CAMPO NEEM OIL & EXTRACTS

Deodorized / decolorized for oral hygiene / anti-acne / anti perspirant – deodorants

Novel functional ingredients for multi-purpose cosmetic formulations

CAMPO RESEARCH PTE LTD

Level 30, 6 Battery Road, Singapore 049909

Tel: (65) 63833203 / 202 / 63833631 **Direct Fax (65) 63833632 / 63834034**

Email: sales@campo-research.com **Website: http///www.campo-research.com**

CAMPO® Multi-Purpose Cosmetic Base Chemicals & Active Ingredients

CAMPO® Novel Functional Active Cosmetic Ingredient & Raw Materials

CAMPO NEEM OILS & EXTRACTS

Deodorized / Decolorized for Oral hygiene/ Anti-acne/ Anti perspirant – Deodorants

Neem Leaf Total Extract Fraction C **(vegetable cortisone powder)**

Neem Vegetal Corti-Like **(vegetal cortisone liquid)**

NEEM LEAF

Novel Functional Ingredients for Cosmetic Formulations

Neem: Ancient Herb from India

Extracted from the bark and leaves of a hardy umbrella-shaped tree, neem can kill infectious bacteria and reduce inflammation and fever.

The neem tree is known in India as "the village pharmacy." For more than 4,500 years, traditional healers have used the bark, seeds, leaves, fruit, gum and oils for dozens of internal and external medical treatments. The most common historical uses of neem were for treatment of skin diseases, inflammation and fevers. Modern research confirms many of the traditional benefits and has revealed new ones.

Neem has demonstrated antibacterial and anti-inflammatory effects as well as benefits for those suffering from diabetes and cardiovascular disorders. One of the most intensively studied effects of neem is as an insecticide. Few people of the United States are aware of this versatile tree and its fascinating story.

Neem is a member of the mahogany family and is a hardy, fast-growing evergreen tree. It has a straight trunk, long spreading branches, grows to a height of 50 feet or more and up to 30 feet wide. These stately umbrella-shaped trees have fragrant white flowers about one-half inch across and may live for more than 200 years. While native to India, neem grows in many Asian countries, throughout arid zones of Africa and has been planted in tropical areas of the Western world as well. It thrives in poor soil and has deep roots that allow it to withstand long periods of drought.

Many of the historical and modern day uses of neem and neem oil have been to treat external skin conditions. It's little surprise that when scientists began looking at neem, they found potent antimicrobial activity. Researchers reported the antibacterial effects of the oil from the neem seed against a variety of pathogens (Indian Journal of Medical Research, 1986, vol. 84), and earlier research indicated that a water extract of neem leaves is effective against viruses (Indian Journal of Medical Research, 1969, vol. 57).

Research on the dermatological effects of neem include successful treatment of ringworm and scabies, according to a study from King George's Medical College in Lucknow, India (New Delhi Evening News, Jan. 29, 1985). Another study showed that a 10 percent extract of the leaves prevented viral skin infection in rabbits and monkeys. Leaf extracts also cured acute eczema and scabies (Antiseptic, 1979, vol. 76).

Anti-Inflammatory Effects

Neem has been used for treating rheumatism and arthritis as well as other inflammatory conditions. Numerous research studies have confirmed the herb's anti-inflammatory effects including a 1981 study showing anti-inflammatory and antipyretic (fever-reducing) properties of neem when administered orally. In the same year, Indian researchers reported anti-arthritic and anti-inflammatory actions of one of the components of neem called nimbidin (Planta Medica, 1981, vol. 43).

Neem's anti-inflammatory actions show different types of activity against acute and chronic inflammation. Neem's strong inhibition of immediate or acute inflammation suggests it prevent the release of inflammation-inducing neurochemicals including prostaglandins. In fact, one 1977 study showed neem extract to be more effective than aspirin in inhibiting prostaglandin’s (Journal of the West African Science Association, 1977, vol. 22).

This same aspirin-like result may be involved in the fever-reducing effect of neem, documented by some of the same studies, which showed an extract of leaf and bark administered orally could reduce fevers (Journal of Ethnopharmacology, 1985, vol. 14).

One of the more common fevers in India and throughout the tropics is malaria. Research shows neem is toxic to malaria parasites and that it can reduce fevers in malaria sufferers. Both water- and alcohol-based neem leaf extracts were confirmed effective against the parasite P. falciparum (Southeast Asian Journal of Tropical Medicine and Public Health, 1985, vol. 16). Though neem might be effective against malaria parasites, it hasn't been shown to prevent malaria infection in the body. Neem has also demonstrated some cardiovascular benefits. Studies showed a "profound and dose dependent" effect in reducing blood pressure and also in reducing arrhythmia, or irregular heartbeats (Journal of Pharmaceutical Sciences, 1978, vol. 67). The versatile herb may also favorably affect the health of diabetics. In a limited 1973 clinical trial, neem enabled diabetic patients to reduce their dosage of insulin by up to 30 to 50 percent without significant rise in blood sugar (Medicine and Surgery, 1973, vol. 13). Further research showed that oral use of leaf extracts reduced blood sugar in rabbits, rats and guinea pigs (Journal of Pharmacy and Pharmacology, 1974, vol. 26, suppl. 111).

Neem's Insecticidal Use Neem oil is effective against insects in many ways. It's apparently so distasteful that most insects won't eat a plant treated with it, but if they do, a deadly effect occurs. Neem, harmless to humans, disrupts insect hormones, preventing the bugs from shedding their outgrown skins. The insects are thus prevented from growing and eventually die. Neem is effective against at least 200 insects and requires no sophisticated extraction or preparation equipment. Use of neem itself is bound to increase as both its medicinal and insecticidal benefits become more widely known.

CAMPO NEEM EXTRACTS

(REGULAR, DE-COLORIZED, & DE-ODOURIZED EXTRACT VERSIONS)

A Tree for Solving Global Problems - AN INTRODUCTION TO THE COSMETIC INDUSTRY

(Excerpted from: Report of an Ad Hoc Panel of the Board on Science and Technology for International Development - National Research Council-USA)

Neem Tree, Botanical Name: - Azadirachta indica A. Juss.

