

New Novel Products From

*Corallina Officinalis*  
*Alba*

**# Marine Moisturising Factor 1**

**# Snow White Coral Algae**

**New Generation Biotech Products for  
Advanced Skin Care Formulations**



**CAMPO RESEARCH PTE LTD**

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CAMPO® Multi-Purpose Cosmetic Base Chemicals & Active Ingredients

CAMPO® Novel Functional Active Cosmetic Ingredient & Raw Materials

## COMPOUNDS IDENTIFIED IN CAMPO MMF1

- **2-pyrrolidone-5-carboxylic acid** in various salt forms including the sodium salt ( Sodium PCA, as listed in CTFA Cosmetic Ingredient Dictionary, 3rd ed., 1982, p268.)
- **lactates** in three salt forms including the sodium salt ( sodium lactate listed in CTFA Cosmetic Ingredient Dictionary, 3rd ed., p283, and DAB, p331 )
- **12-epi-scalaradial** - like analogue. It is known that 12-epi-scalaradial, a marine natural product, previously known only and isolated from cacospongia spp., is a potent inhibitor of bee sting and other venoms.
- **Spermidine**
- **Spermine**
- **6-methoxy-N- (3-sulphopropyl)- quinoline (SPQ)**

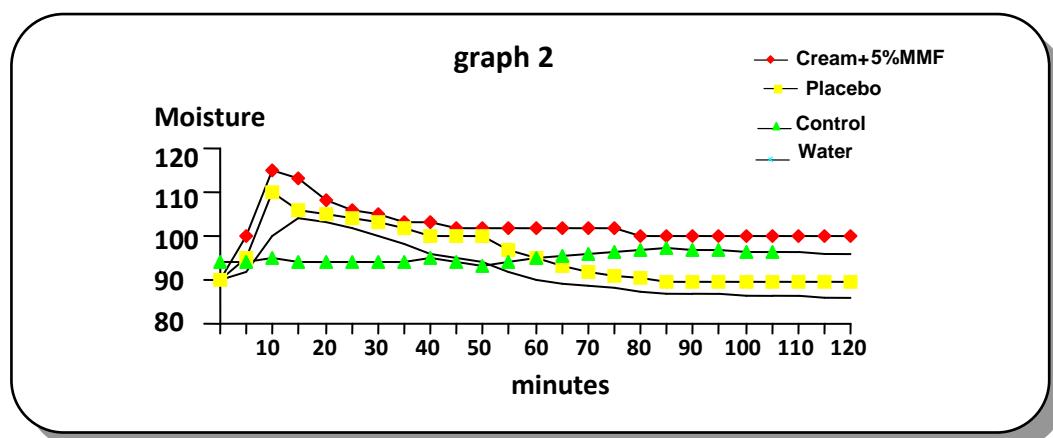
## KNOWN PHYSIOLOGICAL EFFECTS OF ISOLATED COMPOUNDS

It is interesting to note that the lactate and PCA in the form of their sodium salts are well known for water bridging properties, and are widely used in cosmetics formulations for this moisturizing effect.

**12-epi-scalaradial** acts as a potent inhibitor of toxins.

**Spermine and spermidine** are polyamines with the biological function of protection of replicating DNA against oxidative injury. Their intercellular concentration is strictly correlated to normal and pathological cell growth and protein synthesis. Spermine plays an important role in the regulation of cellular proliferation and differentiation, whilst it also facilitates regeneration of long term potentiation and protects replicating DNA against damage by singlet oxygen.

