

Water Resistant Sunscreen with

Formula KSL-114

Koboguard® 5400 IDD

Kobo Products - formulations

Part	Percent	Ingredients	INCI Name	Supplier
1	14.29	KOBOGUARD® 5400 IDD	Hydrogenated Polycyclopentadiene (And) Isododecane	Kobo Products
	0.35	Permethyl® 99A	Isododecane	Presperse
2	2.00	LUCENTITE SAN-P	Quaternium-18 Hectorite	Kobo Products
	0.66	Phenoxyethanol	Phenoxyethanol	Clariant
3	30.00	PM9P50M170	Titanium Dioxide (And) Isododecane (And) Alumina (And) Methicone (And) Polyhydroxystearic Acid	Kobo Products
	6.80	SF1540	Cyclopentasiloxane (And) PEG/PPG-20/15 Dimethicone	Momentive/Kobo Products
	3.38	TOSPEARL 2000B	Polymethylsilsesquioxane	Momentive/Kobo Products
	0.25	Covi-ox® T-70	Tocopherol	Cognis Corp.
4	0.75	Crill 6	Sorbitan Isostearate	Croda
	0.75	Arlacel 80	Sorbitan Oleate	Croda
	0.10	Propyl Paraben NF	Propylparaben	International Sourcing
5	17.70	Deionized Water	Water	
	1.00	Sodium Chloride	Sodium Chloride	Morton Salt
	0.10	Methyl Paraben NF	Methylparaben	International Sourcing
6	1.65	Syncrowax HGL-C	C18-36 Triglycerides	Croda
	1.10	Syncrowax BB-4	Synthetic Beeswax	Croda
	0.10	Vitamin E Acetate	dl-alpha Tocopherol	Roche
7	17.70	VELVESIL 125	Cyclopentasiloxane (And) C30-45 Alkyl Cetearyl Dimethicone Crosspolymer	Momentive/Kobo Products
8	0.02	Vanillin FCC	Vanillin	Citris & Allied Essence
9	1.00	Deionized Water	Water	
	0.30	dl-Panthenol	Panthenol	Roche

100

Manufacturing Procedure

Use explosion-proof mixers and equipment during batching process

- Combine Part 1 materials. Add the Lucentite SAN-P slowly to Part 1. Stir with a Cowles Dissolver in a stainless steel beaker at high speed for 20 minutes. Add the Phenoxyethanol and stir an additional 20 minutes.
- Combine all the Part 3 ingredients in a stainless steel beaker and stir at high speed with a Cowles Dissolver for 30 minutes. Add gel Parts 1 and 2 to Part 3 to form the base.
- Add Part 4 ingredients to the base and homogenize for 15 minutes.
- Combine aqueous Part 5 ingredients and stir until clear.
- Add Part 5 slowly to the base and continue homogenizing while heating to 75°C.
- Add the waxes (Part 6) to the base and continue to homogenize. Begin air cooling.
- At 70 °C add the Velvesil and QS solvent loss.
- Add Part 8 (Vanillin) to the main batch at 55°C.
- At 42°C add the Panthenol solution. Continue homogenizing and cool until 25°C. Fill into appropriate containers.

Description

This W/O sunscreen includes Koboguard® 5400 IDD, which helps to provide both rub and water-resistance, contributing to long-lasting protection of the sunscreen. PM9P50M170, Kobo's Titanium Dioxide Dispersion, provides transparency and contributes to the high SPF. Lucentite SAN-P gives thickening and stabilizes the emulsion. Tospearl 2000B gives excellent slip and feel on application. SF1540 is an excellent W/O emulsifier. Velvesil 125 is a silicone elastomer which provides a lubricious application and afterfeel.

Notes

Active Ingredient(s)	Percentage
Titanium Dioxide	12.00%

Kobo Products, Inc.

3474 South Clinton Avenue, South Plainfield, NJ 07080 - USA
tel: +1 - 908-757-0033 fax: +1 - 908-757-0905 info@koboproductsinc.com

June, 2005

KOBO

www.koboproducts.com

Formulations

Product formulations are included as illustrative examples only. Kobo Products Inc. makes no representation or warranty concerning the efficacy or safety of any product manufactured using such formulations. All statements concerning the possible use of Kobo Products Inc. are for research purposes only. Responsibility for the performance or adequate testing of any product prior to sale or use of any such product lies with the manufacturer thereof.

Use of Products

Products sold by Kobo are designed, manufactured and sold for industrial use only. Prior to use of any such product for any application other than an industrial use, the user has the sole responsibility and obligation to determine the suitability of any such product for any such application.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Limitation of Liability

Kobo Products Inc. shall in no event, whether the claim is based on warranty, contract, tort, strict liability, negligence or otherwise, be liable for incidental or consequential damages, or for any other damages in excess of the amount of the purchase price.

The Powder & Dispersion Specialist

KOBO
www.koboproducts.com

Kobo Products, Inc.

3474 South Clinton Avenue
South Plainfield, NJ 07080 - USA
tel : +1 - 908-757-0033
fax : +1 - 908-757-0905

Kobo Products SAS

Rue Buissonnière. BP 67660
31676 Labege Cedex - FRANCE
tel : +33 - (0)5-62-88-77-40
fax : +33 - (0)5-62-88-77-49