

HYDROVITON 24

(2/059351)

New Advanced 24 Hour Moisturizing Complex

Benefits:

- Provides 24 hour moisturization effect even with only one application
- Guarantees a constant high level of moisturization activity for 24 hours after two weeks application
- Non-occlusive properties due to low molecular weight ingredients

Product Description:

- Synergistic combination of NMF's, humectants, hygroscopic substances, skin rejuvenators, and skin protectant
- Preservative free, non-animal derived, odorless liquid
- Use level: 1 - 2%

Application:

- Anti-aging products
- Daily moisturizers and body lotions
- Skin care products
- Sun care products
- Baby care products
- Color cosmetics

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HYDROVITON 24

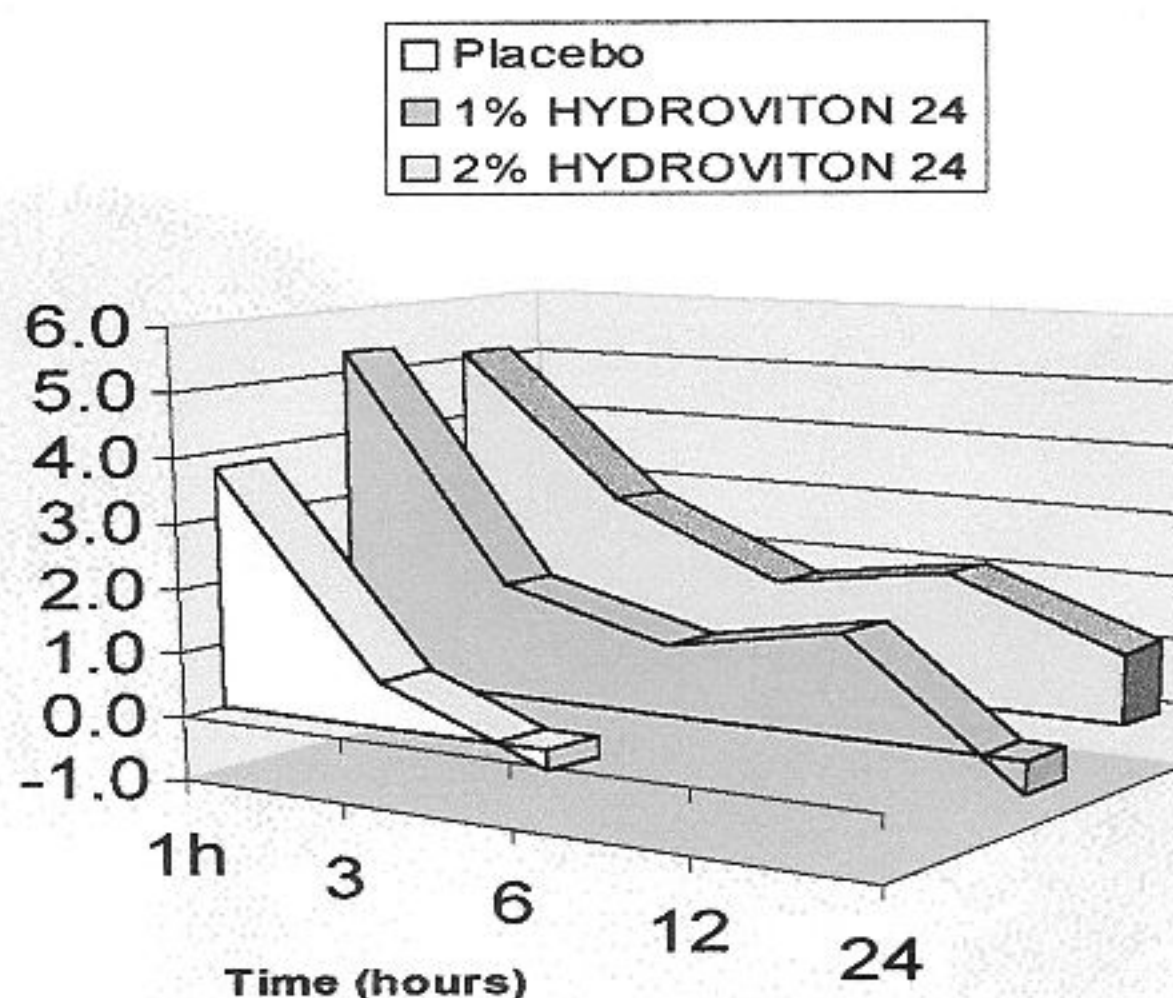
(2/059351)

24 hour Moisturizing Effect After One Application

Test design

- One application, study on 21 volunteers with 3 emulsions
 - placebo, 1% and 2% Hydroviton 24
- Moisturizing effect is determined by Corneometer measurements (c.u.) of the skin
- Measurements taken at 1, 3, 6, 12 and 24 hours after product application
- Results indicate a significant change in the moisture level for the emulsions with HYDROVITON 24 at all the time
- Product with 2% HYDROVITON 24 shows moisturizing effect even after 24 hours

