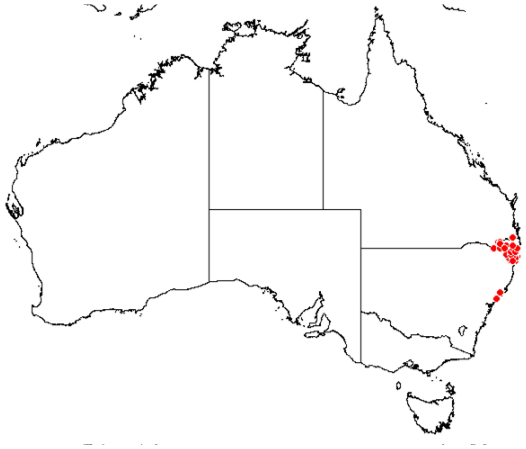
Pure Australian Tea Tree Oil (*Melaleuca alternifolia*) Offers Significant Advantages to Adulterated and Synthetic "Nature Identical" Oils

Proven Power

Tea Tree Oil (TTO) is distilled from *Melaleuca alternifolia*, a tall shrub of up to 23 feet (7 meters) height with a papery bark. This plant only occurs naturally in the world in Australia along streams and swampy lowlands of the Mid- and North-Coast of NSW, and South-East Queensland.



Australian Tea Tree Oil has been used for decades in the pure form and as the active ingredient in formulated products to maintain the health of millions of people throughout the world. The capabilities of this unique and demonstrated anti-bacterial[1], anti-fungal[1 2], anti-viral[1 3], anti-inflammatory[4], and anti-septic, essential oil was first scientifically documented in 1905.[5 6 7]

More recently, its anti-carcinogenic activity potential has been identified and published.[8]

In addition to the proof from thousands of years of use by Indigenous Australians, over nine hundred peer-reviewed studies have been conducted on pure Australian TTO. These studies document and explain its safety and efficacy both as pure oil and in countless formulations worldwide.

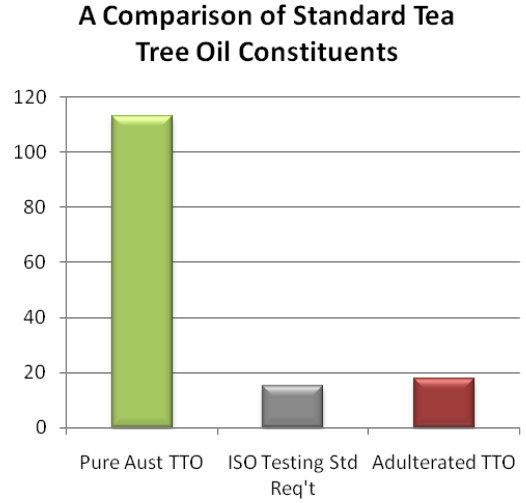
"Over 900 peer-reviewed studies have been conducted on pure Australian Tea Tree Oil."

These studies leave no doubt about its safety and effectiveness when used correctly. In addition to this extensive body of scientific work, there are countless testimonials and references to TTO on the internet from satisfied users globally.

Unique Complexity

The uniqueness of pure Australian TTO is the inherent complexity of its 113+ compounds. These compounds work synergistically to produce a superior result to any one, or abbreviated combination, of individual constituents. Work comparing the activity of both the main component of tea tree oil, terpinen-4-ol[9,11] and pure tea tree oil [8 10] has been conducted. In a paper published in 2010 Greay et al [8,] the activity of pure Australian TTO and Terpinen-4-ol was examined. The research demonstrated that pure Australian TTO was significantly more effective than terpinene-4-ol alone. This study

demonstrated that the efficacy of pure TTO is more than the sum of its parts and reinforces the potency of pure Australian Tea Tree Oil in its natural state. No testing has been done using adulterated or synthetic products.



The natural complexity of TTO's 113+ compounds may also mitigate the development of resistance in pathogens, such as MRSA, and reduce the prevalence of superbugs. It is conceivable that with rising concerns about antibiotic resistance, therapeutic solutions will involve the use of pure natural Australian TTO for the treatment of human and animal ailments.

