



a **Cargill** company

Zinc Oxide Pre-Sun Lotion with Emulsun

Products Highlighted: Emulsun®, L22®, Floramac® 10, Floraesters K-20W® Jojoba, Floramac Macadamia Oil Refined, and Floralipids® Moringa Oil Refined



This versatile lotion with mineral sunscreen actives provides even coverage and superior protection without drying the skin. Floramac 10 evenly disperses the zinc oxide particles for maximum coverage while Floraesters® K-20W Jojoba helps form a water-resistant barrier for lasting protection. This expert blend of Floratech botanical ingredients also gives the added benefits of increased skin hydration, enhanced barrier function, and increased sunscreen retention.

Phase	Trade/Common Name	INCI Name	Manufacturer	%wt/wt
A.	Deionized Water	Water	-----	q.s.
	Dissolvine® GL-47-S	Tetrasodium Glutamate Diacetate	Nouryon	0.10
	Keltrol® CG-T	Xanthan Gum	CP Kelco	0.30
	Sunspheres® LCG	Styrene/Acrylates Copolymer	The Dow Chemical Co.	5.00
B.	UV Cut ZnO-50-W	Zinc Oxide (and) Water (and) Glycerin (and) Sodium Polyacrylate (and) Phenoxyethanol (and) Xanthan Gum (and) Chlorphenesin	Grant Industries	40.00
C.	Floramac 10	Ethyl Macadamiate	Florotech	8.00
	Floramac Macadamia Oil Refined	Macadamia Integrifolia Seed Oil	Florotech	1.00
	Floralipids Moringa Oil Refined	Moringa Oleifera Seed Oil	Florotech	1.00
	L22	Jojoba Oil/Macadamia Seed Oil Esters (and) Squalene (and) Phytosteryl Macadamiate (and) Phytosterols (and) Tocopherol	Florotech	1.00
	Pelemol® IN-2	Isononyl Isononanoate	Phoenix Chemical, Inc.	4.00
	Vitamin E Acetate	Tocopheryl Acetate	Essential Ingredients	0.20
	Emulsun	Hydrogenated Sunflower Seed Oil Polyglyceryl-3 Esters (and) Hydrogenated Sunflower Seed Oil Glyceryl Esters (and) Cetearyl Alcohol (and) Sodium Stearoyl Lactylate	Florotech	5.00
	Glycerine 99.7% USP Kosher	Glycerin	Acme-Hardesty Co.	2.50
	Floraesters K-20W Jojoba	Hydrolyzed Jojoba Esters (and) Water (Aqua)	Florotech	1.00
	E.	Preservative ¹ Citric Acid, USP (30% Solution)	----- Citric Acid (and) Water	----- Archer Daniels Midland Co.
Total				100.00

Mixing Procedure

- Mix the Dissolvine GL-47-S into the deionized water of Phase A using moderate propeller agitation. Add the Keltrol CG-T and heat to 75-80°C. Once the Keltrol CG-T is fully hydrated, add the remaining ingredients of Phase A.
- In a separate vessel, heat the UV Cut ZnO-50-W of Phase B to 75-80°C.
- Add Phase B to Phase A with moderate propeller agitation at 75-80°C.
- In a separate vessel, combine all the ingredients of Phase C except the Emulsun. Heat to 75-80°C with moderate propeller agitation until uniform.
- When the mixture becomes uniform, add the Emulsun and continue mixing until uniform.
- Add Phase C to Phase AB with rapid homomixing agitation at 75-80°C.
- When the mixture becomes uniform, shift to moderate propeller agitation and cool to 55-60°C.
- In a separate vessel, mix all the ingredients of Phase D at room temperature until uniform. Add Phase D to Phase ABC at 55-60°C with moderate propeller agitation.
- In the order listed, add Phase E to Phase ABCD at 50-55°C with moderate propeller agitation. Cool to 40-45°C.
- Stop mixing at 40-45°C.

Typical Properties: pH: 8-9
Viscosity: 89 - 157kcP

¹ Preservative: euxyl® PE 9010 [INCI: Phenoxyethanol (and) Ethylhexylglycerin] supplied by Schülke Inc.

Note: The information herein is based on our research and the research of others and is believed to be accurate. No guarantee of accuracy is made and the products are provided without warranty, expressed or implied and upon condition that purchasers shall make their own tests to determine the suitability, stability or safety of such products for their particular purposes. Likewise, statements concerning the possible use of these products are not intended as recommendations to use these products in infringement of any patent or in the treatment, prevention, or cure of any medical condition. INCI/trade names must be verified with each manufacturer. (Cleared for Public Disclosure)