



PhytoCellTec™ nunatak®

Secrets of beauty from the ice age

PhytoCellTec™ nunatak® is based on stem cells which come from the high alpine plant *Saponaria pumila*. This flower survived the last ice age by growing on ice-free mountain peaks, which are known as Nunataks. The distinctive survival characteristics of *Saponaria pumila* are still preserved in their stem cells and these are now available for skin care.

- **Protects and vitalizes dermal stem cells**
- **Re-densifies skin**
- **Fortifies skin's self-defense activities**

PhytoCellTec™ nunatak® has shown to efficiently protect dermal stem cells against UV-induced stress and to also maintain their stem cell activity. Clinical studies have revealed that PhytoCellTec™ nunatak® enhances the smooth and flawless appearance of the skin, even when it is exposed to the sun.

Ice Age Serum with PhytoCellTec™ nunatak®

Phase	Application / Trade Name	INCI	% w/w
A1	Solvent	Aqua/Water	69.70
	Chelating agent	Disodium EDTA	0.05
	Humectant	Methylpropanediol	5.00
	Thickening agent	Acrylates/C10-30 Alkyl Acrylate Crosspolymer	7.5% of a 2% predispersion in water
A2	Thickening agent	Xanthan Gum	0.20
	Humectant/disperser	Glycerin	3.00
B	O/W non-ionic emulsifier	Polyglyceryl-6 Distearate (and) Jojoba Esters (and) Polyglyceryl-3 Beeswax (and) Cetyl Alcohol	3.00
	Natural emollient	Ethylhexyl Stearate (and) Squalane	2.00
	Natural emollient	Macadamia Ternifolia Seed Oil	2.00
	Texturing agent	C10-18 Triglycerides	0.50
	Feeling agent	Dimethicone	2.00
	Antioxidant	Tocopheryl Acetate	0.30
C	PhytoCellTec™ nunatak®	Saponaria Pumila Callus Culture Extract (and) Isomalt (and) Lecithin (and) Aqua/Water	0.40
	Diluent	Aqua/Water	3.00
D	Preservative	Phenoxyethanol (and) Alkylene Glycol	0.85
E	Perfume	Fragrance	0.15
F	pH Adjuster	Sodium Hydroxide	~0.35 (10% solution)

Manufacturing Procedure

- 1: Mix components of phases **A1** and **A2**
- 2: Add phase **A2** to **A1** and heat up to 75°C.
- 3: Mix components of phase **B** and heat up to 75°C.
- 4: At 75°C mix phases **A1/A2** and **B** under strong agitation and homogenize to homogeneity.
- 5: Cool down under agitation.
- 6: Disperse **PhytoCellTec™ nunatak®** into water (phase **C**) and add below 40°C.
- 7: Add phases **D** and **E**
- 8: Adjust pH to 5.5–6.5 using NaOH (phase **F**)