

Title (en)

Process for preparing an overbased additive containing a boron derivative, additive produced by said process and lubricating compositions containing said additive.

Title (de)

Verfahren zur Herstellung eines, ein anorganisches Borderivat enthaltenden, }berbasischen Additivs, so erhaltenes Additiv und Schmiermittel, die dieses Additiv enthalten.

Title (fr)

Procédé de préparation d'un additif suralcanisé renfermant un dérivé inorganique du bore, l'additif ainsi obtenu et compositions lubrifiantes renfermant ledit additif.

Publication

**EP 0383359 B1 19931103 (FR)**

Application

**EP 90104404 A 19880316**

Priority

- EP 90104404 A 19880316
- FR 8703646 A 19870317

Abstract (en)

[origin: EP0383359A2] Process for preparing a superalkalified additive containing inorganic boron by carbonation of a reaction mixture consisting of a detergent, an alkali metal or alkaline-earth metal and nitrogen- containing and oxygen-containing promoters in a diluent oil and a hydrocarbon solvent. The inorganic boron derivative is introduced into the reaction mixture before the carbonation reaction. The boron additive is employed as an additive with an antiwear effect in lubricants.

IPC 1-7

**C10M 159/20**; C10M 159/22; C10M 159/24; C10M 163/00

IPC 8 full level

**C10M 159/20** (2006.01); **C10M 159/22** (2006.01); **C10M 159/24** (2006.01); **C10M 163/00** (2006.01)

CPC (source: EP)

**C10M 133/56** (2013.01); **C10M 159/20** (2013.01); **C10M 159/22** (2013.01); **C10M 159/24** (2013.01); **C10M 163/00** (2013.01);  
C10M 2207/028 (2013.01); C10M 2207/26 (2013.01); C10M 2207/262 (2013.01); C10M 2215/28 (2013.01); C10M 2219/046 (2013.01);  
C10M 2219/089 (2013.01)

Cited by

WO9516011A1

Designated contracting state (EPC)

BE DE FR GB IT NL

DOCDB simple family (publication)

**EP 0383359 A2 19900822**; **EP 0383359 A3 19901107**; **EP 0383359 B1 19931103**

DOCDB simple family (application)

**EP 90104404 A 19880316**