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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : C10G 45/06, 45/36, C07C 5/03, 7/08, 7/163		(11) International Publication Number: WO 96/18704
A1		(43) International Publication Date: 20 June 1996 (20.06.96)
(21) International Application Number: PCT/US95/16193 (22) International Filing Date: 7 December 1995 (07.12.95) (30) Priority Data: 08/354,593 13 December 1994 (13.12.94) US (71) Applicant: CHEMICAL RESEARCH & LICENSING COMPANY [US/US]; 10100 Bay Area Boulevard, Pasadena, TX 77507 (US). (72) Inventors: HEARN, Dennis; 10100 Bay Area Boulevard, Pasadena, TX 77507 (US). GILDERT, Gary, R.; 10100 Bay Area Boulevard, Pasadena, TX 77507 (US). PUTMAN, Hugh, M.; 10100 Bay Area Boulevard, Pasadena, TX 77507 (US). (74) Agent: JOHNSON, Kenneth, H.; P.O. Box 630708, Houston, TX 77263 (US).		(51) Designated States: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA, UG, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, LS, MW, SD, SZ, UG). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>

(54) Title: **PROCESS FOR THE REMOVAL OF MERCAPTANS AND HYDROGEN SULFIDE FROM HYDROCARBON STREAMS**

(57) Abstract

A process for treating a light cracked naphtha to be used as an etherification feed stock is disclosed in which mercaptans, hydrogen sulfide and diolefins are removed simultaneously in a distillation column reactor (10) using a reduced nickel catalyst. The mercaptans and hydrogen sulfide are reacted with the diolefins to form sulfides which are higher boiling than that portion of the naphtha which is used as feed to the etherification unit. The higher boiling sulfides are removed as bottoms (8) along with any C₆ and heavier materials. Any diolefins not converted to sulfides are selectively hydrogenated to mono-olefins for use in the etherification process.

