



SUN PROTECTION SPRAY 50+

The product VIVAPUR® CS TEX Sun gives the formulation the right viscosity and it stabilizes the whole formulation. Additionally it ensures an even spray mist and allows an easy and smooth distribution on the skin. The product VIVAPUR® CS Sensory 5 gives the formulation a soft touch.

Phase	Product Name	INCI	Functions	%	
A	1	Parsol 1789	Butyl Methoxydibenzoylmethane	UV A Filter, Oil Soluble	5.0
	2	Parsol TX	Titanium Dioxide, Silica, Dimethicone	UV Filter, Inorganic	3.0
	3	Amphisol K	Potassium Cetyl Phosphate	Emulsifier	2.0
	4	Tego Alkanol1618	Cetearyl Alcohol	Emulsifier	1.2
	5	Parsol 340	Octocrylene	UV Filter, Hydrophobic	14.0
	6	Parsol SLX	Polysilicone-15	UV B Filter, not Water Soluble	2.0
	7	dl-alpha-Tocopheryl Acetate	Tocopheryl Acetate	Antioxidant	0.5
	8	Finsolv TN	C12-15 Alkyl Benzoate	Emollient	3.0
	9	Dub dis	Diisopropyl Sebacate	Emollient	5.0
B	1	VIVAPUR® CS TEX Sun	Microcrystalline Cellulose, Cellulose Gum	Rheology Modifier	1.2
	1	Demineralized Water	Aqua	Solvent	44.3
	2	Glycerin 86.5 %	Glycerin	Humectant	3.0
C	1	Trizma Base	Tromethamine	pH Adjuster	pH>7, QS
D	1	Trizma Base	Tromethamine	pH Adjuster	1.0
	2	Parsol HS	Phenylbenzimidazole Sulfonic Acid	UV B Filter	2.0
	3	Demineralized Water	Aqua	Solvent	10.0
E	1	VIVAPUR® CS Sensory 5	Microcrystalline Cellulose	Sensory Enhancer	2.0
	2	Germaben II	Propylenglykol, Diazolidinyl Urea, Methylparaben, Propylparaben	Preservative	0.8

Formulated by JRS, Germany

Process

- Step 1:** Add A1 - A4 (solids) together in a beaker. Add A5 - A9 (liquids) in another beaker and stir (magnetic stirrer). Add A1 - A4 into A5 - A9 while stirring and slowly heat to 85 °C.
- Step 2:** Add demineralized water and VIVAPUR® CS TEX Sun in a beaker and homogenize with Ultra Turrax high speed dissolver for at least 2 min at 9 500 rpm. Then Add B2 and homogenize again with Ultra Turrax for 30 s. Heat the mixture to 80 °C while stirring (magnetic stirrer).
- Step 3:** Add B to A and homogenize with Ultra Turrax for at least 30 s.
- Step 4:** Let the emulsion cool down to 55 °C under gentle stirring. Check pH and adjust with Tromethamin phase C to >7 if necessary.
- Step 5:** Mix D separately and check pH of the solution (> 7). Add D to the emulsion under stirring.
- Step 6:** Add E1 and E2 under stirring.
- Step 7:** Homogenize all with Ultra Turrax for at least 30 s. Let cool down to ambient temperature.

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