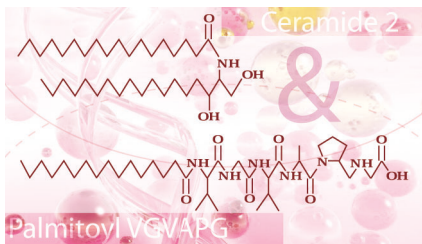




Patent pending

# DERMAXYL®



Ceramide 2 & Pal-VGVAPG

**Function:**

Anti-aging, wrinkle smoothing and cutaneous barrier repair

**Definition:**

Association of ceramide 2, the *stratum corneum* cement and the palmitoylated matrikine Pal-Val-Gly-Val-Ala-Pro-Gly

**Properties:**

Dermaxyl® stimulates cell communication and then repairs the age related skin damage

**Characteristics:**

Matrikines are messenger peptides specifically involved in repairing damage to the cutaneous matrix, VGVAPG is the spring fragment of elastin

**Points of interest:**

Pal-VGVAPG is chemotactic, attracting fibroblasts and monocytes onto the site of matrix repair

**Origin:**

Synthetic

**INCI name:**

C12-15 Alkyl Benzoate -  
Tribehenin - Ceramide 2 -  
PEG 10 Rapeseed Sterol -  
Palmitoyl Oligopeptide

**Applications:**

Skincare and make-up geared to preventing and fighting wrinkles

**Formulation:**

Oil soluble.  
Melt extemporaneously at 85°C and incorporate during the emulsion formation

**Recommended use level:**

2%



## Targeted intervention:

Anti-aging tactics help brush away the footprints of Father Time



REDUCTION OF THE MAIN WRINKLE VOLUME UP TO

**-36%**



Sederma - member of Croda International Group



## In vitro test: Activation of skin matrix cleansing

Stimulation of the genetic expression of Granulocyte Chemotactic Protein (GCP-2) by DNA array on a 3D keratinocyte model incubated with Pal-VGVAPG. GCP-2 is a chemotactic protein able to recruit cells, involved in the preparation and cleansing of the site, to the damaged area.

Stimulation of GCP-2 expression by Pal-VGVAPG

● 227%

**DERMAXYL® BOOSTS THE CELL COMMUNICATION AND DERMAL REPAIR MECHANISMS.**

## In vivo test: Anti-wrinkle properties

Study performed using 24 female volunteers aged from 42 to 66 years.

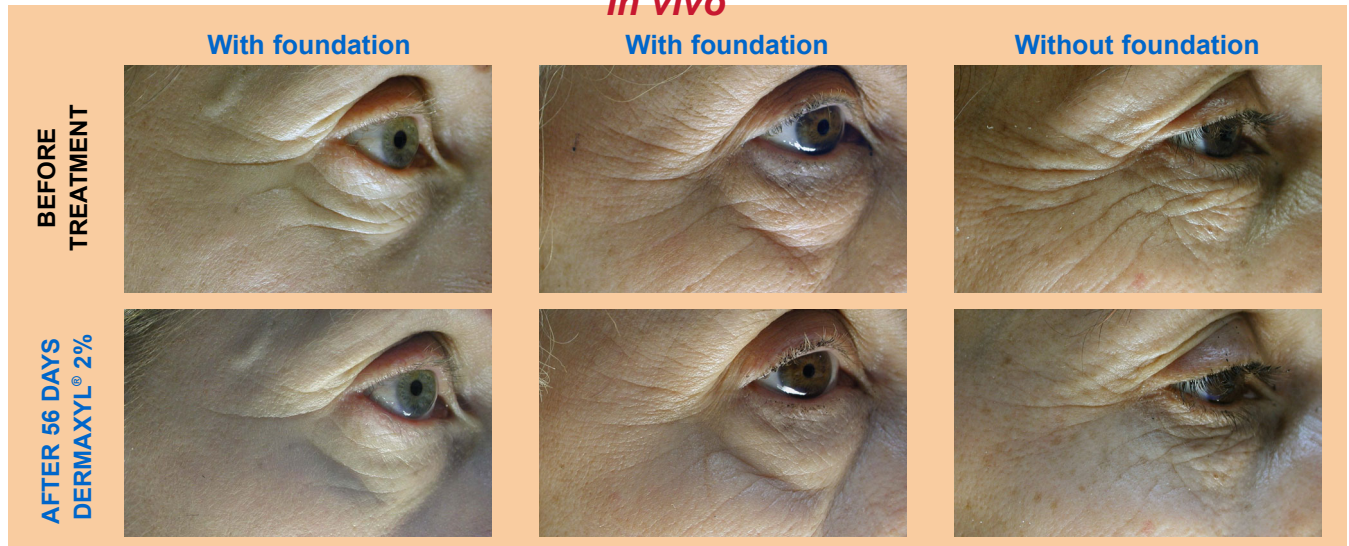
Daily application of a liquid foundation (pigmented or non-pigmented) containing 2% Dermaxyl®, for two months.

Evaluation by image analysis (profilometry).

Since pigments tend to accentuate the appearance of wrinkles, photographs were taken with and without foundation, before and after 56 days of treatment.

	Values	Mean	Maximum
Volume of the main wrinkle		-13.7%	-36%
Depth of the main wrinkle		-10.1%	-27%
Surface occupied by deep wrinkles		-40.3%	-98%
Surface occupied by medium wrinkles		-24.5%	-86%

### In vivo



## Formulation

## Anti-aging Emulsion with Dermaxyl®

Suggested formulation ref.:  
SED0309402A

<b>Part A</b>	%	<b>Part E</b>	%
Water deionized	q.s 100	Potassium sorbate	0.10
Ultrez 10 (Carbomer, Noveon)	0.25	<b>Part F</b>	%
<b>Part B</b>	%	Water deionized	4.00
Glycerin	3.50	Sodium hydroxide 30%	0.50
Preservatives	0.30	<b>Part G</b>	%
<b>Part C</b>	%	Fragrance	0.10
Volpo-S-10 (Stearth 10, Croda)	1.50	<b>Protocol:</b>	
Crodafos CS20 Acid (Cetearyl Alcohol and Ceteth 20 Phosphate and Dicaprylyl Phosphate, Croda)	3.50	Part A: disperse Ultrez 10 in water and let swell for 20 minutes. Heat Part B until dissolved then add to Part A. Heat Part (A+B) to 80°C in a bain-marie. Weigh Part C and heat to 80°C in a bain-marie, mixing well. Heat Part D to 85°C and add it extemporaneously to Part C. Add Part (C+D) into Part (A+B) with staro stirring. Then add part E to mixture and homogenize well; allow to cool. At 50°C neutralize with Part F. At 35°C extemporaneously, add Part G.	
DC 200 (Dimethicone, Dow Corning)	2.00	<b>Non-guarantee:</b> This formulation has been subjected to limited stability tests and has been shown to perform well. However formulators adopting this approach should ensure to their own satisfaction long term stability and functionality. It is good practice to conduct safety tests on all final formulations prior to marketing. Suggested uses should not be taken as an inducement to infringe any existing patents.	
Crodamol OSU (Dioctyl Succinate, Croda)	7.00		
Crill 3 (Sorbitan Stearate, Croda)	0.40		
<b>Part D</b>	%		
DERMAXYL® (Sederma)	2.00		