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3.5 General particle analysis3.6 Measurements according to US Federal Standard 209 E; 3.7 Measurement of hygienic parameters in a cleanroom; 3.8 Microbiological monitoring of air; 3.9 Active sampling; 3.9.1 The Andersen Sampler; 3.9.2 The Reuter Centrifugal Sampler; 3.9.3 The Slit Sampler; 3.10 Passive sampling; 3.11 Sampling surfaces in cleanrooms and clean zones; 3.12 Conclusions; 4 Cleanrooms and clean zones; 4.1 Introduction; 4.2 Defimition of a cleanroom; 4.3 Classes of cleanroom; 4.4 Occupancy states; 4.5 The meaning of the cleanroom classification; 4.6 US Federal Standard 209 E
4.7 British Standard 52954.8 IS0 >209'; 4.9 Classification of airborne particles according to IS0 14644-1; 4.10 Cleanliness testing within cleanrooms; 4.10.1 Preparations for measurements; 4.10.2 Measurement and evaluation; 4.10.3 Reporting; 4.10.4 Control program; 4.11 Classification of pharmaceutical cleanrooms; 4.11.1 Factors determining the cleanliness of a cleanroom; 4.12 Different types of cleanrooms; 4.12.1 Conventionally-venulated cleanrooms; 4.12.2 Unidirectional flow cleanrooms; 4.12.3 Airflow and air quantity; 4.13 Cleanrooms and clean zones; 4.14 Working in clean zones
4.14.1 Working in deanroonis and clean zones4.14.2 Maintenance and safety; 4.14.3 Systems for cleanroom production; 4.15 Conclusions; 5 Cleaning and decontamination; 5.1 Introduction; 5.2 The purpose of cleaning; 5.3 Standards and practices; 5.4 Cleaning; 5.4.1 Preventive cleaning; 5.4.2 Active cleaning; 5.5 Cleaning responsibility; 5.6 Classification of surface cleanliness; 5.7 Basic cleaning; 5.8 Cleaning program; 5.9 Control of cleaning methods; 5.10 Cleaning techniques; 5.11 Cleaning methods; 5.11.1 Dry methods; 5.11.2 Wet cleaning methods; 5.12 Cleaning Solution; 5.13 The Zinner circle
5.14 Elimination of microorganisms

Sommario/riassunto

Contamination control is being used by more and more industries where the highest level of cleanliness and hygiene is of vital importance.This book covers the basic principles of contamination control and cleanroom technology from a holistic point of view. It deals with cleanliness and hygiene and their effects on the outcome of a process, reflecting the latest results from both scientific and practical points of view. The following topics are covered:contaminants and how they are measuredcleanrooms and clean zonescleaning and decontaminationcleanroom clothingthe impact