

# *SLI Chemicals GmbH*

*Trading in Fine Chemicals*



***DISCOVER OUR  
NATURAL RAW MATERIALS***



Registered Raw Material BDIH



Certified Natural Cosmetics

# Amaranth Oil

## The Gold of the Inca

**A naturally occurring raw material with effective ingredients (Squalene, Linoleic acid)**

The amaranth plant (which belongs to the amaranth family) is a tall, annual plant, which originally grew in South America. The amaranth plant is now found all over the world and is cultivated as a crop. Up to 150,000 grains form on the stems of each plant. Both oil and flour are extracted from these grains. Amaranth flour has already found a use in the food industry. It has a high protein content, the quality of which is better in comparison with the most varied types of cereals. The flour is also gluten free. This makes it suitable for people who have a gluten allergy (celiac disease) and for people with skin problems.

The oil (only 5-6% of which is contained in the seeds) is extracted using CO<sub>2</sub> extraction, which protects the materials (no solvents). Amaranth oil has a remarkably high content of natural squalene. The table below presents a comparison of the amount of squalene in amaranth oil in comparison to other cosmetic oils:

### Approx. amount of squalene in %

Amaranth Oil	5,0 – 8,0
Olive Oil	0,4 - 0,8
Corn Oil	0,03
Groundnut Oil	0,03
Sunflower Oil	0,01
Coconut Oil	0,002



### Ingredients of Amaranth Oil

Amaranth oil is notable for its high squalene and linoleic acid content. The ingredients are given below:

• Palmitic acid (C16:0)	15-25 %
• Oleic acid (C18:1n9)	15-30 %
• Linoleic acid (C18:2n6)	40-50 %
• Stearic acid (C18:1)	2-5 %
• Other fatty acids	3-6 %
• Squalene	5-8 %
• Natural vitamins E	5-10 mg/100 g
• Saturated fatty acids	20-24 %
• Mono-unsaturated fatty acids	approx. 20 %
• Poly-unsaturated fatty acids	approx. 50 %

### Characteristics of the product

Amaranth oil supports skin regeneration and helps the skin's protective layer to be renewed. This is because of the composition of the oil and its high squalene content. It activates cellular protection, increases the skin's ability to retain moisture and minimises transepidermal water loss. Amaranth oil soothes, regenerates and cares for the skin. It absorbs UV rays and protects against UV irritations and free radicals – the anti-aging effect. Amaranth oil is suitable for treatment of chronic skin dryness. It also has proven anti-inflammatory qualities. It smoothes and softens the skin, making it more elastic and relaxed. Wrinkles are decreased.

### Declaration:

**INCI: AMARANTHUS CAUDATUS SEED EXTRACT**  
**CAS No.: 223747-79-3**

# Product Specification

<b>PRODUCT</b>	AMARANTH OIL
<b>PRODUCT DESCRIPTION</b>	Natural Amaranth oil extracted by supercritical carbon dioxide from milled amaranth grain is high in squalene and unsaturated fatty acids. Amaranth oil is a natural product which contains natural alpha-Tocopherol (Vitamine E).
<b>INCI – NAME</b>	AMARANTHUS CAUDATUS SEED EXTRACT
<b>CAS No.</b>	223747-79-3
<b>COLOUR</b>	Yellow – gold, clear liquid oil
<b>ODOUR</b>	Characteristic, slightly nutty
<b>SOLUBILITY</b>	Irresolvable in water, temperable and soluble in fats and organic resolvers for oil

1. CHEMICAL AND PHYSICAL SPECIFICATION		2. BACTERIOLOGICAL SPECIFICATION	
<b>Saturated fatty acids</b>	app. 20-24 %	Total viable count *	max. 300/g
<b>Monounsaturated fatty acids</b>	app. 20 %	Coliforms *	max. 50/g
<b>Polyunsaturated fatty acids</b>	app. 50 %	Mould *	max. 100/g
<b>Palmitic acid (C16:0)</b>	15 – 25 %	Yeasts *	max. 150/g
<b>Oleic acid (C18:1n9)</b>	15 – 30 %	3. HEAVY METALS	
<b>Linoleic acid (C18:2n6)</b>	40 – 50 %	Cadmium	max. 1 ppm
<b>Stearic acid (C18:1)</b>	2 – 5 %	Mercury	max. 1 ppm
<b>Other acids</b>	3 – 6 %	Arsenic	max. 1 ppm
<b>Squalene</b>	5 – 8 %	Lead	max. 1 ppm
<b>Natural vitamin E</b>	5 – 10 mg / 100 g	Total content *	max. 10 ppm
<b>Monoglyceride</b>	approx. 17 - 18 %	4. PARAMETERS	
<b>Diglyceride</b>	approx. 20 %	Melting point	- 27°C
<b>Triglyceride</b>	approx. 50 %	Density *	0,90 – 0,94 g/cm <sup>3</sup> at 20°C
<b>Acid number *</b>	max. 40 mg KOH/g	Viscosity	115 – 125 cSt at 20°C
<b>Peroxide number *</b>	max. 10 mmol/Kg	Saponification number	170 +/- 35 mg KOH/g
<b>Iodine number *</b>	100 - 140	Refraction index *	1,4710 – 1,4740

\* All starred points are part of the certificate of analysis. These values are tested each batch and the results are indicated in the certificate of analysis.