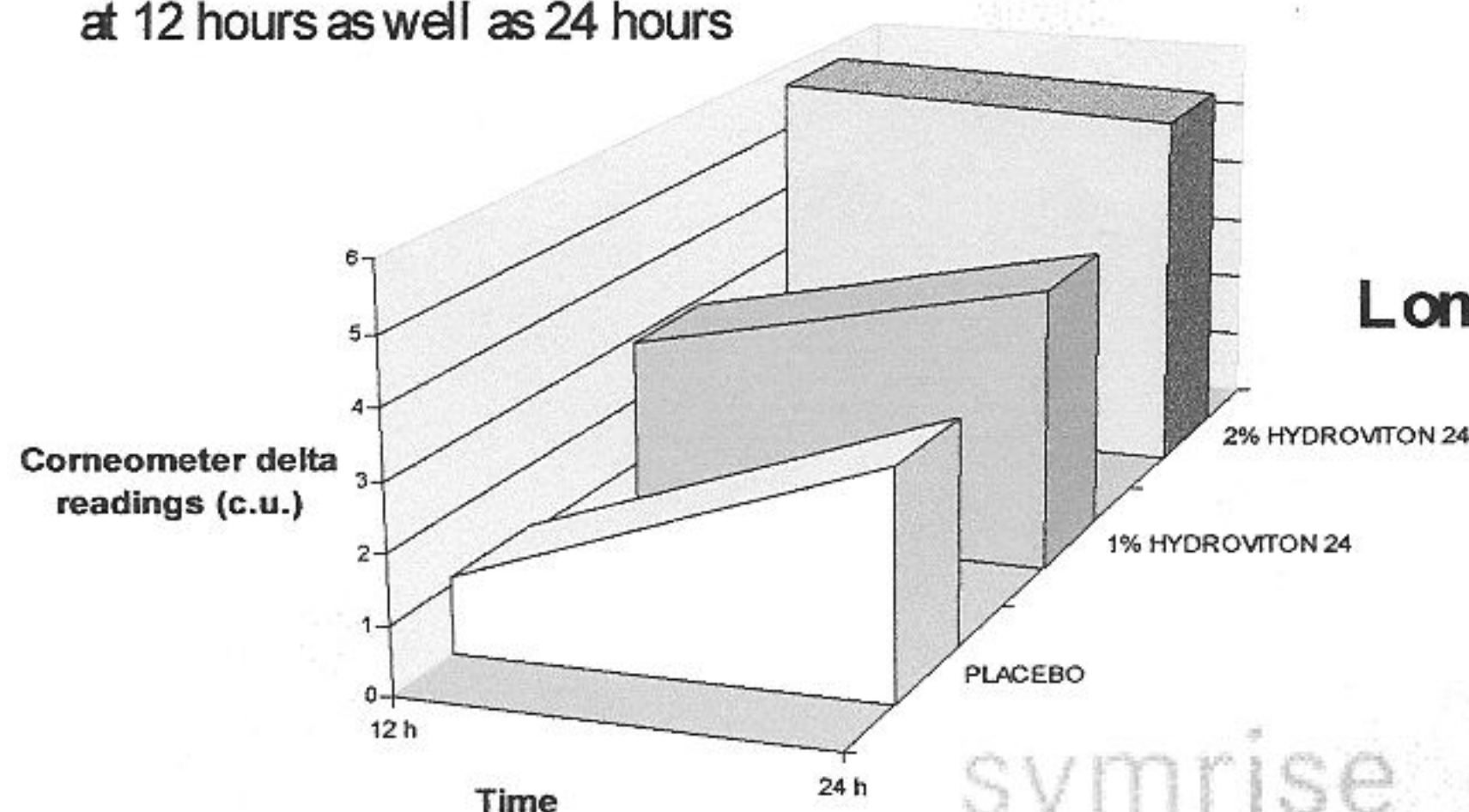
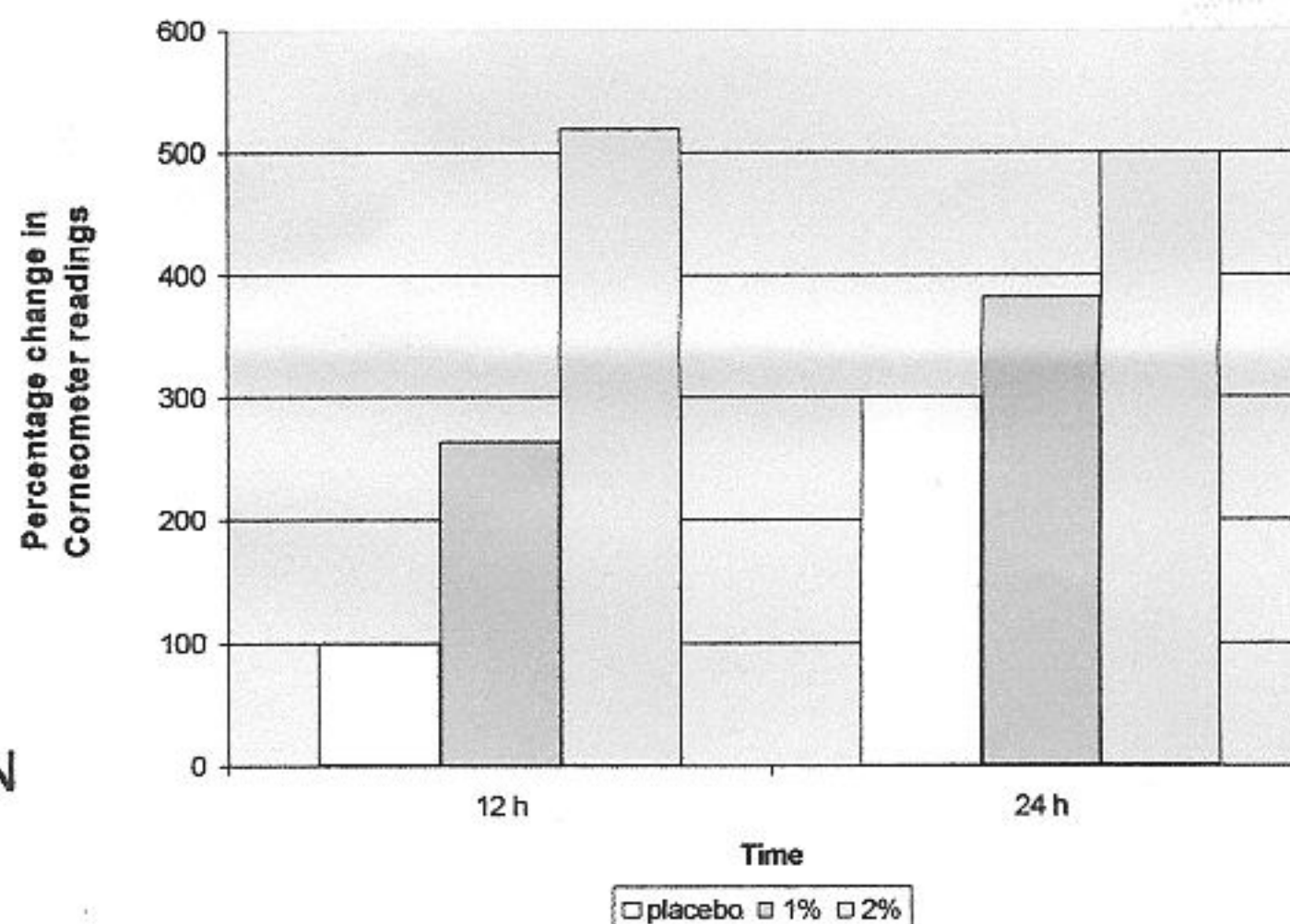
Corneometer delta values (c.u.)



