PCB-Microbes

Monsanto

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FROM (NAME & LOCATION) R. E. Keller - T1B

DATE : November 22, 1977

SUBJECT :

REFERENCE :

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An examination of the Japanese paper on PCB biodegradation indicates the work is of good quality. We question, however, whether the results obtained offer any significant hope for cleaning up the PCBs in the environment. Their data basically confirm our earlier activated sludge work on the commercial Aroclor mixtures. They observed very little degradation for the tetra- and pentachlorobiphenyl isomers with their specific cultures. The more highly chlorinated biphenyl homologs are precisely the ones which tend to show long-term persistence in the environment. It is also hard to visualize the use of such a specific aerobic culture for a widely distributed pollutant which is concentrated in the generally anaerobic sediments of lakes and rivers. If, as the data indicates, the cultures show only significant degradation of the lower chlorinated biphenyl, it is also questionable whether the use of these cultures under aerobic conditions for waste stream treatment has much merit.

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/omc

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