Spices and herbs have been used for centuries for the aroma and flavor characteristics they provide to foods. Unfortunately, spices often contribute more than sensorial properties to foods. Many spices are grown and harvested in poor sanitary conditions that contribute to microbial contamination, including food borne pathogens. Cumin, a member of the Apiaceae family, is originated in the Mediterranean and in Brazil, its consumption is more expressive in the Northeast region, where is used pure or mixed with black pepper. The lack of good agricultural practices in this region and the inappropriate storage condition could increase the contamination with foodborne pathogens. Thus, this study aimed to evaluate the microbial profiles of grounded cumin seeds purchased from two retail shops of Feira de Santana and three of Salvador, Bahia. Fifteen samples from each retail shops were evaluated for coliforms, filamentous fungi, Bacillus cereus, Staphylococcus aureus and Salmonella. The results shown that all samples analyzed were contaminated with Salmonella spp. and presented more than 3 LogCFU/g of Bacillus cereus. The source of purchase were found to affect (P<0.05) numbers of B. cereus contamination. Coliforms and Staphylococcus aureus were detected in low numbers and filamentous fungi numbers ranged from 2,11 LogCFU/g to 4,14 LogCFU/g. These results suggest that by the use of untreated cumin for production of foods not subjected to a heat treatment or for seasoning of ready-to-eat products, Salmonella might be introduced and in this way might pose a threat to consumers. Therefore, results of this study emphasized the need for safe methods of spice cleaning and sterilization.