24 hour Moisturizing Effect After Two Weeks

Test design

- 14 days application, twice a day, study on 20 volunteers with 3 emulsions - placebo, 1% and 2% HYDROVITON 24
- Moisturizing effect is determined by Corneometer measurements (c.u.) of the skin
- Measurements taken at 12 hours and 24 hours after the last product application
- Results indicate a significant change in the moisture level for the emulsions with HYDROVITON 24 at 12 hours as well as 24 hours



Long Lasting Moisturizing Effect

Ensures a 24 hour cycle of moisturizing action

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Hydroviton 24

New Advanced
24 Hour
Moisturizing
Complex

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Contents

- Moisturizers
- Product Features
- Moisturizing Ingredients
- Moisturizing Test Data (*in-vivo*)
- Formulation Examples
- Summary of Advantages



Why Moisturizers?

- Counteracts the signs of skin aging
- Increases water content in skin
- Skin will be supple and smooth
- Increase flexibility of stratum corneum
- Retard moisture loss from the product



Skin Moisturizing Effects are dependent on:

- Humectants - Moisture-binding properties
- NMF - Natural Moisturizing Factor - a mixture of ingredients found in the skin which help retain moisture
- Hygroscopic substances - absorbs moisture from atmosphere and delivers to the skin
- Penetration characteristics due to low molecular weight substances
- Occlusive characteristics due to high molecular weight and hydrophobic substances



COSMETIC INGREDIENTS MARKETING



Hydroviton 24 Advanced 24-Hour Moisturizing Complex Product Description

- Liquid, odorless
- Preservative free
- Non-animal derived
- UV, pH, and heat stable
- No negative effects on preservative system
- No adsorption to packaging material
- No known incompatibilities with other materials
- Dermatologically and toxicologically safe
- Use Level: 1-2%



COSMETIC INGREDIENTS MARKETING



Hydroviton 24

Natural Occurrence of Moisturizing Ingredients

• Sodium Lactate	Skin's NMF
• Lactic Acid	Sour Milk, Tomato Juice
• Glycerin	Hydrolysis of oils and fats
• Serine	Protein, Silk
• Urea	Skin's NMF
• Sorbitol	Berries, Fruits
• Sodium Chloride	Salt
• Allantoin	Microorganisms, plants, animals
• Pentylene Glycol	



