

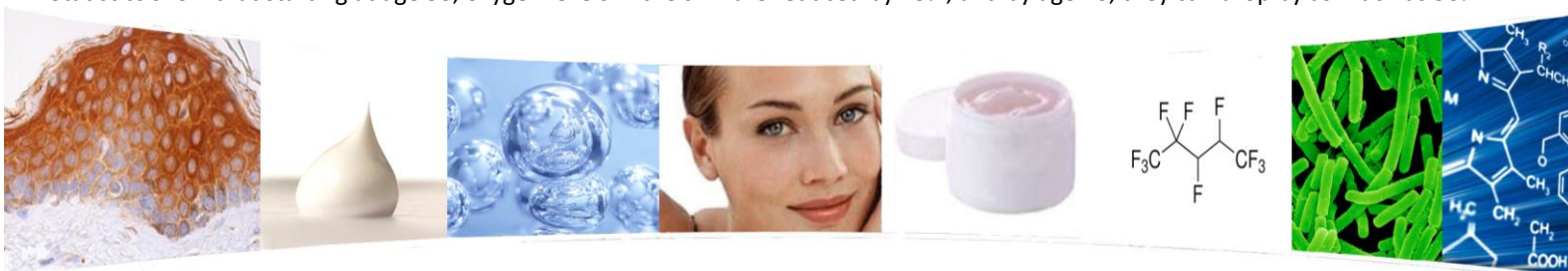
Distinctive[®] Ultralight

April 24, 2015 rev.

Oxygenating Skin Enhancer

Oxygen is vital for maintaining a healthy complexion. It is necessary for skin cell metabolism, is known to stimulate healing and is an invaluable antibiotic when it comes to fighting skin infections. Chronological aging along with physical, environmental and intrinsic stress will over time deteriorate capillary health, thus disrupting circulation. When the body's ability to transport oxygen and nutrients to the skin is compromised many adverse effects can occur, leaving skin more vulnerable to irritation and infection. This can include; wrinkling and discoloration, loss of softness and elasticity, reduction in collagen and elastin production, loss of protective barrier properties, as well as premature and accelerated aging.

Statistics show that starting at age 30, oxygen levels in the skin are reduced by 25%, and by age 40, they can drop by as much as 50%.



Resources Of Nature introduces **Distinctive[®] Ultralight**: A breakthrough technology in topical oxygen delivery for the skin. Distinctive[®] Ultralight Products consists of a potent oxygen carrier, Decafluoropentane, a hydrofluorocarbon fluid that gently and effectively improves oxygen levels in the skin. Two grades of this revolutionary product are available: **Distinctive[®] Ultralight CV** for standard skin care formulations, and **Distinctive[®] Ultralight A**, specially designed for improved stability in more acidic formulations, such as those containing Salicylic Acid and Glycolic Acid.

Perfluorocarbon emulsions have been clinically evaluated as artificial oxygen carriers to augment oxygen delivery and improve tissue oxygenation. Studies show that diabetic or post-surgical wounds can be healed using topical oxygen therapy, and can even produce less scarring than more standard forms of wound care. Because **Distinctive[®] Ultralight** delivers oxygen without Reactive Oxygen Species (ROS) such as peroxide-containing oxygenators, it will not cause damage to the skin's macromolecules, including lipids, proteins and nucleic acids.

BENEFITS

- ◆ Increased oxygen delivery
- ◆ Gentle
- ◆ Unique light feel
- ◆ Emollient
- ◆ Inhibition of anaerobic bacteria (*P. acnes*)
- ◆ Long-lasting
- ◆ Highly effective
- ◆ Protective

APPLICATIONS

- ◆ Cleansers
- ◆ Serums
- ◆ Acne Treatment
- ◆ Creams & Lotions
- ◆ Anti-aging
- ◆ Primers

