

Title (en)

NOVEL COBALT CONTAINING DEPOSIT CONTROL ADDITIVES

Title (de)

KOBALT ENTHALTENDE ADDITIVE ZUR KONTROLLE VON ABLAGERUNGEN

Title (fr)

NOUVEAUX ADDITIFS A BASE DE COBALT REGULANT LES DEPOTS

Publication

EP 0788535 A1 19970813 (EN)

Application

EP 95938911 A 19951025

Priority

- US 9513840 W 19951025
- US 32820994 A 19941025

Abstract (en)

[origin: WO9612779A1] The present invention provides for lubricating oil compositions that comprise a base oil of lubricating viscosity, a copper containing antioxidant, such as copper naphthenates, oleates and polyisobutylene succinic anhydrides and a cobalt containing antioxidant such as cobalt naphthenates, oleates, stearates and polyisobutylene succinic anhydrides and for the methods of making them. The invention provides enhanced deposit control by virtue of the synergistic effect of the cobalt and copper compounds, and has utility in lube applications.

IPC 1-7

C10M 129/00; C10M 129/40; C10M 129/58; C10M 129/93

IPC 8 full level

C10M 129/26 (2006.01); **C10M 129/00** (2006.01); **C10M 129/40** (2006.01); **C10M 129/58** (2006.01); **C10M 129/93** (2006.01);
C10N 10/02 (2006.01); C10N 10/16 (2006.01); C10N 30/04 (2006.01); C10N 30/10 (2006.01); C10N 40/25 (2006.01)

CPC (source: EP)

C10M 129/00 (2013.01); **C10M 129/24** (2013.01); **C10M 129/40** (2013.01); **C10M 129/58** (2013.01); **C10M 129/93** (2013.01);
C10M 2207/00 (2013.01); C10M 2207/08 (2013.01); C10M 2207/126 (2013.01); C10M 2207/129 (2013.01); C10M 2207/16 (2013.01)

Citation (search report)

See references of WO 9612779A1

Designated contracting state (EPC)

BE DE FR GB IT NL

DOCDB simple family (publication)

WO 9612779 A1 19960502; CA 2201960 A1 19960502; DE 69516710 D1 20000608; DE 69516710 T2 20000831; EP 0788535 A1 19970813;
EP 0788535 B1 20000503; JP H10508053 A 19980804

DOCDB simple family (application)

US 9513840 W 19951025; CA 2201960 A 19951025; DE 69516710 T 19951025; EP 95938911 A 19951025; JP 51414096 A 19951025