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(54) Title: SUSTAINED RELEASE OF GUAIFENESIN COMBINATION DRUGS

(57) **Abstract:** The invention relates to a novel pharmaceutical modified release formulation of guaifenesin and optionally a second drug which is preferably selected from dextromethorphan and pseudoephedrine. The formulation may comprise a hydrophilic polymer, preferably a hydroxypropyl methylcellulose, and a waterinsoluble polymer, preferably an acrylic resin, in a ratio range of about one-to-one (1:1) to about nine-to-one (9:1), more preferably a range of about three-to-two (3:2) to about six-to-one (6:1), and most preferably in a range of about two-to-one (2:1) to about four-to-one (4:1) by weight. This formulation capable of providing therapeutically effective bioavailability of guaifenesin for at least twelve hours after dosing in a human subject. The invention also relates to a modified release product which has two portions: a first portion having an immediate release formulation of guaifenesin and a second portion having a sustained release formulation of guaifenesin, wherein one or both portions further comprises dextromethorphan. The modified release product has a maximum guaifenesin serum concentration equivalent to that of an immediate release guaifenesin tablet, and is capable of providing therapeutically effective bioavailability of guaifenesin for at least twelve hours after dosing in a human subject.



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