UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PREVENTION, PESTICIDES, AND TOXIC SUBSTANCES
WASHINGTON, D.C. 20460

December 3, 2001

MEMORANDUM

SUBJECT: **Sodium Acifluorfen:** Response to Registrant Comments [Case # 819467, PC Code 114402, DP Barcode D278493]

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The following is the response to the Occupational and Non-Occupational Exposure and Risk (ORE) comments submitted by the registrant (BASF) regarding the re-registration of acifluorfen. These comments were submitted following the phase 3 review period. The ORE chapter for acifluorfen has been revised to address these comments.

BASF Comments on Mixer/Loader Applicator Exposure and Risk

The agency concurs with the rationale discussed in paragraph #1 of these comments regarding the use of label required PPE which basically consists of Single Layer PPE without respirators. The Agency has revised the Acifluorfen ORE Chapter of 3/17/01 to include additional calculations for worker risks using label required PPE These calculations also include the revised Q_1* of 0.0127 mg/kg/day.

For Comment #2, BASF states that "the probability of an aerial applicator treating 1200 Acres/day at the next to maximum rate for 30 days/year for a 35 year lifetime is extremely unlikely". The agency used 350 Acres/day and 20 days/year in its assessment. The rate used by the Agency (0.250 lb/ai/acre) was given in the Use Closure Memo as the average rate for Blazer used on peanuts and soybeans. This rate is also given on the Table 1 of the Ultra Blazer label as the middle application rate of 1 pint per acre for the control of 30 broadleaf weed species in peanuts and soybeans. The maximum application rate of 1.5 pints per acre controls 55 broadleaf weed species as well as 6 annual grasses.

The Quantitative Usage Analysis (QUA) report of 8/9/98 indicates that the average application rates (lb ai/acre) were 0.3 for peanuts, 0.2 for soybeans and 0.2 for rice. The percent crop treated was 11% for peanuts, 9% for soybeans and 4% for rice. The 2000 National Agricultural Statistics Service (NASS) data indicated that the average application rates were 0.19 for soybeans and 0.18 for rice. The percent crop treated was 3% for soybeans and 4% for rice. Although the percent crop treated data is not currently quantitatively factored into the estimates of occupational cancer risks, it can be used to characterize the risk, particularly in the case of soybeans where the use is declining as Roundup Ready soybeans become more widely used.
Given the low percent crop treated, the cancer risk calculated by the Agency is conservative, and the rationale of the BASF comments has merit.

BASF Comments on Residential Exposure and Risk

Comments #3 and #4 regarding Residential Exposure and Risk deal with the choice of inhalation unit exposure values and its effect on the MOE. A more relevant study that involved the application of carbaryl to home gardens using a RTU trigger sprayer (MRID 444598-01) has recently become available and was used to revise the unit exposure values. The geometric mean unit exposures for this study are 53 mg/lb ai handled for dermal exposure and 0.067 ug/lb ai handled for inhalation exposures. The MOE for the trigger sprayer scenario is 19,000 and the cancer risk is 4.5×10^{-8}. The revised Q_1^* of 0.0127 mg/kg/day was used to recalculate the cancer risk. The calculations and details regarding the study are included in Appendix D of the revised ORE Chapter.