

Title (en)

BISMUTH DITHIOCARBAMATES AND THEIR USE AS ADDITIVE FOR LUBRICANTS

Title (de)

BISMUTH DITHIOCARBAMATE UND DEREN VERWENDUNG ALS ADDITIVE FUER SCHMIERMITTELN

Title (fr)

DITHIOCARBAMATES DE BISMUTH ET LEUR UTILISATION COMME ADDITIFS POUR LUBRIFIANTS

Publication

EP 0695291 A1 19960207 (EN)

Application

EP 94913165 A 19940420

Priority

- GB 9400830 W 19940420
- GB 9308091 A 19930420
- GB 9311223 A 19930601

Abstract (en)

[origin: WO9424100A1] Certain bismuth tris-(di-organic substituted dithiocarbamate) salts are useful as extreme pressure (EP) additives in oils and greases. The bismuth compounds have EP properties which are as good as or better than those of the corresponding analogous antimony compounds which have previously been suggested and used as EP additives in lubricants. Some of the bismuth compounds, particularly where the substitution includes C6 alkyl or longer, or branched alkyl groups, are novel compounds.

IPC 1-7

C07C 333/16; C10M 135/18

IPC 8 full level

C07C 333/16 (2006.01); **C10M 135/18** (2006.01); **C10N 10/10** (2006.01); **C10N 20/02** (2006.01); **C10N 30/06** (2006.01); **C10N 40/02** (2006.01); **C10N 40/04** (2006.01)

CPC (source: EP)

C07C 333/16 (2013.01); **C10M 2207/125** (2013.01); **C10M 2219/068** (2013.01); **C10N 2010/02** (2013.01); **C10N 2010/10** (2013.01); **C10N 2040/02** (2013.01)

Citation (search report)

See references of WO 9424100A1

Citation (third parties)

Third party :

US 2716089 A 19550823 - CYPHERS ELMER B, et al

Designated contracting state (EPC)

BE DE ES FR GB IT NL SE

DOCDB simple family (publication)

WO 9424100 A1 19941027; AU 6541994 A 19941108; CA 2160669 A1 19941027; EP 0695291 A1 19960207; JP H08508993 A 19960924

DOCDB simple family (application)

GB 9400830 W 19940420; AU 6541994 A 19940420; CA 2160669 A 19940420; EP 94913165 A 19940420; JP 52292994 A 19940420