine or both, eg a copolymer of methyl vinyl ether and maleic anhydride reacted with n-tetradecanol, n-hexadecanol or a mixture of these alcohols.

IPC 1-7  
**C10L 1/14**; **C10L 1/18**; **C10L 1/22**

IPC 8 full level  
**C10L 1/192** (2006.01); **C10L 1/14** (2006.01); **C10L 1/18** (2006.01); **C10L 1/195** (2006.01); **C10L 1/196** (2006.01); **C10L 1/22** (2006.01); **C10L 1/224** (2006.01); **C10L 1/236** (2006.01); **C10L 10/14** (2006.01)

CPC (source: EP KR)  
**C10L 1/146** (2013.01 - EP); **C10L 1/18** (2013.01 - KR); **C10L 1/1955** (2013.01 - EP); **C10L 1/1963** (2013.01 - EP); **C10L 1/1966** (2013.01 - EP); **C10L 1/22** (2013.01 - KR); **C10L 1/2364** (2013.01 - EP)

Cited by  
US5205839A; EP0654526A3; TR28208A; EP0485774A1; US5214224A; US5232963A; EP0486836A1; EP0463518A1; US5200484A; EP0890633A1; DE19729055A1; DE19729055C2; US6846338B2; WO2024115211A1; WO9400535A1; WO2004035715A1

Designated contracting state (EPC)  
AT BE CH DE ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)  
**EP 0360419 A1 19900328**; **EP 0360419 B1 19920930**; AT E81148 T1 19921015; CN 1031464 C 19960403; CN 1043157 A 19900620; DE 68903084 D1 19921105; DE 68903084 T2 19930218; ES 2036035 T3 19930501; FI 893952 A0 19890823; FI 893952 A 19900225; GB 8820071 D0 19880928; GR 3006159 T3 19930621; JP 2839291 B2 19981216; JP H02105891 A 19900418; KR 0134192 B1 19980418; KR 900003343 A 19900326; NO 174428 B 19940124; NO 174428 C 19940504; NO 893394 D0 19890823; NO 893394 L 19900226; RU 1838382 C 19930830

DOCDB simple family (application)  
**EP 89308510 A 19890822**; AT 89308510 T 19890822; CN 89106506 A 19890824; DE 68903084 T 19890822; ES 89308510 T 19890822; FI 893952 A 19890823; GB 8820071 A 19880824; GR 920402479 T 19921105; JP 21845189 A 19890824; KR 890012064 A 19890824; NO 893394 A 19890823; SU 4614903 A 19890823