

Nonionic Emulsifying Wax

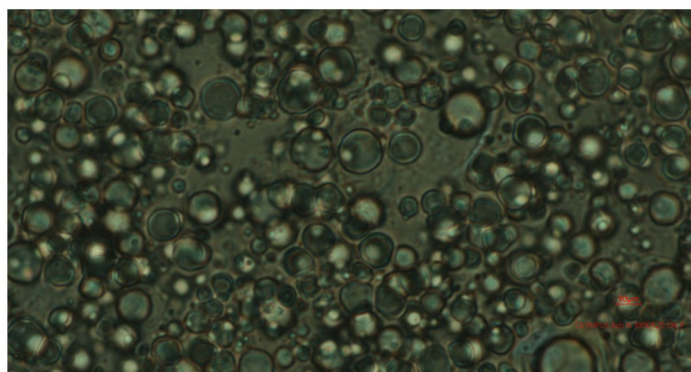


Origin

Nonionic emulsifying wax consists of vegetable and mineral derived emulsifiers and stabilizers, it offers formulators quick and reliable solutions to a wide variety of emulsification problems. Nonionic emulsifying wax is considered as one of the most stable emulsifier in a wide pH range (3-14) applications, and it is compatible with most of cosmetic and pharmaceutical ingredients.

Benefits

- A moderate self-bodying emulsifier
- Form lamellar liquid crystal structure, and promote "time release" hydration



• Polarizing microscope image

Lamellar liquid crystal structure

Lamellar liquid crystal structure can improve the stability and the skin feeling of the emulsion and enhance the moisturizing effect.

- As a stable carrier, it can convey most active substances in a wide PH range
- Excellent environmental and high temperature stability
- Resistant to electrolytes
- No need to process fluffy power (vs carbomer, xanthan gum)
- No need to neutralize (vs carbomer)

Fumei's nonionic emulsifying waxes are RSPO, HALAL certified, and the EO and dioxane residue comply with pharmaceutical standard.

Application

- Facial Hydrating Cream
- Baby cream and emulsion
- AHA/BHA Cream (pH 3-3.5)
- Hair dye (pH 10-10.5) and oxidant (pH 3-3.5)
- Perm lotion (pH 9-9.5) and neutralizer (pH 3-3.5)
- Hair relaxer & depilatory cream (pH 12-12.5)
- Topical ointment (NF4003, BP4004)

Dose of common use

5-10% as primary emulsifier

1-2% as emulsifier stabilizer

Nonionic Emulsifying Wax

About product

Product Name	INCI	MP	Quality grade
Cerapharm® Nonionic Emulsifying Wax NF4003	Cetearyl Alcohol (and) Polysorbate 60	50-54°C	USP
Cerapharm® Nonionic Emulsifying Wax BP4004	Cetearyl Alcohol (and) Ceteareth-20	45-53°C (Solidification Point)	BP
Cerafumei® Nonionic Emulsifying Wax 4005	Cetearyl Alcohol (and) PEG-20 Stearate	50-54°C	Cosmetic grade

Stability test comparison

Formulation

Ingredient	%
Caprylic/Capric Triglyceride	10.00
White mineral oil	10.00
Dimethiconol	0.50
Glycerin	4.00
Nonionic Emulsifying Wax	10.00
Water	65.50
Preservative	q.s.

Testing result

Product Name	25°C	-10°C	45°C	Freeze-thaw test
Cerapharm® Nonionic Emulsifying Wax NF4003	√	√	√	5 cycles
Cerapharm® Nonionic Emulsifying Wax BP4004	√	√	×	5 cycles
Cerafumei® Nonionic Emulsifying Wax 4005	√	√	×	3 cycles
Nonionic Emulsifying Wax NF (Competitor C)	√	√	×	3 cycles
Nonionic Emulsifying Wax 1000 NI (Competitor B)	√	√	×	1 cycles
Nonionic Emulsifying Wax GP-200 (Competitor C)	√	√	×	1 cycles

Formulation

First-aid Cream --- FM-SC-2022007

Phase	Ingredients	INCI	% wt
A	Cerapharm® Nonionic Emulsifying Wax BP4004	Cetearyl Alcohol (and) Ceteareth-20	4.00
	Cerafumei® Sumac Wax 5104	Rhus Succedanea Fruit Wax	1.50
	GLTEST® CC	Dicaprylyl Carbonate	5.00
	LANOL™ 99	Isononyl Isononanoate	3.00
	Eviol DG11	Caprylic/Capric Triglyceride	2.00
	PMX-200 Silicone Fluid 100 Cs	Dimethicone	1.00
B	D. I. Water	Water	73.25
	Allantoin	Allantoin	0.10
	EDTA-2Na	Disodium Edta	0.05
	Dipotassium Glycyrrhizate	Dipotassium Glycyrrhizate	0.20
	Carbopol® Ultrez 21 Polymer	Acrylates/C10-30 Alkyl Acrylate Crosspolymer	0.30
	Sodium Hyaluronate HA-TG	Sodium Hyaluronate	0.05
	Eumulgin SG	Sodium Stearoyl Glutamate	0.25
	1,3-Butylene Glycol	Butylene Glycol	4.00
	Lexgard HPOE	Caprylyl Glycol (and) Ethylhexylglycerin (and) Hexanediol (and)Phenoxyethanol	0.70
C	KOH(4%)	Potassium Hydroxide	3.60
D	Portulaca Oleracea Extract	Portulaca Oleracea Extract	1.00

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