



A Review on Oriflames Aqua-Rhythm Skin Care Products and their Benefits

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Abstract

The key to younger-looking skin is hydration. Aqua-Rhythm contains Hydro Protect Complex to lock in moisture and protect our skins barrier against the ageing effects of dehydration, leaving our skin supple, youthful and refreshed. It contains Swedish red algae and Rose of Jericho, a revolutionary moisturizer which helps to restore the skin hydration and metabolic functions to prevent skin ageing.

Furcellaria Lumbricalls, the Swedish Red Algae softens and revives dehydrated skin, locking in moisture. Rose of Jericho plant is a bare root in its dry state. It can be revived with only a little water. After wetting, the plant turns green, Trehalose, an extract of Rose of Jericho, has high water retention capabilities, and is used in food and cosmetics. It binds water in the skin thus maintaining collagen and elastin production in the skin. Trehalose has the added advantage of being an antioxidant.

This review attempts to guide the reader between the various Oriflames Aqua-Rhythm skin care products and their benefits, with a particular focus on Aqua-rhythm Intense Hydration Youth Preserve night Cream. Paper also deals with FTIR spectra of Aqua-rhythm Intense Hydration Youth Preserve night Cream. This research, along with better regulation and reporting, will enable consumers to choose products with confidence. This in turn will allow companies to benefit from these novel technologies in the long term while retaining customer confidence.

FTIR can be routinely used to identify the functional groups and identification/quality control of raw material/finished products. FTIR spectra of Aqua-rhythm Intense Hydration Youth Preserve night Cream is obtained at room temperature by using an FTIR Spectrophotometer - Perkin Elmer - Spectrum RX-IFTIR. The spectra is collected in a range from 650 to 4000 cm^{-1} .

Interpretation of FTIR Spectra of Aqua-rhythm Intense Hydration Youth Preserve night Cream shows presence of various functional groups such as Alcohols - Secondary CH-OH; Alkane - Iso - propyl, Tertiary butyl, Ethyl, n-propyl; Aldehydes - Aliphatic Aldehydes -CH₂-CHO, Aromatic Aldehydes $\text{C}_6\text{H}_5\text{-CHO}$; Ketones - Aromatic Ketones - $\text{C}_6\text{H}_5\text{-CO-C}$; Amines (cont) - $\text{C}_6\text{H}_5\text{-NH-R}$; Amines - $\text{C}_6\text{H}_5\text{-NH}_2$, $>\text{CH-NH}_2$.

Key Words: Aqua-Rhythm, Furcellaria Lumbricalls, Rose of Jericho, Trehalose, FTIR Spectra

INTRODUCTION

The key to younger-looking skin is hydration. Aqua-Rhythm contains Hydro Protect Complex to lock in moisture and protect our skins barrier against the ageing effects of dehydration, leaving our skin supple, youthful and refreshed.

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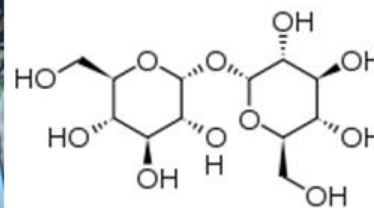
Furcellaria Lumbricalls, the Swedish Red Algae softens and revives dehydrated skin, locking in moisture. Rose of Jericho plant is a bare root in its dry state. It can be revived with only a little water. After wetting, the plant turns green, Trehalose, an extract of Rose of Jericho, has high water retention capabilities, and is used in food and cosmetics. It binds water in the skin thus maintaining collagen and elastin production in the skin. Trehalose has the added advantage of being an antioxidant.