Synthetic Oils Cheat Consumers

Unfortunately as the proven effectiveness of pure Australian TTO has become more widely recognised and used, a market has developed for either adulterated oil consisting of Australian TTO diluted with synthetic components *(usually created from other plant based compounds such as sabinene from pine oil)* or by creating what is described as "*Nature Identical*" TTO. "Nature Identical" oil is created synthetically from only 15 of the 113+ components of Tea Tree Oil as listed in the Australian Standard[15] (AS 2782-2009) and International[16] Standard (ISO 4730) for Tea Tree Oil.

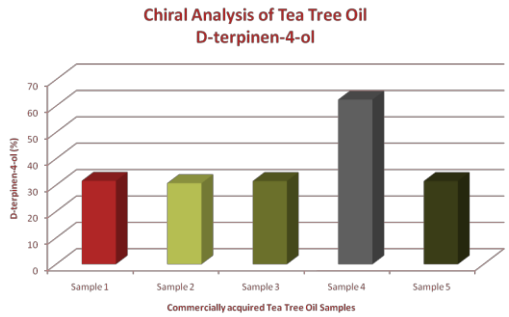
Manufacturers of these adulterated or synthetic oils carefully balance the mix of components they use to ensure that all of the physical properties of their oil conform to the international standard, including the optical rotation of the product. This has made detection of synthetic oils difficult. These adulterated or synthetic products masquerade as TTO and have no scientific evidence to support their safety and effectiveness. Furthermore, they are not supported by the thousands of years of use by the Australian Aboriginal indigenous population. Synthetically produced oils may be placing consumers at risk. At the very least, it may turn many consumers away from using tea tree oil entirely.

The fraudulent use of adulterated and "nature identical" oil is based on pure greed and cheats both the consumer and the grower. The consumer is cheated out of the knowledge of this shell game, not to mention the right to use an essential oil proven to work safely and effectively. The grower is cheated as the cost of bringing these adulterated or synthetic products to market is significantly less than the cost an Australian farmer can sustainably produce genuine pure Australian TTO.

Identifying Adulterated Tea Tree Oil

Unfortunately, current International and Australian Standards cannot differentiate between adulterated/synthetic oil and pure

Australian TTO. Due to the suspected widespread adulteration of pure, natural TTO, the Australian Tea Tree Industry Association (ATTIA) has identified Chiral Analysis as a simple, inexpensive test that will allow anyone in the TTO supply chain to quickly and cheaply differentiate between pure, natural TTO and adulterated TTO. The below graph represents 5 TTO (4 pure; 1 adulterated) samples submitted to an independent lab for evaluation of this test method. Clearly evident, Sample 4 is the adulterated TTO.



ATTIA has been in discussions with both the International and Australian Standards Associations and the suggested testing has been endorsed by both but final publication of revised Standards is still pending.

Additional information on this testing will be released once accepted by these Associations with official endorsement.

Certified Pure, Australian Tea Tree Oil and Traceability

ATTIA, with the support of the Australian Government Rural Industries Research and Development Corporation (RIRDC), has initiated action to protect the reputation of pure Australian TTO from the risk of damage by adulterated or synthetic products. The implementation of a strict Code of Practice (CoP) under which ATTIA's producer members operate their plantations has established a quality management system from paddock to the point of export that includes not only full traceability but also environmentally sound farming practices. **ATTIA's CoP seal guarantee's the product is Pure Australian TTO with full traceability back to the leaf**.

Conclusion

By purchasing ATTIA COP certified Pure Australian TTO you are guaranteed and uniquely placed to assure your customers that they are buying the pure, natural product which is comprehensively proven to be safe and effective for its intended use.

To find out how your organization can be assured it is using Pure Australian Tea Tree Oil, look for this logo and demand to see your supplier's Code of Practice certification, or contact ATTIA directly at secretary@attia.org.au.

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