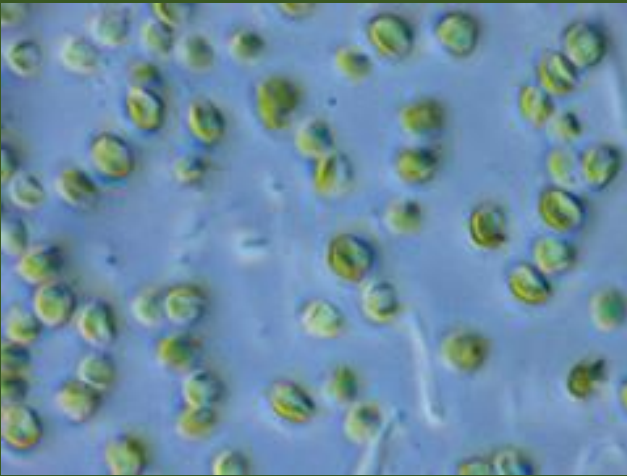


NANNOCHLOROPSIS

Stuffed full of 61 kinds of nutrients, the gift from the sea



What is Nannochloropsis?

Nannochloropsis is a small algae with 2 to 5 μm in diameter, is a phytoplankton inhabits in seawater.

Containing 61 kinds of nutrients such as vitamins, minerals, unsaturated fatty acids. In particular high oil content, ω -3 fatty acids, **EPA(Eicosapentaenoic acid)** contains overwhelmingly high compared with other algae. It is 100% plant sourced powder.

USE EXAMPLES

SUPPLEMENTS

FERTILIZER

MEDICAL SUPPLIES

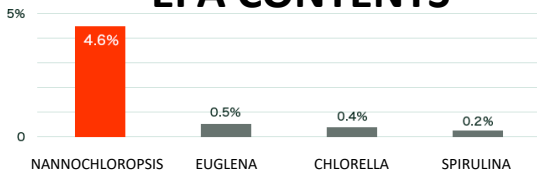
DIET

BIOFUEL

SEEDLINGS • FEED

COSMETICS

EPA CONTENTS



Nutritional ingredients contained with nannochloropsis powder

61 KINDS OF NUTRIENTS

12 kinds of vitamins

β -carotene, Vitamin B1, Vitamin B2, Vitamin B6, Vitamin B12, Vitamin C, Vitamin E, Vitamin K, Folic acid, Pantothenic acid, Biotin, Niacin

11 kinds of minerals

Iron, Calcium, Potassium, Magnesium, Zinc, Phosphorus, Sodium, Copper, Manganese, Iodine, Chrome

Others, 10 kinds of nutrients

β -glucan, Chlorophyll, Lutein, Zeaxanthin, Lauric acid, Myristic acid, Pentadecanoic acid, Palmitic acid, Inositol, Lecithin

18 kinds of amino acids

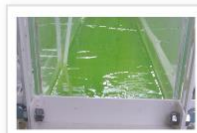
Arginine, Lysine, Histidine, Phenylalanine, Tyrosine, Leucine, Isoleucine, Methionine, Valine, Alanine, Glycine, Proline, Glutamic acid, Serine, Threonine, Aspartic acid, Tryptophan, Cystine

10 kinds of unsaturated fatty acids

EPA(Eicosapentaenoic acid), Arachidonic acid, Dihomo- γ -linolenic acid, Eicosadienoic acid, γ -linolenic acid, Linoleic acid, Oleic acid, Heptadecenoic acid, Palmitoleic acid, Myristoleic acid



1. Cultivation of algae



2. Indoor cultivation



3. Large scale culture



4. Centrifugation



5. Sterilization / Spray dry



6. Powdered product

● ALL YEAR STABLE PRODUCTION

● PROCESSED IN A QUALITY MANAGEMENT SYSTEM

Cultivating in a place get a good amount of sunlight whole year, where in the biggest facility in Japan which is the culture pond cover 2,500 square meter. Producing high purity nannochloropsis using a plastic house for prevent contamination. Been possible annual stable production utilizing original technique of EBIS Algae Research Institute Inc.. Handling a close inspection for maintain quality during cultivation also from harvest to processing.

Characteristic Nutrients of Nannochloropsis

•EPA(Eicosapentaenoic acid)

Help blood flow smoothly, make lower blood triglyceride level, improve hyperlipemia, prevent ischemic heart disease.

EPA sourced from fish is called “glyceride EPA” while EPA sourced from nannochloropsis is phosphatide type EPA connected to phosphoric acid. Phosphatide dissolve with water hence better absorption which reachable to anywhere including brain.

EPA transformed to DHA irreversible as necessary thus if intake foods contain much EPA, you can stock up both.

•Palmitoleic acid

Palmitoleic acid is a kind of omega-7 fatty acid which be discovered as helpful for maintain both of health and beauty recent years, it is one of the few unsaturated fatty acids which can go into a blood vessel in the brain. It works as like “to get stronger blood vessel in the brain and prevent cerebral apoplexy”, “to decrease blood glucose level getting higher insulin sensitive”, “anti-aging to improve barrier function of skin”. Nannochloropsis powder contains 3g of palmitoleic acid per 100g.

•Folic acid

Folic acid helps “hematopoietic role” and “facilitate body growth by helping cell production or reproduction”. It is rarely to lack folic acid in normal diet meanwhile people who during pregnancy or who consume few green and yellow vegetable or liver in daily diet lack folic acid. Needed 200µg per a day for adults and elderly people on the other hand needed 400µg for women during pregnancy. Nannochloropsis powder contains 2mg of folic acid per 100g.

•β-glucan

Fungus contain β-glucan which has a feature of immune boost activity. Brought it out the feature of beta glucan, immune boost activity because it doesn't be decomposed by digestive enzyme in a body. Nannochloropsis powder contains 2.5g of β-glucan per 100g.

•Amino acid score 100

Amino acid score valuate the balance of amino acids. The amino acid score of nannochloropsis powder is 100, an ideal protein as like hen's eggs, cow milk, soy, therefore, makes nutritional sense.

Nutrients comparison of each algae

	Nannochloropsis	Euglena	Spirulina	Chlorella
Amino acid score	100	89	70	99
Palmitoleic acid	3.09	0.16	0.13	0.16
EPA (Eicosapentaenoic acid)	5.00	0.53	0.17	0.42
Vitamin A	8,830µg	—	—	—
Folic acid	2.3mg	—	—	0.049mg

<SOURCE> Japan Food Research Laboratories / Smabe Japan Co., Ltd. (2013.8.13)

