

Workpage WP PC: Production and Characterization

Lead: BfR

The main aim of WP PC is the definition and analysis of the specification for the sprayable formulation MNM dispersion and standardized textiles used as impaction plates.

The first objectives of WP PC are to coordinate the collaboration with the suppliers of MNM and textiles, to acquire the most appropriate products with controlled quality. The following task is then to provide formulations for the implementation of the MNM and to produce dispersions following strict protocols. A detailed description of the application procedures will be the basis for the measurements conducted in WP E. Concurrent, textiles will be produced exhibiting different surface modifications, which will be used as impaction plates for spraying processes in WP E. To obtain real data about the behaviour of the MNM, at least three types of textiles (cotton, polyester and cotton/polyester) will be acquired and treated. The textiles will be fully characterized and considered as standardized impaction plates to study and model the MNM fate. Besides other methods for characterization, ICP-MS operated in the so-called single particle mode (sp-ICP-MS) will be used as one of the most sensitive technologies for the detection of metal and metal oxide nanoparticles and to determine the particle number concentration and the size of the nanoparticles (ISO-NP TS 19590 – new project approved).