

Title (en)

Glycerol esters with oil-soluble copper compounds as fuel economy additives.

Title (de)

Glycerolester mit öllöslichen Kupferverbindungen als Kraftstoffzusatzmittel für wirtschaftlichere Ausnutzung.

Title (fr)

Combinaison d'esters de glycérine et de composés de cuivre solubles dans l'huile comme additifs pour diminuer la consommation d'essence.

Publication

EP 0092946 A2 19831102 (EN)

Application

EP 83302155 A 19830415

Priority

US 37100882 A 19820422

Abstract (en)

Lubricating oil compositions are disclosed exhibiting improved fuel economy which contain 0.05 to 0.2 wt.% of a glycerol partial ester of a C16-C18 fatty acid and 5 to 500 ppm of copper in the form of an oil-soluble organic copper compound, the two components exhibiting a combined effect in improving fuel economy of internal combustion engines.

IPC 1-7

C10M 1/14

IPC 8 full level

C10M 129/02 (2006.01); **C10M 129/04** (2006.01); **C10M 141/02** (2006.01); **C10M 141/10** (2006.01); **C10N 10/02** (2006.01); **C10N 10/04** (2006.01); **C10N 30/04** (2006.01); **C10N 30/06** (2006.01); **C10N 40/25** (2006.01)

CPC (source: EP)

C10M 129/04 (2013.01); **C10M 129/40** (2013.01); **C10M 129/58** (2013.01); **C10M 129/76** (2013.01); **C10M 2205/00** (2013.01); **C10M 2205/026** (2013.01); **C10M 2205/06** (2013.01); **C10M 2207/02** (2013.01); **C10M 2207/023** (2013.01); **C10M 2207/027** (2013.01); **C10M 2207/028** (2013.01); **C10M 2207/09** (2013.01); **C10M 2207/125** (2013.01); **C10M 2207/126** (2013.01); **C10M 2207/129** (2013.01); **C10M 2207/16** (2013.01); **C10M 2207/287** (2013.01); **C10M 2207/288** (2013.01); **C10M 2207/289** (2013.01); **C10M 2209/084** (2013.01); **C10M 2209/086** (2013.01); **C10M 2215/04** (2013.01); **C10M 2215/064** (2013.01); **C10M 2215/065** (2013.01); **C10M 2215/26** (2013.01); **C10M 2217/023** (2013.01); **C10M 2217/024** (2013.01); **C10M 2217/028** (2013.01); **C10M 2217/046** (2013.01); **C10M 2217/06** (2013.01); **C10M 2219/044** (2013.01); **C10M 2219/046** (2013.01); **C10M 2219/068** (2013.01); **C10M 2219/087** (2013.01); **C10M 2219/088** (2013.01); **C10M 2219/089** (2013.01); **C10M 2223/04** (2013.01); **C10M 2223/041** (2013.01); **C10M 2223/042** (2013.01); **C10M 2223/045** (2013.01); **C10M 2227/061** (2013.01); **C10N 2010/00** (2013.01); **C10N 2010/02** (2013.01)

Cited by

US5102566A; US5049290A; US5320765A; US5013467A; EP0260863A3; FR2505355A1; US4981602A; US4957651A; US5021173A; US5282991A; US4952328A; EP0280579A3; US4956108A; EP0294045A3; US4915857A; US6254849B1; US6379531B2; US5244591A; US4938881A; US5141657A; EP0652279A1; FR2634780A1; BE1001977A3; US4957649A; EP1925655A1; WO0159037A3; EP3252130A1; EP2390306A1; EP2161326A1; US9127232B2; US9828564B2; US6750185B2; WO2011161406A1; US9080120B2; WO2020089212A1; US11407958B2; EP0389573B1; EP3115443A1; WO2017005967A1; US10618865B2

Designated contracting state (EPC)

BE DE FR GB IT NL SE

DOCDB simple family (publication)

EP 0092946 A2 19831102; **EP 0092946 A3 19850814**; **EP 0092946 B1 19880316**; CA 1205451 A 19860603; DE 3376016 D1 19880421; JP H0377837 B2 19911211; JP S58191795 A 19831109

DOCDB simple family (application)

EP 83302155 A 19830415; CA 426360 A 19830421; DE 3376016 T 19830415; JP 7019883 A 19830422