



ADEKA NOL GT-730 Reference Formulation

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Clear Gel Lotion

[T14J-01-006]

	Cosmetic label name	Raw material	Manufacturer	wt%
1	PEG-240/HDI copolymer bis-decyltetradeceth-20 ether, BG, water	ADEKA NOL GT-730	ADEKA	5.1
2	Gellan gum, BG, water	0.5% aqueous solution of gellan gum(*1)		10.0
3	Pullulan, BG, water	3% aqueous solution of pullulan(*2)		6.0
4	BG	1,3-BG		4.5
5	Glycerin	Concentrated glycerin for cosmetics	Kao	7.5
6	PEG-60 hydrogenated castor oil	EMANON CH-60 (K)	Kao	0.046
7	Vitamin A Oil	Riken A Oil 500	Riken Vitamin	0.004
8		Preservative		qs
9	Water	Water		to 100.0

^{(*1) 0.5%} aqueous solution of gellan gum: Gellan gum [0.5 wt%], 1,3-BG [20 wt%], water [79.5 wt%]

<Steps>

- I. Mix and dissolve 6 and 7 well while warming. Add 4, 5 and 8 and mix.
- II. Add, mix and dissolve 9 to I.
- III. Add, mix and disperse 1, 2 and 3 to II with a disperser. (5000 rpm, 3 minutes, room temperature)

A gel lotion with a jelly like texture peculiar to ADEKA NOL GT-730 is obtained. The combined use of gellan gum and pullulan gives it a smooth texture and a good applicability to the hands when being applied.

This publication is intended to provide reference information on the use of our products.

^{(*2) 3%} aqueous solution of pullulan: Pullulan [3.0 wt%], 1,3-BG [20 wt%], water [77 wt%]

Gel Serum [T14J-02-001]

	Cosmetic label name	Raw material	Manufacturer	wt%
1	PEG-240/HDI copolymer bis-decyltetradeceth-20 ether, BG, water	ADEKA NOL GT-730	ADEKA	3.7
2	Gellan gum, BG, water	1% aqueous solution of gellan gum(*3)		20.0
3	Acrylates/C10-30 alkyl acrylate crosspolymer, BG, water	1% aqueous solution of PEMULEN TR-2(*4)		30.0
4	Dimethicone	KF-96A-6cs	Shin-Etsu Chemical	3.0
5	Lauroyl glutamic acid di- (phytosteryl/octyldodecyl)	ELDEW PS-203	Ajinomoto Healthy Supply	0.2
6	BG	1,3-BG		6.6
7	Glycerin	Concentrated glycerin for cosmetics	Kao	5.0
8	DPG	DPG-RF	ADEKA	3.0
9	Sodium chloride			0.5
10	Silica	SUNSPHERE H-121	AGC Si-Tech	1.0
11	Potassium hydroxide			0.1
12	Water			to 100.0

^{(*3) 1%} aqueous solution of gellan gum: Gellan gum [1.0 wt%], 1,3-BG [20 wt%], water [79 wt%]

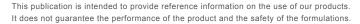
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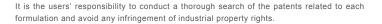
- I. Heat 6-9, 11 and 12 to 50°C, mix and dissolve.
- II. Heat 1-3 to 50°C, stir and disperse with a disperser. (5000 rpm, 5 minutes)
- III. Add, stir and disperse 4 and 5 to II with a disperser. (5000 rpm, 5 minutes, 50°C)
- IV. Add, stir and disperse I to III with a disperser. (5000 rpm, 5 minutes, 50°C)
- V. Add, stir and disperse 10 to IV with a disperser. (5000 rpm, 5 minutes, 50°C)
- VI. Cool to 35°C while stirring.

A combination of silica,

dimethicone and polyols gives a silky sensation with less stickiness.

*This formula does not contain preservatives as it contains approximately 16% BG.







^{(*4) 1%} aqueous solution of PEMULEN TR-2: PEMULEN TR-2 [1.0 wt%], 1,3-BG [20 wt%], water [79 wt%]

Skin Care Cream

[T15A-12-002]

	Cosmetic label name	Raw material	Manufacturer	wt%
1	Polysorbate 60	RHEODOL TW-S120V	Kao	0.5
2	Triethylhexanoin	TOG	Kokyu Alcohol Kogyo	30.0
3	Hexa (hydroxystearic acid/ stearic acid/rosin acid) dipentaerythritol	COSMOL 168ARV	Nisshin Oillio	2.0
4	BG	1,3-BG		4.5
5	Glycerin	Concentrated glycerin for cosmetics	Kao	7.5
6	PEG-240/HDI copolymer bis-decyltetradeceth-20 ether, BG, water	ADEKA NOL GT-730	ADEKA	5.1
7	Acrylates/C10-30 alkyl acrylate crosspolymer	PEMULEN TR-1	Lubrizol	0.05
8	Water			to 100.0
9		Preservative		qs
10	TEA	Triethanolamine		0.1

<Steps>

- I. Heat 1-3 to 80°C, mix and dissolve.
- II. Heat 4-9 to 80°C, mix and dissolve.
- III. Add I to II and stir with a homo mixer to emulsify. (6000 rpm, 5 minutes, 80°C)
- IV. Add, stir and mix 10 to III with a homo mixer. (6000 rpm, 5 minutes)
- V. Cool to 40°C while stirring.

A combination of ADEKA NOL GT-730 and PEMULEN improves the emulsion stability. Furthermore, the texture can be easily controlled by adjusting the balance of these two ingredients and the oils.

Gel Makeup Base

[T16F-29-011]

	Cosmetic label name	Raw material	Manufacturer	wt%
А	Glycerin			4.0
	Xanthan gum			0.05
	Hydroxypropyl methylcellulose			0.05
	Polysorbate 60			2.0
	Sorbitan sesquioleate			1.5
	Ethylhexyl methoxycinnamate			5.0
	Cyclopentasiloxane			4.0
	Triethylhexanoin			3.0
	Hydrogenated polyisobutene	PARLEAM® 4	NOF	10.0
	Dimethicone (10cs)			0.5
В	Isononyl isononanoate			2.0
	Diisostearyl malate			0.25
	Titanium oxide, hydrated silica, hydrogen dimethicone	STR-100W-LP	Sakai Chemical Industry	0.5
	Titanium oxide, hydrogen dimethicone	MKR-1S	Sakai Chemical Industry	6.0
	Iron oxide, dimethicone	SA Red R-516PS (100%)	Miyoshi Kasei	0.20
	Iron oxide, dimethicone	SA Yellow LL-100P (100%)	Miyoshi Kasei	0.50
	Iron oxide, dimethicone	SA Black BL-100P (100%)	Miyoshi Kasei	0.05
С		Preservative		qs

<Steps>

- I. Heat A and B to 80°C, stir, mix and dissolve.
- II. Add B to A while stirring and emulsifying with a high speed stirring device. (e.g., disperser, 2000 rpm, 5 minutes)
- III. Add, stir and mix C to II. Cool to 40°C while stirring.

A makeup base with an excellent dispersion stability for pigments and oil content is obtained. Has the surface smoothness and jelly like texture peculiar to GT-730.

Conditions and moisturizes the skin while maintaining a light texture and less stickiness than O/W.



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