**RECOMMENDED STORAGE** Original packaging, storage temperature 20 – 25°C

**PACKAGING** Tinplate canisters ( 4,5 / 9 / 18 Kg ) Filled under argon atmosphere

**STORAGE STABILITY** Under argon atmosphere stable 12 months after production. At room temperature clear yellow liquid (Cold stocking can cause a mild cloud of oil, which does not influence its quality – cloud be removed by warm up to 30 – 35°C, for the duration of diathermy for minimal 12 hours in original closed packaging while shaking)

**COMMENT:** Light mild cloud incurred by excretion of wax like solids does not influence quality

# Organic sea buckthorn pulp oil

## ALPHA quality

### General information

### Origin and extraction



The berries of the sea buckthorn (*hippocrepis rhamnoides* L.) are the most nutritious and unusual of the domestic fruits. They are to be found primarily in Central Asia and also everywhere in Europe, predominantly in coastal and mountainous regions. The pulp of the fruits grown under contract in Germany to certified organic standards contains up to 2 % oil on average, which is extracted in its virgin form, i.e. in the form in which it is found in the fruit, avoiding stressful influences (e.g. high mechanical stress, high temperatures, high pressure, drying out), using a special solvent-free separation procedure. It is orange-coloured and smells fruity. The fruit pulp is characterised by its high content of palmitic

and palmitoleic acid, provitamin A (carotenoids, in particular beta carotene) and vitamins E and K. The oil usually already starts to crystallise out below 20°C and is usually of a firm consistency below 15°C. Due to the complex composition of the oil, discolorations can occur that are not always completely reversible even when heated. This does not affect the dietary and physiological quality of the oil.

### Product information

Sea buckthorn oil is free of additives.

The product corresponds to the valid food law provisions of the Federal Republic of Germany and the European Union as well as the dietary regulations for infants and small children. It is not produced from genetically modified foodstuffs. Nor have any methods of genetic engineering been used in its production. Continuous control from the cultivation of the raw materials, via crop and after-crop preparation, to processing ensures a high quality of product, i.e. residual quantities of agrochemicals and traces of heavy metals are lower than those defined in the Regulations on Maximum Residue Limits (Rückstands-Höchstmengenverordnung (RHmV)). The products are virtually free of mycotoxins and radioactivity within the framework of conventional verification procedures.

### Use

Sea buckthorn pulp oil has long been used in traditional medicine in Central and Eastern Asia. It is successfully used with burns and frostbite and in the treatment of eczemas and gastric ulcers.



The cosmetics industry uses organic sea buckthorn pulp oil for emulsified and oily skin and hair preparations. It is particularly beneficial on dry, sun-reddened and stressed skin.

The carotenoids trap free radicals, thus benefiting skin stressed by UV radiation and air pollution.

The oil contains up to 70 % C-16 fatty acid compounds and thus types of triglycerides that do not occur in any other oil to such a high degree. These are medium-polar, which influences the particular emulsification capacity and also improves the spreadability.

# Product Specification

## 1. Key fat chemical values

<b>Density (20°C)</b>	g/cm <sup>3</sup>	0.912 - 0.916
<b>Refraction index (20°C)</b>		1.466 -1.468
<b>Acid value</b>		< 10 <sup>1</sup>
<b>Iodine value</b>		60 - 70
<b>Sapofinication value</b>		200 - 210
<b>Water</b>	%	0.1 - 0.3
<b>Unsaponifiable fractions (petrol ether method)<sup>2</sup></b>	%	approx. 2
<b>Peroxide value</b>		max. 5

<sup>1</sup> The acid value indicated reflects not only the fatty acids but also organic acids that are no measure of fat spoilage. Depending on the quality of the raw materials, fractions of organic acids can be transferred into the fatty oil and are included in the determination of the acid value.

<sup>2</sup> The content can vary, depending on the production and extraction agent used.

## 2. Composition of fatty acids

Fatty acid	C-atoms: Double bonds	Content in %
<b>Myristic, lauric acid, etc.</b>	< C 16:0	approx. 0.5 %
<b>Palmitic acid</b>	C 16:0	28 to 43 %
<b>Palmitoleic acid</b>	C 16:1	min. 25 %
<b>Stearic acid</b>	C 18:0	max. 2 %
<b>Oleic acid</b>	C 18:1	18 to 30 %
<b>Linoleic acid</b>	C 18:2	2 to 12 %
<b>Linolenic acid</b>	C 18:3	max. 1 to 3 %

Free of trans fatty acids as a result of heat damage.

