

Question: How do you extract or distill your liquid copal?

Answer: Most all of our oils are distilled using low temperature and low pressure steam distillation in a stainless steel distiller. The few exceptions are hydro distilled, cold pressed, CO2 extraction, or absolute extraction.

Steam Distilled: The most common method of extracting a liquid copal (essential oil) from the plant is through steam distillation. Around 90% of our oils are extracted this way. Low temperature and low pressure play an important part of collecting the highest quality liquid copal. When plant matter is placed into a chamber and steam is injected in, the plant's oil is released into the air. The steam and oil are carried out of the chamber and cooled. The oil and water are then allowed to separate for collection. The food and flavor industry distill thousands of tons of oils each year using steam distillation. The difference in quality plays a big part on how the plant is grown and how the oil is extracted. Using greater temperature and pressure will allow a greater amount of oil to be released from the plant however the quality of the oil will suffer greatly. Cars have four wheels and can drive down the road but there is a great difference in performance between the car selling for \$10,000 and the car selling for \$1,000,000. In the oil industry, oils distilled at higher temperature and pressure for the flavors or fragrance will not perform like high quality therapeutic liquid copal distilled at low pressure and low temperature.

Hydro Distilled:This means the plant is distilled using water rather than steam. The plant matter is placed in a chamber filled with water. The water is heated until the oil is released. This extraction process produces a superior quality liquid copal, but it also is quite a bit more labor intensive and therefore costly.

Cold Pressed: Simple put the liquid copal (essential oil) is pressed from the plant. This is the most common method of extraction for the citrus oils. The peel of the citrus plant is pressed and the oil is then filtered from the plant matter. While this method uses no heat and therefore produces a superior quality liquid copal, there are a few drawbacks to this extraction method. With the pressed citrus oils there are microscopic

amounts of peel and waxes. These parts of the plant will begin to break down and give you a short shelf life. On average you can expect a shelf life of 2 to 5 years from your pressed oils while the other extraction methods will extend the shelf life many, many years if stored properly.

CO2 Extraction: A wonderful method for extracting high quality liquid copal. Like steam distillation, plant mater is placed into a chamber and then CO2 is injected in. The plant's oil is released into the air and out of the chamber where it is collected. No heat is used during this process and all the CO2 is dispersed when the oil is collected. The down side to this extraction method is the high cost. Usually around four times the steam distilled price.

Absolute: This method uses a solvent or chemical to extract the oil. Once the oil is extracted the chemical is then removed from the oil. An oil that is extracted as an absolute will always have some of the chemical remaining. A high quality absolute will have less than 1% of solvent remaining. Some plants, like Jasmine for example, will only give up there oil using this extraction process. Therefore there is no such thing as pure Jasmine oil but there is such thing as high quality Jasmine absolute.