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Document Processing Center (7407M)
EPA East - Room 6428 Attn: Section 8(e)
Office of Pollution Prevention and Toxics
US EPA
1200 Pennsylvania Ave., NW
Washington, DC 20460-0001

Contaminant CBI

Re: TSCA 8(e) SUPPLEMENTAL NOTICE ON: Perfluorooctanesulfonate
Docket Nos. 8EHQ-1180-374

Dear Sir:

3M has received draft reports of reproduction studies of northern bobwhite and mallard and Perfluorooctanesulfonate (PFOS) from Wildlife International, LTD., indicating effects as described below. The studies were done according to FIFRA Guideline 71-4 and OECD Guideline 206 and followed a pilot range-finding study that was deemed inconclusive as to treatment-related reproductive effects. The studies were based on 21-week feedings containing PFOS. Draft histopathology results are available at this time, but analytical results of serum and liver levels will not be obtained for at least two months. Therefore, it is not yet possible to correlate the findings described herein with present levels of PFOS in wildlife.

I. Mallard Dietary Study Results:

16 pairs of ducks were exposed via feed for 21 weeks; hatchlings were reared without exposure for 2 weeks. The 50ppm feed level group was terminated at week 7 due to overt signs of toxicity. The 150ppm feed level group was dropped to 20ppm at week 3, but terminated at week 5 due to overt signs of toxicity. The 10ppm feed level group showed no difference in reproductive performance from the control, no treatment-related mortalities (adult and young), no overt signs of toxicity, no body weight or liver weight differences from the control, no difference in degeneration/atrophy of seminiferous tubules from the control, no difference in eggshell thickness from the control, no feed consumption differences from the control and no offspring differences from the control offspring. However, reduced testes size was noted in 2 control males and 7 treated males. Histopathology showed 1 control and 4 treated males had decreased spermatogenesis.

The pathology report noted that the reduced testicular size, with or without microscopic evidence of decreased spermatogenesis, is a feature most consistent with early post-

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reproductive phase regressions, a normal physiological phenomenon. The degeneration/atrophy noted in the control and treated adult birds may simply represent a later stage of this normal change. However, the increased incidence of reduced size suggests that treatment may have accelerated the normal post-reproductive phase regression.

II. Northern Bobwhite Quail

16 pairs of northern bobwhite quail were exposed for 21 weeks; hatchlings were reared without exposure for 2 weeks. The 50ppm feed level group was terminated at week 7 due to overt signs of toxicity. The 150ppm feed level group was dropped to 20ppm at week 3 and terminated after week 4 due to overt signs of toxicity. The 10ppm feed level group showed no adult treatment-related mortality, no body weight differences from control, no feed consumption differences from control, no differences in eggshell thickness from the control, and no differences in spermatogenesis or morphology of testes from control. However, there were treatment-related effects:

- reduced reaction to stimuli, ruffled appearance and lethargy (adults)
 - female liver weights were higher than controls (adults)
 - offspring survival rate was affected (fewer number of 14-day survivors per eggs set)
 - necropsy indicated reduced testes size in 1 control male and 7 treated males (adults)
- No other reproductive end points were affected.

The pathology report noted that the reduced testicular size, with or without microscopic evidence of decreased spermatogenesis, is a feature most consistent with early post-reproductive phase regressions, a normal physiological phenomenon. The degeneration/atrophy noted in the control and treated adult birds may simply represent a later stage of this normal change. However, the increased incidence of reduced size suggests that treatment may have accelerated the normal post-reproductive phase regression.

The final GLP studies and the data from the pilot study will be submitted to EPA, along with the analytical reports on sera and liver concentrations of PFOS as soon as they are available.

For further information, please contact me at 651-778-4331.

Sincerely,



Katherine E. Reed

Staff Vice President, Environmental Technology and Safety Services