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## **Extraction of Tartaric Acid From Tamarind Pulp**

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**Abstract:** Tartaric acid is an essential organic acid widely used in the food, pharmaceutical, and industrial sectors. The extraction of tartaric acid from natural sources such as tamarind pulp presents a sustainable and cost-effective alternative to synthetic production methods. This research focuses on optimizing the extraction process from tamarind pulp by employing eco-friendly techniques that minimize chemical usage and maximize yield. The study investigates various extraction methods, including solid-liquid extraction and chemical precipitation, to determine the most efficient approach for obtaining high-purity tartaric acid. India, being one of the largest producers of tamarind, provides a vast and renewable resource for this process. Utilizing tamarind pulp not only reduces agricultural waste but also promotes the utilization of by-products, contributing to a circular economy. The extracted tartaric acid has numerous applications. By focusing on green chemistry principles, this study aims to enhance sustainability while meeting industrial demands. The findings of this research are expected to provide valuable insights into sustainable acid extraction methodologies, offering economic benefits to small-scale industries and contributing to environmental conservation. Future advancements in this area could further refine the process, making tartaric acid extraction from tamarind an attractive and commercially viable alternative..

**Keywords:** Tartaric Acid, Tamarind Pulp, Extraction, Sustainable Chemistry, Green Chemistry, Agricultural By-products, Food Industry, Pharmaceutical Applications



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