## 3. Sensory features

Form            Liquid above 17°C, with C-18 content > 30 % already liquid above 4°C  
 Colour        Orange to red  
 Smell         Characteristic of the species, tangy body under particular circumstances, more or less fruity  
 Taste         Characteristic of the species, tangy body under particular circumstances, more or less fruity

Carotenoids:            ≥ 300 mg/Kg

Tocopherols:            ≥ 300 mg/Kg

Tocopherol distribution:    α: approx. 50 %,  
    β: approx. 12 %,  
    γ: approx. 8 %,  
    δ: traces

## 4. Registrations

**CAS no.:**                90106-68-6  
**INCI name:**            Hippophae rhamnoides  
**INECS No.:**            90-292-6  
**CTFA:**                 Seabuckthorn  
                                   (Hippophae rhamnoides)



## 5. Storage

In tightly sealed containers, protected from light and not above room temperature (addition of nitrogen an advantage)

Registered Raw Material BDIH



Certified Natural Cosmetics

# CORN PO4 PH"B"

Enhance the Activity of  
Your Cosmetics the  
NATURAL and EASY Way!

## GENERAL INFORMATION



CORN PO4 PH"B" is a multifunctional modified starch derived from corn certified as natural cosmetic ingredients by BDIH. It is a white, ultra fine powder manufactured by the cross-linking of corn starch. The product is highly purified to remove any impurities normally present in native starch. The particles have a remarkably large internal surface area. CORN PO4 PH"B" is both highly hydrophilic and lipophilic. The starch particles efficiently adsorb substances dissolved in the water phase and due to the high over-drying, the sorption power is superior. At the same time, the particles do not become sticky or

pasty in the presence of water or oil. CORN PO4 PH"B" is not soluble in any solvent and is compatible with all cosmetic raw materials (active ingredients, deodorizing agents, preservatives etc.). It can be utilized in many types of formulations (from powders to lotions and creams).

## COSMETIC ACTIVITY

- **Enhanced efficacy of active ingredients**

- when added to the water phase, CORN PO4 PH"B" first adsorbs the water along with any water soluble actives. During the emulsification process, the starch particles absorb some amount of the oils phase with the oil-soluble actives. When this emulsion is applied to the skin, the emulsion breaks and water evaporates, but the active ingredients entrapped in the CORN PO4 PH"B" are gradually released to the skin over a prolonged period.

- **Long-lasting moisturizing effect**

- CORN PO4 PH"B" 'locks in' moisture adsorbed from the water phase of your formulation. When applied, this water is released over a long period, providing moisture to the skin throughout the day.

- **Antimicrobial effect**

- when CORN PO4 PH"B" is applied to the skin as a powder, it adsorbs the surface moisture, creating a hostile environment for bacteria without disturbing the skin.

- **Improved spreadability of emulsions**

- even in the presence of high levels of petrolatum.

- **Long-lasting, pleasant and silky skin feel**

- CORN PO4 PH"B" reduces the greasiness and stickiness of emulsions containing lipophilic ingredients (vegetable oils and butters, petrolatum, paraffin oils, waxes).

- **Mattifying effect**

- in emulsions - CORN PO4 PH"B" reduces the shininess on the skin caused by different lipophilic ingredients present in emulsions (vegetable oils and butters, petrolatum, paraffin oils, waxes).
- on skin - CORN PO4 PH"B" adsorbs sebum resulting in an immediate mattifying effect with long-lasting results.

- **Natural antiperspirant agent**

- CORN PO4 PH"B" adsorbs perspiration released by the skin.

- **Supports the effect of self-tanning products**

- products containing CORN PO4 PH"B" spread easily on the skin, resulting in a more uniform, natural-looking tan.

# Product Specification

## CORN P04 PH "B" sterilizable maize starch

### General Description

- **INCI Name:** DISTARCH PHOSPHATE
- **CAS No:** 55963-33-2
- **EINECS No.:** 232-679-6
- **Chemical characteristic:**  
Di-starch phosphate ester  
on base of corn starch



ANALYSIS DATA		METHOD
<b>pH-value:</b>	6,0 – 7,0	10 % slurry
<b>Sedimentation (mL):</b>	45 – 75 mL	10 % cooked slurry, graduated cylinder
<b>Chloride (in dry substance):</b>	max. 1500 ppm	Titration
<b>Sulphate (in dry substance):</b>	max. 2000 ppm	Titration
<b>Total ash:</b>	max. 1,5 %	650°C
<b>Moisture:</b>	max. 6,0 %	ISO 1666
<b>Heavy metals:</b>	max. 10 ppm	AAS

MICROBIOLOGY		
Total plate count:	max. 100/g	ISO/Pharm. Eur.
Yeasts:	max. 10/g	ISO/Pharm. Eur.
Moulds:	max. 10/g	ISO/Pharm. Eur.
E. Coli:	negative/g	ISO/Pharm. Eur.
Staphylococcus aureus:	negative/10g	ISO/Pharm. Eur.
Pseudomonas aeruginosa:	negative/10g	ISO/Pharm. Eur.
Enterobacteriaceen:	negative/g	ISO/Pharm. Eur.
Salmonella:	negative/10g	ISO/Pharm. Eur.

