

# SPF 15 Entrapped Sunscreen with HMZ-50 and Formula KSL-172

## DAIAMID MSP-TiO50



Kobo Products - formulations

Part	Percent	Ingredients	INCI Name	Supplier
<b>1</b>	18.50	<b>HMZ-50</b>	Zinc Oxide (And) Polymethyl Methacrylate	<b>Sumitomo Osaka Cement/Kobo Products</b>
	15.90	Salacos 99	Isononyl Isononanoate	Ikeda Corporation
	5.00	<b>DAIAMID MSP-TiO50</b>	Nylon-12 (And) Titanium Dioxide (And) Aluminum Hydroxide (And) Stearic Acid	<b>Daicel-Evonik/Kobo Products</b>
	5.00	ABIL® WE 09	Polyglyceryl-4 Isostearate (And) Cetyl PEG/PPG-10/1 Dimethicone (And) Hexyl Laurate	Evonik
	3.00	<b>SILSOFT 034</b>	Caprylyl Methicone	<b>Momentive/Kobo Products</b>
	1.00	<b>LUCENTITE SAN-P</b>	Quaternium-18 Hectorite	<b>Kobo Products</b>
	1.00	<b>ELEMENT14 PDMS 350</b>	Dimethicone	<b>Momentive/Kobo Products</b>
	0.50	Crill 3	Sorbitan Stearate	Croda
	0.10	Propylene Carbonate	Propylene Carbonate	Spectrum Chemical Mfg Corp.
	<b>2</b>	46.50	Deionized Water	Water
1.00		Sodium Chloride	Sodium Chloride	Morton Salt
1.00		Germaben® II	Propylene Glycol (And) Diazolidinyl Urea (And) Methylparaben (And) Propylparaben	ISP
1.00		Aculyn™ 44	PEG-150/Decyl Alcohol/SMDI Copolymer	Rohm & Haas
0.50		Liposorb® L-20	Polysorbate 20	Lipo Chemicals
100				

### Manufacturing Procedure

- In main kettle, combine Part 1 ingredients and heat to 60-65°C.
- Mix Part 2 ingredients until uniform and add to Part 1 under propeller. Mix until uniform.
- Cool to 28°C and pour.

### Description

This Sunscreen uses entrapped physical sunscreens HMZ-50 and DAIAMID MSP-TiO50 to be non-nano. The spheres also give protection to the sunscreen and give excellent application and drydown. This non-nano sunscreen is also non-whitening on skin.

### Notes

Active Ingredient(s)	
Zinc Oxide	9.28%
Titanium Dioxide	1.85%

SPF testing: in vivo on 3 subjects

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