

Title (en)
Grease compositions

Title (de)
Schmierfettzusammensetzungen

Title (fr)
Compositions de graisse

Publication
EP 0597712 B1 19980121 (EN)

Application
EP 93309028 A 19931111

Priority
US 97536292 A 19921112

Abstract (en)
[origin: EP0597712A1] This invention relates to improved grease compositions comprising a major amount of an oil based simple metal soap thickened base grease and a minor amount of at least one phosphorus and boron containing composition, said phosphorus and boron containing composition prepared by reacting a combination of (A) at least one boron compound and (B) at least one phospholipid. In one embodiment, the phosphorus and boron containing composition is present in amounts sufficient to improve the extreme pressure, antiwear and lubricity properties of the base grease. In another embodiment the phosphorus and boron containing composition is present in amounts sufficient to increase the dropping point of the base grease, as determined by ASTM procedure D-2265, by at least 20 DEG C.

IPC 1-7
C10M 139/00; C10M 159/12; C10M 159/16; C10M 159/20; C10M 169/06

IPC 8 full level
C10M 139/00 (2006.01); **C10M 159/12** (2006.01); **C10M 159/16** (2006.01); **C10M 159/20** (2006.01); **C10M 159/24** (2006.01); **C10M 169/06** (2006.01); C10N 10/02 (2006.01); C10N 10/04 (2006.01); C10N 30/06 (2006.01); C10N 40/02 (2006.01); C10N 40/04 (2006.01); C10N 50/10 (2006.01); C10N 60/14 (2006.01)

CPC (source: EP)
C10M 117/02 (2013.01); **C10M 117/04** (2013.01); **C10M 125/26** (2013.01); **C10M 129/26** (2013.01); **C10M 129/68** (2013.01); **C10M 129/95** (2013.01); **C10M 133/04** (2013.01); **C10M 133/08** (2013.01); **C10M 133/44** (2013.01); **C10M 133/52** (2013.01); **C10M 135/04** (2013.01); **C10M 135/10** (2013.01); **C10M 137/04** (2013.01); **C10M 137/08** (2013.01); **C10M 139/00** (2013.01); **C10M 149/02** (2013.01); **C10M 159/123** (2013.01); **C10M 159/16** (2013.01); **C10M 159/20** (2013.01); **C10M 159/24** (2013.01); **C10M 169/06** (2013.01); C10M 2201/087 (2013.01); C10M 2201/10 (2013.01); C10M 2201/102 (2013.01); C10M 2201/105 (2013.01); C10M 2207/10 (2013.01); C10M 2207/121 (2013.01); C10M 2207/122 (2013.01); C10M 2207/1225 (2013.01); C10M 2207/123 (2013.01); C10M 2207/1245 (2013.01); C10M 2207/125 (2013.01); C10M 2207/1265 (2013.01); C10M 2207/1285 (2013.01); C10M 2207/129 (2013.01); C10M 2207/166 (2013.01); C10M 2207/186 (2013.01); C10M 2207/206 (2013.01); C10M 2207/22 (2013.01); C10M 2207/246 (2013.01); C10M 2207/26 (2013.01); C10M 2207/28 (2013.01); C10M 2207/34 (2013.01); C10M 2215/02 (2013.01); C10M 2215/042 (2013.01); C10M 2215/223 (2013.01); C10M 2215/24 (2013.01); C10M 2217/02 (2013.01); C10M 2217/043 (2013.01); C10M 2219/022 (2013.01); C10M 2219/044 (2013.01); C10M 2219/046 (2013.01); C10M 2223/04 (2013.01); C10M 2223/041 (2013.01); C10M 2223/043 (2013.01); C10M 2223/12 (2013.01); C10M 2223/121 (2013.01); C10M 2227/00 (2013.01); C10M 2227/06 (2013.01); C10M 2227/061 (2013.01); C10M 2227/062 (2013.01); C10M 2227/063 (2013.01); C10M 2227/065 (2013.01); C10M 2227/066 (2013.01); C10N 2010/00 (2013.01); C10N 2010/02 (2013.01); C10N 2010/04 (2013.01); C10N 2010/06 (2013.01)

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 0597712 A1 19940518; **EP 0597712 B1 19980121**; AT E162545 T1 19980215; AU 5043693 A 19940526; AU 667137 B2 19960307; BR 9304049 A 19940517; CA 2102650 A1 19940513; CA 2102650 C 20030909; DE 69316542 D1 19980226; DE 69316542 T2 19980910; ES 2113496 T3 19980501; JP H06200281 A 19940719; MX 9306991 A 19950131

DOCDB simple family (application)
EP 93309028 A 19931111; AT 93309028 T 19931111; AU 5043693 A 19931104; BR 9304049 A 19931022; CA 2102650 A 19931108; DE 69316542 T 19931111; ES 93309028 T 19931111; JP 27968893 A 19931109; MX 9306991 A 19931109