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HEPA filters are an integral part of biological safety cabinets, providing a sterile work environment and protecting people from exposure to infectious or allergenic agents. Looking through an advertising brochure recently, I came across the term High Efficiency Particle Arrestor used to refer to HEPA filters.

According to the NSF International Standard 49, the term used is High Efficiency Particulate Air (HEPA) filter which is described as a throwaway, extended/pleated medium, dry-type filter with rigid casing enclosing the full depth of the pleats and minimum particulate removal of 99.97% for thermally generated monodisperse dioctylphthalate (DOP) smoke particles or equivalent with a diameter of 0.3 microns.

The VNR Dictionary of Environmental Health and Safety (Lisella, 1994) also defines HEPA filters as high-efficiency particulate air filters but states that they are also known as high-efficiency particulate arrestor filters and high-efficiency particulate absolute filters.

HEPA filters are rated 99.99% efficient on removal of all particulate matter 0.3 microns, with greater efficiency on larger and/or smaller particles. The word particulate is an adjective defined as “of, pertaining to, or formed of separate particles.”

The phrase “particulate air” is somewhat strange nomenclature. My suggestion is that high-efficiency particle arrestor is more realistic and should become the general term used to define HEPA.

Reference