Hydroviton 24

Synergistic Combination

<u>Ingredient</u>	<u>Mol. weight</u>	<u>Moisturizing Effects</u>
1. Pentyleneglycol	104.09	Skin moisturizer
2. Sodium Lactate	112.07	NMF, skin rejuvenator
3. Lactic Acid	90.08	Accelerate desquamation, pH regulator
4. Glycerin	92.10	Humectant
5. Serine	105.09	NMF, penetrates into the Stratum Corneum
6. Urea	60.08	NMF
7. Sorbitol	182.17	Natural moisturizer
8. Sodium Chloride	58.45	Osmotic equalizer
9. Allantoin	158.12	Skin protectant



24 hour Moisturizing Effect after One Application

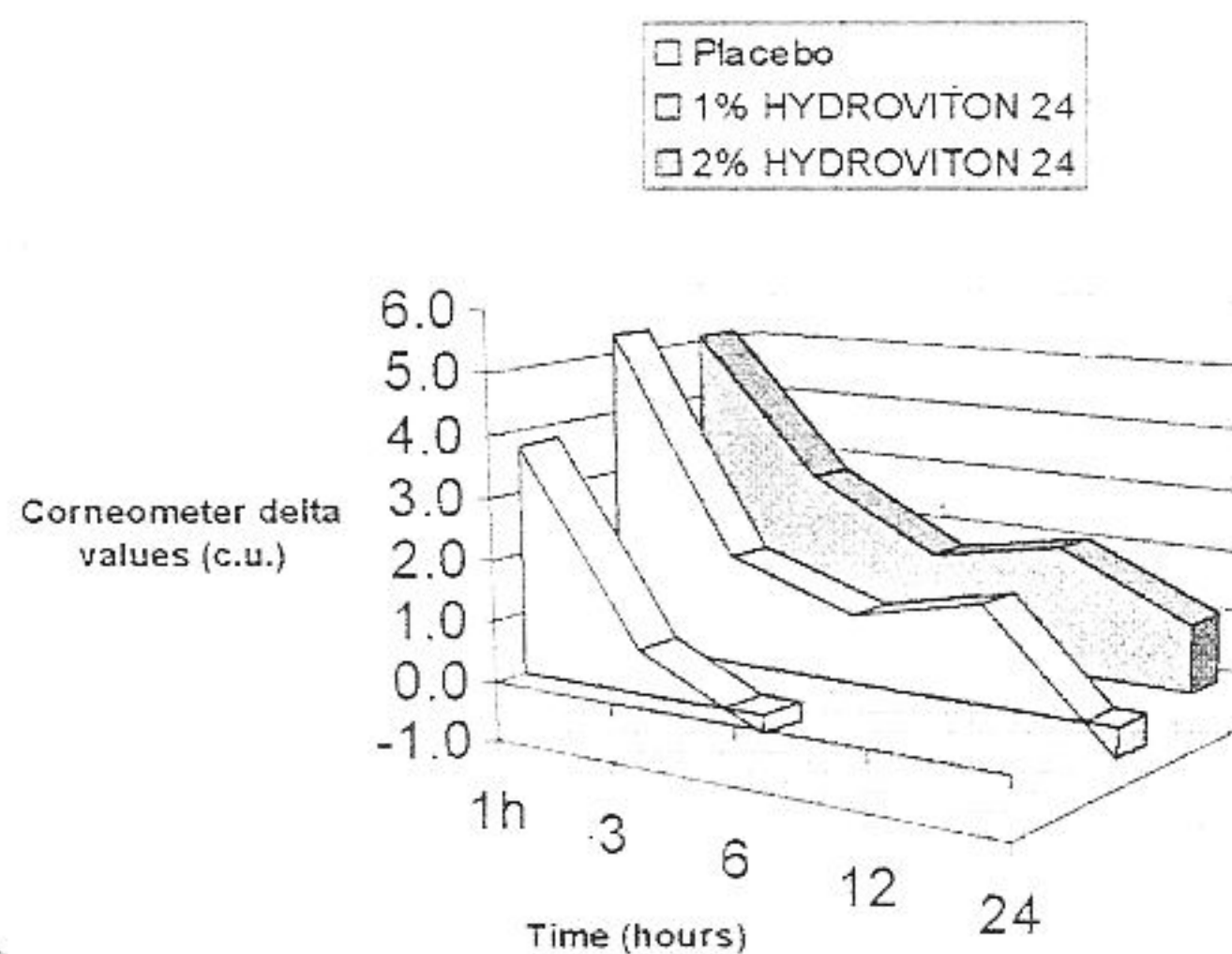
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Ultra Moist Light Cream - Test Formula

