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Mineralogical Definitions of Terms Relating to Naturally
Occuring Inorganic Fibers

asbestiform - mineral structured in the form of asbestos

asbestos - generic term for naturally-occurring inorganic hydrated silicates that, when processed separate into fibrils. Minerals defined as asbestos are the asbestiform varieties of the following; serpentine (chrysotile), riebeckite (crocidolite), cummingtonite (amosite), anthophyllite, tremolite, and actinolite.

fiber - for the purpose of this standard, fiber means naturally-occurring inorganic fiber.

fibril - a single crystal in the form of a fiber.

fibrous particulate - for the purpose of this standard, fibrous particulate designates fibers, fiber fragments and fiber agglomerates.

naturally-occurring inorganic fiber - form of mineral characterized by properties of flexibility and length-to-width ratio in the order of 100, composed of definite crystal unit cells oriented with respect to a specific axis.

Note 1 - The designated 100:1 aspect ratio is considered to represent a reasonable lower limit for naturally-occurring mineral fibers. Fibers of these dimensions can be broken into parts of fibers that may maintain their same surface properties and activities. Therefore fiber fragments may have to be evaluated for atmospheric monitoring purposes. However, attempting to define a fiber by its aspect ratio alone is inadequate since it is obvious that particles of non-fibrous mineral do not become fibers as their aspect ratio increases through comminution.

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