Zinc oxide has a widespread use in cosmetic products.It is necessary to focus on making products with a controlled particle size and minimal agglomeration. Besides its authorized use as a cosmetic colorant with the Color Index No.CI 77947 (Council Directive 76/768/EHS in Annex IV), zinc oxide is applied as bulking agent and skin protecting UV absorber [1].In early 2009, the Therapeutic Goods Administration (TGA) conducted an updated review of the scientific literature in relation to the use of nanoparticulate zinc oxide and titanium dioxide in sunscreens.Moreover Sharma [5] proved in his study that zinc oxide NPs cause statistically significant DNA damage at concentrations of 5 and 0.8ug/ml in human epidermal cells.Using nanosized particles in cosmetics generates products with improved texture, more vibrant color, and greater skin penetration [3].Therefore, it is essential to understand the fate of these agglomerates upon to ascertain whether subsequent toxicological effects are attributable to the nanoparticle physical properties or are a function of their chemical composition.These nanoparticles (NPs) with dimensions less than 100nm allow tailored product formulations to meet the specific demands of the consumer.Although zinc oxide is considered to be non-toxic substance as it is practically insoluble in water, there are incomplete data on its purity and physico-chemical specifications of zinc oxide.In this study we wanted to contribute to the awareness of the properties and behavior of oilbased dispersion with the contents of zinc oxide.The potential for zinc oxide NPs in sunscreens to cause adverse effects depends primarily upon the ability of the NPs to reach viable skin cells.It is necessary to continue monitoring the emerging scientific literature to ensure appropriate action in case unacceptable risks are identified [6].There is a lack of reliable data on the percutaneous absorption of micronised zinc oxide [4].