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Physico-chemical characterization of asbestos dust samples.

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Currently, about 6 000 mine dumps have been identified as abandoned and ownerless in South Africa. Some of the abandoned and ownerless operations have been mining asbestos commodity in Mpumalanga (MP), Limpopo (LP) and Northern Cape Provinces (NC). Asbestos mining started in the 1800s and was ceased in 1900's due to health risks associated with the inhalation of asbestos dust.

Despite the banning of the asbestos mining in South Africa, the effects of exposure to it are still being experienced. Un-rehabilitated asbestos mine dumps are major sources of fine asbestos dust being lifted into the air and inhaled.

Settling dust samples were collected at some sites in Mpumalanga from June to August 2015 using the American Standard Testing Method D1739 (1970). Both settling dust rates and morphological data such as sizes, shapes, lengths and diameters of individual asbestos dust particles or fibers are presented.

