PMSD/ISB

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

FEB 13 1989

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: 89-DE-02. Section 18 Specific Exemption. Sethoxydim on Green Peas. No MRID #. DEB # 4902.

FROM: Leung Cheng, Chemist
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THRU: Francis Suhre, Acting Section Head
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TO: D. Stubbs/Jim Tompkins, PM Team 41
Emergency Response and Minor Use Section
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and

Toxicology Branch
Hazard Evaluation Division (TS-769C)

The Delaware Department of Agriculture has requested a Section 18 specific exemption for the use of Poast to control annual and perennial grasses in commercial green peas. The active ingredient is 2-(1-(ethoxyimino)butyl)-5-(2-(ethylthio)propyl)-3-hydroxy-2-cyclohexen-1-one or sethoxydim.

The proposed use would allow postemergent aerial or ground sprays at 0.19 lbs ai/A. A maximum of 2 applications per year is permitted. A preharvest interval of 15 days is also imposed.

Tolerances for the residues of sethoxydim and its metabolites containing the 2-cyclohexene-1-one moiety, calculated as sethoxydim, are established in or on various raw agricultural commodities including alfalfa forage and hay at 40.0 ppm; meat, meat by-products, and fat at 0.2 ppm, milk at 0.05 ppm, and eggs at 0.5 ppm [40 CFR 180.412].

The metabolic nature of sethoxydim in plants and animals is adequately understood. The residues to be regulated are the

parent compound and its metabolites containing the 2-cyclohexen-1-one moiety (88-MN-05, F. Suhre, 6/19/88).

No residue data have been submitted with this Section 18 request. However, residue data were included in previous Section 18 requests from NJ. Following single applications at 0.18, 0.44, and 0.90 lb ai/A and PHI's of 23 days, residues in peas (with pods) were <0.05, 0.42, and 0.76 ppm, respectively (87-MN-05, M. Metzger, 5/14/87).

On the basis of the above data, DEB estimates that residues of sethoxydim are not likely to exceed 1 ppm in green peas (with pods) as a result of the proposed use.

Analytical method # 30 (Method I), described in PAM II, is adequate for enforcement purposes.

Since the tolerances on alfalfa forage and hay (major cattle feed items) have been established at 40.0 ppm, the dietary contribution from sethoxydim-treated (pea) feed items is comparatively insignificant. DEB concludes that the established meat and milk tolerances are adequate to cover residues from the proposed use.

Peas may be fed up to 40% in poultry's diet. The dietary burden would be 0.4 ppm. Feeding study results discussed in M. Nelson's review of 7/23/82 in connection with PP2F2670 showed <0.05 ppm sethoxydim residues in poultry muscle resulting from a 10 ppm feeding level, <0.05 ppm in poultry liver (1.0 ppm level), and $\leq$ 0.05 ppm in eggs (1.0 ppm level). DEB concludes that the established tolerances on poultry and eggs will not be exceeded as a result of the proposed use.

CONCLUSIONS AND RECOMMENDATION

1. The residues to be regulated in this Section 18 request are the parent compound and its metabolites containing the 2-cyclohexen-1-one moiety.

2. A method is available for determining sethoxydim residues in peas resulting from this proposed use. The method is Method I (# 30) in PAM II.

3. Residues of sethoxydim are not likely to exceed 1 ppm in or on peas a result of the proposed use.

4. DEB concludes that the established sethoxydim tolerances in meat, milk, poultry, and eggs are adequate to cover the residues resulting from this proposed use.

5. Reference standards are available from the Pesticides and Industrial Chemicals Repository at RTP, NC.

TOX considerations permitting, DEB has no objections to this Section 18 request. An agreement should be made with FDA regarding the legal status of the treated peas in commerce.

cc:Circ, RF, Section 18 F, Cheng, S. Stanton (SACB), Schmitt (DEB deputy), PMSD/ISB
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