(11) EP 2 169 034 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: **14.04.2010 Bulletin 2010/15**

(51) Int Cl.: C10L 1/14^(2006.01) C10L 10/18^(2006.01)

C10L 10/00 (2006.01)

(43) Date of publication A2: **31.03.2010 Bulletin 2010/13**

(21) Application number: 09252359.6

(22) Date of filing: 05.10.2009

(84) Designated Contracting States:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated Extension States:

AL BA RS

(71) Applicant: Afton Chemical Corporation Richmond, VA 23219 (US)

(72) Inventor: Claydon, David, John Grove, Oxfordshire OX12 7JT (GB)

(74) Representative: Curran, Sally Ann J.A. Kemp & Co. 14 South Square Gray's Inn London WC1R 5JJ (GB)

(54) Fuel compositions

(57) There is disclosed a fuel composition comprising (a) a major amount of a middle distillate fuel comprising from about 0.5% to about 30% by weight fatty acid methyl esters, relative to the total amount of the fuel composition; and (b) a minor amount of an additive composition comprising an antioxidant system comprising at

least one cyclic amine antioxidant and at least one phenolic antioxidant, and at least one ashless dispersant. The fuel composition demonstrates reduced sediment formation as compared to a fuel composition devoid of the additive composition.



EUROPEAN SEARCH REPORT

Application Number EP 09 25 2359

Category	Citation of document with indication	n, where appropriate,	Relevant	CLASSIFICATION OF THE		
- alleger,	of relevant passages		to claim	APPLICATION (IPC)		
X	WO 2009/016400 A1 (INNO JACQUELINE [GB]) 5 February 2009 (2009-0 * page 1, line 1 - page * page 4, line 26 - pag * page 10, lines 1-11 * * page 12, lines 7-14 * * page 18, line 16 - pa * page 20, line 29 - pa * page 27, line 25 - pa examples 2,7 *	2-05) 3, line 14 * e 6, line 11 * ge 19, line 11 * ge 25, line 21 *	1-10	INV. C10L1/14 C10L10/00 C10L10/18		
Х	WO 02/102942 A2 (LUBRIZ BARBOUR ROBERT H [GB]; [GB]; MORETO) 27 December 2002 (2002-	DUNCAN DĀVID A 12-27)	9			
A	* page 2, lines 10-14; * page 10, line 22 - pa * page 12, lines 1-18 *	examples E,F,G * ge 11, line 18 *	1-8,10			
A	US 5 679 116 A (CUNNING ET AL) 21 October 1997 * column 1, line 50 - c * examples 8-17 *	(1997-10-21)	1-10	TECHNICAL FIELDS SEARCHED (IPC)		
A	GB 2 156 848 A (EXXON R CO) 16 October 1985 (19 * page 1, lines 1-32 * * page 2, lines 5-7,38- * page 2, line 51 - pag * page 4, lines 34-49;	85-10-16) 41 * e 3, line 9 *	1-10			
A	EP 0 203 692 A1 (EXXON INC [US]) 3 December 19 * column 2, lines 9-27 * column 4, line 37 - c * column 10, line 36 - claims 1-14; example 1	86 (1986-12-03) * olumn 6, line 9 * column 11, line 9;	1-10			
	The present search report has been dr	awn up for all claims				
Place of search Da		Date of completion of the search		Examiner		
Munich		4 March 2010	Bork, Ana-Maria			
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		E : earlier patent door after the filing date D : document cited in L : document cited for	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			
O : non-written disclosure P : intermediate document		& : member of the sar	 : member of the same patent family, corresponding document 			

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

EP 09 25 2359

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.

04-03-2010

Patent document cited in search report		Publication date	Patent family member(s)		Publication date	
WO 200901	.6400 A1	05-02-2009	AU	2008281580	A1	05-02-200
WO 021029)42 A2	27-12-2002	CA EP JP	2437945 1390455 2004531623	A2	27-12-200 25-02-200 14-10-200
US 567911	.6 A	21-10-1997	NONE			
GB 215684	8 A	16-10-1985	NONE			
EP 020369	2 A1	03-12-1986	AU AU CA CN DE IN JP JP US	583114 5671686 1270646 86103589 3667668 167913 2510989 61276894 4744801	A A1 A D1 A1 B2 A	20-04-198 18-06-199 26-06-199 27-05-199 25-01-199 05-01-199 26-06-199 06-12-199

FORM P0459

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