FORMULATION GUIDELINES

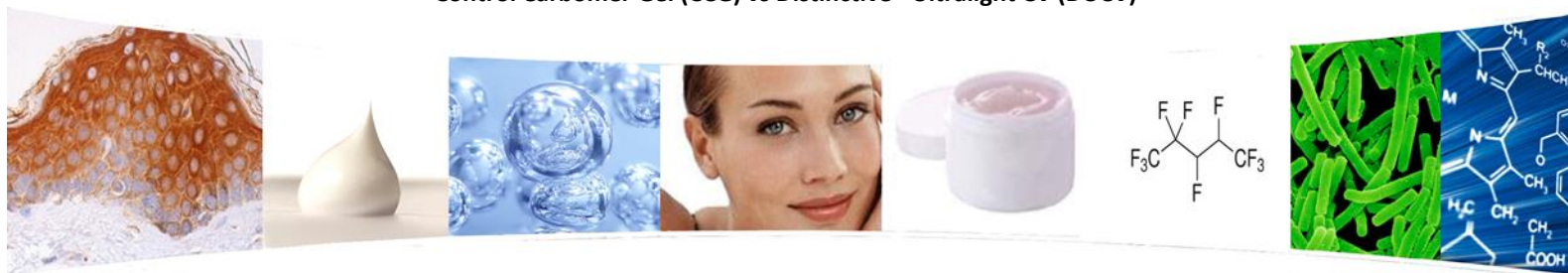
Recommended use level 15.00 – 80.00%

TYPICAL PROPERTIES

	Distinctive® Ultralight CV (DC3758)	Distinctive® Ultralight A (DC4031)
Composition (INCI)	Water (and) Decafluoropentane (and) Disiloxane (and) Oleth-2 (and) Polysorbate 20 (and) Lecithin	Water (and) Decafluoropentane (and) Disiloxane (and) Oleth-2 (and) Polysorbate 20 (and) Polyacrylate-1 Crosspolymer
Appearance	Translucent to Opaque Gel	Translucent to Opaque Gel
Odor	Characteristic	Characteristic
pH	4.75 - 6.50	4.00 – 5.00

IN-VIVO STUDIES:

Transcutaneous Oxygen Measurements - Control Carbomer Gel (CCG) vs Distinctive® Ultralight CV (DUCV)



Measurement of Oxygen Tension

Conditions Tested	O ₂ Tension (mm Hg)	
	Male subjects	Female subjects
Skin without treatment (dry)	11	4
Carbomer Gel (control)	9	28
Distinctive Ultralight CV	41	84

Test materials applied at 25mg/cm² on 4cm² of skin on the anterior side of the forearm. Followed within 60 sec. by the application of the electrode

DUCV triggered a marked increase of oxygen pressure readings in the skin. The ability to increase oxygen delivery to infected skin via DUCV, as demonstrated in this project, could be especially useful against anaerobic pathogens, such as P. acnes. It could also improve the dermal chemical barrier, protecting the skin against new infections.

Measurement of Oxygen Tension After Rinsing

Conditions Tested	O ₂ Tension (mm Hg)	
	Male subjects	Female subjects
Carbomer Gel (control)	35	7
Distinctive Ultralight CV	129	131

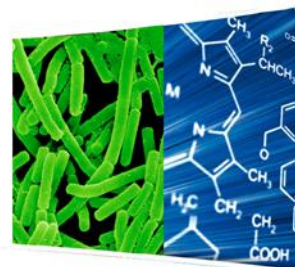
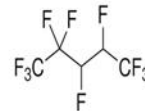
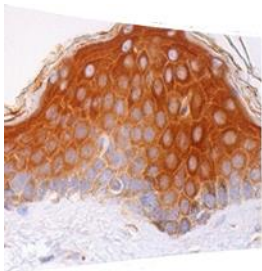
After rinsing off test materials from subjects forearms and patting the moisture with paper towels, the electrode was reapplied to the skin on the sites previously covered by the test materials

Oxygen pressure readings were significantly higher with DUCV than with CCG, demonstrating a long-lasting effect of DUCV on the skin. DUCV appears to facilitate O₂ permeation in the skin even after it has been removed making it ideal for use cleansing product applications.

Distinctive® Ultralight

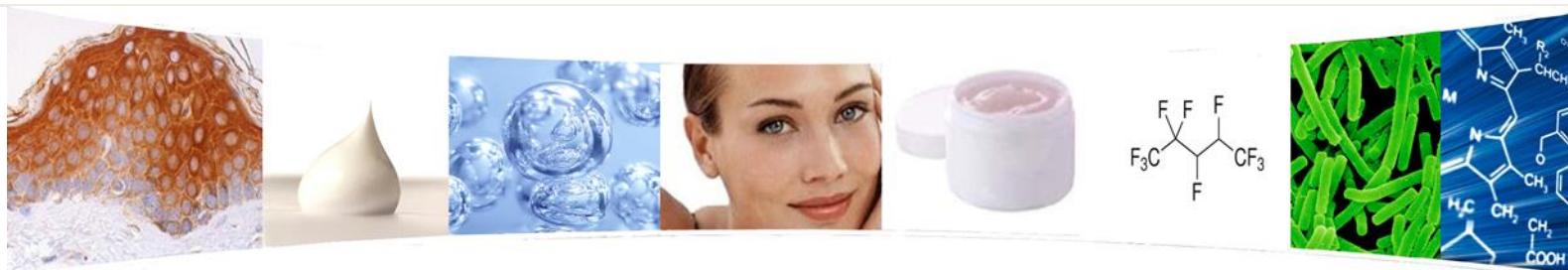
DISTINCTIVE® ULTRALIGHT CLEANSER Formula: RON23-85-2

