Kitoza is a traditional product of Madagascar which was previously prepared for kings and nobles. It is made from beef or pork strips, 20 to 50 cm long and 2 to 4 cm wide, salted and then dried and/or smoked. Kitoza consumption has currently increased because of its ready availability on local market. Kitoza is also homemade from fresh raw meat. In all cases, the biochemical and microbiological quality of kitoza is not controlled.

Within the framework of AFTER (African Food Tradition Revisited by Research), a project which aims in improving the quality and safety of African traditional food, 60 samples (30 beef, 30 pork) of kitoza were analyzed. They were collected in Antananarivo and included 15 salted/smoked kitoza and 15 salted/dried kitoza for each type of meat.

From a physic-chemical point of view, results showed that the average moisture content was 42.0±11.4g/100g for beef (B) and 41.1±12.9 for pork (P) with Aw equalling 0.89±0.08 (B, P). Its salt content was not very high (B: 3.25±1.19g.100g; P: 3.4±1.7). Lipid content was 10.5±5.5g/100g (B) and 18.1±9.8 (P) and protein was 25.1±23.7g/100g (B) and 40.7±9.1 (P). Kitoza had a titrable acidity of 11.9±2.8meq/100g (B) and 9.9±3.5meq/100g (P) and a pH of 5.79±0.22 (B) and 6.29±0.47 (P). Beef kitoza contained 0.095±0.156g/100g D-lactic acid and 1.32±0.36g/100g L-lactic acid and pork 0.139±0.158 D- and 0.23±0.27 L-. Smoked products had a total phenols content of 2.30±1.44mg/100g (B) and 3.25±1.98mg/100g (P) while the dried ones had 0.30±0.40mg/100g (B) and 0.45±0.36 mg/100g (P). TBARS indices were 3.39±3.68mg/kg (B) and 3.61±3.88mg/kg (P).

According to microbiological analyses, there was no Salmonella in all types of kitoza. However, pork kitoza and dried beef kitoza presented high concentration of FAMT (B: 8.1 log10UFC/g; P: 9.3 log10UFC/g). The level of Escherichia coli was high in pork kitoza while it was satisfactory in beef.

Keywords: kitoza, Madagascar, physic-chemical analyses, microbiological analyses