



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(21) International Application Number: PCT/EP93/00079 (22) International Filing Date: 14 January 1993 (14.01.93) (30) Priority data: 822,503 17 January 1992 (17.01.92) US (71) Applicant (for AU CA GB IE only): UNILEVER PLC [GB/GB]; Unilever House, Blackfriars, London EC4P 4BQ (GB). (71) Applicant (for all designated States except AU CA GB IE): UNILEVER N.V. [NL/NL]; Weena 455, NL-3013 AL Rotterdam (NL). (72) Inventors: BODOR, Janos ; Prins Hendriklaan 38, NL-2201 EC Rijswijk (NL). PATRICK, Matthew ; 347 S. Columbia St., Naperville, IL 60540 (US). WAJDA, Thomas ; 5667 Phelps Luck Dr., Columbia, MD 21092 (US). WESDORP, Leendert, Hendrik ; 3706 Valley Road, Ellicott City, MD 21042 (US).		(74) Agent: SIKKEN, Antonius, J., H., M.; Unilever N.V., Patent Division, P.O. Box 137, NL-3130 AC Vlaardingen (NL). (81) Designated States: AU, CA, CZ, HU, PL, SK, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). 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> (88) Date of publication of the international search report: 3 March 1994 (03.03.94)
(54) Title: PROCESS FOR MAKING SPREADS AND SPREADS OBTAINABLE BY THE PROCESS (57) Abstract <p>A process for preparing a very low fat water-in-oil spread and a spread obtainable by the process. The process entails a cold mixing procedure wherein an at least partially pre-gelled aqueous phase is mixed by back-mixing with an at least partially pre-solidified fat continuous emulsion of fat and water. Emulsions of less than 30 % fat and even 20 % or less fat may be prepared.</p>		

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 93/00079

A. CLASSIFICATION OF SUBJECT MATTER
IPC 5 A23D7/00 A23D7/02

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 5 A23D

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.
Y	GB,A,2 194 166 (PETROLITE CORPORATION) 2 March 1988 see page 2, line 37 - line 39; claims 1,3; example 4 see page 3, line 10 - line 18; figure 1 see page 1, line 9 - line 23 ---	1,3-6, 8-10, 15-17
Y	EP,A,0 297 690 (UNILEVER NV) 4 January 1989 cited in the application see page 4, line 48 - line 49; claims 1-6,9,10; examples 1,3 see page 6, line 10 - line 28 see page 6, line 43 - line 47 --- -/--	1,3-6, 8-10, 15-17

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

☒ Patent family members are listed in annex.

* Special categories of cited documents :

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- "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

11 January 1994

Date of mailing of the international search report

27. 01. 94

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 93/00079

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	FR,A,2 644 326 (LAITIERE NOUVELLE DE L'ARGUENON S.A.) 21 September 1990 see page 7, line 1-5; claims 1,4 see page 4, line 1 - line 33 ---	1,4,6, 11,13,14
A	EP,A,0 276 517 (UNILEVER NV) 3 August 1988 see page 6; claims 1,3,4,6-8; example 1 ---	1,6,11, 13,14
A	EP,A,0 237 120 (UNILEVER NV) 16 September 1987 cited in the application see page 3, line 40 - line 54; claims 1,7-10,12,14,16-18 ---	4-6
A	US,A,4 844 620 (K.J. LISSANT) 4 July 1989 cited in the application see column 3, line 18 - line 35; claim 1; figures 1,2; examples 1-16 ---	1,2
A	DE,A,23 05 411 (HENKEL & CIE GMBH) 8 August 1974 see page 7, paragraph 5; claims 1,2; figure; example 2 ---	1,2
X	DATABASE WPI Week 8833, Derwent Publications Ltd., London, GB; AN 88-230334 & JP,A,63 162 034 (KOYAMA N.) 5 July 1988 see abstract ---	15-17
A	EP,A,0 398 411 (UNILEVER NV) 22 November 1990 see page 6, line 6-18; claims 1,2,7,9,10 ---	15-17
A	EP,A,0 011 891 (UNILEVER NV) 11 June 1980 see page 4, paragraph 7; claims 1,2,5 see page 3, paragraph 3 -----	15-17

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP 93/00079

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 1-14
2. claims 15-17

For further information please see form PCT/ISA 206 sent on 14/06/93.

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.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 93/00079

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB-A-2194166	02-03-88	US-A- 5147134	15-09-92
EP-A-0297690	04-01-89	US-A- 4882187	21-11-89
		AU-B- 602592	18-10-90
		AU-A- 1845388	05-01-89
		JP-A- 1098441	17-04-89
FR-A-2644326	21-09-90	NONE	
EP-A-0276517	03-08-88	AU-B- 604294	13-12-90
		AU-A- 1155788	15-07-88
		WO-A- 8804525	30-06-88
		EP-A- 0329712	30-08-89
		JP-T- 1501916	06-07-89
EP-A-0237120	16-09-87	AU-B- 593618	15-02-90
		AU-A- 6961287	10-09-87
		CA-A- 1298516	07-04-92
		FI-B- 89448	30-06-93
		JP-A- 62232335	12-10-87
		US-A- 4917915	17-04-90
US-A-4844620	04-07-89	NONE	
DE-A-2305411	08-08-74	NONE	
EP-A-0398411	22-11-90	AU-B- 622025	26-03-92
		AU-A- 5498190	22-11-90
		CA-A- 2016713	16-11-90
		JP-A- 3206841	10-09-91
		US-A- 5151290	29-09-92
		AU-B- 636648	06-05-93
		AU-A- 6248590	14-09-90
		CA-A- 2025539	30-03-91
		EP-A- 0420315	03-04-91
EP-A-0011891	11-06-80	US-A- 4305970	15-12-81