Furcellaria Lumbricalls



Rose of Jericho



Trehalose

Coralline algae are red algae in the order Corallinales. They are characterized by a thallus that is hard because of calcareous deposits contained within the cell walls. The colors of these algae are most typically pink, or

some other shade of red, but other species can be purple, yellow, blue, white or gray-green. Coralline algae play an important role in the ecology of coral reefs. Sea urchins, parrot fish, limpets (mollusks), and chitons (mollusks), feed on coralline algae. In

the temperate Mediterranean sea, coralline algae are the main builders of a typical algal reef, the Coralligène ("coralligenous").[1] Many are typically encrusting and rock-like, found in marine waters all over the world. Only one species lives in freshwater.[2] Unattached specimens (maerl, rhodoliths) may form relatively smooth compact balls to warty or fruticose thalli. A close look at almost any intertidal rocky shore or coral reef will reveal an abundance of pink to pinkish-grey patches, splashed as though by a mad painter over rock surfaces. These patches of pink "paint" are actually living algae: crustose coralline red algae. The red algae belong to the division Rhodophyta, within which the coralline algae form the order Corallinales. There are over 1600 described species of nongeniculate coralline algae.[3] The corallines are presently grouped into two families on the basis of their reproductive structures.[4]



Coralline algae

Coralline algae are widespread in all of the world's oceans, where they often cover close to 100% of rocky substrata. Only one species, *Pneophyllum cetinaensis*, is found in freshwater.[2, 5] Many are epiphytic (grow on other algae or marine angiosperms), or epizoid (grow on animals), and some are even parasitic on other corallines. Despite their ubiquity, the coralline algae are poorly known by ecologists, and even by specialist phycologists (people who study algae). For example, a recent book on the seaweeds of Hawaii does not include any crustose coralline algae, even though corallines are quite well studied there and dominate many marine areas. Because of their calcified structure, coralline algae have a number of economic uses. The collection of unattached corallines (maerl) for use as soil conditioners dates to the 18th century. This is particularly significant in Britain and France, where more than 300,000 tonnes of *Phymatolithon calcareum* (Pallas) Adey & McKinnin and *Lithothamnion corallioides* are dredged annually. Some harvesting of maerl beds that span several thousand kilometres off the coast of Brazil takes place. These beds contain as-yet undetermined species belonging to the genera *Lithothamnion* and *Lithophyllum*. Maerl is also used as a food additive for cattle and pigs, as well as in the filtration of acidic drinking water. The earliest use of corallines in medicine involved the

preparation of a vermifuge from ground geniculate corallines of the genera *Corallina* and *Jania*. This use stopped towards the end of the 18th century. Medical science now uses corallines in the preparation of dental bone implants. The cell fusions provide the matrix for the regeneration of bone tissue. Since coralline algae contain calcium carbonate, they fossilize fairly well. They are particularly significant as stratigraphic markers in petroleum geology. Coralline rock also functions as building stones, with the best examples being in Vienna, Austria.[6] Study of the spread of the introduced marine red alga *Gracilaria vermiculophylla* on the west coast of Sweden, and of the fauna and flora associated with this alga in Scandinavia and the western mid-Atlantic was done.[7]

Anastatica or white mustard flower is a monotypic genus with the type species *Anastatica hierochuntica*. The genus is a member of the family Brassicaceae (formerly Cruciferae), in the division Magnoliophyta of the class Magnoliopsida. The plant is a small gray annual herb that rarely grows above 15 centimetres (6 in) high, and bears minute white flowers. It is a tumbleweed [8-10] and a resurrection plant. The most commonly used common name in English may be rose of Jericho; other common names include Jericho rose, true rose of Jericho, Maryam's flower, flower of St Mary, St. Mary's flower, Mary's flower, and white mustard flower. About the name "rose of Jericho", the 16th century herbalist John Gerard is said to have remarked the coiner of the name spoiled it in the mint; for of all plants that have been written of not any are more unlike unto the rose.[11] *Anastatica* is found in arid areas in the Middle East and the Sahara Desert, including parts of North Africa and regions of Iran, Egypt, Palestine, Israel, Syria, Iraq, Jordan, and Pakistan.[12-14] The process of curling and uncurling is completely reversible and can be repeated many times. The ability of the plant to do this is attributed to the presence of trehalose,[15] a disaccharide sugar involved in several mechanisms of cryptobiosis. Although the rehydrated plant sometimes is described as putting out new leaves, flowers, and fruits,[16] this is disputed; instead, the seeds may sometimes germinate and sprout new plants while still seated in the fruit on the dead parent plant. *Anastatica* has been described as the most famous tumbleweed.[17] Once dry, the ball is said to become detached and is dispersed by wind. This tumbleweed habit has been interpreted as a mechanism of avoiding burial in dunes.[18] However, *Anastatica* may possess this habit only in the literature,[17] or tumble only rarely, if uprooted by accident.[19]

