

US EPA ARCHIVE DOCUMENT

PP# 3796



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

OCT 18 1995

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: PP#s 9F03796, 0F03860, 3F04238, 0F3890, 1H03950 and 4F04343. Glyphosate-trimesium (Formerly Known as Sulfosate) in or on Corn, Soybeans, Citrus Fruit, Grapes, Stone Fruit and the Nut Crop Group (Except Almonds). Results of Petition Method Validation (PMV). MRID# 432736-04. Chemical No 128501. Barcode D219866. CBTS# 16276.

FROM: G.F. Kramer, Ph.D., Chemist *[Signature]*
Tolerance Petition Section I
Chemistry Branch I, Tolerance Support
Health Effects Division (7509C)

THRU: F.B. Suhre, Acting Section Head *[Signature]*
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TO: Robert Taylor, Product Manager
Terri Stowe, Team 25 Reviewer
Registration Division (7505C)

Zeneca has submitted applications to establish the following tolerances for N-(phosphonomethyl)glycine as a result of application of the trimethylsulfonium salt (glyphosate-trimesium or Sulfonium, trimethyl- salt with N-(phosphonomethyl)glycine (1:1)): corn grain- 0.05 ppm; corn forage and fodder- 0.1 ppm; soybean seed- 2.0 ppm; soybean forage- 1.0 ppm; soybean hay- 3.0 ppm; citrus fruit- 0.5 ppm; stone fruit- 0.05 ppm; and the nut crop group (except almonds)- 0.05 ppm. CBTS has determined that the tolerances for corn and soybean RACs should be revised to: soybean forage (of which no more than 1.0 ppm is trimethylsulfonium) - 2.0 ppm; soybean hay (of which no more than 2.0 ppm is trimethylsulfonium) - 5.0 ppm; soybean seed (of which no more than 1.0 ppm is trimethylsulfonium) - 3.0 ppm; corn forage - 0.10 ppm; corn fodder (of which no more than 0.20 ppm is trimethylsulfonium) - 0.30 ppm; and corn grain (of which no more than 0.10 ppm is trimethylsulfonium) - 0.20 ppm (Memo, G. Kramer 4/4/95). Glyphosate-trimesium (the trimethylsulfonium salt of glyphosate) is

a 1:1 molar salt of N-(phosphonomethyl)glycine anion (PMG) and the trimethylsulfonium cation (TMS) and is formulated as Touchdown Herbicide.

On 6/6/95, CBTS requested that ACL perform a PMV on the following method for residues of TMS in crops:

Touchdown: Determination of Residues of the Trimethylsulfonium Cation in Agricultural Crops by Gas Chromatography. MRID# 432736-04

The results of the PMV and the TMV Pre-review are appended to this memorandum as Attachments 1 & 2.

Results

The average recovery in corn grain was $88.2 \pm 5.4\%$; in corn fodder, was $97.3 \pm 5.7\%$; in soybean seed, was $90.4 \pm 6.7\%$; in oranges, was $102 \pm 11.9\%$; and in pecans, was $105 \pm 3.3\%$. Two analysts can extract and clean-up six samples in 12 hours.

Conclusions

The recoveries of TMS are acceptable. The following comments were made by ACL in the TMV Pre-review (Memo, D. Wright, Jr. 6/15/95):

- 1) In Section 3.2.2, the notes pertaining to filtration of extracts should be removed as the extraction procedure for oily crops does not include a filtration step.
- 2) Section 3.3.5 should be revised to indicate that it is necessary to continue evacuation of the flask for 1-2 minutes during the second filtration.
- 3) Section 5 should clearly indicate that the analyst must use either a linear regression based on the square root of the response or closely match standard and sample response.

This method will be suitable for enforcement purposes once these revisions are incorporated.

Recommendation

The registrant should submit a revised version of the proposed analytical enforcement method as specified in conclusions 1-3.

Attachment 1- Memo, D. Swineford 9/14/95
Attachment 2- Memo, D. Wright, Jr. 6/15/95

cc (with Attachments): M. Clower (FDA, HFS-335)
cc (without Attachment): PP#s 9F03796, OF03860, OF3890, 1H03950, 3F04238, and
4F04343, S.F., Kramer, circ., R.F.
RDI: F.B. Suhre (10/10/95), M. Metzger (10/17/95), R.A. Loranger (10/10/95)
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