Inulin, often called by the generic name of oligofructose, is a mixture of polysaccharides composed of a chain of fructose units (linked by $\beta$-(2,1) $D$-fructosyl-fructose bonds) with generally a terminal glucose unit (linked by an $\alpha$-$D$-glucopyranosyl bond). More information on structure, conformation, solubility and the numerous texturing properties offered by this functional food is reported in a recent review. TG (Thermogravimetry), DTA (Differential Thermal Analysis) and DSC (Differential Scanning Calorimetry) curves were recorded using a Shimadzu TG 60 and DSC 60, with synthetic air flowing at 100 mL/min., and a heating rate of 10°C/min. and with mass samples of about 6 mg. Alumina open sample holder and aluminum sealed crucibles were used for TG/DTA and DSC, respectively. TG curve showed a moisture loss of 0.77%, total mass loss of 90.90%, thermal stability was detected at 246.76°C (on-set). DTA curve showed first oxidative peak at 381.18°C and a second degradation peak at 533.85°C. DSC endothermic profile curve is related to melting event of starch presented in sample. It was observed a glass transition at 82.01°C and melting point occurred at 236.52°C. Those results are partially in accordance to previous results. A lot of attention is regarded to inulin characterization because it is classified as a prebiotic dietary fiber.