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REHey:rjj
7/21/66

Evaluation for Temporary Permit
for Tetrachloroisophthalonitrile
Application of July 8, 1966
by Diamond Alkali

Registration No. 677-Exp.

INTRODUCTION

The name of the product is Daconil 2787 Fungicide for Potatoes containing 75% Daconil.

On November 18, 1965, Robert Caswell reviewed this application on RR use and approved. Under new laws this use needs tolerance or temporary tolerance.

Diamond Alkali has petition FDA for a temporary tolerance of 1 ppm. in or on potatoes.

DIRECTIONS FOR USE

Apply 1 to 1 1/2 lbs./A (0.67 to 1.125 lbs.A/A), begin when plants are 6" high. Repeat at 7 to 10 day intervals throughout season to vine killing time. Under severe disease conditions, use 1 1/2 lbs./A and shorten intervals.

CONCLUSIONS AND RECOMMENDATION

We can grant this permit when FDA establishes a temporary tolerance.

REMay:sog 4/20/66

Evaluation for Temporary Permit
For Tetrachloroisophthalonitrile (Daconil)
Application of March 9, 1966,
By Diamond Alkali Company

Registration Number 677-Exp.-3 G

INTRODUCTION

This is a renewal of a previously accepted temporary permit. There are no data and no directions for use on the label.

There is a statement on the label that states, "Treated food or feed must not be used except for chemical analysis or as food for experimental animals." With this statement no data would be needed.

The name of the product is Daconil 2787 Fungicide 75% WP.

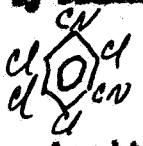
RECOMMENDATIONS

It is recommended that this permit be granted.

R No1.

RIEaswell:sog
11-18-65

Evaluation of Data to Support NR Registration
of Daconil 2787 on Potatoes
Submitted by Diamond Alkali 11/9/65



INTRODUCTION

Daconil 2787 is tetrachloroisophthalonitrile. The formulation is 75% WP. This is the first NR use submitted, but application has been made for "Torturf" a product for ornamentals. See memorandum of conference of November 9, 1965.

DIRECTIONS FOR USE

One to two pounds per acre in sufficient water. Start when plants are two to six inches high, repeat at 3 to 10 day intervals.

ANALYTICAL METHOD

A gas chromatographic method, with microcoulometric detector was used; it was said to have a sensitivity of 0.02 ppm. The potatoes were either surface extracted with methylene chloride, or sliced and blended with methylene chloride (total residue). Clean up is as described by Schuldt et al (Boyce Thompson Institute 21 No. 2) in a clean up for Dacthal. The DAC-2787 is eluted with 5% acetone in methylene chloride, evaporated made to volume in benzene, and an aliquot injected into the GC (6 ft. SE-30 column was used).

DATA

Data for potatoes treated with 1.0-2.0 lbs./100 gal, up to 12 applications. 100 gal./acre would correspond to the label dosage, up to 250 gal./acre may be sprayed.

No residues were detected on washed potatoes, three residues up to .05 ppm were found on unwashed potatoes.

Soil analyses: 22.6 ppm is reduced to 1.5 ppm and 36.9 ppm is reduced to 5.3 ppm in 36 days at 76° F. More rapid disappearance at higher temperature.

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Metabolism:

In the dog and rat, the compound is entirely excreted in the feces. About 90% as unchanged compound and some as a metabolite.

They have not found evidence for any of the potential metabolites in plants or soil. A thin layer chromatograph on treated potatoes and untreated potatoes showed no differences (but, the significance could not be judged because the sensitivity is not known).

Some raw data were submitted, poorly documented. The fortification level was 0.5 ppm, which is to inadequate (although the aliquots taken indicate that the method is sufficiently sensitive).

Additional raw data were submitted with letter of November 12, 1965. The fortification level was 0.05 ppm. Some of the chromatograms show a very strong background (checks and treated samples), but there was interference on only a few of the samples.

DISCUSSION AND CONCLUSION

The dosages on the label are 1 to 2 lbs./acre, the data are for 1 to 2 lbs./100 gallons, this corresponds to the dosage.

The potatoes may be washed before analysis; FDA instructions for sampling call for "removal of adhering soil by a light rinse in water."

RECOMMENDATION:

That this use be accepted for registration.