

PENTAPHARM

IRICALMIN

The style of modern life provokes aggression to the skin. The biopolymer complex IRICALMIN cares for and soothes skin stressed by outdoor activities, such as sunbathing, swimming, sports, etc.

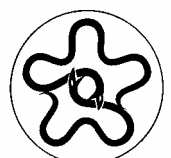
PRODUCT DESCRIPTION

IRICALMIN is a biopolymer complex of primary components made from plants and created by biotechnology for use in skin care products to combat the aggressions of modern life. The well-balanced mixture of these substances produces the benefits of a multi-functional anti-irritant. Besides its anti-irritant action, IRICALMIN is also able to regenerate the protective lipid layer of skin damaged by activities such as sunbathing, sport, beach life, shaving, showering, etc. Moreover, IRICALMIN also has moisturizing properties, making this product a multi-functional ingredient to be used in cosmetic products for those who want to enjoy all the good things in life without worrying about the aggressive effects on the skin.

BACKGROUND

Over the last fifty years, our life-style has changed dramatically. People devote more time to their well-being and pleasure, practising sport, enjoying holidays in the sun, caring about their health, etc. In addition, they also care much more about their appearance and personal hygiene. By contrast, people experience far more skin problems, from melanomas to sensitive and irritated skin and allergies. Although there is no evidence that the two trends are linked, it is well known that as a result of modern activities such as sunbathing, too frequent showering, shaving and depilation, the skin is much more abused. It is therefore necessary to protect the skin and care for it better in order to avoid the damage caused by modern life.

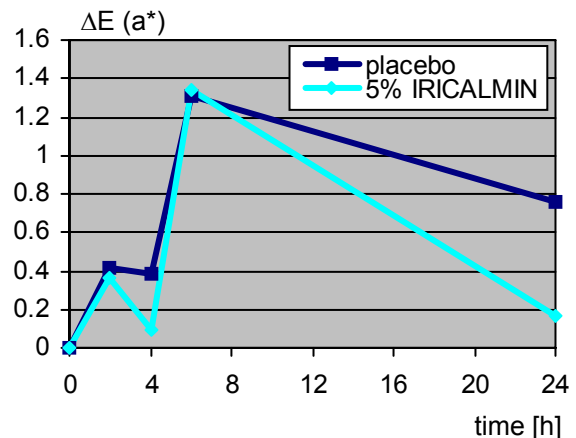
IRICALMIN has been designed to combat irritation, reddening and dehydration, as well as to restore the aggressed protective lipid layer of the skin. Its carefully optimized biopolymer complex has an anti-irritant effect, promotes normalization of stressed skin and regenerates the natural protective lipid layer. IRICALMIN is therefore appropriate for use in products which protect and care for our skin in modern life.



EFFICACY

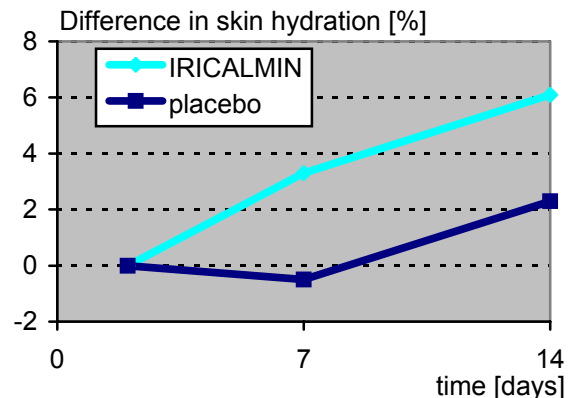
ANTI-IRRITANT EFFECT

In this in vivo study on 10 healthy volunteers the anti-irritant efficacy of IRICALMIN was compared to a placebo when applied to cutaneous areas of the back where sunburn was induced by UV radiation. The products were applied directly after radiation and measurements performed before and 2, 4, 6 and 24 hours later. The placebo employed was a simple carbomer gel. In the study, IRICALMIN showed a very good soothing effect, which was especially stronger than the placebo after 24 hours.



MOISTURIZING EFFECT

Corneometric measurement revealed a slight short-term moisturization after only one application of an IRICALMIN-containing formulation. The diagram on the right illustrates long-term moisturization of an oil in water emulsion containing 5% IRICALMIN compared to placebo. The test formulations were applied on either side of the face for two weeks. IRICALMIN demonstrates good moisturizing properties and is an ideal ingredient for skin care products.

