

Room temperature compounding is afforded by the liquid state of both **Emulsiderm MPN** and UV filter blend **Uvasorb® Complete**. This breakthrough concentration of UV filters is scalable up to SPF 50 meeting Colipa parameters for UV-A/UV-B broad spectrum protection. **Rapidgel® E22** locks in the stability of this high SPF sunscreen formula.

		 Components	 INCI Declaration	 %	 Function
Phase I		Deionized Water Disodium EDTA Butylene Glycol	Aqua Disodium EDTA Butylene Glycol	Up to 100 0.05 2.00	Solvent Chelating agent Humectant
Phase II		Emulsiderm MPN	Polyglyceryl-6 Laurate (and) Caprylic/Capric Triglyceride (and) Olive Oil Polyglyceryl-6 Esters (and) Lecithin Octyl Pelargonate (and) Diethylhexyl Butamido Triazone (and) Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine (and) Diethylamino Hydroxybenzoyl Hexyl Benzoate Dibutyl Adipate	4.00	Emulsifier blend from renewables
		Uvasorb® Complete	Octyl Pelargonate (and) Diethylhexyl Butamido Triazone (and) Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine (and) Diethylamino Hydroxybenzoyl Hexyl Benzoate Dibutyl Adipate	33.00	UV filter blend
		Sensoderm DBA	Pyrus Malus (Apple) Seed Oil (and) Coco-Caprylate/Caprate (and) Caprylic/Capric Triglyceride	1.00	Emollient
		Activederm AE	Bis-Octyldodecyl Dimer Dilinoleate/Propanediol Copolymer	1.00	Emollient
		Naturederm DDG	Dicaprylyl Ether (and) Acrylates/Vinyl Isodecanoate Crosspolymer (and) Aminomethyl Propanol	1.00	Water resistance agent
		Rapidgel® E22	Aminomethyl Propanol	1.60	Thickener, stabilizer
		AMP-95 ^(A)	Aminomethyl Propanol	0.12	Alkali neutralizer
Phase III		Activederm RP	Oryza Sativa (Rice) Starch	2.00	Sensorial agent
		Germaben II ^(B)	Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	0.80	Preservative
		ORC1600301 Ozone Floral ^(C)	Parfum	0.50	Fragrance
Appearance pH (as is) Viscosity RV #5 @ 10 rpm SPF value <i>in vitro</i> (est.)		Uniform smooth pastel yellow emulsion 7.00 – 7.50 18,000 – 26,000 cps 45 – 55			

Procedure:

- To the main vessel, add deionized water.
- Begin agitation with turbine mixer and add the remaining Phase I ingredients. Mix until Disodium EDTA is completely dissolved.
- To Phase I, add Phase II materials **in the listed order** while mixing. After the last Phase II material is added, mix at high speed with sweep until the lotion appears smooth and uniform. Adjust AMP-95 % W/W as needed to target pH 6.5 - 7.0.
- Add Phase III items in order given and mix until uniform. Homogenize 5 minutes at 3500 rpm.

Sources:

- Advancion
- Ashland
- Orchidia

Compliance Regions for UV Filters: EU and LATAM

All information on this formulation is of a general nature and is furnished for your knowledge and understanding only. User assumes all risk of use, storage or handling, whether in accordance with directions or not.