

## DD Cream (Daily Defense) - 1158

Distilled Water (aqua) 63.90 63.90 2.25 12.78 Glycerin (glycerin) 4.00 4.00 0.14 0.80  Xanthan Gum, Prehydrated (xanthan gum) 0.30 0.30 0.01 0.06  Triethanolamine (triethanolamine) 0.10 0.10 0.00 0.02  Phase B  Triglyceride (caprylic / capric triglyceride) 10.00 10.00 0.35 2.00  Jojoba Oil, Organic (Simmondsia Chinensis [Jojoba] seed oil) 2.00 2.00 0.07 0.40  Squalane Light (hydrogenated farnesene) 3.00 3.00 0.11 0.60  Sucrose Cocoate (sucrose cocoate) 1.00 1.00 0.04 0.20  Stearic Acid (stearic acid) 1.00 1.00 0.04 0.20  CreamMaker BLEND (glyceryl stearate, PEG-100 stearate)  Phase C  Pigment Blend Bare Neutral (titanium dioxide [CI 77492 [iron oxides]) 1.50 1.50 0.05 0.30  Titanium Dioxide (titanium dioxide [CI 77891])  Zinc Oxide, Micronized (zinc oxide) 3.00 3.00 0.11 0.60  Phase D  Knotgrass Flavonoids (polygonum aviculare extract, water, glycerin) 2.00 2.00 0.07 0.40  Citrus Combo (glycerin, citric acid, lactic acid, L-ascorbic acid, didecyldimonium 1.00 1.00 0.04 0.20  Chloride)	Ingredient	Function	Percent	Wgt (g)	Wgt (oz)	Vol (tsp.)
Silverin (glycerin)   4.00   4.00   0.14   0.80	Phase A					
Xanthan Gum, Prehydrated (xanthan gum)       0.30       0.30       0.01       0.06         Triethanolamine (triethanolamine)       0.10       0.10       0.00       0.02         Phase B         Triglyceride (caprylic / capric triglyceride)       10.00       10.00       0.35       2.00         Jojoba Oil, Organic (Simmondsia Chinensis [Jojoba] seed oil)       2.00       2.00       0.07       0.40         Squalane Light (hydrogenated farnesene)       3.00       3.00       0.11       0.60         Sucrose Cocoate (sucrose cocoate)       1.00       1.00       0.04       0.20         Stearic Acid (stearic acid)       1.00       1.00       0.04       0.20         CreamMaker BLEND (glyceryl stearate, PEG-100 stearate)       6.00       6.00       0.21       1.20         Phase C         Pigment Blend Bare Neutral (titanium dioxide [CI 77492 [iron oxides])       1.50       1.50       0.05       0.30         Titanium Dioxide (titanium dioxide [CI 77891])       1.00       1.00       0.04       0.20         Phase D       V       2.00       2.00       0.07       0.40         Knotgrass Flavonoids (polygonum aviculare extract, water, glycerin)       2.00       2.00       0.07       0.40         Ci	Distilled Water (aqua)		63.90	63.90	2.25	12.78
Sum	Glycerin (glycerin)		4.00	4.00	0.14	0.80
Phase B         Triglyceride (caprylic / capric triglyceride)         10.00         10.00         0.35         2.00           Jojoba Oil, Organic (Simmondsia Chinensis [Jojoba] seed oil)         2.00         2.00         0.07         0.40           Squalane Light (hydrogenated farnesene)         3.00         3.00         0.11         0.60           Sucrose Cocoate (sucrose cocoate)         1.00         1.00         0.04         0.20           Stearic Acid (stearic acid)         1.00         1.00         0.04         0.20           CreamMaker BLEND (glyceryl stearate, PEG-100 stearate)         6.00         6.00         0.21         1.20           Phase C           Pigment Blend Bare Neutral (titanium dioxide; CI 77492 [iron oxides])         1.50         0.05         0.30           Titanium Dioxide (titanium dioxide [CI 77891])         1.00         1.00         0.04         0.20           Zinc Oxide, Micronized (zinc oxide)         3.00         3.00         0.11         0.60           Phase D           Knotgrass Flavonoids (polygonum aviculare extract, water, glycerin)         2.00         2.00         0.07         0.40           Citrus Combo (glycerin, citric acid, lactic acid, L-ascorbic acid, didecyldimonium chioride)         1.00         1.00         0.04         0.20<	Xanthan Gum, Prehydrated (xanthan gum)		0.30	0.30	0.01	0.06