RAW MATERIAL	#105083 Placebo	#105084 1%	#105081 2%	INCI NAME	SUPPLIER
PHASE 1					
Dracolin CE	3.00	3.00	3.00	Glyceryl Stearate, Glyceryl Stearate Citrate/P2847	DRAGOCO
Dragophos S	1.00	1.00	1.00	Sodium Dihydroxycetyl Phosphate	DRAGOCO
Isodragol	4.00	4.00	4.00	Triisnnonanol	DRAGOCO
Dragoxat EH	7.50	7.50	7.50	Ethylhexyl Ethylhexanoate	DRAGOCO
Dracolin GMS	2.00	2.00	2.00	Glyceryl Stearate SE	DRAGOCO
Lanette O	3.00	3.00	3.00	Cetearyl Alcohol	Cognis
DC 556	0.50	0.50	0.50	Phenyl Trimethicone	Dow Corning
PHASE 2					
Deionized Water	77.70	75.50	75.25	Water	
Carbopol ETD 2020	0.15	0.15	0.15	Carbomer	
PHASE 3					
Hydroviton P	--	1.00	2.00	Water, Pentylene Glycol, Sodium Lactate, Glycerin, Lactic Acid, Serine, Sorbitol, Sodium Chloride, Allantoin	DRAGOCO
Dragocide Liquid	0.80	0.80	0.80	Phenoxyethanol, Methylparaben, Ethylparaben, Butylparaben, Propylparaben, Isobutylparaben	DRAGOCO
Parf. Aureola	0.25	0.25	0.25	Fragrance	DRAGOCO
NaOH 10%	0.10	0.30	0.55		

24 hour Moisturizing Effect after One Application



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24 hour Moisturizing Effect after Two Weeks

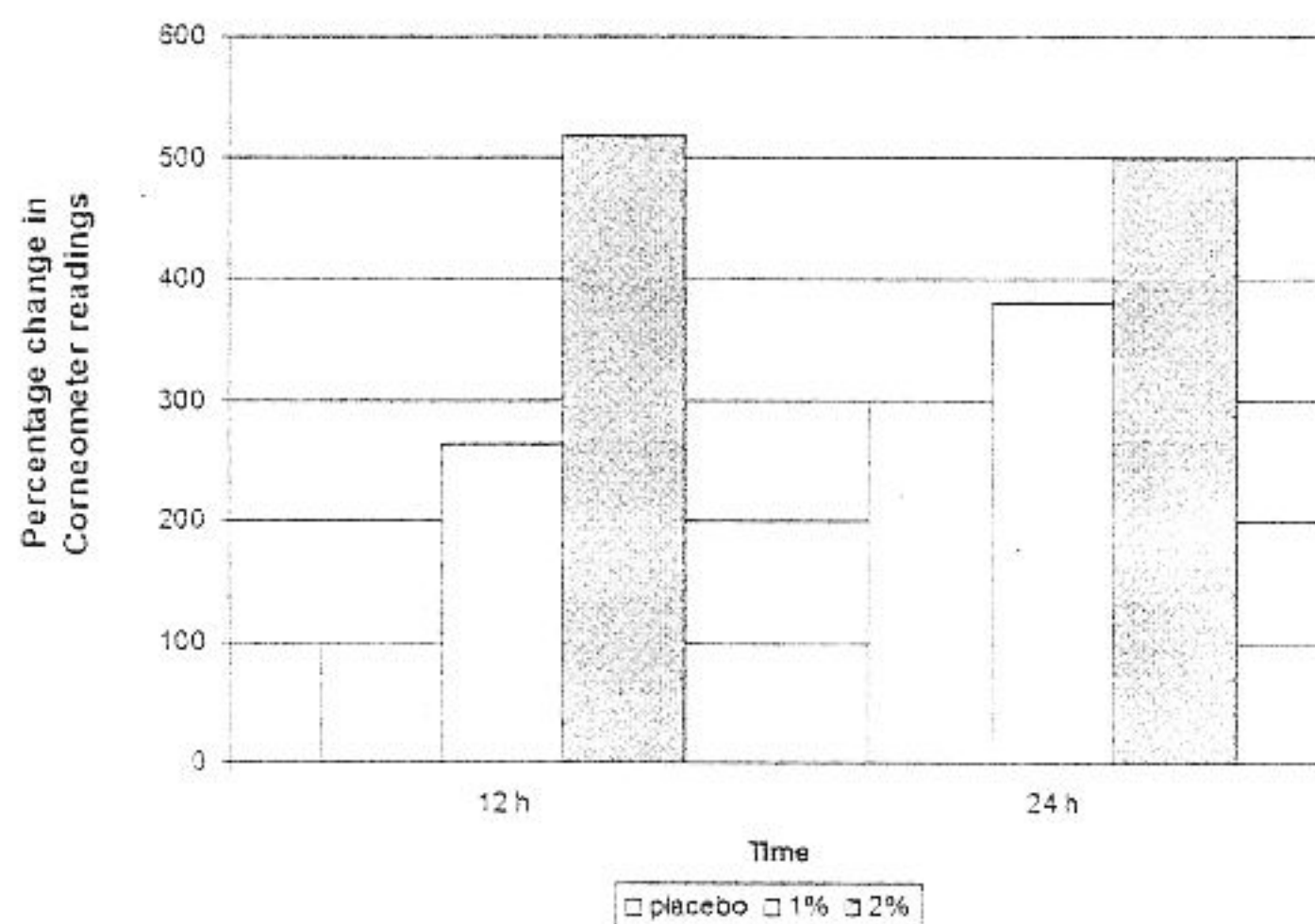
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24 hour Moisturizing Effect after Two Weeks

