

- **What is the etymology of propolis?**
  - The word "propolis" comes from the Greek language and means "before" or "in defense of" (pro) the city (polis)." The essential meaning is "defender of the city (hive)."
- **How do you pronounce propolis?**
  - Propolis is pronounced a couple different ways depending on region. "PRO-PO-LIS" ("polis" like the end of "Minneapolis") and "PROP-O-LIS" (like stage "prop") are the most common.
- **What is propolis?**
  - An aromatic glue-like substance produced by honeybees from tree resin (usually poplar trees), beeswax, and their own secretions, used in the construction of their hives. Propolis is sometimes called "bee glue." Normally it is dark brown in color but can be other hues (often green in Brazil) depending on resin sources.
- **What is the composition of propolis?**
  - 50% tree resins and vegetable balsams, 30% beeswax, 10% essential and aromatic oils, 5% pollen, 5% other substances and organic compounds. The exact composition varies depending on the bee species and local geographical flora.
- **What does "other substances and organic compounds" mean?**
  - Over 300 biologically active ingredients have been identified in propolis. Phenolic compounds, esters, terpenes, beta-steroids, aromatic aldehydes, alcohols, and particularly flavonoids are the important organic compounds present in propolis. Twelve different flavonoids, namely, pinocembrin, acacetin, chrysin, rutin, luteolin, kaempferol, apigenin, myricetin, catechin, naringenin, galangin, and quercetin; two phenolic acids, caffeic acid and cinnamic acid; and one stilbene derivative called resveratrol have been detected in propolis extracts. Propolis also contains important vitamins, such as vitamins B1, B2, B6, C, and E and useful minerals such as magnesium (Mg), calcium (Ca), potassium (K), sodium (Na), copper (Cu), zinc (Zn), manganese (Mn), and iron (Fe). A few enzymes, such as succinic dehydrogenase, glucose-6-phosphatase, adenosine triphosphatase, and acid phosphatase, are also present in propolis.
- **TLDR please.**
  - The main active ingredients in propolis are flavonoids which the honeybees get from plant and flower parts. Flavonoids are one of the most important agents which have anti-inflammatory, anti-viral, anti-allergic, anti-cancer, anti-bacterial and antioxidant effects. Studies suggest that observed effects of propolis might be the result of synergistic action of its complex constituents.

- **What do bees use propolis for?** A lot.
  - sealing cracks, gaps, and holes in the hive (reinforces structural stability, provides thermal insulation, makes the hive more defensible)
  - providing anti-fungal and antibacterial properties in the hive (e.g. protecting bee larvae, smoothing and creating germ-free surfaces from which to build honeycomb)
  - preventing diseases and parasites from entering the hive, inhibiting fungal and bacterial growth
  - mitigating putrefaction within the hive. If a mouse, for example, finds its way into the hive and dies there, bees may be unable to carry it out through the hive entrance. In that case, they would attempt instead to seal the carcass in propolis, essentially mummifying it and making it odorless and harmless.
- **Why would people use propolis?**
  - Propolis is anti-all-the-things. Propolis is used as an anti-bacterial, anti-inflammatory, anti-viral, anti-oxidant, anti-protozoal, anesthetic (“anti-pain”), anti-tumoural, anti-cancer, anti-fungal, anti-septic, anti-mutagenic, anti-hepatotoxic in addition to being used for cytotoxic activity (“anti-cell”).
  - Propolis has been used for thousands of years as traditional medicine with a wide-range of health benefits including oral health, dermatology care, gastrointestinal disorders, cancer treatments, and more.
  - Despite a long history of use around the world, clinical studies on propolis are limited.
- **Do I just eat propolis or throw it in some water and drink it?** No. Propolis is a difficult substance for people to work with. It's brittle at cooler temperatures and very sticky otherwise. Propolis is not water soluble. Also because of its complex structure, the human body has a difficult time breaking it down so it is more effective to create an extract with the help of a solvent.
- **What is an extract?** An herbal extract is a substance extracted from the plant using different solvents—some combination of water, alcohol, chemicals, or other liquid that works to draw out beneficial plant components. Examples of herbal extract products include liquids, dried powders, or essential oils.
- **What is a tincture?** A tincture is a liquid herbal extract that is made with potable (safe to drink) alcohol as all or part of the combined extraction solvent, called the menstruum. Following the extractive process, the tincture is separated from the spent herb (in this case propolis) and is filtered. From there it is bottled. Tinctures are convenient and easily dispensed, taken in liquid form and added to water or other liquid according to labeled instructions. Like other extracts, tinctures bypass the need to digest entire herbs in the gut and are easily absorbed by the body. While the term “tincture” is sometimes applied to liquid extracts made without alcohol, technically only liquid extracts made with alcohol are tinctures.