Neem...An Ancient Cure for a Modern World

For thousands of years humans have sought to fortify their health and cure various ills with herbal remedies. Throughout this time, the search for a true panacea or cure - all has been undertaken by virtually every civilization. While hundreds of substances have been tried and tested, few have withstood modern scientific scrutiny. Perhaps no other botanical meets the true definition of a panacea than neem, a tropical evergreen native to India. Every part of this fascinating plant has been used to treat hundreds of different maladies from ancient to modern times. While it is still revered in India for its superior healing properties, recent investigation has dramatically increased worldwide interest in neem and the many products now manufactured with this miraculous herb.

While legendary herbs such as ginseng are far better known, comprehensive research has proven that neem has a far wider array of uses than any other herb. The first recorded use of neem is attributed to the ancient East Indian Tamil Dravidian Harappa culture.

Which added the plant to dozens of health and beauty aids 18,500 years ago. The centuries-old healing system, earlier Siddha and much younger Ayurvedic Medicine have utilized these timeless neem formulations as a mainstay of the Siddha and Ayurvedic pharmacy. Medicinal attributes of neem were extolled in the oldest Tamil Siddha and later Sanskrit writings. Neem has been continuously referred to as the "village pharmacy" due to its incredible array of healing properties. Its usefulness as a natural non -toxic insecticide, among other fascinating properties, further increases its phenomenal applications.

Some Westerners are familiar with neem as a culinary spice, while other shelf purchased neem - based toothpastes sold in health food stores. This is only the beginning of the neem story in North America. Consumers can soon expect to find a complete selection of products containing neem such as cremes,

lotions, tinctures, extracts and capsules. While Western medical doctors considered neem to be nothing more than "native folklore", many is now giving neem serious consideration as a potent and safe ingredient for use in diverse health treatments. The lack of side effects certainly enhances neem's appeal to doctors and consumers alike. Ongoing scientific research is validating what Siddha and Ayurvedic practitioners have known for centuries; neem is a dynamic and useful plant which can solve dozens of health problems, while enhancing overall well being.

The diversity of neem's uses is staggering. It is commonly used in the manufacture of:

- Natural Medicines, Health & Beauty Preparations, Culinary Seasonings, Natural Insect Repellents.

Modern Science Validates Neem

The bark, seeds, leaves; fruit, gum and oils of the neem tree contain compounds responsible for the exceptional benefits this amazing botanical provides. These pharmacological constituents offer some impressive therapeutic qualities including:

- Antiviral , Antimicrobial , Antifungal , Antibacterial , Antipyretic , Anti - inflammatory , Anti-tumor , Analgesic , Alterative , Anthelmintic , Antiemetic , Immune Stimulant.

Neem boosts the immune system on all levels while helping the body fight infection even before the immune system is called to action. It also stimulates the production of T 4 cells to mount a head-on attack against infections. Unlike synthetic antibiotics, neem does not destroy beneficial bacteria and other microorganisms needed to maintain optimum health.

Some medical experts believe that the over-use of chemical antibiotics is contributing to the breakdown of human immune function. Neem offers a non-toxic alternative to powerful and sometimes damaging prescription medicines. Numerous active compounds have been isolated from the neem plant. Some of the most studied include nimbin, azadirachtin, nimbidiol, quercetin, nimbidin and fractionates of leaf total extracts.

Neem leaves contain fiber, carbohydrates and at least ten amino acid proteins. They also contain calcium and other nourishing vitamins and minerals. Analysis also reveals the presence of carotenoids, nutritive compounds being hailed for their ability to ward off many types of cancer. Neem oil is especially high in important fatty acids, and contains all of these vital nutrients in significant quantities. Researchers believe the high fatty acid content of the oil maybe why neem is so effective for treating many skin ailments. Neem also has very powerful skin rejuvenating qualities and absorbs quickly into the skin.

Comparison of Herbal Efficacy

	Chaparral	Echinacea	Neem
Anti-bacterial	yes	yes	yes
Anti-fungal	yes	yes	yes
Antiseptic	yes	yes	yes
Antiviral	yes	yes	yes
AntiInflammatory	yes	yes	yes
Anti-pyretic	no	no	yes
Anticancer	yes	yes	yes
Analgesic	yes	no	yes

Specific Uses of Neem:

The various uses of neem to cure human ailments, boost immunity and fortify human health are almost endless. Neem is one of the most powerful blood-purifiers and detoxifiers known. Hundreds of specific health maladies respond favorably to the proper application of neem. This does not include the countless uses of neem as a natural insect repellent or as a component in beauty aids. A summary of the more common ailments for which neem products are currently used follows:

Skin conditions	Neem has an almost magical effect on chronic skin conditions that often fail to respond with classical medical treatments.
Hair and Nails	When a high quality, organic neem is added to health and beauty preparations, it provides many benefits.
Teeth and Gums	It is estimated that over 90% of the U.S. adult population has some type of gum (periodontal) disease.
Fungi, Parasites and Viruses	Neem has successfully proven under stringent laboratory conditions to destroy harmful fungi, parasites and viruses.
Major Health Problems	Professionally administered neem solutions are being studied for their beneficial effects on AIDS, Cancer, Diabetes, Heart Disease and other medical conditions.
Other Uses	Chronic fatigue, Minor skin abrasions, and as a natural, non-toxic insect repellent

For more information contact email: sales@campo-research.com

Neem - The Natural Pesticides - An Update

This report was published in Nandini Chemical Journal, a monthly Indian journal entirely edited by a team of Chemical Engineers and Technologists.

Nandini Chemical Journal belongs to Nandini Kampoyaki Group of Companies based at Madras in India. NANDINI Kampoyaki maintains an extensive database on various aspects of Indian and global chemical industries, which are continuously updated. The organization provides services in market research, identification of project opportunities and preparation of techno economic feasibility reports on chemical projects.

Nandini Chemical Journal published an interesting article on "Neem- The Natural Pesticide- An overview" in its February '94 Issue. This article was read with interest all over the country and requests have been received to provide periodical update on developments on neem. The important developments regarding Neem in the last few months and some additional information on Neem are provided in this issue.

