

Title (en)  
WORKING FLUID FOR BRITTLE AND HARD MATERIALS

Title (de)  
ARBEITSFLÜSSIGKEIT FÜR SPRÖDE HARTE MATERIALIEN

Title (fr)  
FLUIDE DE TRAVAIL POUR MATÉRIAUX FRAGILES ET DURS

Publication  
**EP 2415853 B1 20140115 (EN)**

Application  
**EP 10758452 A 20100319**

Priority  
• JP 2010054813 W 20100319  
• JP 2009086107 A 20090331

Abstract (en)  
[origin: EP2415853A1] Provided is a water-containing working fluid for a brittle material and a hard material, which includes (A) water, (B) a water soluble polymeric compound having an oxygen-containing group and a number average molecular weight of 6,000 to 3,000,000, and (C) a nonionic surfactant having a clouding point of 10 to 70°C in a 1% by mass aqueous solution. In a loose-abrasive grain method, the working fluid allows a slurry thereof to be supplied into the working gap sufficiently and has excellent abrasive grain dispersion stability and excellent properties to wash and disperse cutting swarf. In a method using a fixed-abrasive grain wire saw, the working fluid rarely causes detachment of the fixed abrasive grains and has excellent properties to wash and disperse cutting swarf.

IPC 8 full level  
**C10M 173/02** (2006.01); **C10N 10/02** (2006.01); **C10N 20/04** (2006.01); **C10N 30/02** (2006.01); **C10N 30/06** (2006.01); **C10N 40/32** (2006.01)

CPC (source: EP US)  
**C10M 173/02** (2013.01 - EP US); **C10M 2207/022** (2013.01 - EP US); **C10M 2207/126** (2013.01 - EP US); **C10M 2209/084** (2013.01 - EP US); **C10M 2209/10** (2013.01 - EP US); **C10M 2209/103** (2013.01 - EP US); **C10M 2209/104** (2013.01 - EP US); **C10M 2209/107** (2013.01 - EP US); **C10M 2215/042** (2013.01 - EP US); **C10N 2020/011** (2020.05 - EP US); **C10N 2020/04** (2013.01 - EP US); **C10N 2030/02** (2013.01 - EP US); **C10N 2030/04** (2013.01 - EP US); **C10N 2030/06** (2013.01 - EP US); **C10N 2040/32** (2013.01 - EP US)

Cited by  
US9260643B2; US9803156B2

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