# ROYAL JELLY, LYOPHILISED

Also available as “Native” material



## Royal Jelly:

a viscous, white-yellow substance mixture produced by the bee in a special gland. Amongst other substances it contains carbohydrates, fatty acids, proteins, free amino acids, numerous vitamins, mineral elements, and trace elements. The free fatty acid 10-HDA (10-hydroxydecenoic acid) is especially important, as it is rarely to be found in nature but is highly concentrated in Royal Jelly. Royal Jelly is also known as "Royal Juice", since it is the queen bee's only source of nutrition. It is effective in helping the queen bee to develop faster, making her extraordinarily

fertile (up to 2000 eggs are laid daily) and granting her a life span of up to six years. In contrast other bees, which receive Royal Jelly only in their first three days of life, live only up to six months.

## Description

<b>Quality:</b>	Pharma - Food - Cosmetic
<b>Appearance:</b>	Powder
<b>Average Grain Size:</b>	< 100 µ
<b>Colour:</b>	White to light yellow
<b>Odour:</b>	Typical
<b>Taste:</b>	Typical
<b>Loose weight:</b>	530 - 590 g/L
<b>CAS-No.:</b>	8031-67-2
<b>EINECS/ELINGS-No.:</b>	310-127-6
<b>Storing:</b>	Dry, dark and cool
<b>Shelf life:</b>	At least 3 years at room temperature

## Specifications (Average values)

<b>Water and Volatiles:</b>	6,0 %
<b>Ashes:</b>	3,5 %
<b>pH-value:</b>	4,4
<b>Fat (at Weibull-Stoldt):</b>	< 1 %
<b>Protein:</b>	40,0 %
<b>Glucose:</b>	14,0 %
<b>Fructose:</b>	14,0 %
<b>Saccharose:</b>	5,0 %
<b>10-Hydroxy-2-decen acid:</b>	4,5 %



## Analysis scope

<b>Identity:</b>	Sensory Examination
<b>Ingredients:</b>	According to above specifications
<b>Microbiological Examination:</b>	Ph.Eur. 2005, Category 3B, FIP
<b>Aflatoxine:</b>	§ 35 LMBG/ Mykotoxin-Höchstmengenverordnung MHmV (German Food Law)
<b>Pesticides:</b>	Ph.Eur. 2005/Rückstands-Höchstmengenverordnung RHmV
<b>Heavy Metals:</b>	German recommendation for pharmaceutical products (BMG 17.10.91)
<b>Antibiotics:</b>	Chloramphenicol, Nitrofurantoin, Sulphonamides, Trimethoprim, Tetracycline, Streptomycin

Each lot will be analyzed through an independent and sworn German chemist. Concerning the pollution, the product meets with the regulations according to Ph.EUR. 2005 (European Pharmacopoeia) and can be used for pharmaceutical and cosmetic products as well as for food preparations.

# PROPOLIS TINCTURE 20 %

**Propolis:** a somewhat glutinous and sticky thermoplastic substance mixture which worker bees collect from tree bark and buds which contain resin; also known as putty resin or bee glue. Propolis, which contains flavonoids, organic acids, free amino acids, numerous vitamins and trace elements, works as a highly effective natural antibiotic in the beehive which protects the bees from viral, bacterial and mould infections. At the same time it functions as a building material for sealing the beehive. (See also The Discovery of Propolis by K. Lund Aargard).

## Description

<b>Quality:</b>	Pharma - Cosmetics
<b>Appearance:</b>	Liquid
<b>Colour:</b>	Dark brown - red brown
<b>Taste:</b>	Hot and spicy
<b>Odour:</b>	Alcoholic, typical
<b>Solvent:</b>	96 % (V/V) Ethanol, undenatured
<b>CAS-No.:</b>	85665-41-4 (Propolis), 64-17-5 (Ethanol)
<b>EC-No.:</b>	288-130-6 (Propolis), 200-578-6 (Ethanol)
<b>Storing:</b>	Airproof, dry, cool and dark
<b>Shelf life:</b>	At least 3 years at room temperature

## Specification

<b>Identity:</b>	DC-Fingerprint
<b>Dry substance:</b>	> 18 % (m/m)
<b>Relative density:</b>	0,860 – 0,896
<b>Ethanol content:</b>	> 72,0 % (V/V)
<b>Ashes:</b>	< 0,2 % (m/m)
<b>Total Flavonoids in dry substance :</b>	> 5 % (m/m)



## Analysis

<b>Identity Flavonoids:</b>	DC-Fingerprint
<b>Pesticides:</b>	Ph. Eur. 6, 2008
<b>Aflatoxine:</b>	§ 64 LFVG / Mykotoxin-Höchstmengenverordnung MHmV / Regulation 1881/2006/EC
<b>Monography:</b>	according to specification
<b>Microbiological Status:</b>	Ph. Eur. 6, 2008
<b>Heavy Metals:</b>	German recommendation for heavy metals in vegetable pharmaceutical products (BMG 17.10.91)

Each lot will be analyzed through an independent and sworn German chemist. Concerning the pollution, the product meets with the regulations for herbal drugs according to the European Pharmacopoeia (Ph.Eur. 6, 2008) and can be used for pharmaceutical and cosmetic products.