PHASE	INGREDIENT	% BY WT	PROCEDURES
A	Water Q.S.	qs	<ul style="list-style-type: none"> In main beaker equipped with medium speed sweep mixing, add Cetyl Hydroxyethylcellulose to water and mix until uniform. Heat batch to 75°C and hold until Cetyl Hydroxyethylcellulose is fully dispersed. Add remainder of Phase A ingredients. Mix until uniform. Decrease mixing speed to slow sweep mixing and begin heating batch to 75°C. While heating, add Phase B ingredients, one at a time. Mix at 75°C, until batch is uniform. Begin cooling batch. At 35°C, add Phase C ingredients, mix until uniform. At 35°C, add Phase D, mix until uniform. At 25°C, add Phase E, mix until uniform. Pack out immediately.
A	Cetyl Hydroxyethylcellulose	1.00	
A	Disodium EDTA	0.10	
A	Water (and) Acrylates Copolymer	6.00	
B	Sodium Laureth Sulfate	30.00	
B	Cocamidopropyl Betaine	10.00	
B	Cocamide MEA	1.50	
B	D-Panthenol	1.00	
B	PEG-8 Dimethicone	3.00	
C	Kathon CG	0.08	
C	Triethanolamine	0.80	
D	Hydro-Matrix Rice PGA (RON)	3.00	
E	Distinctive® Ultralight CV (RON)	20.00	
		<hr/> 100.00	



OXYGENATING ACNE SERUM Formula: RON20-26-1

PHASE	INGREDIENT	% BY WT	PROCEDURES
A	Distinctive® Ultralight CV (RON)	75.00	<ul style="list-style-type: none"> To the main vessel, add in Phase A, B, C, D and E in order, one by one. Keep vessel covered between additions. Mix at room temperature until uniform. Prepare Phase F in a side vessel. This may be warmed to 40°C to facilitate dissolution of the Salicylic Acid. When dissolved and uniform, add Phase F to the main vessel. Mix until uniform. Add Phase G, H and I. Keep vessel covered between additions. Pack off immediately into an air tight plastic/glass container.
B	Xiameter 1502 Fluid	2.00	
C	Tinogard Q	0.10	
D	SymDeo B125	0.50	
E	Beta Glucan (Oat)	2.00	
F	Salicylic Acid	2.00	
F	Butylene Glycol	1.00	
F	Dimethyl Isosorbide	3.00	
F	Water	8.40	
F	Ammonium Hydroxide (28% Aq.)	0.40	
G	DC Silica Beads	2.00	
H	Aristoflex AVC	0.60	
I	Citric Acid (25% Aq.)	qs to pH 4.0 – 4.50	
		<hr/> 100.00	