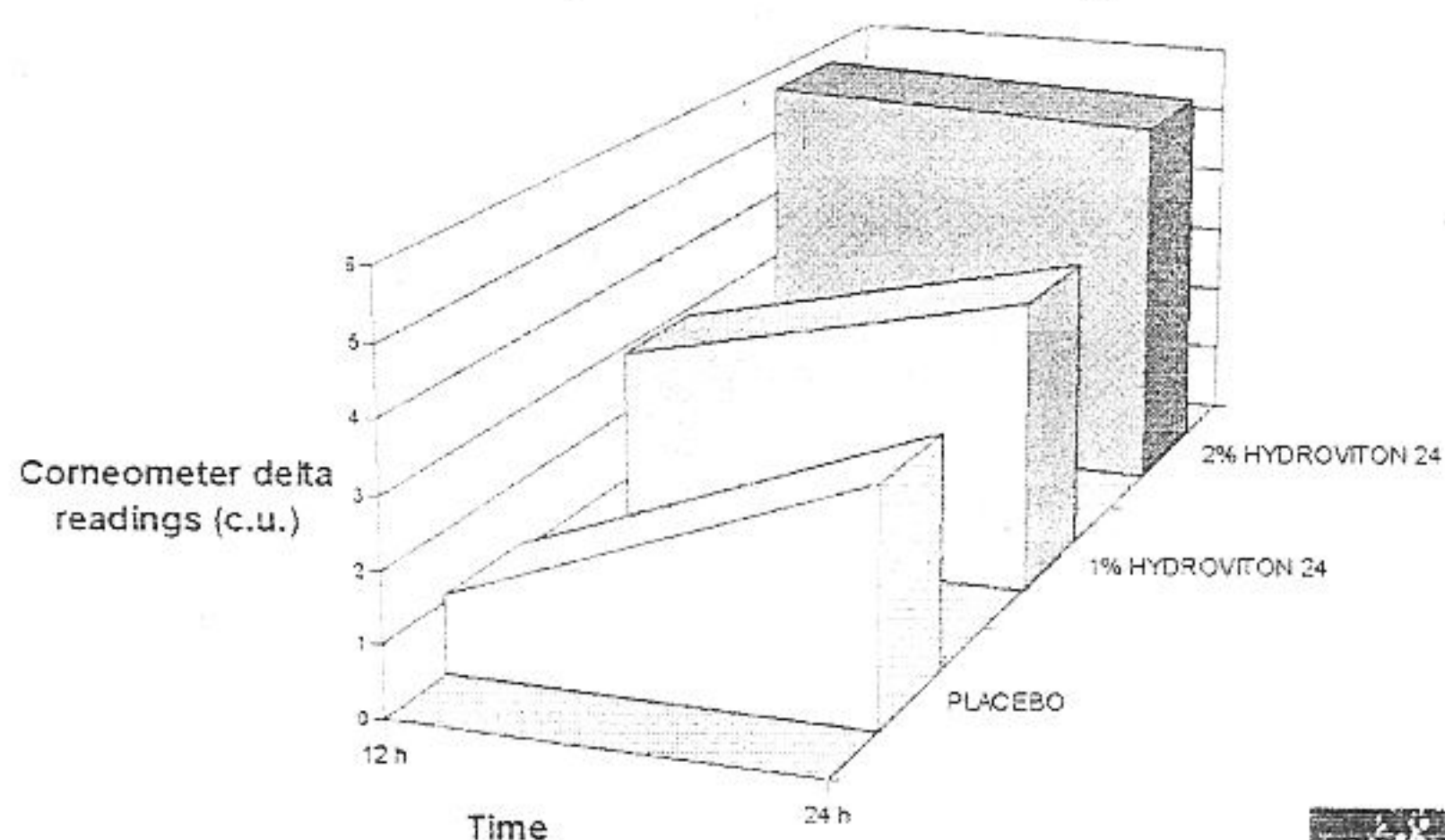


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Long Lasting Moisturizing Effect

Ensures a 24 hour cycle of moisturizing action



COSMETIC INGREDIENTS MARKETING



Applications

- Anti-Aging Products
- Daily Moisturizers
- Skin Care
- Body Lotions
- Baby Care
- Sun Care
- After Sun Products
- Color Cosmetic Products



