

Esposizione a fibre minerali artificiali in edifici pubblici

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KEY WORDS

Man-made mineral fiber; office building; indoor exposure; fiber diameter

SUMMARY

«Man-made mineral fiber exposure in office buildings». *Man-made mineral fibers are widely used as asbestos substitutes in many application fields. Therefore toxicology studies and indoor pollution surveys, related to man-made mineral fibers, are becoming very important. Several surveys were made in office buildings where the main source of indoor pollution was the dispersion of man-made mineral fibers contained in the insulation materials (under-ceiling panels, partitions and material used in air-conditioning installations). Samples of the insulation materials were taken and analyzed by phase contrast optical microscopy and scanning electron microscopy equipped with energy-dispersive X-ray analysis. For some samples the fiber diameter measurements were made and the related statistical parameters were calculated. The measured airborne fiber concentrations showed non relevant man-made mineral fiber dispersion in the environment. The relative exposure limits and regulations in force are discussed.*

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