

2060

COMPREHENSIVE LIST OF INGREDIENTS FOR ALOE VERA GEL

WATER = 98.5 % OF THE GEL

GLUCOPROTEINS

Alexin a.
Alexin b.

- a. Possess hemagglutinating (blood coagulation) and cytoagglutinating (cell fixating) properties and serum protein binding
- b. Are effective in acting against cancer, inflammation, burns and skin disease
- c. Act against bacterial invasion and growth

PHENOLICS

Aloe-emodin
Barbaloin
Chrysophanol
Anthranol
Aloesin
Anthraquinones

- a. Phenolic compounds are pharmaceutically active
- b. Particularly anthraquinones and glycosides which are mild antiseptics and anti-microbials
- c. Barbaloin - is a highly effective antimicrobial in Aloe concentrations 70 % or greater
- d. Anthraquinones - Antibiotic, anti-inflammatory, analgesic

POLYSACCHARIDES

Glucose
Mannose
Galacturonic Acid
Glucomannins
Pectic Acid
Xylose, Rhamnose, Galactose & Arabinase - Trace amounts.

- a. Of the alcohol insoluble portion of the gel 48.8 % is Glucose and 48.8 % is Mannose. (Molecular weight = 10 to the 4th - 10 to the 6th)
- b. Glucose and Mannose are major components in the sugar fraction of Aloe gel
- c. Polysaccharides are long chain sugars which are broken down into smaller chain sugars through enzymatic action
- d. It is reasonable to hypothesize that Glucose and Mannose are the parent sugars from which other active sugars in the gel are derived
- e. Polysaccharides are immunoenhancers

AMINO ACIDS

Lysine, Histidine, Arginine, Aspartic Acid, Asparagine, Threonine, Serine, Glutamine, Hydroproline, Proline, Glycine, Alanine, Cystine, Valine, Methionine, Isoledcine, Leucine, Tyrosine, Glutamis Acid, and Phenylalanine.

- a. Nine amino acids are essential to the body and must be supplied from an outside source because the body cannot make them.
- b. Aloe contains all of the essential nine plus eleven more.
- c. In total Aloe contains 20 of the 22 amino acids that exist.
- d. Arginine, Asparagine and Glutamic Acid - are relatively abundant in Aloe gel.
- e. Amino Acids are essential for tissue repair and growth.
- f. In addition it was recently discovered that Aloe contains
 - Cholesterol
 - Campesterol
 - B-SitosterolThese three are very important because plant sterols possess anti-inflammatory properties.
- g. Lupeol - this is an analgesic and antiseptic agent.

LIPIDS

Isoprenoids
Alkanes
n Alkyl Alcohols
Fatty Acids and their esters.

- a. Lipids - In combination with proteins and carbohydrates constitute the principal structural components of living cells.

ALOIN - Trace amounts in the gel.

PROTEIN - 2.5 % of the dry weight (solid content).

ORGANIC COMPOUNDS

Glucose	Lactate
Uric Acid	Cholesterol
Salicylic Acid	Triglycerides

- a. Salicylates and Lactates - both possess an analgesic action.
- b. Salicylates - are used to treat burns. They are both analgesic and antimicrobial.
- c. Salicylates and Lactate - Also prevent the biosynthesis of prostaglandins from arachadonic acid.

MINERALS

Sodium
Potassium
Magnesium

- a. These four are found in significant amounts.
- b. These are vital to the growth process & general health.

Calcium

- c. Sodium - provides acid/base balance, osmotic pressure
- d. Potassium - acid/base balance, water retention
- e. Magnesium - enzyme activation/analgesia
- f. Zinc - wound healing.

Sulfur - mild antiseptic and antibacterial.

Chloride, Manganese, Chromium, Zinc, Copper, Aluminum - Lesser amounts.

VITAMINS

Vitamins C, B-complex, B-1, B-2, B-3, Choline, Folic Acid and Carotene.

- a. Vitamin C - Essential to collagen formation, tissue repair, and wound healing.
Deactivates free oxygen radicals responsible for inflammation.
- b. Vitamin B-2 - integrity of mucous membranes.
- c. Folic Acid - maturation of red blood cells.
- d. Carotene - precursor to vitamin A. Integrity of epithelium.

ANTHRAQUINONES

Emodin
Barbaloin

These two can be broken down into salicylates.
Providing increased analgesia.

- a. Barbaloin - has an anti-thromboxane & anti-prostaglandin effect.
reduces long term inflammatory response.
- b. They are also antibacterial and antitubercular.

LECTIN

Aloectin a - Anti-tumor, prevents edema and arthritis.

ORGANIC TRIGLYCERIDES

- a. Fats, Oils, Waxes - carry fat soluble vitamins, supplies fatty acids and energy to the skin and body.

ACIDS

Cinnamonic Acid - Anti- microbial, anti-helminthic (parasitic worms)
Traumatic Acid - A wound hormone-heals skin, tissue and ulcers.
Hyaluronic Acid - Acts as a cementing substance in subcutaneous tissue

UREA-NITROGEN - Has a pain killing effect.

ENZYMES

Alkaline Phosphatase
Sgotransaminase
Amylase
Oxidase
Catalase
Gamma Transaminase
Cellulase

Sgptransaminase
Lactic Dehydrogenase
Lipase
Peroxidase
Bradykinase
Carboxypeptidase

Essential for the chemical reactions of vitamins, minerals and hormones to take place.

FATTY ACIDS

Linoleic
Arachadonic

Responsible for the synthesis of prostaglandins, membrane structure.