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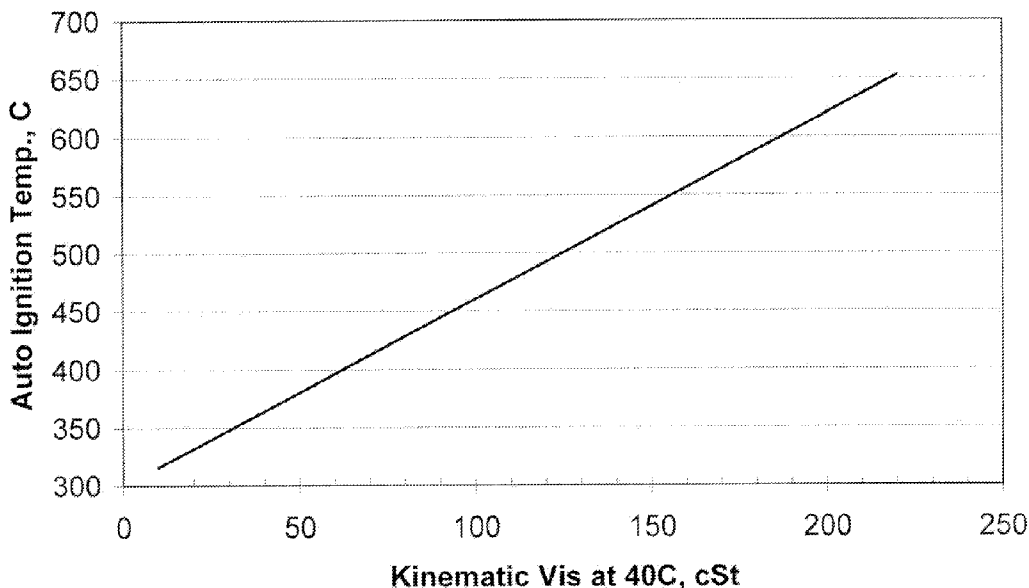
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- (71) Applicants (for all designated States except US):
CHEVRON U.S.A. INC. [US/US]; 6001 Bollinger Canyon Road - 3rd Floor, San Ramon, CA 94583 (US). **SHAH, Ravindra** [US/US]; 1157 Sunlight Circle, Concord, California 94518 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **ROSENBAUM, John M.** [US/US]; 99 Windjammer Court, Richmond, California 94804 (US). **BERTRAND, Nancy J.** [US/US]; 1850 Del Rio Drive, Lafayette, California 94549 (US).
- (74) Agents: **ABERNATHY, Susan M.** et al.; Chevron Corporation, Law Department, Post Office Box 6006, San Ramon, California 94583-0806 (US).

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(54) Title: HEAT TRANSFER OIL WITH HIGH AUTO IGNITION TEMPERATURE



(57) Abstract: A heat transfer oil, comprising a base oil made from a waxy feed, wherein the base oil has a low pour point, low aromatics, and defined cycloparaffin composition. The heat transfer oil has high AIT and VI, and is an ISO viscosity grade. A process to prepare heat transfer oil, comprising: hydroisomerization of wax feed to make fraction(s) of base oil having low pour point, defined cycloparaffin composition, and high ratio of monocycloparaffins to multicycloparaffins; and blending the fractions with < 0.2 wt% antifoam agent. A method to use heat transfer oil, comprising selecting heat transfer oil having high AIT and VI that is made with base oil having defined cycloparaffin composition, providing the heat transfer oil to mechanical system, and transferring heat from heat source to heat sink. Also, heat transfer oil comprising isomerized Fischer-Tropsch derived base oil with a low traction coefficient, and an antifoam agent.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 07/79437

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - C09K 5/00 (2007.10)

USPC - 208/14, 208/24; 236/20R

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)

IPC(8): C09K 5/00 (2007.10)

USPC: 208/24, 208/14; 236/20R.

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

USPC: 208/24, 208/14; 236/20R. (see search terms)

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

USPTO - West - DB: PGPB, USPT, EPAB, JPAB; Google; Google Scholar

Search terms: auto ignition temperature, oil, heat transfer, base, aromatic, viscosity, ISO, Fischer-Tropsch, olefin, carbon, boiling point, metal, dispersant, wax feed, pour point, nitrogen, sulfur, fraction, and ASTM.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2005/0261145 A1 (ROSENBAUM) 24 November 2005 (24.11.2005), para [0058]-[0090], [0106]-[0161]	1-31
Y	Partherm Corporation, "Paratherm HE, Engineering Bulletin HE 302", online Bulletin Paratherm Corporation 2002 (2002), Typical Properties Table [retrieved on 2007-12-13] Retrieved from the internet: <URL: http://www.paratherm.com/Paratherm-HE/he-heat-transfer-fluid.asp >	1-31
Y	US 5,378,349 A (SENN) 03 January 1995 (03.01.1995), col 5, ln 23-57	8
Y	US 4,678,860 A (KUESTER) 07 July 1987 (07.07.1987), Fig 1; col 10, ln 23-67	20-28
Y	US 7,045,055 B2 (ZIEMER et al.) 06 May 2006 (06.05.2006), Fig 1; col 18, ln 63-col 19, ln 14	29-31
Y	US 5,466,364 A (KUAL et al.) 14 November 1995 (14.11.1995), col 9, ln 10-33	29-31

 Further documents are listed in the continuation of Box C.


* 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 application or patent 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

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"&" document member of the same patent family

Date of the actual completion of the international search

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Date of mailing of the international search report

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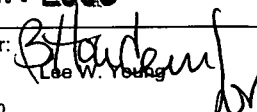
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