



PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : C07C 57/03, 69/533	A1	(11) International Publication Number: WO 96/17817 (43) International Publication Date: 13 June 1996 (13.06.96)
(21) International Application Number: PCT/US95/15235 (22) International Filing Date: 28 November 1995 (28.11.95) (30) Priority Data: 08/354,842 9 December 1994 (09.12.94) US (71) Applicants: E.I. DU PONT DE NEMOURS AND COMPANY [US/US]; 1007 Market Street, Wilmington, DE 19898 (US). DSM N.V. [NL/NL]; Het Overloon 1, NL-6411 TE Heerlen (NL). (72) Inventors: MURPHREE, Bruce, Edwin; 6935 Blarney Drive, Beaumont, TX 77706-4142 (US). OZER, Ronnie; 2002 Sherwood Drive, Arden, DE 19810 (US). (74) Agent: DEITCH, Gerald, E.; E.I. du Pont de Nemours and Company, Legal Patent Records Center, 1007 Market Street, Wilmington, DE 19898 (US).		(81) Designated States: CA, CN, JP, KR, SG, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). 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: PREPARATION OF PENTENOIC ACID**(57) Abstract**

3-Pentenoic acid or the R ester of pentenoic acid is produced by treating pentenoyl chloride in a reactive distillation zone with ROH where R is hydrogen or hydrocarbon of 1 to 6 carbon atoms. Butadiene may be reacted with HCl that is formed by the hydrolysis of pentenoyl chloride, and the butadiene converted to chlorobutene, and the chlorobutene reacted with carbon monoxide to form pentenoyl chloride.

