

Water Preparation of Whole Propolis: Hydro Ionization™ Process

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Technical Achievement of Hydro Ionization™ Process

My goal has been to make propolis available as a whole natural substance in a form compatible with and combinable with the liquid components of the body.

The water emulsification of crude propolis allows the full range of biological influence of propolis.

Water preparation of whole propolis by GlenHeaven Propolis' proprietary Hydro Ionization™ process is a potent and versatile form of a familiar bee product.

Technical Achievement



Crude Propolis as
Made by Bees

+



Water
Proprietary Processing
Trace Elements

=



GlenHeaven Propolis'
Water Preparation of
Whole Propolis (*GHP*)
Emulsion of Whole Propolis

Developmental Model

Process was modeled on blood serums where a variety of fats, proteins, & minerals are held in a combination of water based solution and suspension.

Processing is done at low temperature to preserve fragile or volatile compounds.

Process developed with view of propolis as an optimal, integrated, natural substance rather than a collection of active compounds.

Universally Acceptable Solvent

GlenHeaven water preparation of propolis was originally formulated for high potency, high dosage use where alcohol or propylene glycol were not acceptable solvents.

It is especially suitable where another solvent might cause tissue damage or is culturally or palatably unacceptable.

Clinical, Research, and Manufacturing Flexibility

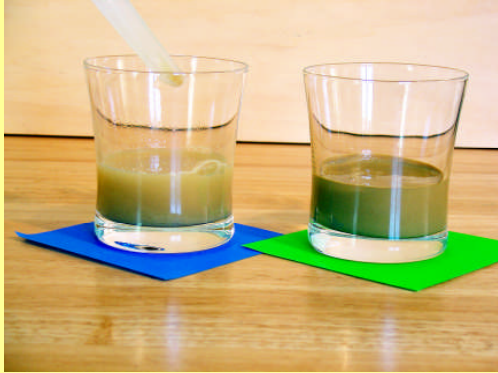
GHP combines easily with almost any liquid or semi-liquid substance at room temperature.

Clinicians can easily compound propolis based remedies to specific conditions.

Researchers can formulate new *in vivo* research applications and study total substance.

Manufacturers have more flexibility in product development and low tech fabrication.

Mixes Easily With Water



GlenHeaven Propolis diluted in water facilitates oral ingestion in low or high dosages.

GlenHeaven Propolis diluted in saline with precipitates decanted has been used for:

- Ophthalmic applications
- Nebulized inhalation therapy
- Experimental internal surgical wound treatment

GHP Mixes Easily With Honey



GHP diluted in honey facilitates oral use of propolis in low or high doses.

GHP mixed with honey at crude propolis concentrations of 0.5% to 25.0% has been used for:

- Ophthalmic applications
- Ear and sinus infection
- Topical antimicrobial applications
- Burn and wound healing and analgesia

GHP Mixes Easily With Oil, Fat, Wax, & Gel Preparations



GHP's versatility enhances its everyday use with various health, hygiene, and cosmetic products.

GHP mixed with specialty carriers is especially useful in:

- Dental applications
- Medical suppositories
- Skin treatment
- External veterinary applications

Summary

The development of GHP makes the total native substance of propolis available for study and use.

The technological flexibility of GHP makes propolis a more accessible and specifically useful bee product.

The unique suitability of GHP for high oral dosage will hopefully facilitate the expanded clinical use of propolis for cancer and hepatic conditions.