



September 10, 2026

Committee D22
Subcommittee D22.07 on Asbestos
Ballot Item: D22.07 (26-03)

RE: Negative Vote on Ballot Item: Classification of Elongate Amphibole Particles by Habit According to Dimensional Characteristics by Electron Microscopy WK92083

The following comments support a negative vote and provide a brief rationale for that vote.

Sections 2.3–2.4; 7.4.1; 8.2.1; 8.3.1. The standard excludes particles that NIOSH, OSHA, and EPA say must be counted.

The standard excludes any particle thinner than 0.05 μm from every calculation in the classification method. NIOSH has explained why that cutoff is a problem, and NIOSH's own methods count all high-aspect-ratio particles regardless of habit, since "these high aspect ratio particles may cause disease whether or not they are asbestiform." OSHA similarly notes that asbestos fibers can be as thin as 0.02 μm , and that thin fibers are already routinely undercounted. EPA's AHERA method (referenced in 2.3 of this proposal) counts structures down to 0.5 μm long provided they meet its aspect-ratio criteria. This standard's size window is narrower than all three, meaning a sample that would test positive for asbestos under NIOSH, OSHA, or AHERA counting rules could come out "non-asbestiform" here. Note 5 (2.4) amplifies this by directing labs to modify the counting criteria of "various standards" to fit this proposal's window.

Sections: 1.1–1.3; 4.5; 5.1–5.4. Questions on justification for new research method

It is not clear what additional research needs are addressed by this new method, and therefore this proposal undermines existing methods. The proposal itself acknowledges numerous published approaches for differentiating asbestiform and non-asbestiform amphiboles. The proposed standard instead converts particle length and width measurements into a sample-level "asbestiform" or "non-asbestiform" classification. This does not provide a clear research benefit, while creating a classification that can produce different results from established asbestos-counting methods and discard information about the individual particles in a sample.



Sections 1.6–1.7; 5.2. Disconnect between the stated purpose and the underlying research

The revised proposal emphasizes that the method is for research only and is not intended for toxicological, pathophysiological, or public-health interpretation. However, the developers' recent publications connect dimensional characteristics and amphibole habit with toxicological effects and mesothelioma potency. For example, [Korchevskiy and Wylie \(2025\)](#)¹ describe a dimensional classification approach alongside a model for mesothelioma potency and conclude that amphibole habit is predictive of biological behavior. The “research only” disclaimer is at odds with how the developers themselves have applied this approach. Moreover, the proposed method produces “ASBESTIFORM” and “NON-ASBESTIFORM” labels rather than reporting particle characteristics, and makes it easy for any lab to produce these labels themselves by pointing them to a free online calculator (section 10.4).

Sections 1.3–1.4.2; 5.3; 8.5.3–8.5.4; 9.1–9.4; 11.1. Concern with assigning a binary classification to heterogeneous samples

The revised proposal recognizes that environmental samples may contain both asbestiform and non-asbestiform components and adds provisions for “mixed” samples. However, it still permits some mixed samples to receive a binary “asbestiform” or “non-asbestiform” classification, rather than reporting the different morphological components separately. This is a problem because a sample-level classification can obscure the presence of asbestiform fibers within a mixture. The proposal's own mixed-sample example (section 11.3) reports that a mixture of 50 crocidolite fibers among 500 riebeckite particles was classified as non-asbestiform in 1.8% of cases and left unclassified in another 26.9% of cases. The revised method can therefore produce a “non-asbestiform” result even when asbestiform fibers are actually present, resulting in a loss of information important for exposure characterization.

In conclusion, the revised method fails to fix the issues of the initial proposal and I urge the subcommittee and the main committee to vote WK92083 down.

Submitted respectfully,

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¹ Korchevskiy, A. A., & Wylie, A. G. (2025). Habit of elongate amphibole particles as a predictor of mesothelial carcinogenicity. *Toxicology reports*, 14, 101908. <https://doi.org/10.1016/j.toxrep.2025.101908>