



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁶ : C23G 1/24, C09K 3/18</p>	<p>A3</p>	<p>(11) International Publication Number: WO 96/15293 (43) International Publication Date: 23 May 1996 (23.05.96)</p>
<p>(21) International Application Number: PCT/GB95/02631 (22) International Filing Date: 9 November 1995 (09.11.95) (30) Priority Data: 9422761.8 11 November 1994 (11.11.94) GB (71) Applicant (for all designated States except US): THE ASSOCIATED OCTEL COMPANY LIMITED [GB/GB]; 20 Berkeley Square, London W1X 6DT (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): MACMILLAN, John, Alexander [GB/GB]; 15 Mostyn Avenue, West Kirby, Wirral L48 3HN (GB). BREWER, Mark, Lawrence [GB/GB]; 49 Greenfield Lane, Hoole, Chester CH2 2PA (GB). DUNCAN, Andrew, Charles [GB/GB]; 61 Heathbank Avenue, Irby, Wirral L61 4YG (GB). (74) Agents: HARDING, Charles, Thomas et al.; D. Young & Co., 21 New Fetter Lane, London EC4A 1DA (GB).</p>	<p>(81) Designated States: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA, UG, US, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, LS, MW, SD, SZ, UG).</p> <p>Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p> <p>(88) Date of publication of the international search report: 20 June 1996 (20.06.96)</p>	
<p>(54) Title: METAL CLEANING AND DE-ICING COMPOSITIONS (57) Abstract A metal cleaning composition comprising EDDS is described.</p>		

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB 95/02631

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 C23G1/24 C09K3/18

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 6 C23G C23F

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US,A,3 158 635 (KEZERIAN C.) 24 November 1964 see example 20	1-3,6,7,10
Y	---	4,5,8,9
Y	US,A,4 704 233 (HARTMAN FREDERICK A ET AL) 3 November 1987 see column 9, line 1 - column 10-13; claim 1	4,5,8,9
P,X	---	1-5
	GB,A,2 288 607 (PROCTER & GAMBLE) 25 October 1995 see page 7, second paragraph see page 2, last paragraph - page 3, paragraph 4	

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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

14 February 1996

Date of mailing of the international search report

29.04.96

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 95/02631

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO,A,92 09680 (PROCTER & GAMBLE) 11 June 1992 see page 10, line 8-22 ---	1-4
A	US,A,3 077 487 (RAMSEY W. M.) 12 February 1963 see example XXXVI ---	1
A	US,A,5 183 590 (CARTER CHARLES G ET AL) 2 February 1993 see claims 1,4,5 -----	1

INTERNATIONAL SEARCH REPORT

International application No.

PCT/GB95/02631

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:

1. claims 1-10
 2. claims 11
- please see attached form!

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.:

1-10

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

REASONED STATEMENT

1. In the present application a plurality of independent claims and dependent claims appending thereto can be distinguished :

1-10

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2. The first set relates to metal cleaning with solutions containing EDDS. The problem to be solved is to provide a metal cleaning agent, which has a low-corrosive action on the metal. The second set relates to de-icing compositions containing EDDS. The only common technical feature is the use of EDDS.
3. Since the use of EDDS is already known from US-A-3158635, there cannot be seen any technical features which could be regarded as "special technical features" involved in the relationship among the different inventions present in the first set of claims on the one hand and the second set on the other. De-icing is not regarded as cleaning and certainly not as metal cleaning.
4. Consequently, there is a lack of unity and the different inventions not belonging to a common inventive concept are identified as the different subjects listed on the communication pursuant to Art 17.3 a PCT.
5. The search has been restricted to the first subject (claims 1-10). Searching the second subject would have caused "major additional searching efforts".

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 95/02631

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US-A-3158635	24-11-64	NONE	
US-A-4704233	03-11-87	AU-B- 589877	19-10-89
		AU-B- 8095587	12-05-88
		CA-A- 1299459	28-04-92
		DE-A- 3781510	08-10-92
		DK-B- 170174	06-06-95
		EP-A,B 0267653	18-05-88
		IE-B- 60182	15-06-94
		JP-B- 8032914	29-03-96
		JP-A- 63199295	17-08-88
GB-A-2288607	25-10-95	WO-A- 9529220	02-11-95
WO-A-9209680	11-06-92	AT-T- 121129	15-04-95
		AU-B- 1274692	25-06-92
		CA-A- 2096255	15-05-92
		CZ-A- 9300907	15-06-94
		DE-D- 69108927	18-05-95
		DE-T- 69108927	14-12-95
		EP-A- 0557466	01-09-93
		ES-T- 2071494	16-06-95
		FI-A- 932171	13-05-93
		HU-A- 64391	28-12-93
		JP-T- 6505286	16-06-94
		NZ-A- 240570	22-12-94
		SK-A- 47993	12-01-94
		US-A- 5292446	08-03-94
US-A-3077487	12-02-63	NONE	
US-A-5183590	02-02-93	AU-B- 648907	05-05-94
		AU-B- 1933592	29-04-93
		CA-A- 2074460	25-04-93
		JP-A- 5214567	24-08-93