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(54) Extremely stable diesel fuel compositions

(57) Diesel fuel compositions that are extremely stable against thermal degradation, sedimentation and discolouration arc devoid or essentially devoid of certain heteroatomic compounds often present in diesel fuel and which have been discovered to cause the thermal degradation in the presence of nitrate-based cetane im-

prover additives. The specific deleterious heteroatomic compounds include pyrroles, indoles, sulfides, disulfides, mercaptans, thioacids, sulfonic acids, and indolines.



EUROPEAN SEARCH REPORT

Application Number EP 02 25 8749

	DOCUMENTS CONSID	ERED TO BE RELEVAN	IT			
Category	Citation of document with in of relevant passa	ndication, where appropriate, ages		Relevant o claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)	
X	1 November 2001 (20 * page 1, paragraph * page 5, line 20	n 3 * - page 6, line 8 * - page 16, line 4 *	1-	14	C10L1/22	
D,X	US 6 150 575 A (ANG 21 November 2000 (2	GEVINE PHILIP J ET A 2000-11-21)		11,13,		
	* column 5, line 53 * column 6, line 5	5 - line 35 * 2 - line 28 * 5 - column 5, line 10 8 - line 60 * - line 10; table 4 * 5 - line 60; examples	*			
D,X	AL) 15 September 19) - line 49; table 3		14	TECHNICAL FIELDS SEARCHED (Int.CI.7) C10G C10L	
D,X	WO 00 12654 A (ATLA 9 March 2000 (2000- * page 8, line 10 - 1-3 *		ims 1-	14	B01J	
	The present search report has b	peen drawn up for all claims				
	Place of search	Date of completion of the sear	ch		Examiner	
MUNICH		25 August 200	3	Pielka, I		
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document		E : earlier pate after the filir ner D : document o L : document o	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document			

EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 02 25 8749

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on

The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

25-08-2003

Patent document ed in search report	Publication date	Patent famil member(s)	
181511 A		AU 5166001 CA 2405087 EP 1297100 NO 20025048 WO 0181511	A1 01-11-2001 A2 02-04-2003 A 19-12-2002
150575 A		CA 2350408 EP 1147164	A 05-06-2000 A1 25-05-2000 A1 24-10-2001 T 17-09-2002 A 14-05-2001
807413 A		BR 9710862 CA 2259206 CN 1225666 DE 69709900 DE 69709900 EP 0948585 ES 2170958 JP 3387505 JP 2000515575 KR 2000022498	A 25-02-1998 A 17-08-1999 A1 12-02-1998 A ,B 11-08-1999 D1 28-02-2002 T2 05-09-2002 A1 13-10-1999 T3 16-08-2002 B2 17-03-2003 T 21-11-2000 A 25-04-2000 A 02-02-1999 B 11-11-2000 A1 12-02-1998
912654 A	, !	JS 6461497 AU 5488899 CA 2342610 EP 1115814 NO 0012654	A 21-03-2000 A1 09-03-2000 A1 18-07-2001
		CA 2342610 A EP 1115814 A	A1 09-03 A1 18-07

For more details about this annex: see Official Journal of the European Patent Office, No. 12/82

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