- **What's the deal with alcohol?** The alcohol used in tinctures is the same ethanol (ethyl alcohol) produced by fermentation that is found in beer and wine. Alcohol is an excellent solvent for a wide variety of phytochemicals, especially those that have limited solubility in water (like propolis). It is also an excellent preservative, so that tinctures typically last several years.
- **How can I use Worker B Propolis Extract?** There are many ways to use propolis extract, here are some examples:
  - Cold Sores and Canker Sores - apply a few drops directly to the sore, making sure to fully encapsulate the area. It will sting a bit. As the alcohol evaporates, the tincture forms a resin barrier around the sore. This can help alleviate the pain associated with when a sore is present and it may help speed recovery. Allow the liquid to set (takes about 5-10 seconds). Re-apply as needed throughout the day.
  - General Immune System Support - apply a dropper full of extract directly to the back of the throat (particularly if you feel a cold coming on).
  - General Oral Health - use propolis and water as a mouthwash, add a few drops to toothpaste for anti-bacterial benefits. Can help with soft plaque conditions.
  - Wound Care - apply a few drops to areas like burns, cuts, or blisters. This will sting - it is alcohol! The tincture will help keep the wound clean and heal.
  - Acne - apply to affected area as an overnight treatment for anti-bacterial benefits
- **What does propolis extract taste like?** Propolis is sharp, intensely resinous and aromatic. The propolis extract has a very high concentration of ethyl alcohol which creates a burning/drying sensation when ingested.
- **What's special about Worker B Propolis Extract?**
  - Like other Worker B products, it's all about the ingredients.
  - Our propolis comes from a select group of beekeepers chosen for their dedication to sustainable relationships with honeybees. Our propolis comes from pesticide-free hives.
  - We use 190-proof (95%) organic FCC-grade alcohol. The higher alcohol content helps extract more of the beneficial components from the propolis. Other tinctures use lower alcohol concentrations which can make the tincture less harsh but at the expense of potency. There are different grades of alcohol available for human consumption, one of the most common for tinctures is USP (US Pharmacopeia) grade which has specific tests that measure the presence of impurities, setting limits on each type. Worker B uses FCC (Food Chemical Codex) grade alcohol which goes a step further and adds heavy metal limitation requirements for food applications such as dietary supplements.
- **Is propolis considered vegan?** Probably not. It contains bee secretions and saliva which would be considered animal products.

- **Are there any safety concerns?** Potentially. If you have an allergy to honey or bees, you may also have a reaction to products containing propolis. In some cases propolis can cause tree resin allergies to flare up. Propolis may also cause its own allergic reaction. The amount of alcohol consumed in a typical dose of tincture is negligible and safe for most individuals. Due to ethyl alcohol content, Worker B Propolis Extract should not be used during pregnancy/lactation. It is always recommended that you consult with a qualified healthcare practitioner before using herbal products, particularly if you are pregnant, nursing, or on any medications.
- **Handling Precautions.** Due to the high concentration of alcohol, this product is flammable and should be handled with appropriate caution.
- **Standard Disclaimer** - This information has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.
  
- Resources:
  - [Wikipedia](#)
  - [Composition and Functional Properties of Propolis](#)
  - [Honey, Propolis, and Royal Jelly: A Comprehensive Review of Their Biological Actions and Health Benefits](#)
  - [Propolis: Chemical Composition and Its Applications in Endodontics](#)
  - [What is an herbal tincture?](#)