

light and fun gel SPF 50¹

formula # 200-10085 (contains escalol™ S UV filter)

material # 945254

claim to fame

—
kid-friendly anhydrous body oil/gel for glowing, nourished, and protected skin without residue

—
○
applies clear on wet skin (HydroSheer™ sun care) and on different skin tones

—
○
high water-resistance and broad-spectrum protection

—
○
formulated without ethanol or silicone

description

Innovative technology, this anhydrous gel is clear upon application on wet skin and provides a uniform film with a very high UV. This texture delivers a light and non-shiny finish on the skin. This sunscreen gel is achieved by gelling sunscreen filters and light Ceraphyl™ esters with FlexiThix™ polymer. The gel can be clear if it does not contain pearlescent ingredients.

ingredients

antaran™ ECo ethylcellulose

nature-derived film former that provides water resistance without adding tack or viscosity

flexiThix™ polymer

no-neutralization, patented thickener that provides a pleasant after-feel and viscosity, even in anhydrous systems

x-tend™ 226 ester

efficient solubilizer for hard-to-solubilize UV filters

cerapyl™ 31 and ICA,esters

light emollients that are compatible with FlexiThix™ polymer while enabling clear application on wet skin

prolipid™ 141 lamellar gel

lessens the greasy feel of the UV filters

typical properties

description: clear green gel with blue/green sparkles
pH: NA
viscosity (D1): 25 000 – 40 000 cps
(Brookfield RVT | Spindle B | 5 RPM | 1 minute | 25°C)

SPF *in vitro*: 50

water resistance *in vitro*: 97.2%

This formula has passed 3-month accelerated lab stabilities and a 28-day challenge efficacy test. However, the preservative system has not been optimized to its lowest effective level.

¹ This product contains escalol S UV filter, which is not approved in the U.S. for sunscreen formulations

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ingredients (trade name INCI)		% w/w	supplier
phase A			
Escalol™ 587 UV filter	Ethylhexyl Salicylate	5.00	Ashland
Escalol™ HMS UV filter	Homosalate	10.00	Ashland
Ceraphyl™ ICA ester	Isocetyl Alcohol	19.90	Ashland
Antaron™ECo/Ganex™ ECo	Ethylcellulose	1.00	Ashland
phase B			
Ceraphyl™ SLK ester	Isodecyl Neopentanoate	2.00	Ashland
X-Tend™ 226 ester	Phenethyl Benzoate	2.00	Ashland
Escalol™ 597 UV filter	Octocrylene	8.00	Ashland
Ceraphyl™ 31 ester	Lauryl Lactate	12.00	Ashland
Escalol™ S UV filter ¹	Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine	3.00	Ashland
Escalol™ 517 UV filter	Butyl Methoxydibenzoylmethane (Avobenzone)	3.00	Ashland
ProLipid™ 141 lamellar gel	Glyceryl Stearate (and) Behenyl Alcohol (and) Palmitic Acid (and) Stearic Acid (and) Lecithin (and) Lauryl Alcohol (and) Myristyl Alcohol (and) Cetyl Alcohol	1.50	Ashland
phase C			
FlexiThix™ polymer	PVP	3.60	Ashland
phase D			
Neossance* Hemisqualane	C13-15 Alkane	8.00	Amyris
Isododecane	Isododecane	15.85	local
Optiphen™ HD preservative booster	Hexanediol	3.00	Ashland
Optiphen™ preservative	Phenoxyethanol (and) Caprylyl Glycol	0.50	Ashland
phase E			
PF Sun Polynesie G11829346	fragrance/parfum (and) Benzyl Salicylate (and) Citronellol (and) Geraniol (and) Limonene (and) Linalool	0.20	Robertet
Xirona* Caribbean Blue	CI 77891 (Titanium Dioxide)(and) Mica (and) Silica (and) Tin Oxide	0.20	Merck
Unicert* green K7016J in Ceraphyl 230 @ 0,2%	Diisopropyl Adipate (and) CI 61565 (green 6)	1.25	Sensient
Total		100.00%	

¹ Not approved for use in the U.S.

procedure

1. In the main beaker, combine ingredients of phase A. Mix and heat to 70°C until ethylcellulose is fully dispersed and the gel is clear
2. In a side beaker, combine phase B ingredients, mix and heat to 65° until powders and waxes are fully dissolved.
3. Combine phases A and B in the main beaker at 65-70°C and mix until homogeneous
4. Add Flexithix and homogenize until the gel is uniform and smooth while maintaining temperature at 65°C
5. Turn heat off and let cool down
6. At 40°C, add phase D ingredients and mix
7. At 30°C, add phase E and mix until color is uniform
8. Stop at 25°C

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