COSMETIC INGREDIENTS MARKETING



Ultra Moisturizing Cream

Formula #CE 85/3112

%	RAW MATERIAL	INCI NAME	SUPPLIER
PHASE 1			
73.10	Deionized Water	Water	
4.00	Hydrolite-5	Pentylene Glycol	DRAGOCO
0.15	Carbopol ETD 2020	Acrylates C 10-30 Alkyl Acrylates Crosspolymer	Goodrich
PHASE 2			
3.00	Dracarin CE	Glyceryl Stearate, Glyceryl Stearate Citrate/P2847	DRAGOCO
1.00	Dragophos S	Sodium Dihydroxycetyl Phosphate	DRAGOCO
7.50	Dragoxar EH	Ethylhexyl Ethylhexanoate	DRAGOCO
4.00	Isodragoi	Triisnnonanoin	DRAGOCO
2.00	Dracarin GMS	Glyceryl Stearate SE	DRAGOCO
3.00	Lanette O	Cetearyl Alcohol	Cognis
0.40	DC 556	Phenyl Trimethicone	Dow Corning
0.10	Dragosantal	Bisabolol	DRAGOCO
PHASE 3			
1.00	Hydroviton 24	Water, Pentylene Glycol, Sodium Lactate, Glycerin, Lactic Acid Serine, Sorbitol, Sodium Chloride, Allantoin	DRAGOCO
0.50	NaOH 10%		
0.25	Perfume Aureola 066451	Fragrance	DRAGOCO



COSMETIC INGREDIENTS MARKETING



Moisturizing Shower Gel

Formula #SGTS-2A

%	INGREDIENT	INCI DESCRIPTION	SUPPLIER
PHASE 1			
44.20	Deionized Water	Water	
0.50	Ucare Polymer IR 125	Polyquaternium-10	Amerchol
8.00	Tego Betain F 50	Cocamidopropyl Betain	Goldschmidt
20.00	Plantacare 2000	Decyl Glucoside	Cognis/Henkel
0.80	Dragocide Liquid	Phenoxyethanol, Methyl-, Ethyl-, Butyl-, Propyl- Isobutylparaben	Cognis
0.50	Extrapone Mallow Special	Propylene Glycol, Water (Aqua), Pentylene Glycol, Malva Sylvestris (Mallow) Extract	Deutschland DRAGOCO
1.00	Neo PCL W/S N	Trideceth-9, PEG-5-	DRAGOCO
2.00	Comperlan KD	Ethylhexanoate, Water (Aqua)	
2.00	Hydroviton 24	Cocamide DEA	Cognis/Henkel
		Water, Pentylene Glycol, Sodium Lactate, Glycerin, Lactic Acid, Serine, Sorbitol, Sodium Chloride, Allantoin	DRAGOCO
PHASE 2			
37.00	Texapon NSO	Sodium Laureth Sulfate	Cognis/Henkel
1.00	Dragoderm	Glycerin (and) Triticum Vulgare (Wheat) Germ Protein (and) Water	DRAGOCO
1.00	Perfume Marine Sport 0/252708	Fragrance	DRAGOCO



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Daily Light Lotion SPF 15

Formula# DLL-0806

%	INGREDIENT	INCI NAME	SUPPLIER
PHASE 1			
58.10	Deionized Water	Water	
3.00	Glycerin	Glycerin	
2.00	Hydrolite-5	Pentylene Glycol	DRAGOCO
0.50	Hydroviton 24	Water, Pentylene Glycol, Sodium Lactate, Glycerin, Lactic Acid, Serine, Sorbitol, Sodium Chloride, Allantoin	DRAGOCO
PHASE 2			
1.50	Dragaphos S	Sodium Dihydroxycetyl Phosphate	DRAGOCO
3.50	Dragoxat EH	Ethylhexyl Ethylhexanoate	DRAGOCO
2.50	PCL Solid	Stearyl Heptanoate, Stearyl Caprylate	DRAGOCO
4.00	Neutral Oil	Caprylic/Capric Triglyceride	DRAGOCO
3.00	Lanette 16	Cetyl Alcohol	Cognis
4.00	Neo Heliopan AV	Octyl Methoxycinnamate	H&R
4.00	Eusolex 4360	Benzophenone-3	Merck
0.10	Dragosantol	Bisabolol	DRAGOCO
PHASE 3			
1.50	Abil 200 (350mpas)	Dimethicone	Goldschmidt
0.25	Carbopal 2020	Acrylates C10-30 Alkyl Acrylate Crosspolymer	Goodrich
PHASE 4			
0.40	Dragocide Liquid	Phenoxyethanol, Methylparaben, Ethylparaben, Butylparaben, Propylparaben, Isobutylparaben	DRAGOCO
0.35	NaOH 10%		
PHASE 5			
1.00	Drago-Beta-Glucan	Fragrance	DRAGOCO
0.30	Parfumoel Mickey Sun	Fragrance	DRAGOCO