# ALOE VERA FREEZE DRIED POWDER 200:1

Also available as **Gel 1:1, 2:1 and 10:1**

## Description

Aloe Vera Freeze Dried Powder 200:1 is obtained by a purification process of the inner gel (fillet) of freshly harvested leaves of the Aloe Vera Barbadensis Miller maintaining all the active ingredients. The gel is then further concentrated utilizing low temperature evaporation to produce a liquid concentrate ready for freeze drying. This product is manufactured without the use of a matrix, preservatives or other additives.



When reconstituted, one part of this product with 199 parts of deionized water makes 200 parts of Aloe Vera Gel and contains all the active ingredients of the Aloe Vera Gel. Using this concentrated product considerably reduces shipping, storage and handling costs without sacrificing product activity.

## Application

These products are recommended for Cosmetic, Food and O.T.C. Pharmaceutical formulations:

Cosmetic & hair care	Food	O.T.C. pharmaceutical
Creams	Nutritional	Healing Creams
Shampoos / Conditioners	Fruit Juices	Sun Tan Lotions
Hair Lotions	Dietetic	Ointments
After-Shave Lotions	Sports Drinks	Anti Acne Preparations
Facial Masks	Fitness Drinks	Tooth Pastes
Make-Ups		Oral Rinses
Lipsticks		
Hydrocortisone Creams		
Soaps		
Skin Conditioners		
Deodorants		
Styling / Sculpting Gels		



### Caution

No preservatives were added to this product during its manufacturing process and may darken with time if preservatives are not added when the product has been reconstituted.

### Recommendations

It is recommended, in formulations, to use 20 % or more of single strength equivalent (100 % Aloe Vera Gel) in order to fully benefit from the Aloe Vera Barbadensis Miller's rich and natural healing properties.

### Product specification

**CAS Number:**

85507-69-3

**INCI name:**

**ALOE BARBADENSIS LEAF JUICE**

# SPECIFICATION

## ALOE VERA FREEZE DRIED POWDER 200:1

Item	Specification
<b>Appearance:</b>	Cream to light tan fine powder
<b>Moisture content:</b>	< 10.0 %
<b>After reconstitution pH:</b>	3.5 – 5.0
<b>Specific gravity at 25°C:</b>	0.997 to 1.004
<b>Dispersion rate at 25°C:</b>	< 5 minutes
<b>Microbiological at 48 hrs:</b>	
<b>Aerobic plate count:</b>	< 100 cfu/g
<b>Pathogenic count:</b>	Negative

# JOJOBA GOLDEN OIL

## GENERALL INFORMATION

Native Americans were using the oil for many purposes: for treating sores, cuts, bruises, and burns; as a skin conditioner, for soothing windburns and sunburns; as a hair and scalp treatment and hair restorative. The chemical structure of Jojoba oil is different from that of other vegetable oils. Rather than being an oil, it is actually is a polyunsaturated liquid wax that is similar to sperm whale oil, though without the fishy odor. It is made of fatty acids as well as esters composed entirely of straight chain alcohols. Both the acid and alcohol portions of Jojoba oil have 20 or 22 carbon atoms, and each has one unsaturated bond. Waxes of this type are difficult to synthesize. As a wax, Jojoba oil is specially useful for applications that require moisture control, protection, and emolliency. Jojoba oil is liquid at room temperature because of its unsaturated fatty acids. It does not oxidize or become rancid and does not break down under high temperatures and pressures. Jojoba oil can be heated to 370°F (188°C) for 96 hours without exhibiting degradation in general composition or carbon chain length. The stability shown by jojoba oil makes it especially useful for cosmetic applications.



## GENERAL USES

Jojoba oil has many uses in a wide variety of industries. As a cosmetic, it is an effective cleanser, conditioner, moisturizer, and softener for skin and hair. It is applied directly to the skin to soften the skin, to reduce wrinkles and stretch marks, to lighten and help to heal scars, and to promote healthy scalp and hair. Jojoba oil does not plug the skin pores. Jojoba oil is similar to, and miscible with sebum, which is secreted by human sebaceous glands to lubricate and protect skin and hair. When sebum protection decreases due to age, pollutants, or environmental stresses, Jojoba oil can be used to replicate sebum oil. Jojoba oil can accumulate around hair roots, thereby conditioning hair and preventing it from becoming brittle and dull. If there is too much sebum build up on the scalp, it dissolves and removes the sebum, leaving the hair clean. Jojoba oil as a solubilizing agent can also remove sticky build up on hair from hair preparations as well as airborne particulates deposited on the hair. It forms a lipid layer on the skin, acting as a moisturizer, as well as penetrating and being absorbed by the outer skin layer. It is widely used as an ingredient in shampoos, conditioners, facial, hand and body lotions, cuticle and nail care products, baby care lotions, creams, and oils, cleansers, moisturizers, bath oils and soaps, sunscreen lotions and makeup products. Jojoba oil is also used in the manufacture of perfume. The potential therapeutic uses of Jojoba oil include the treatment of acne, cold sores, and such skin diseases as psoriasis.

