

Title (en)
THE USE POLYALKYLENE GLYCOL-BASED ETHER PYRROLIDONE CARBOXYLIC ACIDS IN COOLING LUBRICANTS

Title (de)
DIE VERWENDUNG VON AUF POLYALKYLENGLYKOL BASIERENDE ETHERPYRROLIDONCARBONSÄUREN IN KÜHLSCHMIERSTOFFEN

Title (fr)
L'UTILISATION DES ACIDES ÉTHERPYRROLIDONE CARBOXYLIQUES À BASE DE POLYALKYLÈNE GLYCOL DANS FLUIDES D'USINAGE

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Abstract (en)
[origin: WO2010149252A1] The invention relates to ether pyrrolidone carboxylic acids of formula (1), wherein R1 represents a C1-C6-hydrocarbon group containing 1 to 4 oxy groups, R2 represents H, CH3, CH2CH3, (A-O) represents a (poly)alkylene glycol unit containing one or more C2-C4-alkoxy groups or a mixture of several C2-C4-alkoxy groups, wherein at least one alkoxy group is a butoxy or propoxy group, M represents hydrogen, alkali metal, alkaline earth metal, or an ammonium group, y is 1 or 2, and x is 1, 2, 3, or 4.

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