



(74)

:

(54)

가 , ' 2 가 ,

가 , , , , , , , -

가 ( 가 )  
24 (foam bath) ,

3,718,609 (Weimer) , - 가 ,  
( )

3,810,478 (Olson, Jr. *et al* )  
2

가 3,533,955 (Pader) 951,213

1,247,189 ('189 ) (1) 0.1 80 wt% , -  
; EDTA



- 가 , 2
- (1) (a) , / (zwitterionic) 가 , ),  
 5 35 wt% ( ( , / 가 10 75 wt% )  
 (lathering) ;
- (b) MW 200 6000 , 4 25 wt%,  
 7 20 wt% ;
- (c) , ( 1-12 wt%, 2 10 wt% ( )  
 (Kao ) ) / ( (laureth) 3 (Croda PEG (160) ) )  
 );
- (d) 30% , 25% - ( , , )  
 ( , ) ( , , )  
 ;
- (2) (a) 10% , 가 5% (1)(a)  
 (90% , 가 );
- (b) (1)(b) 25% , 20%  
 ( 75% );
- (c) (1)(c) 15% , 10% ( )  
 85% , 가 );
- (d) (1)(d) 75% , 85% -

(Rotovisco Rheometer) 10 s<sup>-1</sup> 25 (Haake) RV20  
 700 5000 mPas

0 6 , 45 6 가

가 ( , ) ( , 2 ) 가 ,  
 (pouf)  
 70 mL, 80-1000 mL 25 10 s<sup>-1</sup> 700 5000 mPas -

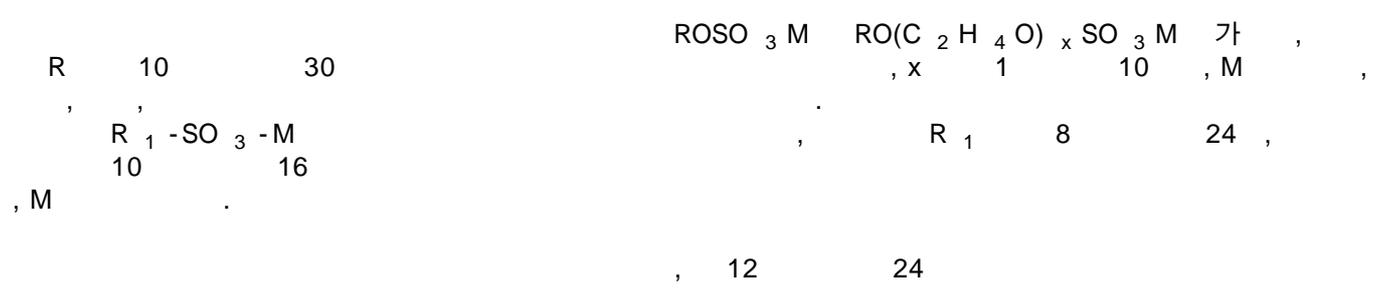
(b) (mildness) 2 ( ) / ; (c) (a)  
 ; (d) ( - ); (d) 2  
 ( , %) , ,  
 , 60:40 40:60 80:20 20:80 , 70:30 30:70,  
 .

	80% ,	20% ,
	65% , 70%	35% , 30%
	80% , 85%	20% , 15%
	25% , 20%	75% , 80%

90% , 95% (20% ) 5-35 wt%, 10 75 wt% 가 .  
 , / , 가 .  
 Mℓ, 80-1000 Mℓ , 70

(McCutcheon's Detergents and Emulsifiers , North American Edition (1986), published by Allured Publishing Corporation; McCutcheon's Functional materials , North Americas Edition (1992), ) .

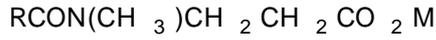
가 .