Neem based products have attained prime importance in International scientific research due to its high efficiency in restoring soil productivity and improving the environment. With growing realization of the damage to ecological balance caused by synthetic pesticides, focus is shifting to organic farming and natural pesticides. Global interest in organic farming has resulted in the exploitation of the uses of neem based products in pest control, toiletries, cosmetics and pharmaceuticals.

ACTION OF AZADIRACHTIN

Conventional chemical pesticides can control pest attack immediately but cannot prevent pest resistance. But neem based pesticides can progressively reduce the pest population over the next generation.

Conventional chemical pesticides are not only toxic but they lack target specificity. Besides, pests develop resistance very fast to pesticides based on a single chemical. In the case of neem, its pesticide properties are derived from Azadirachtin, a kernal extract. Development of insect resistance to neem based pesticide would be difficult primarily due to two reasons.

First, Azadirachtin involved in the process is itself made of several other constituents thus rendering the pesticide superior to the single chemical based formulation. Secondly, pests are known to develop resistance to extraneous chemicals but azadirachtin has the advantage of being systemic. Azadirachtin has both anti-feedant as well as growth regulating properties. This need-based pesticide prevents the insect from advancing to the next stage in its evolutionary cycle. On the other hand, if the pest had tasted the extract in adulthood, then it reproduces the larvae which would grow into defective adults. The action of this pesticide on pests creating moulting inhibition, sterility in adults, reduction in egg laying, reduced quality of eggs and death of the pest.

CURRENT INTERNATIONAL SCENARIO

Neem has obtained global importance due to its wide variety of industrial applications and high economic value. Many countries and several multinational companies have started moves for massive plantations of neem trees. Australia has reportedly brought in a large acreage under neem tree plantation. More than 50,000 trees have been planted in Saudi Arabia. Many multinationals have already started growing neem trees in Carribbean countries like Nicaragua, Costarica and Haiti. Countries like Bangladesh, Burkina Faso, Niger, Chad, Mali, Myanmar, Senegal. Thailand, Denmark and France have also come forward to form an international need network with the basic objective of improving the genetic quality and adaptability of need trees throughout the world.

Campo Neem Extracts

CAMPO RESEARCH SYSTEMS product BSI.009/94

INDIAN MEDICINAL HERBAL EXTRACTS FOR COSMETICS FORMULATIONS

PRODUCT TECHNICAL DATA SHEET

Product name:	**Vaipillai**
INCI Name :	**Neem (Melia Azadirchta Linn) Extract**
Latin name:	**Azadirachta indica A.Juss**
Botanical synonym:	**Melia azadirachta**
English name:	**Neem tree, Margosa, Nim tree, Nimba tree**
Other names:	**Vembu - Tamil** **Nimba – Ayurvedic, Pokok-mambu-Medical Malay**
Plants parts used:	**dried and cured* leaves** ***cured in accordance with ancient Siddha texts. This is to reduce:** **1. the concentration of certain toxic compounds which occur in the fresh leaf and which will cause blisters and skin redness if used in skin care preparations.** **2. to remove the bitter and garlic-like odour of certain fragrance compounds in the fresh leaf**
Reference literature:	**Economic plants of India (New Delhi 1980)** **Sushrut Sanhita, Charak Samhita;** **Dhanvantrai Nighantu (Hindu University, Benares - 1974 reprint)** **Indian Aromatic & Medicinal Plant Abstracts; Central Science and Industry Research (CSIR) New Delhi 1989** **Agasthir 'Sol Maruthavam (Tamil), Sage** **Agathiyar Medicinal Plant Preparations; All- India Siddha Practioners Association Madras 1945**

Active substances:	
amino acids	**tightening**
caretonoids	**granulation promoting**
chlorophyll	**deodorant**
acetylcholine	**vasodilatory**
tannins	**astringent**
azadirachtin	**fungistatic, bacteriostatic**
nimbidin	**healing**
UVzymes ™	**UV absorber**

Nimbidin is one of the bitter principals in Neem leaf. In the preparation of this extract, the leaves are dried and cured by traditional methods in accordance with the tests of the Siddha Sage, Agasthiyar. This reduces the nimbidin concentration to 0.005 ppm. At higher concentrations, say in excess of 100 ppm, it will cause skin redness and possibly blistering. In traditionally Siddha medicinal cosmetic preparations usage of Vaili pilla Taila is well known using similarly cured Neem leaves.

Ethno botany:

Green twigs of the Neem trees are used as tooth brushes. Leaves soaked overnight are used as a prophylactic for teeth, mouth and skin complaints.

Uncured seed oil is used in leprosy and for the treatment of skin disorders resulting from serious veneral diseases.

Garlands of leaves and stones from the fruit are hung on sick rooms and sick room doors during epidermis of smallpox and chicken pox.

Application and dosage recommendations:

The extract may be used for hair regeneration where hair loss is as a result of fungal infection, and as a general scalp stimulation remedy. Neem leaf extract may be used for the treatment of slow healing skin conditions and in day and night moisturizing and skin tightening formulations. In bath care preparations Neem acts as a vasodilator and deodorant.

hair care products	2 - 5 %
skin creams	< 10%
bath care preparations	< 10%

Application codes **RTS, RSS, DBH, NSH, HTB, SPF UV A & B**

Specifications:

Concentration:	1 kg extract = 1.05 kg cured Neem leaves
Appearance:	clear, light brown liquid
Odour:	characteristic
Propylene glycol:	25%
Identification:	positive, TLC specifications
Solubility (water)	clear, soluble
Solubility (surfactants)	clear, soluble
Density (20°c)	1.020 - 1.060
Refractive index (n20°c)	1.360 - 1.380
Preservative:	nil
total germs	< 100/g
Total yeasts/molds	< 100/g
Pesticides:	nil
Heavy metals (Pb, Cd,Hg,As):	< 60 ppm (DAB 10 method A)

Comments:

This material has not been animal tested for efficiency, bioavailbaility or therapeutic content.