Triglyceride (caprylic / capric triglyceride)  Jojoba Oil, Organic (Simmondsia 2.00 2.00 0.07 0.40 Chinensis [Jojoba] seed oil)  Squalane Light (hydrogenated farnesene) 3.00 3.00 0.11 0.60 Sucrose Cocoate (sucrose cocoate) 1.00 1.00 0.04 0.20 Stearic Acid (stearic acid) 1.00 1.00 0.04 0.20 CreamMaker BLEND (glyceryl stearate, PEG-100 stearate) Phase C  Pigment Blend Bare Neutral (titanium dioxide, CI 77492 [iron oxides]) Titanium Dioxide (titanium dioxide [CI 77891]) Zinc Oxide, Micronized (zinc oxide) 3.00 3.00 3.00 0.11 0.60 Phase D  Knotgrass Flavonoids (polygonum aviculare extract, water, glycerin) Citrus Combo (glycerin, citric acid, lactic acid, L-ascorbic acid, didecyldimonium dioxide) 1.00 1.00 0.04 0.20 0.07 0.40 0.20 0.20 0.07 0.40 0.20 0.20 0.20 0.20 0.20 0.20 0.20	Triethanolamine (triethanolamine)		0.10	0.10	0.00	0.02
Dojoba Oil, Organic (Simmondsia Chinensis [Jojoba] seed oil)   2.00   2.00   0.07   0.40	Phase B					
Chinensis [Jojoba] seed oil)       2.00       2.00       0.07       0.40         Squalane Light (hydrogenated farnesene)       3.00       3.00       0.11       0.60         Sucrose Cocoate (sucrose cocoate)       1.00       1.00       0.04       0.20         Stearic Acid (stearic acid)       1.00       1.00       0.04       0.20         CreamMaker BLEND (glyceryl stearate, PEG-100 stearate)       6.00       6.00       0.21       1.20         Phase C         Pigment Blend Bare Neutral (titanium dioxides])       1.50       1.50       0.05       0.30         Titanium Dioxide (titanium dioxide [CI 77492 [iron oxides])       1.00       1.00       0.04       0.20         Zinc Oxide, Micronized (zinc oxide)       3.00       3.00       0.11       0.60         Phase D         Knotgrass Flavonoids (polygonum aviculare extract, water, glycerin)       2.00       2.00       0.07       0.40         Citrus Combo (glycerin, citric acid, lactic acid, L-ascorbic acid, didecyldimonium cid, L-ascorbic acid, didecyldimonium cid, lactic acid, lactic acid, didecyldimonium cid, lactic acid, lactic acid	Triglyceride (caprylic / capric triglyceride)		10.00	10.00	0.35	2.00
Sucrose Cocoate (sucrose cocoate)       1.00       1.00       0.04       0.20         Stearic Acid (stearic acid)       1.00       1.00       0.04       0.20         CreamMaker BLEND (glyceryl stearate, PEG-100 stearate)       6.00       6.00       0.21       1.20         Phase C         Pigment Blend Bare Neutral (titanium dioxides])       1.50       1.50       0.05       0.30         Titanium Dioxide (titanium dioxide [CI 77492 [iron oxides])       1.00       1.00       0.04       0.20         Zinc Oxide, Micronized (zinc oxide)       3.00       3.00       0.11       0.60         Phase D       Endown of the complex of the comp	Jojoba Oil, Organic (Simmondsia Chinensis [Jojoba] seed oil)		2.00	2.00	0.07	0.40
Stearic Acid (stearic acid)  CreamMaker BLEND (glyceryl stearate, PEG-100 stearate)  Phase C  Pigment Blend Bare Neutral (titanium dioxide, CI 77492 [iron oxides])  Titanium Dioxide (titanium dioxide [CI 77891])  Zinc Oxide, Micronized (zinc oxide)  Stearate)  Note The Stear	Squalane Light (hydrogenated farnesene)		3.00	3.00	0.11	0.60
CreamMaker BLEND (glyceryl stearate, PEG-100 stearate)  Phase C  Pigment Blend Bare Neutral (titanium dioxide, CI 77492 [iron oxides])  Titanium Dioxide (titanium dioxide [CI 77891])  Zinc Oxide, Micronized (zinc oxide)  Standard (zinc oxide)  Notograss Flavonoids (polygonum aviculare extract, water, glycerin)  Citrus Combo (glycerin, citric acid, lactic acid, L-ascorbic acid, didecyldimonium dioxide)  6.00  6.00  6.00  0.21  1.20  0.05  0.30  1.00  1.00  0.04  0.20  2.00  0.07  0.40  0.20  0.20	Sucrose Cocoate (sucrose cocoate)		1.00	1.00	0.04	0.20