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Liquid Talc

Formula #MM 087-062 / A

%	INGREDIENT	SUPPLIER
50.00	SD 39C Alcohol	
2.00	Hydroviton 24 2/059351	DRAGOCO
5.00	Hydrolite 5 2/016020	DRAGOCO
1.00	Neo-PCL W/S 2/966211	DRAGOCO
10.00	Dragoxat EH 2/044115	DRAGOCO
6.00	SF 1550	GE Silicones
6.00	Dow 344 Fluid	Dow Corning
20.00	Rhapsody 4M Talc	Ultra Chemical



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Ultra Moisturizing Wipes

Formula #MM 087-083

%	INGREDIENT	SUPPLIER
	PHASE 1	
81.80	Deionized Water	
2.00	Hydroviton 24 2/059351	DRAGOCO
0.50	Velvetex BA 35	Cognis/ Henkel
2.50	Ajidew- NL 50% SODIUM PCA	Ajinomoto
1.00	Germban II	ISP Surrten
2.00	Dow 190 Fluid	Dow Corning
	PHASE 2	
0.20	Farnesol 2/027040	DRAGOCO
10.00	SD 39C Alcohol	



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Summary of Advantages

- Synergistic combination of NMF's, humectants, hygroscopic substances, skin rejuvenators, and skin protectant
- Not occlusive, allows skin to breathe
- Non-animal derived
- Preservative free
- Cost effective
- Can be easily formulated into products
- Light in color, odorless

DOVE



Product: Shampoo
Manufacturer: Unilever
Launch Date: II/2002
Country: Australia
DRAGOCO Ingredient: 2059353 HYDROVITON

DOVE



Dove

Product: Massage Shower
Manufacturer: Unilever
Country: Germany
Launch Date: II/2002
DRAGOCO Ingredient: 2059353 HYDROVITON

DOVE



Dove

Mineral Shower

Product: Mineral Shower
Manufacturer: Unilever
Country: Germany
Launch Date: II/2002
DRAGOCO Ingredient: 2059353 HYDROVITON

DOVE



Dove

Oxygen Shower

Product: Oxygen Shower
Manufacturer: Unilever
Country: Germany
Launch Date: II/2002
DRAGOCO Ingredient: 2059353 HYDROVITON

DOVE



Product:	Silk Shower
Manufacturer:	Unilever
Country:	Germany
Launch Date:	II/2002
DRAGOCO Ingredient:	2059353 Hydroviton 2966211NEO PCL WSSL. N

Revision: 4-en
Date: 28.11.2001
Page: 1 / 4



Technical Specification

Provisional Specification

Product Title:

2/059351

HYDROVITON 24

Product Description:

Hydroviton 24 is a liquid moisturizing factor and consists of a mixture of amino acid, sodium lactate, urea, allantoin and polyvalent alcohols.

Directions for use:

Incorporated into cosmetic preparations Hydroviton 24 has a regulating effect on the moisture content of the skin.

Product Characteristics:

Sensory:

223	odour: neat on smelling strip	passed
608	colour	colourless
610	clarity	clear
611	form	liquid

DRAGOCO Gerberding & Co. Aktiengesellschaft, Dragocostr. 1, D-37601 Holzminden
Vorsitzender des Aufsichtsrates: Dr. Martin Gutsche. Vorstand: Horst-Otto Gerberding, Vorsitzender: Roger F. Schmid;
Dr. Richard Winter
Registergericht Holzminden HR B 779
Paketpost: Dragocostrasse 1, D-37603 Holzminden
Telefon (05531) 97-0, Telex 965336, Fax (05531) 97-1391.

Revision: 4-en
Date: 28.11.2001
Page: 2 / 4



2/059351

Chemical-physical:

Method

1	relative density (D 20/4)	1.0710 - 1.0810
2	refractive index (n 20/D)	1.3710 - 1.3810
119	pH-value pH_unit	3.5 - 4.5
310	residue on evaporation %wt	13.0 - 18.0 Scaltec SM001, +110 degree Celsius, 3g, constant weight 120 seconds, glass fibre veil

flash point (closed cup) > 212 °F / 100 °C

Solubility: clearly soluble in water

Microbiological status:

44	total viable count cfu/g	< 100
45	yeast and mould cfu/g	< 10
453	Staphylococcus aureus in 0,1g	not detectable Not every lot is tested.
454	Pseudomonas aeruginosa in 0,1g	not detectable Not every lot is tested.
511	Candida albicans in 0,1g	not detectable Not every lot is tested.
512	E.coli in 0,1g	not detectable Not every lot is tested.

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Page: 3 / 4



2/059351

Shelf Life:

In the original container (protected from sunlight), 15 months at approx. + 20°C

Packing:

Plastic container

Handling Instructions:

Firmly close containers which have been opened, or use the contents as soon as possible.

Applications:

Skin and hair cosmetics

Dosage:

1 - 5 %

INCI Name:

Global INCI Name:
Water (Aqua), Pentyleneglycol, Glycerin, Sodium Lactate, Lactic Acid, Serine, Urea, Sorbitol,
Sodium Chloride, Allantoin

Preservative/Antioxidant:

none

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