

Cream-Gel Sunscreen with Watermelon Extract (UVA & UVB Sunprotection Filters)

Phase A	Weight %	For 100 g / 3.6 oz
Distilled Water (diluent)	63.1 %	63.1 g / 2.3 oz / 1/4 cup 1 tsp
Glycerin (humectant)	4 %	4 g / 0.14 oz / 3/4 tsp
ETDA (stabilizer, chelating agent)	0.2 %	0.2 g / 1/8 tsp
Phase B		
Octocrylene (UVB sunscreen)	8 %	8 g / 0.3 oz / 1 3/4 tsp
Triglyceride (emollient)	6 %	6 g / 0.2 oz / 1 1/4 tsp
OM Cinnamate (UVB sunscreen)	5 %	5 g / 0.2 oz / 1 tsp
Avobenzone (UVA sunscreen)	3 %	3 g / 0.1 oz / 1 1/4 tsp
CreamMaker Wax (emulsifier)	2 %	2 g / 1 tsp
Vitamin E Acetate (antioxidant)	1 %	1 g / 22 drops
Phase C		
GelMaker EMU (thickener/emulsifier)	2 %	2 g / 1/4 tsp-1/2 tsp
Watermelon Extract (antioxidant)	3 %	3 g / 0.1oz / 1/2 tsp
Vitamin A Palmitate (active ingredient)	0.5 %	0.5 g / 11 drops
Bisabolol (antiinflammatory agent)	0.5 %	0.5 g / 11 drops
Phenoxyethanol/SA (preservative blend)	1.5 %	1.5 g / 32 drops
Fragrance	0.2 %	0.2 g / 5 drops

Method

Give phase A into a clean and disinfected glass beaker and heat to 160F/71C. Add phase B to another disinfected glass beaker and heat to the same temperature, stir until the ingredients are melted. Add phase B to phase A and stir continuously until the cream is formed, remove from the heat. Add GelMaker EMU from phase C to phase A/B it will adjust the viscosity, stir very well while you add it, it has to be mixed well. After the temperature is below 100F/40C add the remaining ingredients of phase C and stir again well.

Properties

Sunscreen with UVB and UVA protection due to octocrylene/om-cinnamate (UVB) and avobenzone (UVA). Watermelon extract protects skin cells (keratinocytes & fibroblasts) against daily stress induced by UV light & free radicals, reduces the break-down of DNA in human skin cells. In vivo tests on humans have shown that watermelon extract protects the DNA up to 25% and reduces erythema after UV irradiation. Vitamin A has skin regenerating and bisabolol anti-inflammatory properties. SPF 18-25 (not exactly determined, needs testing)