

# Kobo Hybrid Sunscreen with DAIAMID MSP-TiO50

Formula KSL-1380



Kobo Products - formulations

Part	Percent	Ingredients	INCI Name	Supplier
<b>1</b>	44.10	Deionized Water	Water	
	1.00	Liposorb® L-20	Polysorbate 20	Lipo Chemicals
<b>2</b>	1.50	Propylene Glycol	Propylene Glycol	Symrise
	0.30	Keltrol® CG	Xanthan Gum	CP Kelco
<b>3</b>	15.00	Neo Heliopan® HMS	Homosalate	Symrise
	11.80	<b>DAIAMID MSP-TiO50</b>	Nylon-12 (And) Titanium Dioxide (And) Aluminum Hydroxide (And) Stearic Acid	<b>Daicel-Evonik/Kobo Products</b>
	10.00	Neo Heliopan® OS	Ethylhexyl Salicylate	Symrise
	3.00	Lipo® GMS 450	Glyceryl Stearate	Lipo Chemicals
	3.00	Neo Heliopan® BB	Benzophenone-3	Symrise
	3.00	Neo Heliopan® 357	Butyl Methoxydibenzoylmethane	Symrise
	2.00	Lipomulse® 165	Glyceryl Stearate (And) PEG-100 Stearate	Lipo Chemicals
	2.00	Ceraphyl® 368	Ethylhexyl Palmitate	ISP
	0.50	Lipowax® D	Cetearyl Alcohol (And) Cetareth-20	Lipo Chemicals
	0.50	Covi-ox® T-50	Tocopherol	Cognis Corp.
	0.30	Liposorb® TS	Sorbital Tristearate	Lipo Chemicals
<b>4</b>	1.00	Botanistat PF-64	Phenoxyethanol (and) Caprylyl Glycol (and) Ethylhexylglycerin (and) Hexylene Glycol	DD Chemco
<b>5</b>	1.00	Aculyn™ 44	PEG-150/Decyl Alcohol/SMDI Copolymer	Rohm & Haas
100				

### Manufacturing Procedure

- In main kettle, combine Part 1 ingredients and heat to 78-80°C.
- Combine Part 2 ingredients and heat to 80°C. Mix until uniform using propeller mixer.
- Add Part 2 to Part 1 and mix until uniform.
- Combine Part 3. Heat to 80°C and add to batch with propeller mixing.
- Add Part 4 while cooling.
- Homogenize for approximately 2 minutes at 4000 rpm.
- Add Part 5 to batch.
- Homogenize for approximately 1 minute at 4000 rpm.
- Cool batch to 30°C.

### Description

This high SPF and high PFA sunscreen contains DAIAMID MSP-TiO50, which has ultrafine Titanium Dioxide entrapped in a Nylon-12 sphere for SPF and and great feel.

### Notes

Active Ingredient(s)	
Homosalate	15.00%
Butyl Methoxydibenzoylmethane	3.00%
Benzophenone-3	3.00%
Ethylhexyl Salicylate	10.00%
Titanium Dioxide	4.37%

SPF testing: in vivo on 3 subjects

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# The Powder & Dispersion Specialist

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