

Title (en)

DEPOSIT CONTROL ADDITIVES FOR HYDROCARBON FUELS AND LUBRICANTS FOR USE IN INTERNAL COMBUSTION ENGINES

Publication

**EP 0100665 B1 19870408 (EN)**

Application

**EP 83304397 A 19830729**

Priority

US 40360782 A 19820730

Abstract (en)

[origin: EP0100665A2] Additives for use in internal combustion engines are provided which particularly in unleaded fuels maintain cleanliness of the intake system without contributing to combustion chamber deposits. The additives are hydrocarbyl-terminated poly(oxyalkylene) polyamine ethanes comprising a hydrocarbyl-terminated poly(oxyalkylene) chain formed from 1 to 30 2-5 carbon oxyalkylene units bonded to an ethane or branched ethane chain containing from 2 to 8 carbon atoms in turn bonded to a nitrogen atom of a polyamine having from 2 to 12 amine nitrogens and from 2 to 40 carbon atoms with a carbon:nitrogen ratio between 1:1 and 10:1. The terminal hydrocarbyl group contains from 1 to 30 carbon atoms and the additive has a molecular weight in the range from 300 to 2500. The additive may be formulated as a concentrate in an inert oleophilic organic solvent or may be formulated as a lubricant composition for use in an internal combustion engine by incorporation in a lubricating oil.

IPC 1-7

**C10M 145/36; C10M 149/00; C10L 1/22**

IPC 8 full level

**C10L 1/222** (2006.01); **C10M 133/08** (2006.01)

CPC (source: EP)

**C10L 1/2225** (2013.01); **C10M 133/08** (2013.01); **C10M 2215/042** (2013.01); **C10N 2040/04** (2013.01); **C10N 2040/042** (2020.05);  
**C10N 2040/044** (2020.05); **C10N 2040/046** (2020.05)

Cited by

FR2585032A1; US4778481A; US5814110A; US5354343A; EP0310875A1; EP0590770A1; EP1080166A4; EP0630959A1; EP0440248A1;  
US5089029A; US6346128B1; EP0356725A1; US5112364A; EP0700985A1; EP0353713A1; US5298038A; EP0596602A1; AU654170B2;  
EP0152455A4; EP1122295A4; WO9214805A1; US8100095B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 0100665 A2 19840215; EP 0100665 A3 19840328; EP 0100665 B1 19870408;** DE 3370820 D1 19870514

DOCDB simple family (application)

**EP 83304397 A 19830729;** DE 3370820 T 19830729