

PCB EXPOSURE CONTROL

1. PREMISE

Current data indicates that PCB type materials may be more hazardous to working personnel than had previously been considered. Based on these facts, the control of exposure of workers where PCB's are manufactured or used should be re-examined and made more restrictive. Currently the American Conference of Governmental Industrial Hygienists (ACGIH) shows threshold limit values for chlorodiphenyl (42% chlorine) (AROCOLOR 1254) of 0.5 mg/M³.

The two routes of entry of importance in PCB manufacture and use are vapor inhalation and skin absorption. Very limited analysis in the AROCOLOR department indicates that the airborne concentrations are below these numbers. Although there is no evidence that skin absorption presents a significant hazard, it is probable that skin exposure does occur.

2. RECOMMENDED METHODS OF CONTROL

A. Vapor Inhalation

Vapor inhalation is a problem only when AROCOLOR is heated above ambient temperature. Where vapor exposure is possible, air supplied respiratory protection must be worn. An airborne control limit for all PCB vapor exposure must be set as low as is practicable and certainly below the standard for PCB with the lowest TLV currently listed in 29 CFR 1910.93 which is chlorodiphenyl (54% chlorine) (AROCOLOR 1254). Routine air monitoring must be conducted.

B. Skin

Any operation, particularly maintenance operations, where liquid PCB's or PCB mists can come in contact with the skin, skin protection including gloves and suitable impervious clothing must be used. Where heated AROCOLOR is present resulting in vapor exposure, air supplied respiratory equipment and impervious clothing both must be used. For example, in maintenance work on a chlorinator that has been drained but is still hot, air supplied respiratory protection and impervious clothing should both be used.

C. Exposure Registry

An exposure registry must be established on all PCB workers. All air sampling data must be recorded along with all appropriate health information. This registry would be a composite, therefore, of all medical and health data and all airborne exposure data. This registry should be so constructed that each individual employee can have available to him all data that pertains to him for examination or transfer to any subsequent employer.

D. Environmental Contamination

We would recommend that all means be exercised, either through engineering changes or through work practice changes to minimize environmental releases, either by air water or through solid residues.

MONS 045855