

OFFICIAL PUBLICATION

Dangerous Working Materials

Federation

Conclusions of the Commission for Dangerous Working Materials

Publication of the BMA, Mar. 19, 1975 (BMA = Bundes Minister für Arbeit ? = Federal Minister of Labor ?) (The numbers can not be read clearly on the translators' copy)

Technically Set Concentration (TRK) for Vinyl Chloride

A value of 5 ppm was established as the technically set concentration for vinyl chloride on 1/7/1975. The TRK value is to be understood as a yearly mean value. For a period of one hour the mean value may not exceed three times the TRK value.

This TRK value applies particularly to work areas such as:

- a) The manufacture, recovery, storage, drawing off, transportation and use of vinyl chloride monomer.
- b) The conversion of vinyl chloride into raw vinyl chloride polymer (e.g. PVC manufacture)
- c) In connection with raw vinyl chloride polymers and PVC processing.

For existing plants for conversion of vinyl chloride into raw vinyl chloride polymer (e.g. PVC manufacture), a TRK value of 10 ppm was established. As a transition arrangement for these plants, a value of 20 ppm is to be allowed until 1/7/1976.

By 1/1/1977, the TRK values for vinyl chloride will be examined and adapted to the state of technical development according to the newest occupational medical knowledge.

Reasons

The reason for fixing the TRK values¹, such as the yearly mean value, was that vinyl chloride, from the occupational medical toxicological viewpoint, is currently considered as a harmful material with a primary chronic mode of action. Therefore, an average work week of up to 45 hours is to be the basis for working under this long term average value for a period of a year. With the established average concentration of three times the TRK value for a one hour period, a limit is placed on the peak load. In addition, the natural measure of deviation of the harmful material concentrations is carried out by calculation².

The fixing of the level of the TRK values was governed by:

- a) The results of processing and ventilation technical preventive measures already resorted to, with inclusion of those which are technically attainable in the near future.

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b) The possibilities of analytically determining and recording the concentration of vinyl chloride in the region of the TRK values in order to monitor.

c) Drawing on the former occupational medical knowledge of the proposed TRK value so the risk of an injury to health in comparison to the former working conditions is lessened.

1 General Definition: Technische Richtkonzentration für gefährliche Arbeitsstoffe. (Technically Set Concentration for Dangerous Working Materials). Arbeitsschutz (1974), No. 5, pp. 169/170.

2 Technical Regulation: "Messplanung, statistische Beurteilung" (Measurement Design, Statistical Evaluation) (in preparation), together with "Empfehlungen zur Messung und Beurteilung von gesundheitsgefährlichen Stäuben" (Recommendations on Measurement and Evaluation of Health Hazardous Dusts) Staub—Reinhalt. Luft (1973) No. 1, p.1/3, as well as Coenen, W.: "Messung und Beurteilung der Konzentration gesundheitsschädlicher, insbesondere silikogenen Stäube an Arbeitsplätzen der obertägigen Industrie" (Measurement and Evaluation of the Concentration of Health Hazardous, Especially Silica Containing, Dusts in Work Areas of Industry) Staub—Reinhalt. Luft 31 (1971) No. 12, pp. (can not read page numbers clearly on the copy).

3 VC/PVC: Massnahmen zum Gesundheitsschutz (Brochure) (VC/PVC: Measures for Health Protection (brochure)) Publisher: Verband Kunststoffherzeugender Industrie e.v., Frankfurt (1974)

Translated by Willard P. and Katherine Tyler, May 6, 1975

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