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(71) Applicants (for all designated States except US): **DOW GLOBAL TECHNOLOGIES INC.** [US/US]; 2040 Dow Center, Midland, MI 48674 (US). **ANGUS CHEMICAL COMPANY** [US/US]; 1500 East Lake Cook Road, Buffalo Grove, IL 60089 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BRUTTO, Patrick, E.** [US/US]; 326 Montabello Street, Bloomingdale, IL 60108 (US). **GREEN, George, David** [—/US]; 2421 Grove Lane, Cary, IL 60013 (US). **POHLMAN, John, L.** [US/US]; 9453 Le Claire, Skokie, IL 60077 (US). **TINETTI, Sheila, M.** [US/US]; 308 Richmond Place, Vernon Hills, IL 60061 (US). **SWEDO, Raymond** [US/US]; 924-A Boxwood Drive, Mt. Prospect, IL 60056 (US). **COBURN, Charles, E.** [US/US]; 306 Barn Swallow Lane, Vernon Hills, IL 60061 (US).

(74) Agent: **SHALTOUT, Raef, M.**; Dow Global Technologies Inc., 2040 Dow Center, Midland, MI 48674 (US).

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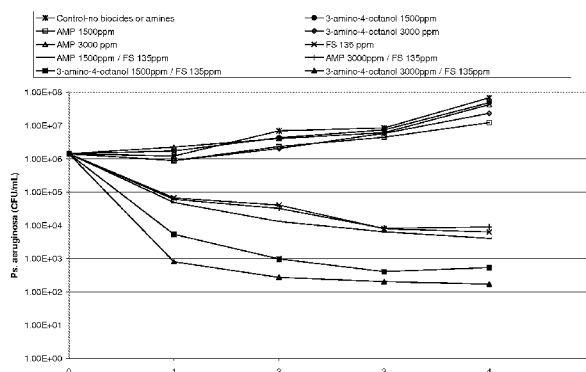
- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

3 September 2009

(54) Title: IMPROVED CORROSION AND MICROBIAL CONTROL IN HYDROCARBONACEOUS COMPOSITIONS

Figure 1: Synergistic Effect of 3-amino-4-octanol with FUELSAVER (135 ppm)



(57) Abstract: Provided are additives of formula I for use in hydrocarbonaceous compositions, such as petroleum or liquid fuels: (I) wherein R¹, R², R³, R⁴, and R⁵ are as defined herein. The additives improve the corrosion resistance of the compositions and, when the composition is biodiesel, also improve microbial resistance. The additives further enhance the antimicrobial efficacy of any added biocides contained in such compositions.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/085485

A. CLASSIFICATION OF SUBJECT MATTER

INV. A01N33/08 C10L1/14 C10L10/04 C10L1/22

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)

A01N C10L

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 2 695 222 A (CHENICEK JOSEPH A ET AL) 23 November 1954 (1954-11-23) claim 1	1-8
Y	column 2, line 50 - line 59 column 1, line 21 - line 30 -----	9-18
A	US 5 154 817 A (REID DWIGHT K [US]) 13 October 1992 (1992-10-13) abstract column 4, line 22 - line 32 claims 1,3 -----	1-18
Y	US 4 925 582 A (BENNETT EDWARD O [US]) 15 May 1990 (1990-05-15) column 2, line 3 - line 48 column 3, line 21 - line 34 ----- -/--	9-18

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

* & * document member of the same patent family

Date of the actual completion of the international search

18 June 2009

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29/06/2009

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Greß, Tobias

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2008/085485

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2004/057964 A (ARCH CHEM INC [US]; RIOUX MICHELLE L [US]; CICCIGNANI DIANA T [US]; PA) 15 July 2004 (2004-07-15) claim 1 page 1, line 10 - line 13 page 11, line 18 - page 12, line 2 page 15, line 11 - page 16, line 37 page 19, lines 18-20 -----	9-18
Y	DATABASE WPI Week 199640 Thomson Scientific, London, GB; AN 1996-397196 XP002516784 & JP 08 193015 A (SANAI SEKIYU KK) 30 July 1996 (1996-07-30) abstract -----	9-18
X	US 4 074 013 A (KOCH KARLHEINZ ET AL) 14 February 1978 (1978-02-14) column 1, line 56 - column 2, line 10 column 2, line 25 - line 29 column 3, lines 22-30 -----	1-6
Y	US 2 164 271 A (HASS HENRY B ET AL) 27 June 1939 (1939-06-27) page 1, line 6 - line 39 -----	9-18
X	ROBBINS J A ET AL: "A review of the microbiological degradation of fuel" DIRECTORY OF MICROBICIDES FOR THE PROTECTION OF MATERIALS A HANDBOOK, 2005, pages 177-202, XP009117636 page 180 pages 192-195 pages 199-200 page 194; table 7 page 195; table 8 -----	19
A	US 3 247 054 A (HODGE EDWARD B) 19 April 1966 (1966-04-19) column 1, lines 11-16, 28-43 example 1 claims 1, 5, 6 -----	19
A	US 2003/027889 A1 (INHESTER MARTINA [DE] ET AL) 6 February 2003 (2003-02-06) abstract claims 1, 7, 8 -----	19

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2008/085485

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☒ No protest accompanied the payment of additional search fees.

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-18

These claims refer to a fuel blend comprising an amino alcohol, acting as corrosion inhibitor and as biocide activity potentiating agent.

2. claim: 19

This claim refers to a method for providing microbial resistance to a biodiesel fuel, the method comprising including in the biodiesel fuel an effective amount of an amino alcohol. Whereby the amino alcohol as such is acting as a biocide and a corrosion inhibitor.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2008/085485

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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