Wild crafted plant material from wild trees - custom extracted

External use only

NOT FOR DRUG USE

Campo Neem Extracts

CAMPO RESEARCH SYSTEMS **product 95.009/94**

INDIAN MEDICINAL HERBAL EXTRACTS FOR COSMETICS FORMULATIONS

PRODUCT TECHNICAL DATA SHEET

product name:	**Nimba**
INCI Name	**Neem (Azadirachta Linn) Extract**
latin name:	**Azadirachta indica A.Juss**
botanical synonym:	**Melia azadirachta**
english name:	**Neem tree, Margosa, Nim tree, Nimba tree**
other names:	**Vembu - Tamil** **Vaipillai**
plants parts used:	**dried and cured* leaves** ***cured in accordance with ancient Siddha texts. This is to reduce:** **1. the concentration of certain toxic compounds which occur in the fresh leaf and which will cause blisters and skin redness if used in skin care preparations.** **2. to remove the bitter and garlic-like odour of certain fragrance compounds in the fresh leaf**
reference literature:	**Economic plants of India (New Delhi 1980)** **Sushrut Sanhita, Charak Samhita;** **Dhanvantrai Nighantu (Hindu University,** **Benares - 1974 reprint)** **Indian Aromatic & Medicinal Plant** **Abstracts; Central Science and Industry Research (CSIR) New Delhi 1989** **Agasthir 'Sol Maruthavam (Tamil), Sage** **Agathiyar Medicinal Plant Preparations; All-India SiddhaPractioners Association Madras 1945**

active substances:	
amino acids	**tightening**
caretonoids	**granulation promoting**
chlorophyll	**deodorant**
acetylcholine	**vasodilatory**
tannins	**astringent**
azadirachtin	**fungistatic, bacteriostatic**
nimbidin	**healing**
UVzymes ™	**UV absorber**

Nimbidin is one of the bitter principals in Neem leaf. In the preparation of this extract, the leaves are dried and cured by traditional methods in accordance with the tests of the Siddha Sage, Agasthiyar. This reduces the nimbidin concentration to 0.005 ppm. At higher concentrations, say in excess of 100 ppm, it will cause skin redness and possibly blistering. In traditionally Siddha medicinal cosmetic preparations usage of Vaili pilla Taila is well known using similarly cured Neem leaves.

Ethno botany:
Green twigs of the Neem trees are used as tooth brushes. Leaves soaked overnight are used as a prophylactic for teeth, mouth and skin complaints.

Uncured seed oil is used in leprosy and for the treatment of skin disorders resulting from serious venereal diseases.

Garlands of leaves and stones from the fruit are hung on sick rooms and sick room doors during epidermis of smallpox and chicken pox.

Application and dosage recommendations:

The extract may be used for hair regeneration where hair loss is as a result of fungal infection, and as a general scalp stimulation remedy. Neem leaf extract may be used for the treatment of slow healing skin conditions and in day and night moisturizing and skin tightening formulations. In bath care preparations Neem acts as a vasodilator and deodorant.

Hair cares products	2 - 5 %
Skin creams	< 10%
Bath cares preparations	< 10%

Application codes **RTS, RSS, DBH, NSH, HTB, SPF UV A & B**

Specifications:

Concentration:	1 kg extract = 1.05 kg cured Neem leaves
Appearance:	clear, light almost colorless liquid
Odour:	characteristic-almost faint
Propylene glycol:	25%
Solubility (water)	clears, soluble
Solubility (surfactants)	clears, soluble
Density (20°c)	1.020 - 1.160
Refractive index (n20°c)	1.300 - 1.380
Preservative:	nil
Total germs	< 100/g
Total yeasts/molds	< 100/g
Pesticides:	nil
Heavy metals (Pb, Cd, Hg, As):	< 60 ppm (DAB 10 method A)

Comments:

This material has not been animal tested for efficiency, bioavailbaility or therapeutic content. Wild crafted plant material from wild trees - custom extracted

External use only

NOT FOR DRUG USE

Campo Neem Extracts

CAMPO RESEARCH SYSTEMS **product AZ 1992- 050-32**

AUSTRALASIAN HERBAL EXTRACTS for COSMETICS FORMULATIONS

PRODUCT TECHNICAL DATA SHEET

Product name:	Australian Neem Tree
INCI Name	Neem (Melia Azadirachta, Linn) Extract
Latin name:	*Melia australasica* Blake
Botanical synonym:	*Melia azadirachta var australasica*
English Name synonym:	Cape lilac, Chinaberry, bead tree, white cedar, Aussie Neem
Australian bush name:	dygal, dtheerah, and kiluain
Plant parts used:	cured leaves
Reference literature:	see bibliography

Active substances:	**azadirachtin**	**fungistatic**
	Saponins	**softening**
	Tannins	**astringent**
	Nimbidin**	**healing**
	UVzymes™	**UV filter / absorber**

** The active principal, nimbidin, which is responsible for the characteristic malodor of neem is neutralized to 0.005 ppm by non-chemical means.

Ethnobotany:

Amongst early white settlers in Australia, the leaves of this tree were used as a substitute for quinine for the treatment of malaria. The berries and flowers were soaked in whisky as a tonic and anthelmintic drink. Queensland rainforest aboriginals called this whisky based remedy *lilac water*. It has a faint vanilla odour probably due to the anthelmintic principal, vanillic acid. Crushed leaves have been applied to wounds relying on the cicatrizing action of polyphenols whilst the softening action of the Saponins has been used to good effect on warts.

Applications and dosage recommendations:

Melia australasica is particularly effective for hair regeneration where the original loss is due to fungal infections. The scalp circulation stimulating properties of Flavonoids supports the fungistatic properties of azadirachtin. The tannins act as natural, gentle astringents effectively closing large pores in the skin, suggesting application in creams and lotions for greasy skin conditions. The extract has also shown cicatrant, vasodilatory and deodorant properties.

