

PCTWORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : B01F 13/10, 5/10, 3/08		A1	(11) International Publication Number: WO 96/21505
			(43) International Publication Date: 18 July 1996 (18.07.96)
(21) International Application Number: PCT/US96/00082		(81) 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 (AZ, BY, KZ, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, NL, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 11 January 1996 (11.01.96)			
(30) Priority Data: 08/370,694 10 January 1995 (10.01.95) US			
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		Published <i>With international search report.</i> <i>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: **RECIRCULATING A PORTION OF HIGH INTERNAL PHASE EMULSIONS PREPARED IN A CONTINUOUS PROCESS**

(57) Abstract

An improvement in a continuous process for making high internal phase emulsions that are typically polymerized to provide microporous, open-celled polymeric foam materials capable of absorbing aqueous fluids, especially aqueous body fluids such as urine. The improvement involves recirculating a portion (about 50 % or less) of the emulsion withdrawn from the dynamic mixing zone of this continuous process. This increases the uniformity of the emulsion ultimately obtained from this continuous process in terms of having the water droplets homogeneously dispersed in the oil phase. This also improves the stability of the HIPE and expands the temperature range for pouring and curing this HIPE during subsequent emulsion polymerization.

