

Title (en)

Use of an alkaliphosphate in a high temperature lubricant

Title (de)

Verwendung von Alkaliphosphat in einem Hochtemperatur-Schmiermittel

Title (fr)

Utilisation d'un phosphate alcalin dans un lubrifiant haute température

Publication

EP 1444314 A1 20040811 (DE)

Application

EP 02782698 A 20021004

Priority

- DE 0203772 W 20021004
- DE 10154062 A 20011102

Abstract (en)

[origin: WO03040274A1] The invention concerns a high temperature lubricant for lubricating two heated metal objects, in mutual contact through their surfaces, moving relative to each other, in particular steel objects, comprising at least 80 wt. % of an alkaline orthophosphate and having a melting point higher than the maximum working temperature of said heated metal objects. The inventive lubricant is mainly used for lubricating mandrel bars during production of seamless metal tubes.

IPC 1-7

C10M 173/02; C10M 103/06; C10M 125/10; C10N 10/02; C10N 10/04; C10N 10/06; C10N 40/24; C10N 50/02

IPC 8 full level

C10M 103/06 (2006.01); **C10M 169/04** (2006.01)

CPC (source: EP)

C10M 103/06 (2013.01); **C10M 169/04** (2013.01); **C10M 2201/062** (2013.01); **C10M 2201/0853** (2013.01); **C10N 2010/02** (2013.01); **C10N 2010/04** (2013.01); **C10N 2010/06** (2013.01); **C10N 2030/08** (2013.01); **C10N 2040/241** (2020.05); **C10N 2050/02** (2013.01); **C10N 2050/08** (2013.01)

Citation (search report)

See references of WO 03040274A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

WO 03040274 A1 20030515; AT E367426 T1 20070815; DE 10154062 A1 20030515; DE 50210522 D1 20070830; EP 1444314 A1 20040811; EP 1444314 B1 20070718; ES 2288563 T3 20080116; PL 197304 B1 20080331; PL 368159 A1 20050321

DOCDB simple family (application)

DE 0203772 W 20021004; AT 02782698 T 20021004; DE 10154062 A 20011102; DE 50210522 T 20021004; EP 02782698 A 20021004; ES 02782698 T 20021004; PL 36815902 A 20021004