# SPECIFICATION

## Jojoba Golden Oil

<b>INCI Name:</b>	<b>Simmondsia Chinensis Seed Oil</b>
<b>Commercial Name:</b>	Jojoba Golden Oil (R)
<b>CAS No.:</b>	90045-98-0
<b>EINECS/ELINCS-No.:</b>	289-964-3
<b>Description:</b>	Virgin oil obtained from Jojoba seeds, with no additives
<b>Extraction Method:</b>	Produced by cold press of ripe seeds
<b>Appearance:</b>	yellow clear oil; very light odour (faint characteristic)

### CHEMICAL AND PHYSICAL PROPERTIES



ITEM	SPECIFICATION
Specific gravity (25°C):	0.863 – 0.873
Moisture and insoluble impurities:	0.1 % max.
Acid value:	1.0 max.
Peroxide Values:	2.0 max
Saponification value:	85.0 – 98.0
Unsaponifiable matter:	45.0 – 55.0
Iodine value:	80.0 – 92.0
Colour gardner:	8.0 max.
Refractive index:	1.465 – 1.467
Microbiological total contamination, CFU:	10/1 g max.
Pesticides residues:	none

### FATTY ACID COMPOSITION

ITEM	SPECIFICATION
C16:0 Palmitic acid:	3.0 % max.
C16:1 Palmitoleic acid:	1.0 % max.
C18:1 Oleic acid:	5.0 – 12.0 %
C20:1 Gadoleic acid:	65.0 – 80.0 %
C22:0 Behenic acid:	1.0 % max.
C22:1 Erucic acid:	10.0 – 20.0 %
C24:1 Nervonic acid:	3.0 % max.
Others fatty acid:	3.0 % max.

The Jojoba oil is also available as colourless and organic material.

# MELSCREEN™ COFFEE ORG

## Organically Certified Green Coffee Oil

### DESCRIPTION

Organic coffee oil extracted from "Coffea Arabica" green coffee beans, specially obtained through a very careful cold pressing technique.

### INCI NAME

**COFFEA ARABICA (COFFEE) SEED OIL**

**CAS number:** 8001-67-0



### BENEFITS

- It contains a very convenient percentage of linoleic acid (omega 6), which is an essential fatty acid. It is an essential skin lubricant which works as a true skin treatment
- It helps to restore the lipids present in the stratum corneum by restructuring those protective lipids and giving the skin a healthier appearances since it promotes skin hydratcon
- It restores the skin barrier. It helps to maintain the normal functions of the hydrolipidic barrier, its integrity, and results in a normal skin balance. It also helps to restore the keratinization process
- It has a capacity to decrease the skin damage from UV radiation, particulary UVB that causes erythema, because of the unsaponifiable matter range of approximately 11 %
- It presents approx. 75 % triacylglycerols (48 % in linoleic acid, an essential fatty acid) and 14 % diterpene esters
- Due to the trpene esters is can have the following properties
  - Essential fibers production
  - Firming effects
  - Regeneration

### ADVANTAGES

- Rich in Omega 6 and unsaponifiable material
- Efficacy test – Clinical SPF test was performed and **MELSCREEN™ COFFEE ORG** reduced the erythema measured through the SPF boosting effect (about 25 %)

### SUGGESTED CONCENTRATION

From 1,0 % to 5,0 % (w/w)

### APPLICATIONS

**MELSCREEN™ COFFEE ORG** can be used in cosmetics formulations, mainly tanning and sunscreen lotions intended to:

- Lubricate the skin and regenerate the hydrolipid barrier that is constantly subject to aggressions, mainly from the sun;
- Photo-protect the skin against UV radiation, particulary UVB that causes erythema due to its high content of unsaponifiable matter. SPF Boosting effect *in vivo* tested;
- Skin care products, anti-aging products;
- Sun care products, including children's products.