In skin care products	< 5 %
In hair care products	3 - 5 %
Bath cares products	10 %

Application codes: **RTS, ITS, RSS, OGH, OGS, SRB, UV A&B**

Specification:

Concentration:	1 kg extract = 1.0 kg **Australian Neem Tree**
Appearance:	clear, colorless liquid
Odour:	almost odorless
Propylene glycol:	30.0 %
Identification:	positive, TLC specification
Solubility (water)	clears, soluble
Solubility (surfactants)	clears, soluble
Density (20° C)	1.010 - 1.022
Refractive index (n 20° C)	1.372 - 1.387
Preservative:	nil
Total germs:	<100/g
Pesticides:	nil
Heavy metals (Pb, Cd, Hg, As):	<0.01 ppm

Comments:

Totally wild crafted from Aboriginal tribal lands

This material has not been animal tested for efficiency, bioavailbaility or therapeutic content

External use only.

NOT FOR DRUG USE.

Campo Neem Wax NGP200

Botanical Non ionic emulsifying wax

Neem Wax NGP200 is a seed wax-fractionate, which is a nonionic self-emulsifying wax that produces a smooth and elegant oil-in-water emulsion. **Neem Wax NGP200** is inert to the more common cosmetic and pharmaceutical active agents.

Emulsifying properties:

As an emulsifier, **Neem Wax NGP200** is of the self-bodying class. In concentrations in excess of 5% it produces a thick solid emulsion without the addition of stiffening waxes. By varying the concentration of **Neem Wax NGP200**, emulsions may be formed ranging from thin mobile liquids to rigid solids. It is an excellent product for emulsifying such products as oils, fats, and waxes and for the preparation of powder suspensions.

Method of use:

Neem Seed Wax NGP200, is suggested to be mixed together with all oil-soluble materials and the temperature raised to about 75°C. Water and water-soluble components are heated separately to about 80°C. The oil phase is poured in a thin stream into the aqueous components and the whole stirred until the emulsion thickens or the temperature falls to around 30°C.

Handling and storage:

Neem Seed Wax NGP200 is supplied in 15-kg net cartons and 40-kg net kegs. It will remain usable for 2 years if stored unopened in dry conditions away from sources of heat.

Campo Research

CAMPO NEEM WAX NGP 200

A NOVEL BOTANICAL NON-IONIC EMULSIFYING WAX

SPECIFICATION

PRODUCT NAME:	**CAMPO NEEM WAX NGP 200**
OTHER TRADE NAME:	**NEEM SEED WAX NGP 200** **Melia azadirachta Linn Semen Cera**
PRODUCT NUMBER:	97.08-5443
BOTANICAL SPECIES:	Melia azadirachta Linn.
PLANT PARTS USED:	Cured seeds kernel- 95%
APPEARANCE:	White wax granules
ACID VALUE:	1.5 - 1.8 max.
EMULSIFYING PROPERTIES:	Smooth and stable (10% w/w)
MELTING POINT (°C):	46 - 53
pH VALUE (3% AQUEOUS)	5.5 - 7.5
SAPONIFICATION VALUE:	7.8 - 15.0

Campo Research

NEEM LEAF TOTAL EXTRACT-powder crystalline

Synonyms: Azadirichta indica A. Juss. Folium (leaves)- ----total fractionation extractum–crystalline powder.

INCI NAME: NEEM (MELIA AZADIRACHTA, LINN) EXTRACT **CAS # 992-20-1 (11141-17-6)**

Characteristics

$C_4H_6N_40_3$ - crystalline extract

General

Neem Leaf Total Extract and the two combination compounds **Neem Leaf Total Extract Fraction B** and **Neem Leaf Total Extract Fraction C** have been proven to be valuable active constituents both in cosmetics and in dermatology on account of their compatibility with the skin and their skin-regenerating effect.
Neem Leaf Total Extract Fraction B has a mild astringent action. The active spectrum is thus widened, without limiting the possibilities of combining the substances with other cosmetic and pharmaceutical ingredients.

Specification

Assay (acidimetrically, calc. For the dried substance)	98 - 102%
IR-spectrum	Conforms Standard
$_pH$ (0.5% solution)	4 – 6
Decomposition point	>220^{0}C
Appearance	Colorless, shiny, monoclinic plates or prisms or a crystalline powder
Odour	None
Taste	None
Chloride (Cl)	<0.005%
Sulfate (SO_4)	<0.02%
Heavy metals (as Pb)	<0.0005%
Iron (Fe)	<0.001%
Arsenic (As)	<0.0002 %
Urea (TLC)	<0.5%
Nimbidin (TLC)	<0.5%
Loss on drying (105^{0}C)	<0.1%
Sulfated ash	<0.1%
Particle size	>95% <75µm

Solubility

Solvent	Temperature	Solubility
Water	25^0C	About 0,6%
Water	40^0C	About 1,1%
Water	70^0C	About 3,6%
Ethanol (96%)	25^0C	About 0,04%
Ethanol	40^0C	About 0,65%
Ethanol/Water (1/1)	25^0C	About 0,35%
	40^0C	About 0,65%
Isopropanol	25^0C	About 0,02%
	40^0C	About 0,02%
Isopropanol / Water (1/1)	25^0C	About 0,3%
	40^0C	About 0,6%
1,2-Propylenglycol	25^0C	About 0,3%
	40^0C	About 0,6%
	70^0C	About 0,7%
Water/1,2-Propylenglycol (1/1)	25^0C	About 0,4%
	40^0C	About 0,9%
	70^0C	About 2,7%
Glycerol	25^0C	About 0,015%
	40^0C	About 0,036%
Glycerin / Water (1/1)	25^0C	About 0,6%
	40^0C	About 0,9%
Sorbital Fliquid SK	25^0C	About 0,01%
	40^0C	About 0,34%

Neem Leaf Total Extract is insoluble in ether and chloroform. No pharmaceutically or cosmetically useful solubilisers have been discovered as yet. Neem Leaf Total Extract dissolves freely in alkalis, with degradation. Neem Leaf Total Extract is amphoteric.

Decomposition range:

Neem Leaf Total Extract does not have a definite melting point, which could be used as a criterion of purity. It merely shows a decomposition range which varies according to the method employed (e.g. USP X VIII, method la: about 230^oC; Fus-o-mat: about 244^0C).

Optical isomers:

The stable form of Neem Leaf Total Extract is the optically inactive racemic form, which is the one available commercially.

Stability:
Neem Leaf Total Extract exhibits good stability in dry formulation. Hydrous pharmaceutical and cosmetic preparations are sufficiently stable in an acid to neutral environment under normal storage conditions. After being heated to 80^0C for 1 hour, a 0.5 % aqueous solution and by the action of strong alkalis.

