

# Supplementary Materials: Cosmetic Functional Ingredients from Botanical Sources for Anti-Pollution Skincare Products

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**Table 1.** Anti-pollution cosmetic ingredients obtained from Algae.

No.	Name	Company	Inci Name	Claims	Recomm. Conc.
1	Contacticel™	SEPPIC	Aqua (and) Butylene Glycol (and) Hydrolyzed Rhodophyceae Extract	Anti-pollution Purifying Sebum absorption Shining reducing	1%
2	Energilium	Chemyunion	Water (and) Butylene Glycol (and) Laminaria Digitata Extract (and) Magnesium Aspartate (and) Disodium Adenosine Diphosphate	Anti-stress Increase of natural skin defense Protective Moisturizing	2–8%
3	Ephemer™	Seppic	Caprylic/Capric Triglyceride - Undaria Pinnatifida Extract	Antioxidant Reinforcement of the antioxidant capacities of the skin	1%
4	Hidrahair® AD	Chemyunion Quimica	Water (and) Propylene Glycol (and) Pelvetia Canaliculata Extract	Anti-pollution	1–5%
5	Invincity®	Algues & Mer	Water (and) Ascophyllum Nodosum Extract	Anti-pollution Barrier reinforcement Anti-aging Protective Repairing	3%
6	Phycol UL®	BiotechMarine (SEPPIC)	Propylene Glycol, Water, Ulva Lactuca Extract	Anti-pollution Moisturizing Protective Anti-inflammatory	2–5%
7	Phycol UP®	BiotechMarine (SEPPIC)	Propylene Glycol, Water, Undaria Pinnatifida Extract	Anti-pollution Conditioning Emollient Protective Regenerating	2-5%

**Table 2.** Anti-pollution cosmetic ingredients obtained from Spermatophytæ (n.s.=not specified).

No.	Name	Company	Inci Name	Claims	Recommended Concentration
1	ACB Yerba Santa Glycoproteins PF	Active Concepts	Lactobacillus/Eriodyction Californicum Ferment Extract	Antioxidant Moisturizing	1.0–5.0%
2	Berkemyol The' Vert	Berkem	Palmitoyl Camellia Sinensis Extract	Anti-pollution Oxygenation of the skin Maintains skin structure Protection from photo-aging	0.3–0.7%
3	Cytistem™	Sederma	Glycerin (and) Marrubium vulgare extract	Antioxidant Anti-pollution	n.s.
4	Elixiance Biofunctional	Ashland	Propanediol (and) Water/Aqua (and) Schinus molle Extract	Anti-pollution Skin-purifying Reduced appearance of wrinkles Anti-age	1.0–1.5%
5	Glycogem WHM	CR&D Cosmetic Research & Development	Glycerin, Aqua, Marrubium Vulgare meristem cell culture extract, Hydrolized Glycosaminoglicans	Against environmental stress Detoxifying of the skin Against damages from photoaging	0.5–2%
6	Marrubium Vulgare Stems G™	I.R.B. Istituto di Ricerche Biotecnologiche	Glycerin, Marrubium vulgare meristem cell culture, xanthan gum	Antioxidant Detoxifying Anti-stress Anti-pollution Photoaging prevention	1–3%
7	Marrucell™	Sederma	Glycerin (and) Marrubium Vulgare Extract (and) Xanthan Gum	Anti-pollution and detoxifying activity Radical scavenging, protection of the skin against environmental stress	n.s.
8	Phytessence Holyherb	Crodar OM	Butylene Glycol, Eriodyction Californicum (Holyherb) Flower/Leaf/Stem Extract	Antioxidant Radical scavenging UV protection Soothing	1–5%
9	RedSnow®	BioSpectrum	Water, Propanediol, Camellia Japonica Flower Extract	Anti-pollution Anti-oxidation Anti-inflammation Collagen synthesis	1–3%
10	Urbalys®	GreenTech	Aqua/Water, Propanediol, Schisandra Chinensis Fruit extract	Anti-pollution Anti-ageing Oily skin care Sensitive and reactive skin care	0.5–1%