

{organiclifegrains}

Organic grains offer a polished finish to the skin when used after the normal aluminum-oxide exfoliation process of microdermabrasion. Organic grains can also be used as a stand-alone treatment for: sensitive skin, sun exposed skin or as a natural alternative to microdermabrasion. The **nue skin 500** microdermabrasion system has the unique ability to use organic grains, which gives the skin a flawless glow.

Lignins + Cellulose

{features + benefits}

- Easy to handle and use
- Structurally strong
- Maintain pH balance of skin
- Reduced dust; non-clogging
- Classified by EPA/FDA as non-toxic
- Contain micronutrients
- Environmentally friendly



Lignins

Lignins are derived from an abundant and renewable resource: trees, plants, and agricultural crops. Lignins are nontoxic and extremely versatile in performance, qualities that have made them increasingly important in many applications. Lignin uses have expanded into literally hundreds of facets of our daily lives.

Since lignins are very complex natural polymers with many random couplings. Physical chemical properties differ depending on the extraction technology. Some are hydrophilic (will dissolve in water); others are hydrophobic (will not dissolve in water). Lignins are a critical ingredient in the composition of certain micronutrients, those nutrients other than primary (N, P and K) and secondary (Ca, S and Mg) nutrients that are essential for normal growth and development of plants. They are frequently referred to as minor or trace nutrients, but their use is in amounts more than trace and their importance is certainly not minor .

Micronutrients, by definition, include the following elements: boron, chlorine, cobalt, copper, iron, manganese, molybdenum, sodium and zinc. Granular micronutrients function as conditioning agents. When conditioned with lignins, they have increased strength, reduced dustiness and are less prone to caking or pile set (see table below). As a result of their improved physical properties, micronutrient granules conditioned with lignin also generate less dust upon handling.

The lignin content of flaxseed is up to 800 times greater than that of other plant foods such as legumes, veggies, and cereal grains in liquid formulations, lignins act as complexing agents keeping micronutrients in an available form under pH conditions which would normally cause insolubilization.

Lignins are classified by the EPA/FDA as non-toxic and are easy to handle and use. Their environmental friendliness makes them a "natural" choice in both granular and liquid products. Research to develop improved lignins for use in micronutrients is on-going and includes products with improved borate and phosphate tolerances.

Cellulose

Cellulose (wood pulp) is prepared from wood by a process of dissolving and chemical softening. Depending on the solvent solution used, the following pulping processes are distinguished: sulfite process; soda process; sulfate process. The pulp is produced from pin, fir, spruce and beech wood and also from other cellulose-containing vegetable matter, such as sugarcane waste, straw, reeds, maize and sunflower stalks. The lignin which causes the cellulose fibers to adhere together is dissolved by this treatment and is, in part, chemically decomposed, leaving a soft pulp which consists of cellulose. While most of the cellulose produced is consumed by the textile industry and the paper industry, the skin care industry continues to recognize the therapeutic properties of both cellulose and lignin.