Several studies have shown the antimicrobial and antioxidant properties of turmeric (Curcuma longa), widely used in food industry, among other functions, for coloring. The aim of this study was to determine the antioxidant and antimicrobial properties of turmeric essential oil against pathogenic bacteria and the influence exerted by ascorbic acid in preventing the oxidation of oil's polyphenols. Results of the specific weight and refraction index of commercial essential oil of turmeric (Curcuma longa) indicate that it may contain some impurities due to the extraction and handling processes to which it is subjected. The turmeric commercial essential oil alone did not show bactericidal activity against the micro-organisms studied, Listeria monocytogenes and Salmonella typhimurium, but when ascorbic acid was added, the solution showed significant antibacterial activity. The highest antimicrobial activity against Salmonella typhimurium was 15.0 ± 1.41 mm at concentration of 2.30 mg.mL⁻¹ of essential oil and 2.0 mg.mL⁻¹ of ascorbic acid. In relation to Listeria monocytogenes, the largest inhibition zone (13.7 ± 0.58 mm) was obtained at the same concentrations. The essential oil showed antioxidant activity of EC₅₀ = 2094.172 µg.mL⁻¹ for the DPPH radical scavenging method and 29 % at concentration of 1.667 mg.mL⁻¹, for the β-carotene bleaching method. However, the analyzed antioxidant activity resulted in a low value for both methods employed in this study. Published data reveal the influence exerted by the extraction method and the solvent used to produce the oils. They also affect the phenolic compounds content in a significant way.