1. **INTRODUCTION:**

Malaria is caused by a parasite called Plasmodium, which is transmitted via the bites of infected mosquitoes. In the human body, the parasites multiply in the liver, and then infect red blood cells (WHO, 2012). According to the *World malaria report 2011*, there were about 216 million cases of malaria (with an uncertainty range of 149 million to 274 million) and an estimated 655,000 deaths in 2010 (with an uncertainty range of 537,000 to 907,000). Malaria mortality rates have fallen by more than 25% globally since 2000, and by 33% in the WHO African Region. Most deaths occur among children living in Africa where a child dies every minute from malaria. (WHO, Fact sheet, April 2012)

There are four parasite species that cause malaria in humans:

- *Plasmodium falciparum*
- *Plasmodium vivax*
- *Plasmodium malariae*
- *Plasmodium ovale.*

*Plasmodium falciparum* and *Plasmodium vivax* are the most common. *Plasmodium falciparum* is the most deadly. In recent years, some human cases of malaria have also occurred with *Plasmodium knowlesi* – a species that causes malaria among monkeys and occurs in certain forested areas of South-East Asia.

Most of the drugs which are used for the treatment of malaria are bitter in test among them Artimisin derivatives are the most bitter and wildly used class of anti-malarial.

In recent decades, a variety of pharmaceutical research has been conducted to develop new dosage forms. Considering quality of life, most of these efforts have been focused on ease of medication. (Hanawa et al., 1995). Among the dosage forms developed to facilitate ease of medication, the oral disintegrating tablet (ODT) is one of the most widely employed commercial products. (Koizumi et al., 1997, Ishikawa et al., 1999 and Kaushik et al., 2004). The ODT has remarkable disintegration properties; it can rapidly disintegrate without water in the mouth within a few seconds. When an ODT is placed in the oral cavity, saliva quickly penetrates into the pores causing rapid disintegration.
There are numerous pharmaceutical and OTC preparations that contain actives, which are bitter in taste. To fulfill these requirements, the pharmaceutical industries have developed several other alternatives like syrups, suspensions, emulsions, chewable tablets, dispersible tablets, mouth melt tablets, solutions and inhalers, etc. When bitter tasting drugs incorporated in these formulations, it comes in contact with salivary fluids and feels bitter.

Pharmaceutical companies are investing much time, money and resources in developing palatable, pleasant tasting products because good tasting products not only enhance the patient compliance but also provide a competitive advantage when a therapeutic category is crowded with similar products (e.g. anti-infective). (Gowthamarajan et al., 2004)

Taste masking is defined as a perceived reduction of an undesirable taste that would otherwise exist. The ideal solution to reduce or inhibit bitterness is the discovery of a universal inhibitor of all bitter tasting substances that does not affect the other taste modalities such as sweetness or saltiness.

Oral disintegrating tablets come in contact with taste buds for a longer time as it dissolves or disperse in the oral cavity. So, for a bitter substance to be successful in market, taste-masking is an essential task. Major are based on the reduction of solubility of substance in saliva so the drug concentration in saliva remains below of their threshold concentration. Number of techniquest are used for the taste marking like Mass Extrusion, Microencapsulation, Multiple Emulsions, Polymeric coating strategies, Prodrug, Taste masking by formation of inclusion complexes, Taste masking by Rheological modification etc. There are number of merits of ODTs like Ease of administration to patients who refuse to swallow a tablet, such as pediatric, geriatric and psychiatric patients. (Hirani et al., 2009), Convenience of administration and accurate dosing, No need of water to swallow the dosage form which is highly convenient feature for patients who are traveling and do not have immediate access to water, Good mouth feel property of mouth dissolving tablets helps to change the basic view of medication, Rapid dissolution and absorption of drug, which may produce rapid onset of action, Some drugs are absorbed from the mouth, pharynx, and esophagus as the saliva passes down into the stomach in such cases bioavailability of drugs is increased and other.
During the formulating ODTs formulator have to overcome from the challenges like Palatability (Brown et al., 2001 and Reddy et al., 2002), Mechanical strength, Hygroscopicity, Amount of drug, Aqueous solubility, Size of tablet.

To overcome from the above changes these research work was carried out and formulation developed.