Storage:
The substance should be kept in tightly sealed containers; solutions should be stored room temperature and protected from light.

Action

The action of Neem Leaf Total Extract in the treatment of wounds is complex: the damaged tissue is first cleansed; rapid regeneration of tissue follows due to cell-proliferation promoted by the Neem Leaf Total Extract). In most cases relief from pain is felt soon after initial administration of Neem Leaf Total Extract. One further important feature for practical usage is its keratolytic action. Neem Leaf Total Extract has mild antiseptic effect. In surface injuries, too, or in areas of skin treated harshly and exposed to the inclemencies of weather Neem Leaf Total Extract(s) produces cell proliferation and rapid formation of epithelium. Skin-irritation, chapping and cracking of the epidermis disappear, together with other blemishes. When used on intact facial and body skin Neem Leaf Total Extract(s) produces a silky, smooth and healthy appearance.

Details on the active mechanism of Neem Leaf Total Extract(s) are not yet fully established yet, but it is assumed that Neem Leaf Total Extract(s) produces a transient local increase in leukocytes.

Under certain conditions Neem Leaf Total Extract(s) may be degraded chemically or by enzymatic action to form urea. However, this degradation does not occur in the human organism; thus the wound healing effect is due to Neem Leaf Total Extract(s) itself and not to the presence of urea. This has been demonstrated in animal experiments.

Tolerance

Neem Leaf Total Extract(s) is tolerated very well. As yet no findings have been published on toxic side effects, allergic reactions or irritation of treated skin areas. Previous observations exclude carcinogenic activity.

Uses

On this basis Neem Leaf Total Extract(s) represents an active principle which is eminently suitable as a supplement to a number of pharmaceutical and cosmetic formulations. Preparations of this type may contain Neem Leaf Total Extract(s) as the only active ingredient. In addition, Neem Leaf Total Extract is compatible with a large number of drugs used in pharmaceutical and dermatological preparations and cosmetics, so that all types of combinations are possible for preparations with specific uses. Neem Leaf Total Extract(s) may therefore also be incorporated without difficulty in specialties already available. The employment of Neem Leaf Total Extract(s) is very economical because the concentrations required is rather low.

The following table gives an insight into the many uses of **Neem Leaf Total Extract, Neem Leaf Total Extract Fraction B (II) and Neem Leaf Total Extract Fraction C (III)** in cosmetic and dermatological formulations.

Uses	Formulation	Concentration of NeemLeaf T. Extr.	Concentration of Fraction II (B)	Concentration of Fraction III (C)
Acne preparations	Lotions, Creams	0.1 – 0.2 %	0.5 – 2%	0.5 – 2%
After-shave preparations	Lotions	0.2%	0.2 – 0.25%	--
Soaps and shaving creams		0.15 – 0.2%	--	0.15 – 0.2%
Hair tonics		0.2%	--	--
Eye preparations	Eye drops	0.2%	--	--
Oral hygiene	Tooth pastes	0.1 – 0.2%	0.15 – 0.2%	0.1 – 0.2%
Antiperspirants and deodorants	Sprays, Lotions, Creams	0.1 – 0.2%	0.25 – 0.5%	--
Skin creams and sun screens	Lotions, Creams	0.2%	--	0.2 – 0.4% up to 2%
Baby care	Creams Powders	0.2%	--	0.2 – 1.0%
Lipsticks and make-up		0.1%	--	0.1 – 0.2%
Foot care preparations	Lotions, Creams, Powders, Sprays	0.2%	0.2 – 0.3%	0.2 – 0.3%

Cosmetics

When incorporated in cosmetic formulations Neem Leaf Total Extracts promotes cell-regeneration in skin which has been subjected to the harsh treatment of external influences, and in addition takes care of intact facial and body skin, keeping it in a healthy condition.

Skin creams, sunburn preparations

The incorporation of Neem Leaf Total Extract(s) into hand creams and lotions soothes chapped and cracked skin and leaves hands smooth and supple. Le Van and colleagues investigated the effectiveness of a hand lotion containing Neem Leaf Total Extract(s) using a fairly large number of houswives suffering from badly damaged skin. For about 90% of the women using that particular hand lotion daily the symptoms disappeared completely. For the remainder, at least considerable improvement was observed.

In addition, formulations containing Neem Leaf Total Extract(s) are eminently suitable for the care of the very tender skin of infants and small children. In skin creams of various types, such as nourishing creams, day or night creams, lip preparations and sunburn creams and lotions, Neem Leaf Total Extract(s) will intensify the healing and regenerative action of these preparations.

Hair tonics

Because of its excellent keratolytic properties, Neem Leaf Total Extract(s) is a very valuable additive in various hair tonics, especially for the treatment of dandruff.

Oral hygiene

The curative effect of Neem Leaf Total Extract(s) underlines its ideal application as a supplement to mouthwashes and dentifrices.

After-shaves

The slight cuts and crapes often occurring during shaving are soon healed by after-shaves containing Neem Leaf Total Extract(s).

Miscellaneous preparations

In lipsticks, antiperspirants and sun screening preparations Neem Leaf Total Extract(s) guards against skin damage. On the average, 0.1 – 0.2% of Neem Leaf Total Extracts is added to cosmetic preparations. The Neem Leaf Total Extract(s) concentration may be increased to 0.5% depending on the use of the preparation. It makes no difference as to the complete effectiveness of the product whether the Neem Leaf Total Extract(s) is in solution, suspension, or dry, powder form.

Pharmaceutical and dermatological preparations

Incorporation of Neem Leaf Total Extract(s) in various healing ointments promotes the cleansing of wounds and their healing. The field of indications for preparations of this type covers everything from minor everyday injuries, lacerations, rhagades, cuts and burns to stubborn and suppurating wounds, refractory ulcers of various genesis, including the treatment of burns of varying cause and severity, for instance, those following exposure to heat, x-ray and solar irradiation. Preparations containing Neem Leaf Total Extract(s) also have a beneficial effect on eczema, contact dermatitis of the hands, hyperkeratosis, parendentosis and aphthae. Of particular advantage is the fact that wound healing proceeds without keloid development. In addition, internal and external haemorrhoids respond well to suppositories and ointments with Neem Leaf Total Extract(s).

