

Title (en)

Method of metal cutting involving aqueous functional fluids, which comprise extreme pressure additives.

Title (de)

Verfahren zur Metallbearbeitung mit Hilfe von wässrigen funktionellen Flüssigkeiten, die Additive mit EP-Eigenschaften enthalten.

Title (fr)

Procédé d'usinage des métaux en présence de fluides fonctionnels aqueux renfermant des additifs extrême pression.

Publication

**EP 0288375 A1 19881026 (FR)**

Application

**EP 88400945 A 19880419**

Priority

FR 8705778 A 19870424

Abstract (en)

[origin: ES2006638A6] This invention relates to the use of water-soluble 3-mercaptopropionic acid disulphide salts as extreme pressure additives for aqueous functional fluids. These salts may be prepared by the oxidation of 3-mercaptopropionic acid followed by bringing the disulphide obtained into contact with an organic or inorganic base. Functional fluids are used during industrial operations such as, for example, the machining of metals.

Abstract (fr)

Cette invention concerne l'utilisation comme additifs extrême pression pour fluides fonctionnels aqueux de sels hydrosolubles du disulfure de l'acide 3-mercaptopropionique. Ces sels peuvent être obtenus par oxydation de l'acide 3-mercaptopropionique, suivie de la mise en contact du disulfure obtenu avec une base organique ou inorganique. Les fluides fonctionnels sont utilisés lors d'opérations industrielles comme par exemple l'usinage des métaux.

IPC 1-7

**C10M 135/26**; **C10M 173/00**

IPC 8 full level

**C10M 135/26** (2006.01); **C10M 105/72** (2006.01); **C10M 133/08** (2006.01); **C10M 173/00** (2006.01); **C10M 173/02** (2006.01); **C10N 10/02** (2006.01); **C10N 10/04** (2006.01); **C10N 30/06** (2006.01); **C10N 30/12** (2006.01); **C10N 30/16** (2006.01); **C10N 40/22** (2006.01); **C10N 40/24** (2006.01)

CPC (source: EP KR US)

**C10M 105/72** (2013.01 - KR); **C10M 135/26** (2013.01 - EP US); **C10M 145/28** (2013.01 - EP US); **C10M 145/30** (2013.01 - EP US); **C10M 173/00** (2013.01 - EP US); **C10M 173/02** (2013.01 - EP US); **C10M 2201/02** (2013.01 - EP US); **C10M 2209/104** (2013.01 - EP US); **C10M 2209/105** (2013.01 - EP US); **C10M 2209/107** (2013.01 - EP US); **C10M 2219/085** (2013.01 - EP US); **C10N 2040/20** (2013.01 - EP US); **C10N 2040/22** (2013.01 - EP US); **C10N 2040/24** (2013.01 - EP US); **C10N 2040/241** (2020.05 - EP US); **C10N 2040/242** (2020.05 - EP US); **C10N 2040/243** (2020.05 - EP US); **C10N 2040/244** (2020.05 - EP US); **C10N 2040/245** (2020.05 - EP US); **C10N 2040/246** (2020.05 - EP US); **C10N 2040/247** (2020.05 - EP US); **C10N 2050/01** (2020.05 - EP US); **C10N 2070/02** (2020.05 - EP US)

Citation (search report)

- [X] DE 3014654 A1 19801106 - ASAHI CHEMICAL CO
- [X] DE 2642666 A1 19770324 - M & T CHEMICALS INC
- [X] CHEMICAL ABSTRACTS, vol. 90, 1979, page 38, résumé no. 122566t, Columbus, Ohio, US; & JP-A-53 134 049 (SANKYO ORGANIC CHEMICALS CO., LTD) 22-11-1978
- [XD] JOURNAL OF THE AMERICAN SOCIETY OF LUBRICATION ENGINEERS, vol. 33, no. 6, juin 1977, pages 291-298; R.W. MOULD et al.: "Investigations of the activity of cutting oil additives, Part V - The EP activity of some water-based fluids"

Cited by

FR2933006A1; EP1156100A1; FR2809117A1; FR2933005A1; FR3124800A1; CN109913309A; FR3124802A1; US6355604B2; WO2009156620A1; WO2009156621A1; WO2023275307A1

Designated contracting state (EPC)

AT BE CH DE FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

**EP 0288375 A1 19881026**; **EP 0288375 B1 19920422**; AR 245191 A1 19931230; AT E75249 T1 19920515; AU 1511088 A 19881027; AU 600122 B2 19900802; BR 8801867 A 19881122; CA 1337075 C 19950919; CN 1011595 B 19910213; CN 88102384 A 19881109; DE 3870303 D1 19920527; DK 173260 B1 20000529; DK 219788 A 19881025; DK 219788 D0 19880422; ES 2006638 A6 19890501; FI 881913 A0 19880422; FI 881913 A 19881025; FI 95479 B 19951031; FI 95479 C 19960212; FR 2614312 A1 19881028; FR 2614312 B1 19900309; GR 3005146 T3 19930524; IE 61691 B1 19941116; IE 881224 L 19881024; IL 85779 A0 19880930; IL 85779 A 19910630; IN 171118 B 19920725; JP H045716 B2 19920203; JP S63284294 A 19881121; KR 880012741 A 19881128; KR 900005104 B1 19900719; NO 169179 B 19920210; NO 169179 C 19920520; NO 881617 D0 19880414; NO 881617 L 19881025; PT 87320 A 19880501; PT 87320 B 19920831; US 4880552 A 19891114; ZA 882823 B 19881024

DOCDB simple family (application)

**EP 88400945 A 19880419**; AR 31063588 A 19880422; AT 88400945 T 19880419; AU 1511088 A 19880422; BR 8801867 A 19880420; CA 564816 A 19880422; CN 88102384 A 19880423; DE 3870303 T 19880419; DK 219788 A 19880422; ES 8801234 A 19880421; FI 881913 A 19880422; FR 8705778 A 19870424; GR 920401489 T 19920713; IE 122488 A 19880422; IL 8577988 A 19880318; IN 253MA1988 A 19880421; JP 10233688 A 19880425; KR 880004641 A 19880423; NO 881617 A 19880414; PT 8732088 A 19880422; US 18442588 A 19880421; ZA 882823 A 19880421