

Title (en)
DETERGENT/DISPERSANT ADDITIVES FOR ALKYL SALICYLATE-ALKYLPHENATE, ALKALINE-EARTH, SULFURIZED AND OVERALKALINIZED-TYPE LUBRICATING OILS

Title (de)
SULFURISIERTE UND ÜBERALKALISIERTE ERDALKALIMETALLE, ALKYL SALICYLATE-ALKYLPHENATE-ALKYLPHENATE DETERGENT-DISPERGIERZUSÄTZE FÜR SCHMIERÖLE

Title (fr)
ADDITIFS DETERGENTS-DISPERSANTS POUR HUILES LUBRIFIANTES DU TYPE ALKYL SALICYLATES-ALKYLPHENATES, ALCALINO-TERREUX, SULFURISES ET SURALKALINISES

Publication
EP 0750659 B1 19980902 (FR)

Application
EP 95913194 A 19950314

Priority
• FR 9500299 W 19950314
• FR 9403138 A 19940317

Abstract (en)
[origin: EP0786448A2] New detergent-dispersant additives are obtd. by (A) neutralisation of alkylphenols contg. 35 - 85% (wt.) of linear 12-40 (pref. 18-30)C alkylphenols mixed with 15-65% (wt.) of branched-chain 9-24 (pref. 12) C alkyl phenols, with an alkaline earth base in the presence of 1-4C carboxylic acids, the operation being effected at at least 215 deg. C, with gradual application of vacuum to eliminate water of reaction in the absence of any solvent to form an azeotrope; (B) carboxylation of the alkyl phenate obtd. in (A) to transform at least 22% (pref. 25%) (moles) of the initial alkyl phenols to alkyl salicylates - using CO₂ gas at 180-240 pref. 190-220) deg. C at atmos. pressure to 15x10^{<5>} Pa (15 bars) for 1-8 hrs. - opt. in the presence of a dilution oil 100 N at the beginning or end of steps (A) or (B); (C) sulphurisation and over-basing of the mixt. of alkyl-phenates and -salicylates obtd. with elementary S in the presence of an alkaline earth base - a mono-alcohol of B, Pr, greater than 150 deg. C (pref. more than 175) and possibly an alkylene glycol (or alkyl ether deriv.) at 145-180 (pref. 150-160) deg. C.; (D) elimination of alkylene-glycol and mono-alcohol by distn.; (E) filtration to eliminate sediment; and (F) degassing to air at 80-160 (pref. 110-14) deg. C, until a grading of 1A on a copper strip (according to the ASTM D130 test) effected for 1 hr at 150 deg. C) was obtd.

IPC 1-7
C10M 159/22; **C07G 17/00**

IPC 8 full level
C10M 159/22 (2006.01); **C10N 30/04** (2006.01); **C10N 40/08** (2006.01)

CPC (source: EP US)
C10M 159/22 (2013.01 - EP US)

Cited by
EP1790710A1; EP2045313A1; EP1935970A1; EP1743933A1; EP2607462A1

Designated contracting state (EPC)
DE FR GB NL

DOCDB simple family (publication)
EP 0786448 A2 19970730; **EP 0786448 A3 19970813**; **EP 0786448 B1 20030521**; CA 2181137 A1 19950921; DE 69504479 D1 19981008; DE 69504479 T2 19990128; DE 69530852 D1 20030626; DE 69530852 T2 20040506; EP 0750659 A1 19970102; EP 0750659 B1 19980902; FR 2717491 A1 19950922; FR 2717491 B1 19960607; JP H09512287 A 19971209; US 5808145 A 19980915; WO 9525155 A1 19950921

DOCDB simple family (application)
EP 97102055 A 19950314; CA 2181137 A 19950314; DE 69504479 T 19950314; DE 69530852 T 19950314; EP 95913194 A 19950314; FR 9403138 A 19940317; FR 9500299 W 19950314; JP 52388195 A 19950314; US 70453096 A 19961125