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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 9 1991

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

SUBJECT: EPA File No. 55947-UG. Nitrosamine analysis of Sandoz's BARRICADE® 65 WG Herbicide [prodiamine] product. MRID 420547-01. D169925. CBRS 8739.

FROM: Kenneth W. Dockter, Chemist *Kenneth W. Dockter*
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THRU: A.R. Rathman, Section Head *ARR*
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TO: Joanne I. Miller / Eugene Wilson, PM Team 23
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Sandoz Crop Protection Corporation has submitted a nitrosamine analysis for 55947-UG containing the herbicide prodiamine [N^3, N^3 -di-n-propyl-2,4-dinitro-6-(trifluoromethyl)-m-phenylenediamine]. A 9/91 label and a CSF dated 1/25/90 for 55947-UG; BARRICADE® 65 WG Herbicide, a.k.a SAN 745H 65 WG 410 were provided. Also contained in the package as received by CBRS was a 9/91 label for BARRICADE® 65WG Herbicide in Water Soluble Packs; EPA Reg. No. 55947-RUG.

The analysis was conducted on 10/12/91 in-house using Sandoz analytical method No. T-0307, dated 11/20/86, for N-nitrosodipropylamine (NDPA) in proposed product 55947-UG. Volatile nitrosamines were distilled from a 3.51-g sample of batch # 5176-80 produced on 3/7/91 using an ascorbate/mineral oil vacuum distillation method, and the distillate collected in a cold trap. Sodium ascorbate had been added to the sample prior to distillation to inhibit further nitrosamine formation. After the trap was warmed to room temperature, the aqueous phase was extracted with dichloromethane (DCM). The DCM extract was made to a final volume of 10 ml with DCM. A 4- μ L aliquot of the extract was analyzed by GC-TEA. The sample was spiked with 0.1 μ g of N-nitrosodiethylamine. A recovery of 94.9% was obtained.

We conclude that the method for NDPA is valid with a detection limit of 0.04 ppm. That contaminant is not detectable

in product 55947-UG; BARRICADE® 65 WG Herbicide. We do not object to registration of this product.

cc: K. Dockter (CBRS), Nitrosamines S.F., C. Furlow [PIB/FOD],
Circulation (7), RF.

RDI: AARathman:12/6/91:DFEdwards for EZager:12/9/91
H7509C:CBRS:CM#2:RM802:77886:KWDockter:edKd:12/9/91