In pharmaceutical formulations the dosage is usually 2%. Depending on the use of the preparation and type and number of ingredients present in addition to Neem Leaf Total Extract(s), this dosage may be reduced or increased.

Incorporation

It is recommended that Neem Leaf Total Extract(s) be dissolved, together with the other water-soluble ingredients, in the aqueous phase of the respective preparation, or in water at about 750C. The aqueous phase is then stirred vigorously – in the preparation of an emulsion, for instance – into the fatty phase.

Neem Leaf Total Extract Derivatives

Neem Leaf Total Extract Fraction B

INCI NAME: NEEM (MELIA AZADIRCHTA, LINN) EXTRACT

CAS # 992-20-1 (11141-17-6)

USES: -

Acne preparation

For these preparations a concentration of 0.5 – 2% is recommended. The mild astringent effect promotes the drying of oozing skin areas and pustules. It decreases infected eruptions, heals the affected skin portions and has a soothing effect.

Neem Leaf Total Extract Fraction B may also be combined effectively in a 0.5% aqueous alcoholic solution and in ointments with antimicrobial compounds (**recommended: Linacre japonica Extract**) for the control of acne.

Mouthwashes

When concentrations of 0.25 – 0.2% **Neem Leaf Total Extract Fraction B** are added top mouthwashes and gargles, these preparations achieve a mild astringent effect. The active ingredient is very compatible with the usual additives, and augments the bacteriostatic or bactericidal effect of finished preparations. The compound does not affect the taste, and helps fortify the gums.

After-shave preparations

These preparations should contain concentrations of 0.25 – 0.25% **Neem Leaf Total Extract Fraction B** the slight irritation and injuries often occurring during shaving are rapidly relieved.

Antiperspirants and deodorants

Concentrations of 0.25 – 0.5% of **Neem Leaf Total Extract Fraction B** have proved suitable for these preparations. The slight irritation frequently noted with antiperspirant or deodorant preparations is alleviated by the addition of this active ingredient. Therefore, in many cases a combination of **Neem Leaf Total Extract Fraction B** with aluminium chorohydroxide is recommended in mixtures consisting of 1 **% Neem Leaf Total Extract Fraction B** and 99% aluminium chlorohydroxide.

Specification

Assay (acidimetrically,calc, for the dried substance)	24 – 32 %
Assay (from N, Neem Leaf Total Extract(s)	36 – 44 %
Chloride	8 – 11 %
Water	6 - 9 %
IR spectrum	Conforms standard
Appearance	Fine white powder
$_{p}$H (1 %, Water)	4.0 – 5.0
Sieve analysis (max.100 μm)	Min. 95 %

Solubility

Solvent	Temperature	Solubility
Water	20^0C	About 1.3 %
Methanol (50%)	20^0C	About 1.2 %
Ethanol (50&)	20^0C	About 0.8 %
Isopropanol (50%)	20^0C	About 1 %
Methanol (96%)	20^0C	Insoluble
Ethanol (96%)	20^0C	Insoluble
Ether	20^0C	Insoluble
Chloroform	20^0C	Insoluble

Neem Leaf Total Extract Fraction C
(Neem Vegetable Cortisone Powder)

click here for Neem Vegetable Cortisone Liquid

(EU INCI) US INCI NAME: NEEM (MELIA AZADIRACHTA) EXTRACT

CAS # 992-20-1 (11141-17-6)

Specification

Assay (acidimetrically,calc,for the dried substance)	15 – 28 %
Assay (from N, Neem Leaf Total Extract(s)	50 – 60 %
Water	6 - 12 %
IR spectrum	Conforms standard
Appearance	Fine white powder
pH (1 %, Water)	4.0 – 5.0
Sieve analysis (max.100 μm)	Min. 95 %

Solubility

Methanol (96%)	Insoluble
Ethanol (96%)	Insoluble
Benzene	Insoluble
Chloroform	Insoluble
Water	Insoluble

USES: -

Neem Leaf Total Extract Fraction C is suitable for the treatment of sensitive and inflamed areas of skin and for the drying of discharging wounds. It keeps the skin soft and dry and prevents abnormal pH fluctuation of the skin surface. The main uses of this compound are in the following fields.

Skin creams, acne preparations, sun screens.

For preparations of the type, usually a concentration of 0.2-04% **Neem Leaf Total Extract Fraction C** is employed. In the cases, for instance in acne preparations, the concentration may be increased to 2%. A combination of **Neem Leaf Total Extract Fraction C** with other active ingredient prevents irritation compatible with skin is of advantage.

Baby cares preparations

Neem Leaf Total Extract Fraction C may be added to baby powders and baby creams in amounts of 0.2 – 03%. These formulations have been proven to be of great value, as the active ingredient prevents irritation of the, as is caused by urine, acid or alkali. **Neem Leaf Total Extract Fraction C** binds these irritants and in addition extras a positive effect on the skin.

Dentifrice's

In toothpaste's and similar preparations **Neem Leaf Total Extract Fraction C** may be used in concentrations of 0.1 – 0.2%. Owing to this adsorptive capacity, a gum cleansing effect and also a healing effect is attributed to the preparation. In dental preparations, a combination of Neem **Leaf Total Extract Fraction B** and **Neem Leaf Total Extract Fraction C** is also recommended.

Soaps and shaving creams

For these preparations a concentration of 0.1-02% Neem Leaf Total Extract Fraction C is suggested.

Lipsticks and make-up

For preparations of this type Neem Leaf Total Extract Fraction C concentrations of 0.1-0.2% may be used.

Neem Seed-Servative®

Propylene Glycol (and) Water (and) Neem Seed (Melia Azadirachta Seed) Extract
INCI NAME: NEEM (MELIA AZADIRACHTA, LINN) EXTRACT **CAS# 992-20-1 (11141-17-6)**
(**Cosmetic Botanical Preservative**)

Neem Seed-Servative ® is gaseous carbon dioxide fractionate extract of Neem seeds and blended with distilled water and propylene glycol. This active ingredient is broad-spectrum cosmetic preservative, which provides broad range protection against gram positive bacteria, gram negative bacteria, yeasts and molds.

