

Title (en)

Overbased lithium salt lubricant additives and production thereof

Title (de)

Überbasische Litium-Salzschmiermittelzusätze und Verfahren zu deren Herstellung

Title (fr)

Sels de lithium surbasiques additifs pour lubrifiant et procédé de leurs production

Publication

**EP 0731159 A3 19970521 (EN)**

Application

**EP 96301587 A 19960307**

Priority

- US 39978395 A 19950307
- US 40015695 A 19950307

Abstract (en)

[origin: EP0731159A2] A lubricant additive concentrate which comprises a base oil of lubricating viscosity and: (a) at least one non-lithium oil-soluble overbased alkali or alkaline earth metal-containing overbased detergent; and (b) at least one oil-soluble overbased lithium salt detergent.

IPC 1-7

**C10M 159/20**; C10M 159/22; C10M 159/24; C10L 1/18; C10L 1/24

IPC 8 full level

**C10L 10/00** (2006.01); **C10M 159/20** (2006.01); **C10M 159/22** (2006.01); **C10M 159/24** (2006.01); **C10M 167/00** (2006.01)

CPC (source: EP)

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Citation (search report)

- [DX] US 3488284 A 19700106 - LESUER WILLIAM M, et al
- [X] US 3515669 A 19700602 - SUER WILLIAM M LE
- [X] GB 1513441 A 19780607 - INST FRANCAIS DU PETROLE
- [A] US 5256322 A 19931026 - COHU LINDA K [US]
- [AD] US 4797217 A 19890110 - CLEVERLEY JOHN A [GB]
- [A] FR 2246625 A1 19750502 - LUBRIZOL CORP [US]

Cited by

US6235688B1; ES2151448A1; EP0924290A3; US5677270A; SG148014A1; JP2003517094A; AU778615B2; US6727208B2; WO0144419A1; WO0050546A1

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