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(21) International Application Number: PCT/NL99/00544 (22) International Filing Date: 1 September 1999 (01.09.99) (30) Priority Data: 98202943.1 3 September 1998 (03.09.98) EP (71) Applicants (for all designated States except US): DSM N.V. [NL/NL]; Het Overloon 1, NL-6411 TE Heerlen (NL). E.I. DU PONT DE NEMOURS AND COMPANY [US/US]; 1007 Market Street, Wilmington, DE 19898 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): PESTMAN, Robert [NL/NL]; Juralaan 25, NL-5627 CJ Eindhoven (NL). VAN LIESHOUT, Lambertus, Hubertus, Wilhelmus, Maria [NL/NL]; Groot Berghem 11, NL-6335 BK Meerssen (NL). (74) Agent: KLEIBORN, Paul, Erik; Octrooibureau DSM, P.O. Box 9, NL-6160 MA Geleen (NL).	(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published With international search report.	
(54) Title: PROCESS TO CONTINUOUSLY PREPARE AN AQUEOUS MIXTURE OF ϵ-CAPROLACTAM AND ϵCAPROLACTAM PRECURSORS (57) Abstract Process for preparing an aqueous mixture of ϵ-caprolactam and 6-aminocaproic acid and or 6-aminocaproamide which involves, as the reductive amination step, contacting 5-formylvaleric acid and/or an alkyl 5-formylvalerate in water as solvent with hydrogen and an excess of ammonia in the presence of a ruthenium on carrier, as a catalyst, wherein the carrier is titanium oxide, zirconium oxide, graphite or carbon and the catalyst also contains at least one of the metals of group 8-11, or a compound of these metals. The aqueous mixture can be used to prepare ϵ-caprolactam.		