



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification⁶:

C10G 45/00

A1

(11) International Publication Number:

WO 97/08272

(43) International Publication Date:

6 March 1997 (06.03.97)

(21) International Application Number: PCT/US96/11645

(22) International Filing Date: 12 July 1996 (12.07.96)

(30) Priority Data:

08/519,736

28 August 1995 (28.08.95)

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). HICKEY, Thomas, P.; 10100 Bay Area Boulevard, Pasadena, TX 77507 (US).

(74) Agent: JOHNSON, Kenneth, H.; P.O. Box 630708, Houston, TX 77263 (US).

(51) Designated States: AL, AM, AT, AU, AZ, 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, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, 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).

Published

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.

(54) Title: GASOLINE DESULFURIZATION PROCESS

(57) Abstract

A catalytic cracked naphtha is desulfurized with minimum loss of olefins and octane. The naphtha is fed to a first distillation column reactor (10) which acts as a depentanizer or dehexanizer with the lighter material containing most of the olefins and mercaptans being boiled up into a first distillation reaction zone (11) where the mercaptans are reacted with diolefins to form sulfides which are removed in the bottoms along with any higher boiling sulfur compounds. The bottoms are subjected to hydrodesulfurization in a second distillation column reactor (20) where the sulfur compounds are converted to H_2S and removed. The lighter fraction containing most of the olefins is thus not subjected to the more harsh hydrogenation conditions of the second reactor (20).