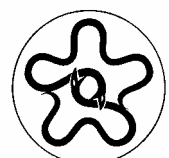


ADDITIONAL INFORMATION

Further studies confirmed the anti-irritant activity of IRICALMIN after skin stripping, measured by Laser Doppler technique, as well as its soothing power after wet shaving, measured by thermography. In addition, IRICALMIN has been proven in an in vivo study to accelerate the restoration of the protective lipid layer after wet shaving.

CONCLUSION

IRICALMIN combines three effects in one product: anti-irritant, sebum replenishment and moisturization. Thanks to its multi-functionality, IRICALMIN is highly suitable for use in skin care products for after-sun, after-depilation and after-shave application as well as in those administered for protective and anti-irritant purposes.



TECHNICAL INFORMATION

PRODUCT SPECIFICATIONS

Appearance	:	clear to slightly opalescent, yellow liquid
pH	:	5.5 - 6.5
Total nitrogen	:	0.42 – 0.48% m/m
Relative density (20°C)	:	1.01 - 1.03
Refractive index (25°C)	:	1.347 - 1.351
Preservative (Phenonip®)	:	0.68 - 0.82% m/m
Microbial count	:	< 100 CFU/ml
Specified pathogens	:	absent

PRESERVATION AND MICROBIOLOGY

IRICALMIN is preserved using 0.75% Phenonip® (parabens in phenoxyethanol). IRICALMIN is free of specified pathogens. The amount of non-pathogenic microorganisms with less than 100 CFU per ml of IRICALMIN meets the CTFA microbiology guidelines. IRICALMIN fulfills the criteria of the repetitive germ loading test described by Shyam B. Singh-Verma (Parfümerie und Kosmetik 68(7), 414-421, 1987).

SAFETY AND ECOLOGY

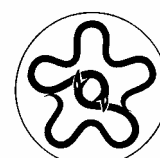
Standard and well-defined safety testing has been performed on IRICALMIN which has proved the product to be safe for cosmetic use. The data available do not indicate any environmental risks. The manufacturing process is designed to meet the criteria for the assessment of safety, health and protection of people and of the environment set out in the *Responsible Care Program*.

PROCESSING AND DOSAGE

IRICALMIN should be processed below 60°C and is incorporated into the aqueous phase of a cosmetic formulation. IRICALMIN is stable in the pH-range of 5.5 to 9. In formulations, IRICALMIN is compatible with ethanol at concentrations of more than 50%. In skin care formulations, we recommend the addition of 2 to 5% IRICALMIN. Basic Guide Formulations are available upon request.

STORAGE AND SHELF LIFE

IRICALMIN should be stored in the original sealed containers protected from light in a clean place at a temperature between 15 and 25°C. In order to avoid secondary microbial contamination, following opening, containers should be handled with special care. If stored under the recommended conditions, IRICALMIN remains stable for at least two years.



GENERAL PRODUCT INFORMATION

Trade Name	:	IRICALMIN
Product Code	:	316-02
INCI Name (CTFA)	:	Water, Wheat (Triticum Vulgare) Germ Extract, Saccharomyces Cerevisiae Extract, Sodium Hyaluronate
EU-Labeling Name	:	Aqua, Triticum Vulgare, (Saccharomyces Cerevisiae Extract is not listed), Sodium Hyaluronate
Chemical Name	:	Aqueous solution containing extracts of wheat germ and Saccharomyces cerevisiae as well as sodium hyaluronate
CAS No	:	7732-18-5, 84012-44-2, 84604-16-0, 9067-32-7
EINECS No	:	231-791-2, 281-689-7, 283-294-5, 232-678-0
JCID No	:	20900CZZ00511000, 520400, 520894
NICNAS	:	Not listed
Customs Tariff No	:	2923.2090 (Harmonized System Number)
Shelf life	:	At least 2 years

COMPOSITION

A) Ingredient	INCI Name #	Amount *
As listed in the CTFA Dictionary	Water	A
	Wheat (Triticum Vulgare) Germ Extract	F
	Saccharomyces Cerevisiae Extract	F
	Sodium Hyaluronate	F

B) Additives	INCI Name #	Amount *
Solubilizer	Disodium Cocoamphodiacetate	E
Preservative (Phenonip®)	Phenoxyethanol, Methylparaben, Butylparaben, Ethylparaben, Propylparaben	F
Others (buffers, antioxidants, colorants)	None	---

CTFA Dictionary

* FDA-Code (A = > 50%, B = 25-50%, C = 10-25%, D = 5-10%, E = 1-5%, F = 0.1-1%, G = < 0.1%)

REMARK

Although these data and information have been prepared with the utmost possible care, we reserve the right to make changes due to product improvement and other considerations.

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