# PRODUCT SPECIFICATION

**Chemical Description:** Organic Green coffee (Coffea Arabica) seed oil.

**Shelf Life:** 12 months

**Country of Origin:** Brazil

**Manufacturer:** CHEMYUNION QUÍMICA LTDA.

**Quality Requirements:**

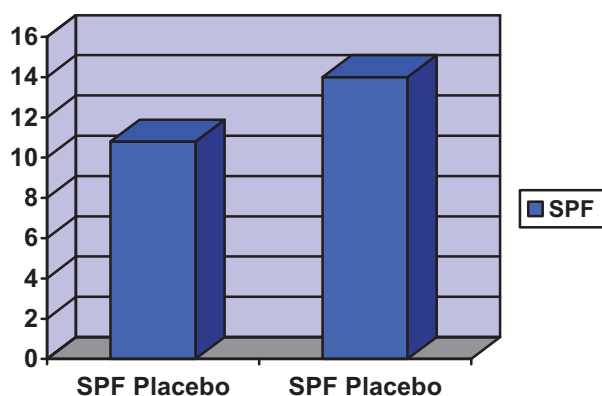
ITEM	ANALYSIS	METHOD	UNITY	SPECIFICATION
5.1	Appearance (25°C)	Visual	-	Limpid to slightly turbid, oily liquid
5.2	Colour	Visual	-	Greenish yellow to amber
5.3	Odour	Organoleptic	-	Characteristic
5.4	Acid Value	MA 002 CH	mg KOH/g	10.00 Max.
5.5	Saponification Value	MA 003 CH	mg KOH/g	140.00 – 190.00
5.6	Peroxide Value	MA 021 CH	mEq/kg	12.00 Max.

Pre-Inspections: 5.1; 5.2; 5.3; 5.4; 5.6.

Bibliographical References: Not Applicable

## EFFICACY TESTS

Clinical assessment of the sun protection factor of a sunscreen product with addition of 5 % of MELSCREEN™ COFFEE ORG, according to the "Sun Protection Measurement Protocol", issued by the COLIPA in 1994.



### 5 % MELSCREEN™ COFFEE ORG

Result: The results are documented as SPF increase of approximately 25 % as shown in the graph above. MELSCREEN™ COFFEE ORG reduced the erythema caused by solar radiation

# NAT PASSION BUTTER

## DESCRIPTION

NAT PASSION BUTTER is obtained from the refined cold pressed Passion fruit oil (*Passiflora edulis* fruit oil) grown in the Amazonian rain forest.

## THE REFINED COLD PRESSED PASSION OIL



The Passion plant is an evergreen, flowering vine from Brazil. The fruit oil is obtained by cold pressing of the fruit, then filtered. This oil is unique due to the balanced composition of fatty acids with a noticeable high (60%) concentration of linoleic acid with good stability, 20% of oleic and 12% of palmitic acids. Oleic and Palmitic acids are two major fatty acids found in the sebum. Thus, the Passion oil has a nourishing action in the stratum corneum. In addition, Linoleic acid is the main constituent of the alkyl and glucoceramids that are found in the skin's hydro-lipidic film and helps to maintain the skin barrier function.

It is known that a lack of Linoleic acid is responsible for a dysfunction in the skin renewal process. Similarly, a lack of Linoleic acid in the hair follicle epithelium is one of the causes for comedos to appear. Therefore, the Passion Oil is indicated to treat the problems of dry, irritated skin and acne as well as mature and fragile skins.

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## USE OF THE PASSION BUTTER

NAT PASSION BUTTER retains a large fraction of the unsaturated fatty acids (omega 6 & 9) found in the oil and therefore provides noticeable advantages to the skin.

It spreads easily on the skin and penetrates well imparting a rich and unctuous feel. It moisturizes the skin and has nourishing and softening effects. NAT PASSION BUTTER has an anti-inflammatory and soothing action on irritated skins.

NAT PASSION BUTTER is a non-genetically modified material that contains no preservative or anti-oxidant. It has not been tested on animals.

SPECIFICATIONS		FATTY ACID PROFILE	
<b>Appearance:</b>	soft solid	<b>Linoleic acid (%):</b>	35.0 - 45.0
<b>Color:</b>	ivory white	<b>Oleic acid (%):</b>	20.0 - 30.0
<b>Odor:</b>	faint, characteristic	<b>Palmitic acid (%):</b>	5.0 - 10.0
<b>Drop point (°C):</b>	55.0 - 70.0	<b>Stearic acid (%):</b>	25.0 - 35.0
<b>Iodine Value (mg I2/g):</b>	80.0 - 110.0		
<b>Acid Value (mg KOH/g):</b>	≤ 5.0		
<b>Ashes (%):</b>	≤ 0.1		

## APPLICATIONS

Skin care & sun care: creams, milks...

Hair care: conditioner masks...

Color cosmetics: make up, lipsticks

Toiletries: lip balms, body butters, massage products, soaps

## REGULATION

INCI Name: Passiflora Edulis Seed Extract (and) Hydrogenated Vegetable Oil

CAS Nr.: 97676-26-1; 68334-28-1

EINECS Nr.: 97676-26-1; 269-820-6

## SHELF LIFE

18 months from the date of analysis, in good storage conditions (see below).

## STORAGE

Keep at room temperature (c.a. 20°C) in the tightly closed original packaging, away from light and heat.

# NAT GASCONY PLUM BUTTER

## DESCRIPTION

NAT GASCONY PLUM BUTTER is obtained from the oil of cold pressed plum (*Prunus domestica* L.) grown in Gascony area in France.

