

Multi-Purpose W/O SPF 50 Sun Milk with 5% Butyloctyl Salycilate

This multi-purpose formula combines a very low in viscosity with a light and nourishing skin feel. It uses 25% of Eclipse Z1 zinc oxide as main active, and provides unparalleled transparency and aesthetics on skin. The SPF performance of the formula is boosted by Butyloctyl Salycilate.

Formula #UT015

	INCI	Trade Name	%
A	Polyglyceryl-4 Diisostearate/ Polyhydroxystearate/Sebacate	Isolan GPS (Evonik)	3.00
	Zinc Stearate	ZnStearate (ACEF)	0.50
	Butyloctyl Salycilate	Hallbrite BHB (Hallstar)	5.00
	Tocopherol	Copherol (BASF)	0.05
	Octyldodecyl neopentanoate	Elefac I-205 (ALZO International)	30.00
B	Polyhydroxy Stearic Acid	Alpicare D3 (Lamberti)	0.80
	Zinc Oxide	Eclipse Z1 (Uviva Technologies)	25.00
C	Sodium benzoate	Sodium benzoate (ACEF)	0.30
	Potassium sorbate	Potassium sorbate (ACEF)	0.30
	Aloe barbadensis	Aloe Vera Gel Spray Dried Powder (CAC)	0.50
	Sodium gluconate	Sodium gluconate (ACEF)	0.05
	Glycerin	Glycerin (Gamma Chimica)	1.00
	Sodium Chloride	NaCl (ACEF)	0.90
	Aqua	Aqua	to 100

Sunscreen performance

In-vitro ISO-24443/Helio2

SPF	51
UVA-PF	19
Critical wavelength	372 nm

In-vivo ISO-24444

SPF (n=5)	53.0
-----------	------

FDA

UVA-I/UV ratio	>0.8
----------------	------

Formulation data

Stability

Room Temperature - 1M	Stable
45°C - 1M	Stable
4°C (6h) - 40°C (6h) continuous cycle - 1M	Stable
Centrifuge	Stable

Procedure

1. Prepare phase B by adding Polyhydroxystearic Acid to Octyldodecyl Neopentanoate and heat to 80-85°C
2. Add Eclipse Z1 and disperse well for several minutes (e.g. homogenizer) until smooth
3. Add ingredients of phase A to B and stir well
4. Prepare water phase C by adding Glycerin to water and mix well
5. Add other Phase C ingredients and mix thoroughly
6. Slowly add water phase C to oil phase (A+B) and emulsify until a smooth emulsion is obtained
7. Add fragrance when desired

