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DRAFT

ISSUES PAPER FOR ISOXABEN HOME LAWN USE / CHILD RISK ASSESSMENT

- * Registrant's exposure assessment was NOT based on chemical specific data. NDEB rejected the use of surrogate chemical data for estimating post-application exposure and instead assumed uniform coverage of the home lawn. Upon receipt of acceptable chemical specific turf foliar dissipation data (reflecting different grass varieties at several geographically diverse sites), NDEB can refine the exposure estimates to more closely represent the actual exposure level.
- * The degree of conservativeness of the assumptions utilized in this exposure estimation to convert lawn FDRs to dermal exposure estimates can not be determined without further research. Previous exposure estimates provided by NDEB for children playing on home lawns treated with other pesticides have been estimated utilizing either of two **unsubstantiated** methods.

In the first method, contact will occur over the entire body surface area. Any dermal contact will result in a quantitative transfer of residues from the foliage to the surface of the skin. This method may not be conservative since a child could be exposed to much higher levels if dermal absorption is rapid as he/she contacts different areas of the treated lawn.

The second method of estimating dermal exposure is to use a modification of the relationship between dermal exposure by fruit harvesters and FDR developed by Zweig, et al., normalized by using the ratio of body surface area for children versus adults. **Both methods predict similar levels of exposure.**

- * Exposure is assumed to occur daily for 21 days after each application. In the absence of foliar residue data, NDEB has assumed both that uniform coverage of the home lawn will occur and that foliar residues will not dissipate during this exposure period; after 21 days, residue levels will dissipate to a level approaching zero due to watering-in (note: according to the registrant, a worst-case half-life of 87 days has been determined, thus, residue levels would not be expected to significantly decline during the first 21 days after application; however, according to the label, "Gallery must be activated within 21-days of application to be fully effective").
- * The method used to estimate oral exposure is also unsubstantiated and does NOT take into account exposure due to the ingestion of contaminated soil.

- * **BOTTOM LINE:** Average daily exposure (dermal corrected for skin absorption of 11% = 8.6×10^{-3} mg/kg/d + oral = 3.4×10^{-3} mg/kg/d) = 0.012 mg/kg/d

Cancer risk = 3×10^{-5} !!!!!!!!!!!!!!!!!!!!!!!!!!!!!