During the production of the dehydrated plum, the almond acquires a delicate sweet smell of bitter almond as found with marzipan. A fragrant oil can be obtained, and the butter made from this oil is also delicately fragranced, in tune with the current cosmetic trends.

## THE COLD PRESSED PLUM KERNEL OIL



The prune kernel oil is obtained by cold pressing the almond of the kernel of the dehydrated Gascony plum (*Prunus domestica* L.), which is then filtered.

The prune oil is composed of around 70% of Oleic acid and 20% of linoleic acid (Omega 6). It contains 0.5 % of unsaponifiable matters and has high tocopherol content, thus showing a high oxidative stability.

This cold pressed oil has softening, nourishing, moisturizing and emolliency

properties. It is especially indicated for mature and dry skins.

## USE OF THE GASCONY PLUM BUTTER

NAT GASCONY PLUM BUTTER retains a large fraction of the unsaturated free fatty acids found in the oil and therefore provides noticeable advantages to the skin.

It easily spreads on the skin and penetrates quickly whilst imparting a mat effect. It moisturizes the skin and has nourishing and softening effects.

NAT GASCONY PLUM BUTTER is a non-genetically modified material that contains no preservative or anti-oxidant. It has not been tested on animals.

SPECIFICATIONS		FATTY ACID PROFILE	
Appearance:	soft solid	Palmitic acid (%):	3.0 - 7.0
Color:	ivory white	Stearic acid (%):	25.0 - 30.0
Odor:	characteristic of bitter almond	Oleic acid (%):	45.0 - 55.0
Drop point (°C):	50 - 70	Linoleic acid (%):	10.0 - 15.0
Iodine Value (mg I <sub>2</sub> /g):	55 - 70		
Acid Value (mg KOH/g):	≤ 2.5		
Ashes (%):	≤ 1		

## APPLICATIONS

Skin care & sun care: creams, milks...

Hair care: conditioner masks...

Color cosmetics: make up, lipsticks

Toiletries: lip balms, body butters, massage products, soaps

## REGULATION

INCI Name: Prunus Domestica Seed Extract (and) Hydrogenated Vegetable Oil

CAS Nr.: 90092-87-4; 68334-28-1

EINECS Nr.: 290-179-3; 269-820-6

## SHELF LIFE

18 months from the date of analysis, in good storage conditions (see below).

## STORAGE

Keep at room temperature (c.a. 20°C) in the tightly closed original packaging, away from light and heat.

# NAT GASCONY PLUM SCRUB 40

# NAT GASCONY PLUM SCRUB 65

## (GASCONY PLUM EXFOLIATING POWDER)

### DESCRIPTION

NAT GASCONY PLUM SCRUB is obtained by grounding the kernels of plums (*Prunus domestica* L.) grown in the French Gascony area to standardised non-aggressive particles. During the process of fabrication of the prune, the kernel acquires a delicate smell well known in pastries (marzipan). This smell comes out in the powder, giving finish products a very appetizing smell, in tune with today's trend. This natural scrub agent is compatible with all cosmetic formulations.

### COSMETIC USE

NAT GASCONY PLUM SCRUB is suggested as a soft scrub for every type of skin, and for all kind of skin care applications.

Added to a cleansing product, NAT GASCONY PLUM SCRUB removes the superficial, dead horny layers of the stratum corneum by mechanical action, cleanses in dept the skin from the dust and tiny debris, and stimulates the micro-blood circulation. It leaves the skin soft with a net and clean appearance.

### SPECIFICATIONS

<b>Appearance:</b>	Powder
<b>Color:</b>	Beige to brown
<b>Odor:</b>	Characteristic of bitter almond oil
<b>Particle size:</b>	
<b>NAT GASCONY PLUM SCRUB 40:</b>	3 % < 300µm; 97 % (300 - 500 µm); 0 % > 500 µm
<b>NAT GASCONY PLUM SCRUB 65:</b>	3 % < 500µm; 97 % (500 - 800 µm); 0 % > 800 µm
<b>Loss on drying:</b>	< 6%
<b>pH (5 % solution):</b>	4 - 6
<b>Solubility:</b>	Practically insoluble in water

### MICROBIOLOGICAL DATA

Total germs:	< 3000 CFU/g	<b>SUGGESTED DOSAGE</b>  Scrubbing preparations for the face: 1 - 5 % Scrubbing preparations for the body: 3 - 10 %
Yeast:	< 500 CFU/g	
Mould:	< 500 CFU/g	
Enterobacteriaceae:	< 10 CFU/g	
Escherichia coli:	< 10 CFU/g	
Salmonella:	0 CFU/g	

### PRODUCT IDENTIFICATION

**Nom INCI:** Prunus Domestica Seed Powder  
**CAS Nr.:** exempt (natural substance)  
**EINECS Nr.:** 310-127-6

### STORAGE

Store in an air-tight containers, at room temperature (20°C), protected from light and heat.

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