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(57) Abstract :

Particle packs coated with Nanoparticle, such as sand beds, have the potential to filter and cleanse liquids, such as wastewater, efficiently. When tiny contaminant particles in wastewater flow through the particle pack, the Nanoparticle will capture and hold the tiny contaminant particles within the particle pack due to the surface forces of the Nanoparticle, which may include, but are not limited to, van der Waals and electrostatic forces. It is possible that coating agents such as alcohols, glycols, polyols, vegetable oils, and mineral oils, which are applied to the particle surfaces in filter beds or packs, will aid in applying the Nanoparticle.

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