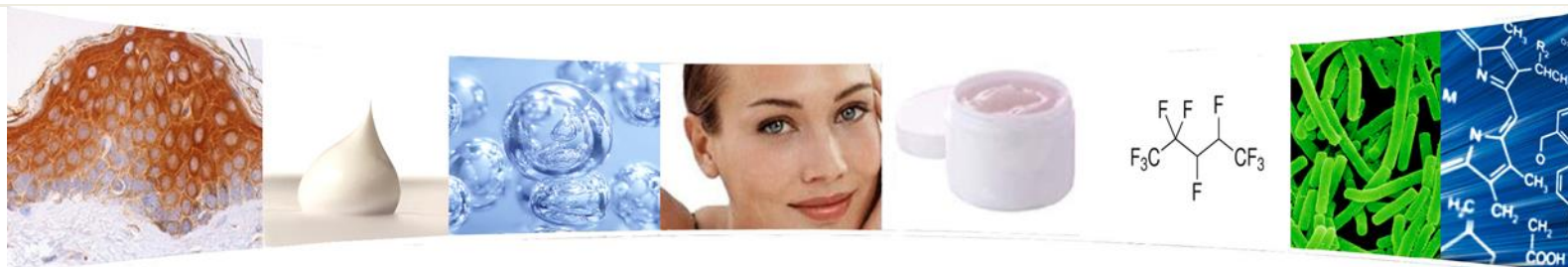


GLYCOLIC CLEANSER Formula: RON22-53-2

PHASE	INGREDIENT	% BY WT	PROCEDURES
A	Water	qs	<ul style="list-style-type: none"> ◆ In main beaker, equipped with medium speed prop mixing, add Hydroxyethylcellulose to water and mix until uniform. ◆ Heat batch to 75°C and hold until Hydroxyethylcellulose is fully dispersed. In a side container, premix Phase B ingredients and add to batch. Mix until uniform. ◆ Decrease mixing speed and switch to sweep mixing. ◆ Slowly add Phase C ingredients, one at a time, mixing well between each addition. ◆ Begin cooling batch. ◆ At 35°C, add Phase D, mix until uniform. ◆ At 35°C, add Phase E, mix until uniform. ◆ At 30°C, add Phase F, mix until uniform. ◆ At 25°C, add Phase G, mix until uniform ◆ Adjust pH with Phase H, as necessary. ◆ Pack out immediately.
A	Hydroxyethylcellulose	0.20	
B	Xanthan Gum	0.20	
B	Glycerin	2.00	
C	Sodium Laureth Sulfate	30.00	
C	Cocamidopropyl Betaine	8.00	
C	Mackamine CAO (Cocamidopropylamine Oxide)	2.00	
D	Distinctive® Blueberry 5P (RON)	2.00	
E	Kathon CG	0.08	
F	Glycolic Acid 70%	7.00	
G	Distinctive® Ultralight A (RON)	20.00	
H	NaOH	qs	
		100.00	

ULTRALIGHT CLEANSER WITH DISTINCTIVE® SQUALANE BUTTER 45 Formula: RON24-77-1

PHASE	INGREDIENT	% BY WT	PROCEDURES
A	Water	qs	<ul style="list-style-type: none"> ◆ In main beaker, equipped with medium speed sweep mixing, add Natrosol Plus 330HS to water and mix until uniform. ◆ Add remainder of Phase A ingredients, mix until uniform. ◆ Decrease mixing speed to slow sweep mixing and begin heating batch to 75°C. ◆ While heating, add Phase B ingredients, one at a time. ◆ Mix at 75°C, until batch is uniform. ◆ Begin cooling batch. ◆ At 35°C, add Phase C ingredients, mix until uniform. ◆ At 30°C, add Phase D, mix until uniform. ◆ Pack out immediately.
A	Natrosol Plus 330 CS	1.00	
A	Disodium EDTA	0.10	
A	Carbopol Aqua SF-1	8.00	
B	Sodium Laureth Sulfate	30.00	
B	Cocamidopropyl Betaine	10.00	
B	Cocamide MEA	1.50	
B	D-Panthenol	1.00	
B	PEG-8 Dimethicone	3.00	
B	Distinctive® Squalane Butter 45 (RON)	3.00	
C	Kathon CG	0.08	
C	Triethanolamine	0.80	
D	Distinctive® Ultralight CV (RON)	15.00	
		100.00	



SALICYLIC ULTRALIGHT CLEANSER Formula: RON24-61-2

PHASE	INGREDIENT	% BY WT	PROCEDURES
A	Water	qs	<ul style="list-style-type: none"> ◆ In main beaker, equipped with medium speed prop mixing, add Hydroxyethylcellulose to water and mix until uniform. ◆ Heat batch to 75°C and hold until Hydroxyethylcellulose is fully dispersed. ◆ In a side container, premix Phase B ingredients and add to batch. Mix until uniform. ◆ Premix Phase C ingredients and warm in a side container. ◆ Add Phase C to batch and mix until uniform. ◆ Decrease mixing speed and switch to sweep mixing. ◆ Slowly add Phase D ingredients, one at a time, mixing well between each addition. Begin cooling batch. ◆ At 30°C, add Phase E, mix until uniform. ◆ At 25°C, add Phase F, mix until uniform. ◆ Adjust pH with Phase G, as necessary. ◆ Pack out immediately.
A	Hydroxyethylcellulose	0.30	
B	Xanthan Gum	0.20	
B	Glycerin	2.00	
C	Salicylic Acid	2.00	
C	Butylene Glycol	5.00	
D	Sodium Laureth Sulfate	30.00	
D	Cocamidopropyl Betaine	8.00	
D	Mackamine CAO (Cocamidopropylamine Oxide)	2.00	
E	Kathon CG	0.08	
F	Distinctive[®] Rehmannia Glutinosa 10a (RON)	0.50	
F	Distinctive[®] Ultralight A (RON)	20.00	
G	NaOH	qs to pH 4.0-4.50	
		100.00	

REFERENCES

- a) Perfluorodecalin - a new advancement in skin oxygenation, Aesthetics Practitioners Journal, Vol.1 June 2009
- b) Int. Targeting the Redox Balance in Inflammatory Skin Conditions, Frank A. D. T. G. Wagener *, Carine E. Carels and Ditte M. S. Lundvig, J. Mol. Sci. 2013, 14, 9126-9167
- c) Blood substitutes Artificial oxygen carriers: perfluorocarbon emulsions, Donat R Spahn, Crit Care. 1999; 3(5): R93-R97

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