

Likewise, the use of titanium dioxide as an absorber of ultraviolet radiation in sunscreens requires submicron particles to preserve the texture and appearance of the cream. In terms of tonnage, these mainly concern the following products (examples of application fields are given in brackets): silica nanoparticles (food additive, tire reinforcement), titanium dioxide (cosmetics), alumina (food additive, adjuvant in the medical field), zinc oxide (cosmetic) and cerium (paint), carbon nanotubes (mechanical reinforcement for sporting goods), fullerenes and carbon black (inks, battery electrodes in lithium), silver nanoparticles (anti-bacterial, low energy loss glasses) and iron (soil decontamination), dendrimer [7] (therapeutic) and nano-clays (absorbents). Nanotechnology in Daily Life The nanoparticles and nanomaterials found today on the market and in industry are produced by large-scale methods, directly related to the manufacturing processes of macroscopic materials: materials with high mechanical quality, cosmetics, smart glasses, etc. For example, the fiber structures of carbon nanotubes give rise to new mechanical properties, which do not exist in graphite [8] (Figure 1). Thus, the nanoscopic nature does not make it possible to identify, on its own, the potential of nanotechnologies nor the new risks associated with nanomaterials currently on the market. For all of these products, the raw material used is common whether it is a mineral material (e.g. silica) or an organic molecule. Moreover, this is how most operational and institutional definitions proceed.