가

20 ( , 8 , 24 , 10 )  
 (tallow), (lard) )  
 4,557,853

가



가

R 10 20 , M  
 ( , )

TEA

C<sub>8</sub> C<sub>16</sub> 2- 2,658,072 ( N- )  
 ) 가

C<sub>8</sub> C<sub>16</sub>

( , )

C<sub>16</sub>

C<sub>8</sub>

( , )

---

(McCutcheon's Detergents and Emulsifiers , North American Edition (1986), published by Allured Published Corporation; McCutcheon's Functional materials , North American Edition (1992), )

가

C<sub>8</sub>-

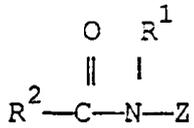
30

(S)<sub>n</sub>-O-R

S

, n 1 1000 , R C 8-30 가  
 , S가 , R C 8-20 , n 1 9  
 (Henkel APG 600 CS 625 CS (Henkel APG 325 CS )가

가 : 가



, R<sup>1</sup> H, C<sub>1</sub>-C<sub>4</sub>, 2- , 2- C<sub>1</sub>-C<sub>4</sub>, C  
 7-C<sub>19</sub> ; Z C<sub>3</sub> C<sub>9</sub>-C<sub>17</sub> ; R<sup>2</sup> C<sub>5</sub>-C<sub>31</sub> , 가 C<sub>11</sub>-C<sub>15</sub> C  
 ( ) . Z  
 N- ( , R<sup>2</sup> CO- )  
 [1959 2 18 GB 809,060 (Thomas Hedley amp; Co., Ltd.; 1960 12  
 20 2,965,576 (E.R. Wilson); 1955 3 8 2,703,798 (A.  
 M. Schwartz); 1934 12 25 1,985,424 (Piggott),  
 ]

가 R<sub>1</sub> R<sub>2</sub> R<sub>3</sub> N O  
 10 , R<sub>1</sub> 8 0 18 , R<sub>2</sub> R<sub>3</sub> 1 3  
 0 1 (semipolar bond) ,  
 (2- ) (2- , 3,6,9- ) ,  
 (3- ) , 2- 가 , 3- -2  
 C<sub>8</sub>-C<sub>14</sub> , C<sub>8</sub>-C<sub>8</sub>

(subset)

가

가

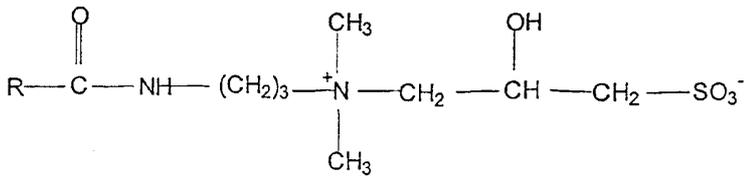
2

3

가 -가

(McCutcheon's Detergents and Emulsifi  
ers , North American Edition (1986), published by Allured Publishing Corporation; McCutcheon's Funcio  
nal materials , North American Edition (1992), )





( , R 9 13 )

가 . 가

(palm) (tallow)

PEG-5  
, PEG-15

( , Clarion Genamin KSL), PEG-2

4 가

5 wt% 25 wt%, 7 20 wt% 35%

30%

MW 200-6000, 200 3000 가  
PEG 400

가 , 80% , 12 wt%, 85% , 가 2 10 wt% /  
가 , 20% , 15% , 5%

PEG (160) 가 (Kao Chemicals Rheodol TWS -399C) PEG-120  
(Croda)가 ); (Rewoderm™; Rewo Chemicals ) ( Glucam) DOE 120 (PEG 120 PEG ); (Antil™) 141 (Goldschmidt )



(sunscreen) 8, 31 9, 13 5,759,969 (

(entrapped)

, 0.01 1%, 0.01 0.05% EDTA EHDP ;  
 , TiO<sub>2</sub>, EGMS ( (pearlizers) /  
 (opacifiers)

가 2- 4,2',4' (DP300) , 3,4,4'-  
 (Glydant XL 1000),  
 (suds booster)

(BHT) , 0.01%

(Merquat Plus) 3300- 39; (Quatrisoft) LM-200 (Polyquaternium)-24,  
 (Jaguar™) 가

(about)

(integers),

가

\_\_\_\_\_ :

' (pouf) '

(pouf)

30  
가

1 ( ) ( )  
(graduated tube) (90 )  
7

' (pouf)'

(netting) 가 (poultry)  
(meat)

가

가 , (ply)

가 (soft) (ball)-

1984 7 31 4,462,135 (Sanford, )

- 1992 9 8 5,144,744 (Campagnali,

)

(The Body Shop and Bynum Conce (Supremia Use),

pts, Inc.)

