

Title (en)

A two-stroke cycle lubricant composed of a vegetable oil and an additive package

Title (de)

Aus einem Pflanzenöl und einer Zusatzkonditionierung zusammengesetztes Zweitaktzyklusschmiermittel

Title (fr)

Lubrifiant pour cycle deux-temps composé d'une huile végétale et d'un conditionnement d'additifs

Publication

EP 0578495 B1 19980520 (EN)

Application

EP 93305348 A 19930708

Priority

US 91096092 A 19920709

Abstract (en)

[origin: EP0578495A1] This invention relates to a nitrogen-containing soluble organic composition comprising a combination of: (A) at least one natural oil comprising an animal oil or vegetable oil comprising a triglyceride of the formula <CHEM> wherein R<1>, R<2> and R<3> are independently saturated or unsaturated aliphatic hydrocarbyl groups containing from about 8 to about 24 carbon atoms and (B)(I) a detergent/dispersant comprising at least one acylated, nitrogen-containing compound having a substituent of at least 10 aliphatic carbon atoms made by reacting a carboxylic acylating agent with at least one amino compound containing at least one -NH group, said acylating agent being linked to said amino compound through an imido, amido, amidine, or acyloxy ammonium linkage. In another embodiment, the invention comprises a nitrogen-containing soluble organic composition comprising a combination of: (A) the natural oil as described above with (B) at least one detergent-dispersant selected from the group consisting of (I) the acylated, nitrogen-containing compound as described above, (II) at least one neutral or basic metal salt of an organic sulfur acid, phenol or carboxylic acid; (III) at least one hydrocarbyl-substituted amine wherein the hydrocarbyl substituent is substantially aliphatic and contains at least 12 carbon atoms with the proviso that said amine is not the amino phenol (C); and (IV) at least one nitrogen-containing condensate of a phenol, aldehyde and amino compound having at least one -NH group; and (C) at least one amino phenol of the general formula <CHEM> wherein R<4> is a substantially saturated, hydrocarbon-based substituent of at least 10 aliphatic carbon atoms; a, b and c are each independently in integer of one up to three times the number of aromatic nuclei present in Ar with the proviso that the sum of a, b and c does not exceed the unsaturated valences of Ar; and Ar is an aromatic moiety having 0-3 optional substituents selected from the group consisting of lower alkyl, lower alkoxy, nitro, halo or combinations of two or more of said substituents.

IPC 1-7

C10M 169/04; **C10L 1/14**

IPC 8 full level

C10L 1/14 (2006.01); **C10L 1/18** (2006.01); **C10L 1/188** (2006.01); **C10L 1/19** (2006.01); **C10L 1/22** (2006.01); **C10L 10/08** (2006.01); **C10L 10/18** (2006.01); **C10M 169/04** (2006.01); **C10N 10/02** (2006.01); **C10N 10/04** (2006.01); **C10N 30/04** (2006.01); **C10N 40/26** (2006.01); **C10N 70/00** (2006.01)

CPC (source: EP)

C10M 101/04 (2013.01); **C10M 129/10** (2013.01); **C10M 129/26** (2013.01); **C10M 133/52** (2013.01); **C10M 133/54** (2013.01); **C10M 135/08** (2013.01); **C10M 135/10** (2013.01); **C10M 159/16** (2013.01); **C10M 159/20** (2013.01); **C10M 159/22** (2013.01); **C10M 159/24** (2013.01); **C10M 169/04** (2013.01); **C10M 169/045** (2013.01); **C10M 2207/023** (2013.01); **C10M 2207/026** (2013.01); **C10M 2207/027** (2013.01); **C10M 2207/028** (2013.01); **C10M 2207/10** (2013.01); **C10M 2207/123** (2013.01); **C10M 2207/125** (2013.01); **C10M 2207/129** (2013.01); **C10M 2207/14** (2013.01); **C10M 2207/142** (2013.01); **C10M 2207/144** (2013.01); **C10M 2207/146** (2013.01); **C10M 2207/16** (2013.01); **C10M 2207/18** (2013.01); **C10M 2207/22** (2013.01); **C10M 2207/26** (2013.01); **C10M 2207/262** (2013.01); **C10M 2207/40** (2013.01); **C10M 2207/401** (2013.01); **C10M 2207/402** (2013.01); **C10M 2207/404** (2013.01); **C10M 2207/4045** (2013.01); **C10M 2215/04** (2013.01); **C10M 2215/062** (2013.01); **C10M 2215/08** (2013.01); **C10M 2215/082** (2013.01); **C10M 2215/22** (2013.01); **C10M 2215/221** (2013.01); **C10M 2215/225** (2013.01); **C10M 2215/226** (2013.01); **C10M 2215/24** (2013.01); **C10M 2215/26** (2013.01); **C10M 2215/28** (2013.01); **C10M 2215/30** (2013.01); **C10M 2217/043** (2013.01); **C10M 2217/046** (2013.01); **C10M 2217/06** (2013.01); **C10M 2219/00** (2013.01); **C10M 2219/04** (2013.01); **C10M 2219/042** (2013.01); **C10M 2219/044** (2013.01); **C10M 2219/046** (2013.01); **C10M 2219/087** (2013.01); **C10M 2219/088** (2013.01); **C10M 2219/089** (2013.01); **C10N 2010/00** (2013.01); **C10N 2010/06** (2013.01); **C10N 2040/252** (2020.05); **C10N 2040/26** (2013.01); **C10N 2070/02** (2020.05)

Cited by

EP0735130A1; EP1900794A3; EP0695799A3; MY119684A; GB2416172A; GB2416172B; US6532918B1; WO9923364A1; US8778034B2; US9562498B2; WO2006061611A1

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 0578495 A1 19940112; **EP 0578495 B1 19980520**; AT E166382 T1 19980615; AU 4177893 A 19940113; AU 670791 B2 19960801; CA 2100030 A1 19940110; CA 2100030 C 20031021; CN 1033704 C 19970101; CN 1081465 A 19940202; DE 69318628 D1 19980625; DE 69318628 T2 19990211; ES 2116412 T3 19980716; JP H06200279 A 19940719; SG 48751 A1 19980518; TW 253907 B 19950811; ZA 934917 B 19940209

DOCDB simple family (application)

EP 93305348 A 19930708; AT 93305348 T 19930708; AU 4177893 A 19930707; CA 2100030 A 19930707; CN 93108691 A 19930708; DE 69318628 T 19930708; ES 93305348 T 19930708; JP 17072893 A 19930709; SG 1996001211 A 19930708; TW 82105306 A 19930703; ZA 934917 A 19930708