SUBJECT: MUTAGENICITY OF DIQUAT

DATE: 18 Sept. 84

FROM: BRUCE MOLHOLT, Ph.D. (3HW14)
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TO: LARRY MILLER (3HW13)
Acting Chief, TSCA/FIFRA Enforcement

I have spoken with Richard Mountford, Product Manager responsible for registration of products containing Diquat at EPA Headquarters as suggested by John W. Smith.

Mr. Mountford indicated that lifting the ban of 14 days which Chevron had first voluntarily indicated was not accomplished on the basis of any further testing by EPA. He and his staff felt that dilution of Diquat in aquatic areas from the applied levels of 0.1-1.5 ppm sufficiently lessened human risk to warrant removal of the 14 day ban on Chevron's Diquat label.

On the basis of my literature review (copy enclosed) I conclude that at 1.5 ppm (the upper limit of Diquat application) sufficient concern for human health exists to warrant further consideration by EPA in the way Diquat spraying was handled during this past summer. At this concentration, Diquat measurably impairs DNA and hence is potentially genotoxic. Furthermore, if persons are in recreational waters at the time of spraying, they are potentially exposed to much higher Diquat concentrations through direct contact.

I still am not impressed by the basis from which EPA allowed Chevron to remove its 14 day ban on swimming after Diquat spraying, which basis seems to be solely Chevron's contention that to be singled out was unfair economically. Undoubtedly it is too late for EPA to re-institute this ban for Chevron and other manufacturers of Diquat. At least, however, EPA should issue a directive to Diquat sprayers asking them to forewarn persons of imminent spraying and suggesting that they remain out of the water during actual application of the herbicide.

I would appreciate your passing this information and the accompanying memorandum along to Richard Mountford.