Aqua-Rhythm Intense Hydration Youth Preserve Day Cream It is youth-preserving moisturiser with unique Hydro-Protect Complex that captures and locks in moisture. It fully protects our skin barrier against the ageing effects of dehydration.

Aqua-Rhythm Intense Hydration Youth Preserve Light Day Cream SPF 15

Aqua-Rhythm Intense Hydration Youth Preserve Night Cream It is intense hydration for skin while we sleep. Its unique Hydro-Protect Complex helps prevent the increased moisture loss during the night. Skin looks refreshed and revitalised in the morning. Its ingredients are Aqua, Glycerin, Hydrogenated Polyisobutene, Isohexadecane, Cyclopentasiloxane, Betaine, Trehalose, Cyclohexasiloxane, Aluminum Starch Octenylsuccinate, Butylene Glycol, Butyrospermum Parkii (Shea) Butter, Stearic Acid, Glyceryl Stearate, PEG-100 Stearate, Hydrolyzed Sclerotium Gum, Cetyl Alcohol, Stearyl Alcohol, Hydroxyethyl Acrylate/Sodium Acryloyldimethyl Taurate Copolymer, Imidazolidinyl Urea, Methylparaben, Parfum, Squalane, Propylparaben, Disodium EDTA, Xanthan Gum, Polysorbate 60, Phenoxyethanol, Sorbitan Isostearate, Furcellaria Lumbricalis Extract, Sodium Hydroxide [20]

Aqua-Rhythm Intense Hydration Youth Preserve Visible Skin Renewer It is immediate skin moisturiser with Hydro-Protect Enzyme that accelerates the skin's natural renewal process. It actively delays the first signs of ageing and leaves skin looking revitalised, healthy and younger.

Aqua-Rhythm Intense Hydration Youth Preserve Eye Contour Balm It is age-defying Eye Balm with Hydro-Protect Complex to replace moisture and protect the skin barrier. Also with Yeast Extract it lightens dark circles and decreases puffiness around the eye. Its ingredients are Aqua, Glycerin, Isohexadecane, Cyclopentasiloxane, Betaine,

Butyrospermum Parkii (Shea) Butter, Cetyl Alcohol, Hydrogenated Polydecene, Stearyl Alcohol, Trehalose, Butylene Glycol, Stearic Acid, Cyclohexasiloxane, Nylon-12, Cetylaryl Glucoside, Ricinus Communis (Castor) Seed Oil, Ammonium Acryloyldimethyltaurate/ Vp Copolymer, Sodium Stearoyl Glutamate, Tocopheryl Acetate, Phenoxyethanol, Imidazolidinyl Urea, Caprylyl Glycol, Saccharomyces Cerevisiae Extract, Methylparaben, BHT, Cera Alba, Propylparaben, Hydrogenated Castor Oil, Xanthan Gum, Copernicia Cerifera Cera, Ethylparaben, Ethylhexylglycerin, Furcellaria Lumbricalis Extract [21]

Aqua-Rhythm Intense Hydration Youth Preserve Gel Mask It is immediately refreshing gel face mask that intensely hydrates the skin and reduces the appearance of fine, dry lines. It contains unique Hydro-Protect Complex that captures and locks in moisture.

