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(54) Title: PAINT REMOVER AND DEGREASING COMPOSITIONS

(57) Abstract: A composition useful as a paint remover which includes a carbonate, a dibasic ester and a mono-ester. The paint stripping composition may also contain an organic sulfur-containing compound such as dimethyl sulfoxide (DMSO), a glycol ether, a ketone, or combination thereof. The composition may be used in a process for removing paint by applying it to a painted surface. A degreasing composition is also disclosed which comprises a carbonate and an alkyl-substituted cyclo-alkane such as naphthene. The compositions have several important attributes, including low toxicity and high efficacy in removing paint and coatings.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/27052

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C09D9/00 C11D7/50 C11D3/20

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 7 C09D C11D

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 5 814 163 A (WOJCIK GERALD) 29 September 1998 (1998-09-29) column 2, line 4 -column 3, line 13; example 1	1-4, 14, 17-20, 30
X	US 5 792 278 A (WOJCIK GERALD) 11 August 1998 (1998-08-11) column 1, line 44-62 column 2, line 19-28 column 2, line 51-55 column 3, line 7-30	1-4, 14, 17-20, 30
X	WO 92 19710 A (DU PONT) 12 November 1992 (1992-11-12) abstract; claims 1,7	1-4, 12, 13, 17-20, 28, 29

Further documents are listed in the continuation of box C.

Patent family members are listed in 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

21 January 2003

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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 098 594 A (DOSCHER PATRISHA A) 24 March 1992 (1992-03-24) column 1, line 65 -column 2, line 7 column 2, line 23-28 column 4, line 32-41 -----	1-4,7,8, 12,13, 17-20, 23,24, 28,29
P,X	US 6 159 915 A (DARRAGAS KATTY ET AL) 12 December 2000 (2000-12-12) claims -----	1-33
A	US 6 103 682 A (LALLIER JEAN-PIERRE) 15 August 2000 (2000-08-15) column 2, line 5-30 column 2, line 44-50 -----	1-33
E	WO 02 064687 A (EXXONMOBIL CHEM PATENTS INC) 22 August 2002 (2002-08-22) page 17, last paragraph; claims 1,7,13,32 -----	34,46, 61,73
A	EP 0 105 063 A (PROCTER & GAMBLE) 11 April 1984 (1984-04-11) claims 1,4-6 -----	34-37, 47-50, 61-64

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 01/27052

Box I Observations where certain claims were found unsearchable (Continuation of item 1 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 II Observations where unity of invention is lacking (Continuation of item 2 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 all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers 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.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. Claims: 1-33

Composition useful as a paint remover comprising a carbonate, a dibasic ester and a mono-ester; Process for removing paint by applying said composition.

2. Claims: 34-74

Composition useful as a degreaser comprising a carbonate and a alkyl-substituted cyclo-alkane; method of manufacture and method for removing grease from a substrate making use of said composition.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/27052

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5814163	A	29-09-1998	NONE
US 5792278	A	11-08-1998	NONE
WO 9219710	A	12-11-1992	WO 9219710 A1 12-11-1992
US 5098594	A	24-03-1992	US 5007969 A 16-04-1991 US 5204026 A 20-04-1993 CA 1324064 A1 09-11-1993 EP 0414754 A1 06-03-1991 JP 3505339 T 21-11-1991 WO 8911526 A1 30-11-1989 US 5690747 A 25-11-1997
US 6159915	A	12-12-2000	AU 5490700 A 09-01-2001 EP 1196505 A1 17-04-2002 WO 0078875 A1 28-12-2000 US 2002111284 A1 15-08-2002 US 6482270 B1 19-11-2002
US 6103682	A	15-08-2000	FR 2740142 A1 25-04-1997 AT 216418 T 15-05-2002 AU 713343 B2 02-12-1999 AU 7304696 A 07-05-1997 BR 9610976 A 13-07-1999 CA 2232432 A1 24-04-1997 DE 69620776 D1 23-05-2002 DE 69620776 T2 07-11-2002 DK 856034 T3 12-08-2002 EP 0856034 A1 05-08-1998 WO 9714757 A1 24-04-1997 JP 11513724 T 24-11-1999 NO 981744 A 17-04-1998 NZ 320328 A 29-11-1999
WO 02064687	A	22-08-2002	WO 02064687 A1 22-08-2002
EP 0105063	A	11-04-1984	CA 1178160 A1 20-11-1984 EP 0105063 A1 11-04-1984 AU 8816882 A 17-03-1983 DE 3274882 D1 05-02-1987 GR 78090 A1 26-09-1984 IE 53499 B1 23-11-1988 SE 8205171 A 10-09-1982 AU 555988 B2 16-10-1986 MX 158027 A 29-12-1988