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(21) International Application Number: PCT/US93/04316 (22) International Filing Date: 12 May 1993 (12.05.93) (30) Priority data: PL 2410 14 May 1992 (14.05.92) AU (71) Applicant (for all designated States except US): HENKEL CORPORATION [US/US]; 140 Germantown Pike, Suite 150, Plymouth Meeting, PA 19462 (US). (72) Inventors; and (73) Inventors/Applicants (for US only) : BROWN, Malcolm, David [AU/AU]; 5 Mackintosh Road, Glen Waverley, VIC (AU). LAMBDEN, Shane, Peter [AU/AU]; 14 Hands Road, Kalorama, VIC (AU).		(74) Agent: ORTIZ, Daniel, S.; Henkel Corporation, 140 Germantown Pike, Suite 150, Plymouth Meeting, PA 19462 (US). (81) Designated States: AU, BR, CA, JP, KR, NZ, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>
(54) Title: METHOD FOR CLEANING ALUMINUM AT LOW TEMPERATURES (57) Abstract An acidic cleaning process for aluminum, especially aluminum cans, that includes a pre-cleaning washing stage followed by an acid cleaning stage is improved by including in the pre-cleaning washing solution both of (i) a component of polyalkoxylated straight or branched chain alcohol surfactant and (ii) a component of polyalkylene glycol-abietic acid surfactant, which are maintained during the process in a ratio of component (i) to component (ii) within the range from 0.4:1 to 3.0:1. The method is particularly useful when the acid cleaning stage also contains both these types of surfactants, but at a lower ratio. A pre-cleaner replenisher composition comprising water, sulfuric acid, and polyalkoxylated straight or branched chain alcohol surfactant is advantageously used in the process. This Sheet Has Been Replaced 		