(Sponge Factory Dominicana)

(Integrated Marketing Group)

1 가

[ 1 ]

		% W/w	
(2 3 EO)		5.00	30.00
(2 3 EO)		5.00	30.00
(2 3 EO)		5.00	30.00
(2 3 EO)		5.00	30.00
/		0.00	25.00
		0.00	32.00
		0.00	10.00
		0.00	10.00
		30.00	
(Na, K, NH <sub>3</sub> )		30.00	
(Na, K)		30.00	
(Na, K)		30.00	
6000		40.00	
1-2		0	5
		0	5
		0	5
PEG (160) (Rheodol TWS-1399C)		0	12.00
3 (Crothix)		0	12.00
		0	1.00
	/	0	10.00

2

2 (2 EO) ) 70 가 가 ( ) 가 ( (160) ) 가 40 가 ( ) 가

[ 2 ]

	% w/w
(2 EO)	19.00
, 400	11.00
(160)	4.00
( )*	17.4
	0.25
	0.50
	0.05
	0.0002
	47.7998
* 가	

: 1.0992 g/cm<sup>3</sup>

: 1.2656 g/cm<sup>3</sup>

3 (2 EO) ) 2 (160) 70 가 가 ( ) 가 40 가 ( ) 가 A). ( 40% w/w ) ( B). A B 가

[ 3a ]

	3	4	5	6	7
(2 EO)	14.0	-	16.0	15.0	15.0

-	-	15.0	-	-	-
	5.0	-	3.0	-	3.0
( 400)	11.0	10.0	-	-	10.0
( 600)	-	-	11.0	7.0	-
(160)	4.0	-	3.0	3.0	-
PEG 120	-	3.0	-	-	3.8
	-	-	-	-	4.0
	-	-	-	-	0.8
	-	-	3.0	-	-
( )	17.4	-	17.0	24.6	16.8
	-	11.0	-	-	-
	0.05	0.05	0.05	0.05	0.10
	1.0	1.0	1.0	1.0	1.25
	-	-	-	3.0	-
	47.55	59.95	45.95	46.35	45.25

[ 3b]

	8	9	10	11	12
(2 EO)	14.0	16.0	2.0	18.5	7.5
	-	-	5.0	-	-
	5.0	-	8.0	-	3.5
	-	3.0	-	-	3.5
( 400)	-	8.0	7.5	10.5	8.0
( 800)	9.0	-	-	-	-
(160)	-	4.0	-	-	3.5
PEG 200 / PEG7	-	-	3.5	-	-
	3.5	-	-	1.2	-
	-	5.0	-	5.0	7.5
	10.0	-	4.0	-	-
( )	-	19.6	15.7	-	-
	18.4	-	-	10.0	12.5
	-	0.05	0.06	0.05	0.05
	0.10	1.0	0.95	1.0	1.0
	1.25	-	-	-	3.0

	38.75	43.35	53.29	53.75	49.95
--	-------	-------	-------	-------	-------

(57)

1.

- (a) 5 35 wt% ; , ,
- (b) 1 12 wt% ;
- (c) 4 20 wt% ;
- (d) , 가 4:1 1:4 , 2  
- ,  
2 가 , 가 ,  
24 2 가

2.

- 1 , (c) 200 6,000 MW 6-20 wt%

3.

- 1 2 , (b)가 , ,

4.

- 3 , PEG 160 , PEG 120

5.

- 1 4 , - (d)

6.

- 1 5 , (a) 가 , ,

7.

- 1 6 , 가

8.

- 1 1 7 7 wt% 가 , 가 가

9.

- (1) (a) , 5 35 wt% ( / ,  
10 75 wt%) ;

- (b) 5 20 wt% ;
- (c) 1 12 wt% / ;
- (2) (a) 10% (1)(a) ;
- (b) (1)(b) 25% ;
- (c) (1)(c) 15% ;
- (d) , 4:1 1:4 , , , , ;
- 2 가 , 가 ;
- 24 2 가 ;
- Pas ; , 10 s<sup>-1</sup> 25 700 5000 m ;
- 0 6 ;
- 45 6 가 2- .
- 9 10. 가 (a) .
- 9 11. 10 (b) 200 6,000 MW , 6-20 wt% .
- 9 12. 11 (1c)가 1-10 wt% , .
- 12 13. PEG 160 , PEG 120 .
- 9 14. 13 (2d) .
- 9 15. 14 (a) 가 , , .

9 16. 15 , (a) 가 .

9 17. 16 가 가  
1 7 wt% 가 .

12 18. , (1c)가 PEG (160) .

2 19. 가 ; , 2 가 24  
가 , , 1 9 .