

Title (en)  
Additive concentrate

Title (de)  
Zusatzkonzentrat

Title (fr)  
Concentré d'additifs

Publication  
**EP 1770151 A1 20070404 (EN)**

Application  
**EP 06119413 A 20060823**

Priority  
• EP 05270062 A 20050930  
• EP 06119413 A 20060823

Abstract (en)  
An additive concentrate comprises a lubricity enhancer dissolved in a solvent. The lubricity enhancer comprises from 10 to 90% by weight of the concentrate and is a salt formed by the reaction of a carboxylic acid with di-n-butylamine or tri-n-butylamine. The concentrates have excellent low temperature stability.

IPC 8 full level  
**C10L 1/222** (2006.01); **C10L 10/08** (2006.01)

CPC (source: EP KR US)  
**C10L 1/2222** (2013.01 - EP US); **C10L 10/08** (2013.01 - EP US); **C10M 129/26** (2013.01 - KR); **C10M 133/04** (2013.01 - KR);  
**C10L 1/1881** (2013.01 - EP US); **C10L 1/1888** (2013.01 - EP US)

Citation (search report)  
• [X] US 2003200697 A1 20031030 - ARADI ALLEN A [US], et al  
• [DX] US 2002014034 A1 20020207 - BERNASCONI CHRISTIAN [FR], et al  
• [DX] US 2002095858 A1 20020725 - KRULL MATTHIAS [DE], et al

Cited by  
EP2107102A3; US8690968B2

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

Designated extension state (EPC)  
AL BA HR MK YU

DOCDB simple family (publication)  
**US 2007074449 A1 20070405**; CA 2561663 A1 20070330; CN 1940036 A 20070404; CN 1940036 B 20140917; EP 1770151 A1 20070404;  
JP 2007100087 A 20070419; KR 20070037358 A 20070404

DOCDB simple family (application)  
**US 52480906 A 20060921**; CA 2561663 A 20060929; CN 200610141252 A 20060929; EP 06119413 A 20060823; JP 2006267189 A 20060929;  
KR 20060094787 A 20060928