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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PROCESS FOR PRODUCING POLYURETHANE ELASTOMER

(57) Abstract: A composition is disclosed for producing an elastomer using toluene diisocyanate prepolymers. The composition is prepared by mixing (a) polyisocyanate, (b) curative component and (c) a catalyst consisting essentially of 1,8-diazabicyclo(5,4,0) undec-7-ene; wherein the polyisocyanate comprises at least 70 percent by weight of the isocyanate containing composition is a toluene diisocyanate terminated prepolymer containing less than about 2 percent by weight free toluene diisocyanate monomer and the curative component contains compounds having isocyanate-reactive groups, wherein at least 40 percent by weight of the compounds having isocyanate-reactive groups are compounds having at least one hydroxyl group.



WO 01/83577 A3

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 124 573 A (WATABE YOJI ET AL) 7 November 1978 (1978-11-07) column 1, line 35 -column 4, line 44 examples 3F,6; table 2 ---	1,4,7-11
A	US 4 952 659 A (HANNAH STEVEN L ET AL) 28 August 1990 (1990-08-28) column 1, line 39 -column 5, line 29 examples 1,2 ---	1,4,8,10
A	DE 198 16 570 A (BAYER AG) 21 October 1999 (1999-10-21) column 1, line 62 -column 3, line 65 column 6, line 53 - line 64 example 2 -----	1,4,8, 10,11



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Patent family members are listed in annex.

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4124573	A	07-11-1978	JP 52111996 A	20-09-1977
			JP 1074910 C	30-11-1981
			JP 52117399 A	01-10-1977
			JP 54028198 B	14-09-1979
			CA 1100680 A1	05-05-1981
US 4952659	A	28-08-1990	US 4798879 A	17-01-1989
			AU 611133 B2	06-06-1991
			AU 1324888 A	29-09-1988
			CA 1315441 A1	30-03-1993
			DE 3876828 D1	04-02-1993
			DE 3876828 T2	06-05-1993
			EP 0284015 A2	28-09-1988
			JP 1020287 A	24-01-1989
DE 19816570	A	21-10-1999	DE 19816570 A1	21-10-1999
			EP 0950675 A1	20-10-1999
			JP 11322882 A	26-11-1999
			NO 991766 A	18-10-1999
			US 6060574 A	09-05-2000