

Title (en)  
Low sulfur, low ash, low phosphorus and low base number lubricating oil composition using an alkylamine salt of a dialkylmonothiophosphate

Title (de)  
Schmierstoffzusammensetzung mit niedrigem Schwefel-, Phosphor-, Aschegehalt und niedriger Basenzahl enthaltend ein Alkylaminsalz eines Dialkylmonothiophosphats

Title (fr)  
Composition lubrifiante à faible teneur en soufre, en phosphore, en cendres et en bases contenant un alkylammonium dialkylmonothiophosphate

Publication  
**EP 1502939 A2 20050202 (EN)**

Application  
**EP 04254564 A 20040729**

Priority  
US 63002603 A 20030730

Abstract (en)  
A low sulfur, low ash, and low phosphorus oil soluble lubricant additive package comprising an alkylamine salt of a dialkylmonothiophosphate, at least one detergent, at least one dispersant and at least one antioxidant.

IPC 1-7  
**C10M 163/00**; C10M 169/04

IPC 8 full level  
**C10M 141/10** (2006.01); **C10M 129/10** (2006.01); **C10M 129/54** (2006.01); **C10M 133/12** (2006.01); **C10M 135/04** (2006.01); **C10M 135/10** (2006.01); **C10M 135/30** (2006.01); **C10M 137/10** (2006.01); **C10M 159/16** (2006.01); **C10M 159/20** (2006.01); **C10M 159/22** (2006.01); **C10M 163/00** (2006.01); **C10M 169/04** (2006.01); **C10N 20/00** (2006.01); **C10N 30/00** (2006.01); **C10N 30/04** (2006.01); **C10N 40/04** (2006.01); **C10N 40/25** (2006.01)

CPC (source: EP US)  
**C10M 141/10** (2013.01 - EP US); **C10M 163/00** (2013.01 - EP US); **C10M 2223/047** (2013.01 - EP US); **C10N 2030/04** (2013.01 - EP US); **C10N 2030/06** (2013.01 - EP US); **C10N 2040/25** (2013.01 - EP US)

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**EP 1502939 A2 20050202**; **EP 1502939 A3 20050720**; **EP 1502939 B1 20110831**; AT E522592 T1 20110915; AU 2004203101 A1 20050217; AU 2004203101 B2 20060907; CA 2472803 A1 20050130; CN 100523150 C 20090805; CN 1583986 A 20050223; JP 2005048182 A 20050224; SG 108988 A1 20050228; US 2005026791 A1 20050203

DOCDB simple family (application)  
**EP 04254564 A 20040729**; AT 04254564 T 20040729; AU 2004203101 A 20040709; CA 2472803 A 20040630; CN 200410059021 A 20040729; JP 2004213395 A 20040721; SG 200404338 A 20040728; US 63002603 A 20030730