

## **Title: Evaluation of shelf life of isotonic beverage enriched with cajuína**

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**Abstract:** The segment of isotonic beverages has been expanding its market, introducing new flavors and meeting the growing demand for new products. Cajuína, a drink for which Piauí holds a geographical indication certificate, was used in the development of a new sports drink. This work aimed to evaluate the shelf life of isotonic cajuína beverages conditioned at room temperature and under refrigeration, by analyzing the physicochemical, sensorial, and microbiological parameters. The analyzed samples had stable pH (< 3.0), titratable total acidity (0.18 g/100 mL), and °Brix (6.1 °Brix), and presented an acceptable soluble solids total/total titratable acidity (SST/ATT) ratio during storage. There was a vitamin C reduction of 83.3% and 75.27% from the initial amount in the beverage samples stored at room temperature and under refrigeration, respectively. Sensory analysis using the 9-point hedonic scale indicated good acceptance of the sports drink, and good buying intention. The sports drink also demonstrated high microbiological quality, with the absence of total coliforms, *E. coli*, molds, yeasts and *Salmonella* sp. The data from the stability study indicated that the isotonic cajuína drink retains its quality and safety, and can thus be consumed, for up to 150 days of storage.

**Keywords:** sports drinks; sensory analysis; stocking.