METHODOLOGY

FTIR Spectrophotometer - Perkin Elmer - Spectrum RX-IFTIR

FTIR can be routinely used to identify the functional groups and identification / quality control of raw material/finished products. Spectrum RX-I offers fast throughput and rapid access to reliable and dependable IR results. High signal to noise ratio makes FTIR more useful for difficult samples. It has resolution of 1 cm^{-1} and scan range of 4000 cm^{-1} to 250 cm^{-1} . In the normal mode around 10 mg sample is required in the form of fine powder. The sample can be analyzed in the form of liquid, solid and thin films also.

FTIR spectra of Aqua-rhythm Intense Hydration Youth Preserve night Cream is obtained at room temperature by using an FTIR Spectrophotometer - Perkin Elmer - Spectrum RX-IFTIR. The spectra is collected in a range from 650 to 4000 cm^{-1} .

RESULTS AND DISCUSSION

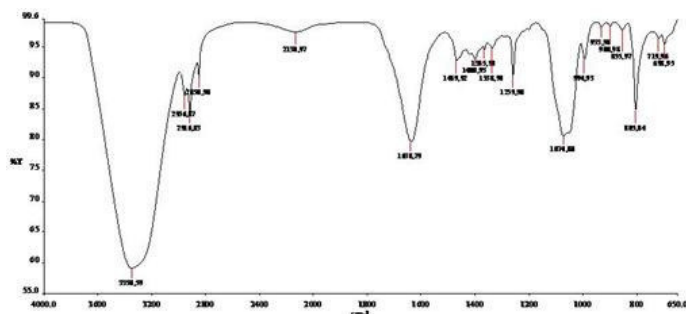


Figure 1. FTIR Spectra of Aqua-rhythm Intense Hydration Youth Preserve night cream

Figure 1 shows FTIR Spectra of Aqua-rhythm Intense Hydration Youth Preserve night Cream. Interpretation of FTIR Spectra of Aqua-rhythm Intense Hydration Youth Preserve night Cream can be done as follows:

S.N .	Spectral Region Wave number cm^{-1}	Bond causing absorption	Pattern and Intensity of Band
1	3350.59	Alcohols - Secondary CH-OH	Broad and Strong Intensity
2	2956.87	Alkane - Iso - propyl, Tertiary butyl	Sharp and Moderate Intensity
3	2916.83	Alkane - Iso - propyl, Tertiary butyl	Sharp and Moderate Intensity
4	2850.90	Alkane - Ethyl, n-propyl, Iso - propyl, Tertiary butyl	Sharp and Moderate Intensity
5	2130.97	Aldehydes - Aliphatic Aldehydes $-\text{CH}_2-\text{CHO}$, Aromatic Aldehydes $\text{C}_6\text{H}_5-\text{CHO}$	Broad and Low Intensity
6	1638.79	-	Broad and Moderate Intensity
7	1469.92	-	Broad and Low Intensity
8	1400.93	-	Broad and Low Intensity
9	1365.94	-	Broad and Low Intensity
10	1338.94	-	Broad and Low Intensity
11	1259.90	Alkane - tertiary butyl, Aldehydes - Aromatic Aldehydes $\text{C}_6\text{H}_5-\text{CHO}$, Ketones - Aromatic Ketones - $\text{C}_6\text{H}_5-\text{CO}-\text{C}$, Amines (cont) - $\text{C}_6\text{H}_5-\text{NH}-\text{R}$	Sharp and Moderate Intensity
12	1074.80	-	Broad and Moderate Intensity
13	994.93	-	Broad and Low Intensity
14	933.98	-	Broad and Low Intensity
15	900.98	-	Broad and Low Intensity
16	855.97	-	Broad and Low Intensity
17	805.84	Alkane - Ethyl, Amines $>\text{CH}-\text{NH}_2$, Amines - $\text{C}_6\text{H}_5-\text{NH}_2$	Sharp and Moderate Intensity
18	719.96	-	Broad and Low Intensity
19	698.95	-	Broad and Low Intensity

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CONCLUSION

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