

# Natural & Light SPF 50 Sunscreen Lotion

*A light and water-gel like feel - this all-mineral and natural sunscreen lotion rubs in very easily and leaves unparalleled transparency on skin. It is based on 25% Eclipse® Z1 as single UV filter and SPF and UVA are both boosted by Ferulishield. This formula is idea for facial or body sunscreen that consumers will love to re-apply.*

Formula #UT008

	INCI	Trade Name	%
	Polyglyceryl-6 Stearate (and) Polyglyceryl-6 Behenate	Tego Care PBS 6 MB (Evonik)	3.50
A	Cetearyl Alcohol	Lanette O (BASF)	0.50
	Glyceryl Stearate	Cutina GMS V (BASF)	0.50
	Tocopherol (and) Helianthus Annuus (Sunflower) Seed Oil	Dermofeel® Toco 70 non GMO (Evonik)	0.10
	Feruloyl Soy Glycerides	Ferulishield Soy (MW Bioprocessing)	1.00
	Coco-Caprylate	Cetiol C5 (BASF)	15.00
B	Polyhydroxy Stearic Acid	Alpicare D3 (Lamberti)	0.80
	<b>Zinc Oxide</b>	<b>Eclipse Z1 (Uviva Technologies)</b>	<b>25.00</b>
	Glycerin	Glycerin (Gamma Chimica)	1.00
	Xanthan Gum	Xanthan Gum FNCSP-PC (Junbunzlauer)	0.30
	Panthenol	Panthenol 75W (BASF)	0.50
C	Bisabolol	Bisabolol (Eigenmann&Veronelli)	0.50
	Benzyl Alcohol, Dehydro-acetic Acid	Isocide BAS (Lehvoss)	0.50
	Aqua	Aqua	to 100

## Sunscreen performance

### In-vitro ISO-24443/Helio2

SPF	54
UVA-PF	21
Critical wavelength	372 nm

### In-vivo ISO-24444

SPF (n=10)	52.3
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### FDA

UVA-I/UV ratio	>0.8
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## Formulation data

### Stability

Room Temperature - 3M	Stable
45°C - 3M	Stable
4°C (6h) - 40°C (6h) continuous cycle - 3M	Stable
Centrifuge	Stable

### pH

After production	7.08
After 1 month @RT	7.59
After 1 month @45°C	7.18

## Procedure

1. Prepare phase B by adding Polyhydroxystearic Acid to Coco-Caprylate 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, except for Xanthan Gum, and mix thoroughly
6. Slowly add oil phase (A+B) to water phase C and emulsify until smooth emulsion is obtained
7. Add Xanthan Gum and mix until smooth
8. Add remaining ingredients one by one, then cool down
9. Add fragrance when desired