The components are, Neem Seeds Fraction Complex - consisted mainly of fractions I, II, III, IV, V and VI, which are isolated as a complex rather than isolating the individual components. The ethno-botany knowledge is based on the use of Neem seeds in Village Pharmacy and Dietary practice of East Indians, of the Indian Sub-Continent. They have been determined to be safe for as a Cosmetic Ingredient. (Matrex, Skintex, & Human volunteers Repeat Insult Assays available).

The ratios of the 6 fractions are at a level typically suitable for use in cosmetic products. At this ratio, Neem Seed Servative® combines the best qualities of all preservation properties of the six fractions into one, easy to handle liquid that disperses readily in a cold system.

TYPICAL PROPERTIES:

Appearance:	Clear Liquid, colorless to very slight reddish blue taint or yellow-greenish taint (Color may differ slightly batch to batch)
Odor:	Very faint-characteristic Neem
Alpha Color:	200 Maximum
pH (10% Aq.):	6.0 - 8.0
Water %:	6.0 Maximum

PRINCIPAL USE: **Cosmetic Preservative**
Use Level 0.1 to 3.0 %

This product is an ethnic dietary article and used as a village food-preservation article and delicacy in India, Bangladesh, Sri Lanka and Pakistan, but in USA, EFTA and EEC this active ingredient should only to be used as cosmetic preservative. It is not registered with U.S. EPA as a general biocide and may only be used in exempt applications such as
Cosmetics. ***A 100% pure powder form is also available upon request - usage level from 10 - 100 ppms with Broad- spectrum anti-microbiological rapid kill rate activity, for usage in cosmetics, food / herbal supplements***

PACKAGING Available in 500-pound net/ 226.8kgs gallon opens head fiber drums or 140 pound/ 60kg net plastic drums.

NOTE: Because individual requirements vary, it is urged that purchasers perform their own product preservative stability Tests and investigations to determine the effectiveness of Neem-Seed-Servative® in their system.

Melia Azadirichta in floral blossoms

Neem Leaf-Servative

Product Name: **Total Neem Leaf Liquid Extract**

Other Name: **Neem Leaf – Servative Liquid Extract**

Product Number: **95.009/97**

Description: Neem Leaf-Servative is a gaseous carbon dioxide fractionate extract of Neem leaves-cured blended with distilled water and propylene glycol. It is applied as a preservative on plant drug extract for health food supplement products as well as in cosmetics.

SPECIFICATION:

INCI Name:	Neem (Melia azadirachta Linn.) Extract CAS # 992-20-1 (11141-17-6)
Plant parts used:	cured leaves
Appearance:	reddish brown liquid
Odour:	faint characteristic
pH Value:	6.0 – 8.0
Specific gravity:	1.010 – 1.130
Refractive Index:	1.330 – 1.500
Dry Residue:	5 (max.)
Water Solubility:	soluble

Microbiology:

Yeast/mold:	< 100 cfu/ml
Bacteria:	< 100 cfu/ml non pathogenic

DOSAGE: **0.1 – 3.0%**
(As a cosmetic additive/supplementary dietary/food use)

"Neem Vegetable Cortisone Like"(Campo Neem-Corti-Like) LIQUID

Technical Specification:

Trade Name:	**Neem Vegetable Cortisone**
Other Trade Name:	**Neem Vegetal Corti-Like (Campo Neem-Corti-Like)**
Product No:	1991-01909 (Developmental Product*)
INCI Name: (US)	NEEM (MELIA AZADIRACHTA) LEAF EXTRACT
Click here Intl INCI	
INCI Name:(EU)	MELIA AZADIRACHTA
Click here for EU INCI	

VEGETABLE CORTISONE LIKE POWDER (CLICK Here)

Appearance	Light Yellowish to Colorless - Buff White Liquid
Odor	Characteristic
Parts Used / Species	Leaves of Melia Azadirachta L (Azadirachta Indica Juss)
Density (Specific gravity):	1.020-1.200
Refractive index:	1.350 -1.450
Solvent	Water and Carbon Dioxide
Total Germs	<100 cfu/g (non - pathogenic)
Total Yeasts/Molds	<100 cfu/g
Heavy Metals (Pb, As)	< 0.5 PPM

Uses:

Neem Vegetal Cortisone Like (Neem Vegetal Cortisone) is suitable for the treatment of sensitive and inflamed areas of skin and for the drying of discharging wounds. It keeps the skin soft and dry and prevents abnormal pH fluctuation of the skin surface. The main uses of this compound are in the following fields.

Skin creams, acne preparations, sun screens and Skin-Whitening creams/lotions

For preparations of the type, usually a concentration of 0.5% Neem Vegetal Cortisone-Like is employed.

In the cases, for instance in acne preparations, the concentration may be increased to 2%. A combination of Neem Vegetal Cortisone Like with other active ingredients prevents irritation compatible with skin is of advantage. Neem Vegetal Cortisone Like enhances skin-lightening effect of Songyi Mushroom Gel Oil and Songyi Gel Ceramide Extract

Baby cares preparations

Neem Vegetal Cortisone Like may be added to baby powders and baby creams in amounts of 0.5 - 1.%. These formulations have been proven to be of great value, as the active ingredient prevents irritation of the, eyes as is caused by acid or alkali. Neem Vegetal Cortisone Like binds these irritants and in addition has an extras positive effect on the skin.

Dentifrice's

In toothpaste's and similar preparations Neem Vegetal Cortisone Like may be used in concentrations of 0.2%. Owing to this adsorptive capacity, a gum cleansing effect and also a healing effect is attributed to the preparation. In dental preparations, a combination of Neem Leaf Total Extract Fraction B and Neem Leaf Total Extract Fraction C is also recommended.

Soaps and shaving creams

For these preparations a concentration of 0.5% Neem Vegetal Cortisone Like is suggested.

Lipsticks and make-up

For preparations of this type Neem Vegetal Cortisone Like concentrations of 1.0% may be used.