

Compound Tincture of Benzoin - what it is and what it does

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Compound Tincture of Benzoin (Tinc Benz Co.) is derived from the resin that is exuded from the bark of trees of the species *Styrax benzoin* when the bark is deliberately damaged. It is a pathological product, since the trees produce the substance only when the cambium, or living bark is injured. The cultivated trees are first incised when seven years old and yield about 3lbs of resin per annum for ten or twelve years. A 'V'-shaped cut is made with an axe deep in to the cambium of the bark and the resin flows out, hardening into reddish 'tears' set in a grey matrix. The hardened balsamic resin is harvested, crushed and ground, and dissolved in alcohol to produce Tincture of Benzoin (a tincture is a solution in alcohol).

The trees are cultivated in Sumatra, Java and tropical S E Asia, the resins differing in composition according to where grown. Sumatran resin contains 18% or more of benzoic acid and about 20% of cinnamic acid. It also contains 1% of vanillin, styrol, styracin, phenol-propyl cinnamate and benzaldehyde. These constituents account for its distinctive aroma. Trees grown in Thailand yield a resin that has the composition of up to 38% of benzoic acid, partly combined with benzoeresinol and siaresinotannol, vanillin and an oily aromatic fluid. Benzoin is pleasantly aromatic and is used in the perfumery industry as an essential fragrance.

The compound tincture (T Benz Co.) consists of 10% benzoin and 90% alcohol with aloes, storax and Tolu balsam. Both benzoin and alcohol are antiseptic. It is sometimes mixed with lards and fats to prevent them turning rancid. T Benz Co is used to defend and protect vulnerable skin. It is used as a small wound dressing and is said to promote the growth of granulation tissue.

It is technically a 'medical varnish', forming a sealing 'film' over raw tissue to protect wounds from ingress of bacteria. Because of this sealing property it should not be used, for instance, where an infected heloma durum has just been enucleated, in case residual bacteria are 'sealed in'. It is much used in sport to protect damaged skin areas and the US Army drains servicemen's blisters, replacing the exudate with the same volume of Tinc Benz Co.

The compound is fluid impermeable and physically prevents drying out of the skin after paring, retaining suppleness and flexibility. It protects skin against maceration and chemical breakdown, which indicates its use as a 'chemical mask' to protect healthy skin around verrucae when caustic occlusive dressings are applied in potential cautery. When applied to a skin surface before application of tapes and dressings, the bond strength of the adhesive is increased several-fold. This is useful in sports taping or when we wish to apply a dressing and want it to be retained for a lengthy period to protect feet that cannot be reached. T Benz Co suppresses skin reactions beneath dressings. And T Benz Co will retain a cotton wool pack in the nail sulcus, creating a non-hardening mass with the consistency of chamois leather.

When applied to a break or abrasion in the skin, there may be a little smarting (due to the alcohol solvent), but this is mild and quickly passes. Applied to itching and inflamed areas of skin, it reduces inflammation and calms and cools. It is applied to cracked nipples and anal splits and is used in dentistry to treat gum infections. Applied as an antiseptic to deep heel fissures it also keeps them supple, promoting rapid healing. Applied to broken blisters it protects from infection and promotes healing. Chilblains, too, benefit from its application.

Benzoin is a main constituent of Friar's Balsam, which is added to boiling water and used in steam as an inhalent for respiratory conditions, where it gives much relief. Friar's Balsam is readily purchased at almost any chemist and has all of the beneficial properties of T Benz Co., although being rather slower in drying. It makes an excellent alternative or substitute for T Benz Co. and both preparations are effectively interchangeable.

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COMPOUND TINCTURE OF BENZOIN

Answers should be submitted on A4 paper and should be of sufficient length to demonstrate full understanding of the topic. Single word answers are not permissible. Try to answer in one or two short paragraphs, generally not more than 1/3rd page per answer.

Q1. What is a tincture?

Q2. Define two essential properties of a medical varnish.

Q3. Detail five distinctly different uses of Tinc Benz Co.

Q4. Say why Tinc Benz Co is useful in nail sulcus work.

Q5. How is T Benz Co employed in potential cautery?

Q6. Why is Tinc Benz Co useful in the treatment of heel fissures?

Q7. Give three reasons why T Benz Co is useful in sport.

Q8. What is *Styrax benzoin*?

Q9. Is there any instance where application of Tinc Benz Co is contraindicated?

Q10. What may be used as an alternative to T Benz Co?

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