PEG-100 stearate)  Phase C  Pigment Blend Bare Neutral (titanium dioxide, CI 77492 [iron oxides])  Titanium Dioxide (titanium dioxide [CI 77891])  Zinc Oxide, Micronized (zinc oxide)  Phase D  Knotgrass Flavonoids (polygonum aviculare extract, water, glycerin)  Citrus Combo (glycerin, citric acid, lactic acid, L-ascorbic acid, didecyldimonium characteristics)  6.00  8.00  0.21  1.20  0.05  0.30  0.04  0.20  0.07  0.40  0.40	Stearic Acid (stearic acid)		1.00	1.00	0.04	0.20
Pigment Blend Bare Neutral (titanium dioxide, CI 77492 [iron oxides])  Titanium Dioxide (titanium dioxide [CI 77891])  Zinc Oxide, Micronized (zinc oxide)  Notograss Flavonoids (polygonum aviculare extract, water, glycerin)  Citrus Combo (glycerin, citric acid, lactic acid, L-ascorbic acid, didecyldimonium dioxide [CI 1.00 1.00 0.04 0.20 0.07 0.40 0.20 0.07 0.40 0.20 0.07 0.40 0.20 0.07 0.04 0.20 0.07 0.04 0.20 0.07 0.04 0.20 0.07 0.04 0.20 0.07 0.04 0.20 0.07 0.04 0.20 0.07 0.04 0.20 0.00 0.00 0.00 0.00 0.00 0.00	CreamMaker BLEND (glyceryl stearate, PEG-100 stearate)		6.00	6.00	0.21	1.20
dioxide, CI 77492 [iron oxides])  Titanium Dioxide (titanium dioxide [CI 77891])  Zinc Oxide, Micronized (zinc oxide)  Phase D  Knotgrass Flavonoids (polygonum aviculare extract, water, glycerin)  Citrus Combo (glycerin, citric acid, lactic acid, L-ascorbic acid, didecyldimonium chloride)  1.50  1.50  0.05  0.00  0.04  0.20  2.00  2.00  0.07  0.40  0.20  0.04	Phase C					
77891]) Zinc Oxide, Micronized (zinc oxide)  Phase D  Knotgrass Flavonoids (polygonum aviculare extract, water, glycerin)  Citrus Combo (glycerin, citric acid, lactic acid, L-ascorbic acid, didecyldimonium to choose the company of	Pigment Blend Bare Neutral (titanium dioxide, CI 77492 [iron oxides])		1.50	1.50	0.05	0.30
Phase D  Knotgrass Flavonoids (polygonum aviculare extract, water, glycerin)  Citrus Combo (glycerin, citric acid, lactic acid, L-ascorbic acid, didecyldimonium 1.00 1.00 0.04 0.20 chloride)	Titanium Dioxide (titanium dioxide [CI 77891])		1.00	1.00	0.04	0.20
Knotgrass Flavonoids (polygonum 2.00 2.00 0.07 0.40 aviculare extract, water, glycerin) 2.00 1.00 0.07 0.40 Citrus Combo (glycerin, citric acid, lactic acid, L-ascorbic acid, didecyldimonium 1.00 1.00 0.04 0.20 chloride)	Zinc Oxide, Micronized (zinc oxide)		3.00	3.00	0.11	0.60
aviculare extract, water, glycerin)  Citrus Combo (glycerin, citric acid, lactic acid, L-ascorbic acid, didecyldimonium  1.00  1.00  0.07  0.40  0.40  0.20  0.10  0.20	Phase D					
acid, L-ascorbic acid, didecyldimonium 1.00 1.00 0.04 0.20 chloride)	Knotgrass Flavonoids (polygonum aviculare extract, water, glycerin)		2.00	2.00	0.07	0.40
Fragrance Coconut 0.20 0.20 0.01 0.04	Citrus Combo (glycerin, citric acid, lactic acid, L-ascorbic acid, didecyldimonium chloride)		1.00	1.00	0.04	0.20
	Fragrance Coconut		0.20	0.20	0.01	0.04

## Method

Combine phase A ingredients in a heat resistant glass beaker, and mix well, until xanthan gum is dissolved and the solution becomes viscous. In another heat resistant glass beaker combine phase B ingredients. Pre-mix phase C in mortar and pestle and add to phase B, stir well and start heating to 70C/158F. Stirring occasionally to mix the pigments. Heat phase A also to 70C/158F. Add phase A to phase B/C to phase A and mix continuously. Remove from the heat and continue to mix until the solution becomes creamy and the temperature drops to 40C/100F. Use a homogenizer for good particle dispersion. Add phase D ingredients and mix well after each ingredient. Adjust pH to 4.5-5.5. Citrus Combo will lower the pH however with the added TEA in phase A it may balance. In case the lotion does separate and the pH is below 4.5 add 2 more drops of TEA.

## **Properties**

DD Cream that protects against harmful UV light and offers a uniform tint on the skin. Jojoba and Squalane have softening and moisturizing properties. Knotgrass flavonoids fight infrared-induced skin aging e.g sun exposure while driving in the car. Knotgrass Flavonoids also enhances firmness and elasticity.