The fruits are foods that provide several nutrients for our body. Their hulls are discarded before consuming the fruit. The lack of the nutrients such as improper use, causing waste of tons of food resources. The nectarine (*Prunus persica* L.) is a fleshy drupe that has a thin shell around the pulp. This study aimed to assess the physical and chemical peels nectarine 'National'. In the labor were performed to evaluate the acidity, vitamin C, phenolic compounds, moisture, ash and external color (parameters L = luminosity; a and b). The titratable acidity was 0.32g of citric acid, 100g⁻¹. This acidity reflects the presence of organic acids that assist in characterizing the flavor of the shell nectarine. The content of vitamin C resulted in 8.33 mg ascorbic acid 100 g⁻¹, high value, considering that the pulp can display up to 4.00%. The phenolic content was 0.78 mg EAG 100g⁻¹, these compounds tend to accumulate in the epidermis of the fruit, as a form of protection against ultraviolet radiation and in defense to pathogens and predators. The humidity was 77.49%, a value lower than the moisture of the pulp, an average of 85.00%. The ash content resulted in 0.97%, a value representing the mineral content. The color of the shells tended to red (a =+21.59) and yellow (b =+ 22.51) and to white light (L = 37.30%). The bark of nectarine 'National' should be considered as an important source of nutrients for human consumption.