

TYPICAL OSHA SAMPLING DATA SHEET

Substance:

Asbestos.

Standard: 29 CFR 1910.63a(b), (1) and (3) of June 7, 1972

8-hour time-weighted average: 5 fibers, longer than 5 micrometers, per cubic centimeter of air.

Ceiling concentration: 10 fibers, longer than 5 micrometers, per cubic centimeter of air.

Analytical Method:

Fibers counted at 400-450 Magnification, using phase contrast illumination, with sample mounted in high-viscosity solution of membrane filter material.

Sampling Equipment:

Personal sampling pump plus Millipore type AA Filter (37mm, 0.8u pore size).
Face cap is removed and filter used open face during sampling.
Sample rate: 2 liters per minute.

Sample Size:

Minimum period of 15 minutes for evaluation of ceiling limit. Several samples of up to 4 hours for evaluation of 8-hour average. Samples with a visible deposit may be too heavy to count. Compare with a clean filter. Heavy concentration of visible dust in the air (100-500 fibers/cc) may require short sampling periods of only 5 minutes, or less.

Blanks:

With each batch of samples submit two filters which are subjected to exactly the same handling as for the samples except that no air is drawn through them. Label these as blanks.

Shipping:

The cassettes in which the samples are collected should be shipped in a suitable container, designated to prevent damage in transit.

Formula used for Limits:

$$E = \frac{C_1 T_1 + C_2 T_2 + \dots + C_n T_n}{8}$$

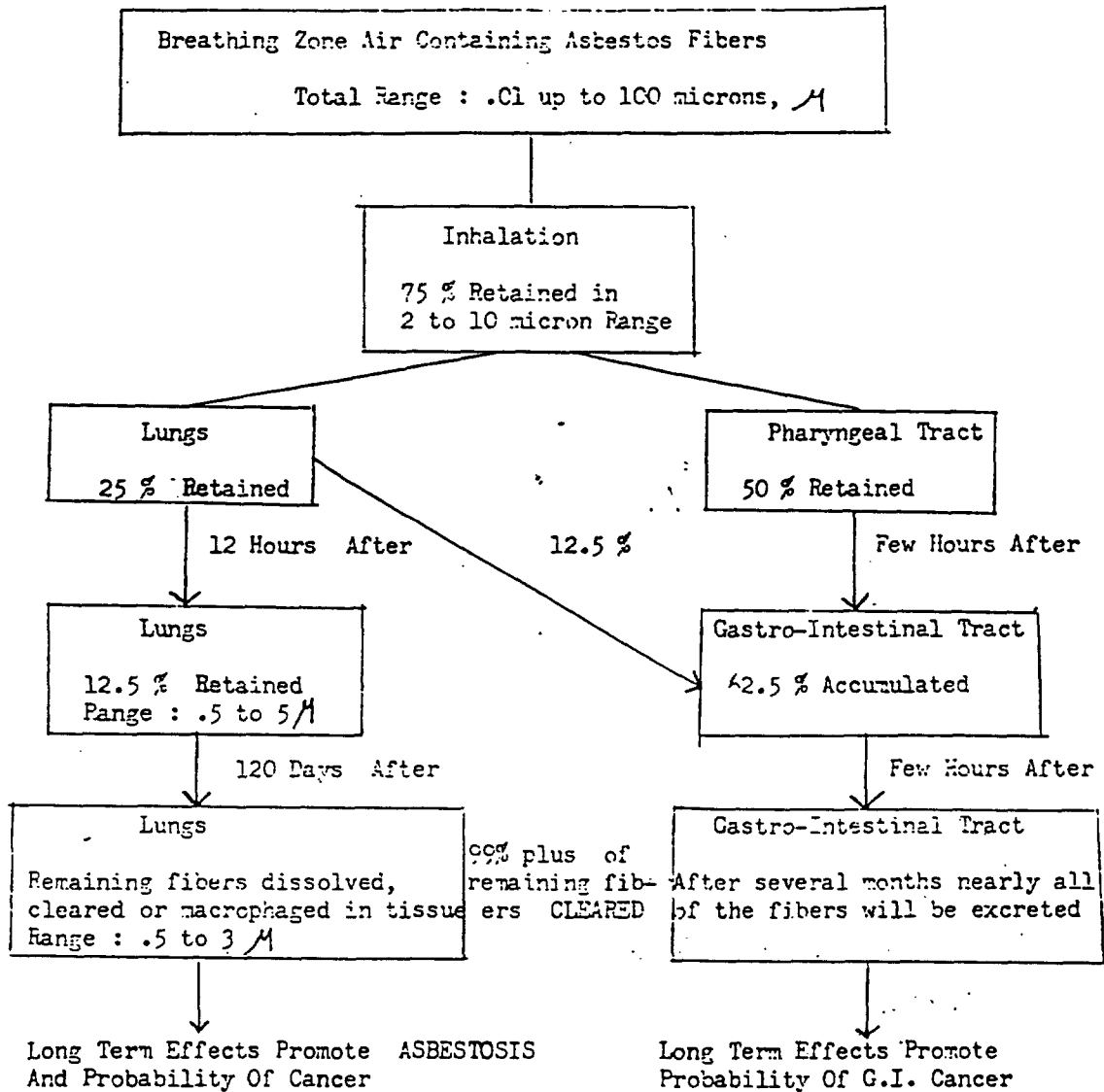
E=equivalent exposure for the 8-hour workshift.

C₁=fiber concentration for the period T₁

T₁=time in hours at concentration C₁

n= a series of numbered samples and exposure times.

PATH OF INHALED ASBESTOS FIBER



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