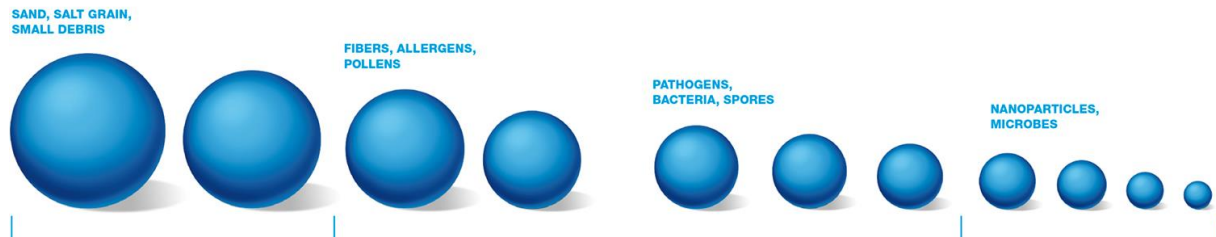


Contamination is a major and growing concern in cleanrooms, critical areas and controlled environments, from facilities for pharmaceutical, automotive and semiconductor manufacturing to food processing units and data storage centers. Although contamination from foot, wheel and airborne particles is often dismissed as simply 'dust' or 'dirt', the dangers it poses can be devastating. Contamination in a critical environment can have a major impact on quality, product yield, effectiveness and profitability.



PARTICLES

The visible and invisible enemy

Particulate contaminants in critical areas are known to adversely affect quality, product yield, operational effectiveness and profitability. Particles can be viable or non-viable, made from different materials, come from different places and travel large distances

Particles outside the critical area can also be a potential problem, especially the small, light, invisible particles. Even fairly large particles that have settled on the floor are easily crushed into very small particles and redistributed back into the air. These airborne particles then get transferred into the critical area where they present a potential hazard.

There are two main types of particle contamination:

External

Gross atmospheric contamination, which infiltrates your facility.

Internal

Humans can generate 5-10 million skin, hair and dirt, and clothing particles every minute.

FINE PARTICLES

Key properties of fine particles:

- They move with the air in which they are suspended.

- Due to gravity they settle out of the air slowly and can remain airborne for long periods of time.
- As they settle, they risk contacting and contaminating critical products and processes.
- The small, light, particles (<5um) normally invisible to the naked eye are commonly called Airborne Molecular Contaminants (AMCs) or Ultra Fine Particles (UFP's). They can become suspended for hours in the surrounding environment where they spread quickly, polluting the atmosphere.
- Unseen airborne allergens such as pollen, mold spores and dust mites, which float in the air and are inhaled. Pollen has been found 400 miles out to sea and two miles up in the air.
- A 1-micron particle may take as long as 15 hours to settle without movement. Whether the environment in which you operate is industrial, controlled, critical or sterile, Dycem contamination control mats and flooring are proven to reduce particle counts by up to 99.9%.