Abstract: The present invention describes a new propofol-containing anesthetic pharmaceutical composition for parenteral administration, in the form of an oil-in-water microemulsion in which the oily phase is constituted by propofol in the form of particles with size comprised between 1 and 100 nm using a single surfactant selected from the group consisting of polyethylene glycol stearates with general formula C17H35COO(OCH2CH2)nH or C17H35COO(OCH2CH2)m.COOCH3. The anesthetic pharmaceutical composition of the present invention is more potent for induction of hypnosis and anesthesia, has a ready-to-use presentation and highly stable particle size, presenting improved physicochemical properties, and preventing the potential risks of undesirable effects encountered in the state-of-the-art propofol formulations.