

Title (en)

CUTTING OIL FOR NON-FERRO METAL WORKING WITHOUT REMOVAL OF CHIPS

Publication

**EP 0113863 B1 19870930 (DE)**

Application

**EP 83112390 A 19831209**

Priority

DE 3247426 A 19821222

Abstract (en)

[origin: US4578202A] A cutting oil suitable for the working of nonferrous metals, in particular for milling and engraving copper cylinders employed in gravure printing, is based on fatty acid esters of monohydric or polyhydric alcohols in an organic solvent which is selected from glycols, oligoglycols, polyglycols or their monoethers, diethers, monoesters or diesters, and also contains a surfactant, preferably an anionic surfactant. This oil enables outstanding and trouble-free working of metals and is distinguished by being completely removable, without regreasing, in an alkaline degreasing bath.

IPC 1-7

**C10M 169/04**; C10M 105/32; C10M 105/14; C10M 107/32; C10N 40/22

IPC 8 full level

**C10M 105/14** (2006.01); **C10M 105/32** (2006.01); **C10M 107/32** (2006.01); **C10M 169/04** (2006.01); **C10N 30/00** (2006.01); **C10N 40/22** (2006.01)

CPC (source: EP US)

**C10M 101/04** (2013.01 - EP US); **C10M 105/34** (2013.01 - EP US); **C10M 105/38** (2013.01 - EP US); **C10M 107/34** (2013.01 - EP US); **C10M 135/08** (2013.01 - EP US); **C10M 135/10** (2013.01 - EP US); **C10M 169/04** (2013.01 - EP US); **C10M 2207/2815** (2013.01 - EP US); **C10M 2207/2835** (2013.01 - EP US); **C10M 2207/2845** (2013.01 - EP US); **C10M 2207/401** (2013.01 - EP US); **C10M 2207/4045** (2013.01 - EP US); **C10M 2209/1033** (2013.01 - EP US); **C10M 2209/1045** (2013.01 - EP US); **C10M 2209/1055** (2013.01 - EP US); **C10M 2209/1065** (2013.01 - EP US); **C10M 2209/1075** (2013.01 - EP US); **C10M 2209/1085** (2013.01 - EP US); **C10M 2209/1095** (2013.01 - EP US); **C10M 2219/04** (2013.01 - EP US); **C10M 2219/042** (2013.01 - EP US); **C10M 2219/044** (2013.01 - EP US)

Cited by

WO0060033A1

Designated contracting state (EPC)

BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)

**DE 3247426 A1 19840628**; DE 3373916 D1 19871105; EP 0113863 A2 19840725; EP 0113863 A3 19860212; EP 0113863 B1 19870930; JP S59120693 A 19840712; US 4578202 A 19860325

DOCDB simple family (application)

**DE 3247426 A 19821222**; DE 3373916 T 19831209; EP 83112390 A 19831209; JP 24108083 A 19831222; US 56445883 A 19831222