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(54) Title: MINIENVIRONMENT FOR MATERIAL HANDLING

(57) Abstract

A minienvironment (100) provides a cleanroom-type environment by maintaining an ultra-filtered clean-air material handling area (120) to minimize or eliminate the exposure of materials to harmful microcontaminants. The minienvironment includes an air flow generator assembly (136) for directing air external to the minienvironment through a filter assembly into the material handling area. A diffuser (140) redirects this filtered air flow over the material handling area in more than one direction to minimize or eliminate the exposure of any surfaces of materials in the handling area to harmful microcontaminants. The resulting continual outward flow of ultra-filtered air over this handling area prevents harmful microcontaminants in the air external to the minienvironment from directly entering the handling area and flushes out any harmful microcontaminant generated within the handling area. The minienvironment may also be easily linked and configured to form an assembly line for product manufacture and assembly where materials may be passed from one handling area to another.

