

IARC's Latest Classifications Could Lead to Two Proposition 65 Listings

IARC, CHEMICALS OF INTEREST, OEHHA

By ROGER PEARSON, July 24, 2017

The International Agency for Research on Cancer (IARC) has announced its most recent classifications of substances with respect to their carcinogenic potential, **Volume 111 (2017), Some Nanomaterials and Some Fibres¹⁾**. Of the six new classifications two of them could lead to listing of the chemicals as carcinogens under California's Proposition 65.

IARC is part of the World Health Organization. It forms working groups of scientists to evaluate substances that are suspect carcinogens and then publishes the results in the IARC Monograph series. Since 1971 more than 900 substances have been evaluated. Each of those substances has been placed into one of the following classifications:

- Carcinogenic to Humans (Group 1)
- Probably Carcinogenic to Humans (Group 2A)
- Possibly Carcinogenic to Humans (Group 2B)
- Not Classifiable as to Its Carcinogenicity to Humans (Group 3)
- Probably Not Carcinogenic to Humans (Group 4).

The latest IARC classifications are as follows:

- Carbon nanotubes, multiwalled MWCNT-7 (Group 2B)
- Carbon nanotubes, multiwalled other than MWCNT-7 (Group 3)
- Carbon nanotubes, single-walled (Group 3)
- Silicon carbide, fibrous (Group 2B)
- Silicon carbide whiskers (Group 2A)
- Fluoro-edenite fibrous amphibole (Group 1).

California's Proposition 65 requires the Office of Environmental Health Hazard Assessment (OEHHA) to list as a carcinogen any substance classified by IARC in Group 1 and in Group 2A with sufficient evidence of carcinogenicity in animals. Thus, the latest IARC classifications could lead to the listing of:

- Silicon carbide whiskers (if sufficient animal evidence exists), which are very high modulus rigid rod nanotubes. They are used in high performance ceramic cutting tools and wear parts to dramatically enhance fracture toughness, abrasion and wear resistance, and dimensional stability
- Fluoro-edenite fibrous amphibole, which occurs naturally in the volcanic products of the Monte Calvario locality of Biancavilla on the flanks of Mount Etna, Sicily, Italy, and is found in the cavities of benmoreitic lava metasomatized by hot fluids rich in fluorine. Exposure to fluoro-edenite mainly occurs via inhalation and ingestion.

Resources for this article

1. Volume 111 (2017), Some Nanomaterials and Some Fibres

<http://monographs.iarc.fr/ENG/Monographs/vol111/index.php>