

[Title of the Invention] WORKING FLUID FOR BRITTLE MATERIAL AND WORKING FLUID FOR HARD MATERIAL

[Document name] Abstract

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.

No Figure