

## Title (en)

IMPROVED LUBRICATING COMPOSITIONS AND ADDITIVES USEFUL THEREIN.

## Title (de)

VERBESSERTE SCHMIERMITTELZUSAMMENSETZUNGEN UND ZUSAETZE VERWENDBAR DAFUER.

## Title (fr)

COMPOSITIONS LUBRIFIANTES AMELIOREES ET ADDITIFS UTILES POUR LESDITES COMPOSITIONS.

## Publication

**EP 0551466 A1 19930721 (EN)**

## Application

**EP 92915925 A 19920715**

## Priority

- US 9205928 W 19920715
- US 73901791 A 19910731

## Abstract (en)

[origin: WO9303121A1] This invention relates to compositions comprising a major amount of an oil of lubricating viscosity, (A) a metal salt selected from the group consisting of sulfonates, phenates, carboxylates and mixtures thereof, (B) an aliphatic carboxylic acid or anhydride, or carboxylic acid containing derivative thereof, wherein the aliphatic group contains at least about 20 carbon atoms and optionally (C) a metal salt of (C) (I) at least one organic phosphorus acid or a mixture of (C) (I) at least one organic phosphorus acid and (C) (II) at least one carboxylic acid. Also disclosed are lubricants and functional fluids containing these additives, methods for improving the wet filterability of lubricants and functional fluids, and means for retaining zinc when zinc-containing compositions are exposed to water.

## Abstract (fr)

Compositions comprenant une quantité importante d'une huile à viscosité lubrifiante, (A) un sel métallique choisi dans le groupe comprenant des sulfonates, des phénates, des carboxylates et des mélanges desdites substances, (B) un acide ou anhydride carboxylique aliphatique, ou un dérivé de ce dernier contenant de l'acide carboxylique, le groupe aliphatique contenant au moins environ 20 atomes de carbone et éventuellement (C) un sel métallique (C) (I) d'au moins un acide phosphoreux organique ou un mélange (C) (I) d'au moins un acide phosphoreux organique et (C) (II) d'au moins un acide carboxylique. Des lubrifiants et des liquides fonctionnels contenant ces additifs, des procédés destinés à améliorer la filtrabilité à l'état humide des lubrifiants et des liquides fonctionnels, ainsi que des dispositifs destinés à retenir le zinc lorsque des compositions contenant du zinc sont exposées à l'eau sont également décrits.

## IPC 1-7

**C10M 141/10; C10M 163/00**

## IPC 8 full level

**C08K 3/04** (2006.01); **C08K 3/40** (2006.01); **C08K 7/06** (2006.01); **C08K 7/14** (2006.01); **C08L 71/12** (2006.01); **C10M 129/38** (2006.01); **C10M 129/68** (2006.01); **C10M 129/92** (2006.01); **C10M 129/95** (2006.01); **C10M 137/02** (2006.01); **C10M 137/04** (2006.01); **C10M 137/10** (2006.01); **C10M 141/10** (2006.01); **C10M 159/20** (2006.01); **C10M 163/00** (2006.01); **C10N 10/02** (2006.01); **C10N 10/04** (2006.01); **C10N 10/06** (2006.01); **C10N 10/08** (2006.01); **C10N 10/12** (2006.01); **C10N 10/14** (2006.01); **C10N 10/16** (2006.01); **C10N 30/00** (2006.01); **C10N 40/08** (2006.01); **C10N 40/20** (2006.01); **C10N 40/25** (2006.01)

## IPC 8 main group level

**C10M** (2006.01)

## CPC (source: EP)

**C10M 129/10** (2013.01); **C10M 129/30** (2013.01); **C10M 129/34** (2013.01); **C10M 129/54** (2013.01); **C10M 129/76** (2013.01); **C10M 135/10** (2013.01); **C10M 137/06** (2013.01); **C10M 137/10** (2013.01); **C10M 141/10** (2013.01); **C10M 159/20** (2013.01); **C10M 159/22** (2013.01); **C10M 159/24** (2013.01); **C10M 163/00** (2013.01); **C10M 2207/023** (2013.01); **C10M 2207/026** (2013.01); **C10M 2207/027** (2013.01); **C10M 2207/028** (2013.01); **C10M 2207/121** (2013.01); **C10M 2207/123** (2013.01); **C10M 2207/125** (2013.01); **C10M 2207/129** (2013.01); **C10M 2207/144** (2013.01); **C10M 2207/146** (2013.01); **C10M 2207/26** (2013.01); **C10M 2207/262** (2013.01); **C10M 2207/287** (2013.01); **C10M 2207/288** (2013.01); **C10M 2207/289** (2013.01); **C10M 2209/105** (2013.01); **C10M 2215/064** (2013.01); **C10M 2215/22** (2013.01); **C10M 2215/221** (2013.01); **C10M 2215/225** (2013.01); **C10M 2215/226** (2013.01); **C10M 2215/30** (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); **C10M 2223/04** (2013.01); **C10M 2223/041** (2013.01); **C10M 2223/042** (2013.01); **C10M 2223/045** (2013.01); **C10N 2010/00** (2013.01); **C10N 2010/02** (2013.01); **C10N 2010/04** (2013.01); **C10N 2040/25** (2013.01); **C10N 2040/251** (2020.05); **C10N 2040/255** (2020.05); **C10N 2040/28** (2013.01)

## Citation (search report)

See references of WO 9303121A1

## Designated contracting state (EPC)

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

## DOCDB simple family (publication)

**WO 9303121 A1 19930218**; AT E167512 T1 19980715; AU 2339692 A 19930302; AU 658218 B2 19950406; CA 2088768 A1 19930201; DE 69225947 D1 19980723; DE 69225947 T2 19990325; EP 0551466 A1 19930721; EP 0551466 B1 19980617; ES 2119816 T3 19981016; FI 931039 A0 19930309; FI 931039 A 19930309; JP 3212603 B2 20010925; JP H06502682 A 19940324; MX 9204467 A 19940630; NO 931202 D0 19930330; NO 931202 L 19930514

## DOCDB simple family (application)

**US 9205928 W 19920715**; AT 92915925 T 19920715; AU 2339692 A 19920715; CA 2088768 A 19920715; DE 69225947 T 19920715; EP 92915925 A 19920715; ES 92915925 T 19920715; FI 931039 A 19930309; JP 50358893 A 19920715; MX 9204467 A 19920730; NO 931202 A 19930330