**SPQ** has an inferred biological function of minimising interference of physiological anions (and anionic detergents).



# CAMPO RESEARCH Pte Ltd

## TECHNICAL SPECIFICATION

PRODUCT Name (Campo Research) Other Trade Names (Campo Research)	<b>CAMPO MARINE MOISTURISING FACTOR 1</b> CORAL ALGAE MMF 1 EXTRACT
CTFA TRADE NAME	MARINE MOISTURISING FACTOR 1
Existing CTFA/INCI Name	Corallina Officinalis Extract (and) Water/Aqua (and) Propylene Glycol
Chinese Translation	珊瑚藻 (CORALLINA OFFICINALIS) 提取物 水(WATER /AQUA) 丙二醇 (PROPYLENE GLYCOL)
CAMPO PRODUCT # HS Code:	<b>95-153A</b> 1302.19.0000
CFTA Monograph ID:	7736 – Corallina Officinalis Extract 9423 – Aqua (Water) 2621 – Propylene Glycol
CAS# CAS# EU	89997-92-2 – Corallina Officinalis Extract 89997-92-2 (EU) – Corallina Officinalis Extract 7732-18-5 – Aqua (Water) 7732-18-5 (EU) – Aqua (Water) 55-57-6 – Propylene Glycol 55-57-6 (EU) – Propylene Glycol
EINECS Number and Name EINECS# EU	289-730-0 (1) – Corallina Officinalis Extract 289-730-0 – Corallina Officinalis Extract (EU) 231-791-2 – Aqua (Water) 231-791-2 (EU) – Aqua (Water) 200-338-0 – Propylene Glycol 200-338-0 (EU) – Propylene Glycol
EINECS Number and Name EINECS# EU European Commission–Health & Consumer Cosmetics–Cosing	Corallina Officinalis Extract <a href="http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&amp;id=33034">http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&amp;id=33034</a> Corallina Officinalis Extract – 289-730-0 (EU)  Aqua (Water) <a href="http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&amp;id=31959">http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&amp;id=31959</a> Aqua – 231-791-2 (EU)  Propylene Glycol <a href="http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&amp;id=37269">http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.details_v2&amp;id=37269</a> Propylene Glycol – 200-338-0 (EU)
BATCH/LOT #	<b>See COA Batch Lot</b>
SPECIES	Corallina officinalis alba Syn: Corallina Officinalis Extract
PARTS USED	Thyliae
RAW MATERIAL - ORIGIN	SOUTH PACIFIC
COMMENTS	Total dissolution and dispersion in water. <b>*Shake or agitate well before use</b>  A Quality Management System, compliant to the International Standard ISO 9001, was used to manufacture and test this material.

	<b>*Please take note that all specifications are liable to changes without prior notice.</b>
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<b>Specification Parameter Analysis</b>	<b>Specification Range</b>	<b>Result</b>	<b>Methods</b>
Physical Form	Liquid to Soft Paste	Conforms	Visual
Color	Milky White	Conforms	Visual
Odor	Slight characteristics	Conforms	Olfactory
Specific Gravity (20deg.C)	1.010 - 1.100	See COA	USP XXIX/Paar,DMA35
Refractive Index (20deg.C)	1.400 - 1.450	See COA	USP XXIX/DGF IV C (52)
pH(20°C) (100% Concentrate)	5.00 – 8.00	See COA	USP XXIX/DGF H III (92)
<b>Carrier Menstrual (Vehicle)</b>			
Water	50 - 85%	See COA	-
Propylene Glycol	25 - 40%	See COA	-
Water Solubility	-	Conforms	-
Dry Residue (160deg.C/ 2hours.)	1 - 15%	See COA	Mettler 16J
Saponification Value	-	-	-
Viscosity	-	-	-
Preservation	None	Conforms	Pflanzaniaschuttal 1989
Pesticide Content	None	Conforms	USP XXIX/Ph.Eur.6.12(97)
Total Germs	<100 Cfu/ml - Non-Pathogenic	Conforms	USP XXIX/Ph.Eur.2.6.12(97)
Total Yeast/Mold	< 100 cfu/ ml	Conforms	USP XXIX/Ph.Eur.2.6.12(97)
Heavy Metals(Total)As,Pb,Hg	< 0.005 ppm	Conforms	USP XXIX/Ph.Eur.2.6.12(97)

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**Campo Marine Moisturizing Factor 1 ©.**

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## CAMPO™ CORAL ALGAE MMF 2 EXTRACT

Likewise, **Campo™ Marine Moisturising Factor 2** is a novel entity isolated from the living form of *Corallina officinalis alba* (Coral Seaweed). It serves to provide protective structural firmness on the corium layer through the bio-active ingredients' ability to cross link with the constituent structural proteins present thereby forming the basis of water balance, hydro-osmotic barrier of the skin. It assists in improving the tensile strength of the skin and is effective in alleviating dry skin conditions.

Trade Name:	<b>Campo Coral Algae MMF 2 Extract</b>
Generic Name:	<i>Corallina officinalis alba extract</i>
Product number:	95-153/B

### Typical properties:

<b>Appearance:</b>	Clear Colorless – Turbid
<b>Odour:</b>	Characteristic- faint
<b>pH:</b>	5.0 – 8.0
<b>Specific gravity (20°C):</b>	1.010 – 1.100
<b>Refractive index(20°C):</b>	1.355 – 1.400
<b>Dry residue:</b>	1 – 15%
<b>Sodium content:</b>	2 – 8%
<b>Nitrogen content:</b>	1.5 – 3.0%