The quality of tomatoes depends on several factors, including the maturity at harvest. The tomato ripening in post-harvest results from a series of transformations that are studied by quality parameters such as acidity, soluble solids, pH and color change. Thus, the interest in knowing the factors which influence the composition of tomatoes, related to quality is imminent and necessary to improve the conditions of production, processing and storage, aiming to verify the quality of the product reaches the consumer's table. In this study were evaluated Granadero hybrid tomatoes, which were harvested at five ripening stages: 1. mature-green; 2. pinkish-green; 3. greenish-pink; 4. pinkish; 5. light-red. It were analyzed pH, titratable acidity (TA), soluble solids (SS) and SS/TA ratio. The SS content was significantly different (Tukey’s test p<0.01) between the maturity stages, where the fruits harvested at stages 1, 2 and 5 had the highest values (4.93, 4.93 and 4.96 °Brix, respectively). The TA was significantly higher for stage 1 (0.46 mg citric acid 100g⁻¹) (Tukey’s test p<0.01). The SS/TA ratio of fruits did not differ statistically between the stages, remaining above 10 for all the stages, that is the recommended ratio. The pH was statistically higher for fruits harvested at stages 2, 4 and 5 (4.16, 4.16 and 4.17, respectively) (Tukey’s test p<0.01), and all the fruits showed pH within the optimum range less than 4.5 and greater than 3.7. Although the differences between the ripening stages, the hybrid had good quality characteristics in the five stages of ripening.