

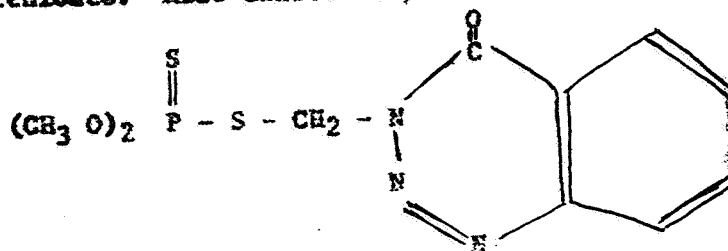
US EPA ARCHIVE DOCUMENT

JAShaughnessy:abs
February 3, 1970

Evaluation of Pesticide Petition No. 070934
for Ethyl Guthion on Cotton and Potatoes
Filed January 15, 1970, by Chemagro

INTRODUCTION

Chemical name is O,O-Diethyl S-[4-oxo-1,2,3-benzotriazin-3 (4H)-ylmethyl] phosphorodithioate. Also called ethyl Guthion and azinphos ethyl.



An old chemical, usually sold in formulations with (methyl) Guthion
as GUTHION M-E SC.

Asking tolerance of 0.1 ppm in cottonseed and potatoes.

Background These are NR uses. Previous petition 870633 was turned down by FDA because of toxicology, metabolic questions, analytical methods and residues.

Formulation is SC containing

11.1% Ethyl Guthion
11.1% Methyl Guthion
71.8% Pet. Dist
6.0% Inert

Only metabolite is the oxygen analog.

DIRECTIONS FOR USE

S. C.

Cotton	0.5 lb. Act Guthion/A
	0.5 lb. Act Ethyl Guthion/A
	7 day PHI Do not pasture, do not feed.
Potatoes	0.385 Lb. Act/A Guthion/A
	0.385 Lb. Act/A Ethyl Guthion
	14 day PHI

ANALYTICAL METHODS

Thermionic emission GLC and colorimetric method (previously accepted).
 GLC Does not measure the oxygen analog. Not necessary but is only 10%
 of parent. Alternate GLC method uses a different column. Colorimetric
 method measures the o-analog also.

DISCUSSION OF DATA

No data ^{here} ~~type~~ for potatoes. Previous petition states that this proposed
 use will ~~be~~ ^{less} than 0.1 ppm total residues in potatoes. (14 day
 3/8 lb. act ethyl and 3/8 lb. act methyl).

Cotton data show 0.05 ppm total residues (M and E) in undelinted
 cotton seed, (12 analyses). There are high residues in foliage
 and gin ~~seed~~, ^{seed} so we need the caution against feeding and grazing.
 Have data for up to 14 applications on cotton.

Rain data supplied storage stability data supplied. They ^{use} ~~use~~
 presently registered residues in cottonseed meal are generally 0.1
 ppm or less.

Soil persistence studies show that half life is something like 60 days.
 Some residues are found after a year 0.2 - 0.6 ppm. This is a
 borderline persistence question because 5 - 10% of the residues
 originally found in soil are still there after 1 year. We need more
 data on the environmental contamination possibilities. Mr. Ney has
 asked Chemagro for most of the studies outlined in C-72. If we get
 such information, we can decide if there is a definite problem.

CONCLUSION

The proposed tolerance is ~~reasonable~~ ^{reasonable}

We need environmental contamination data as outlined in C-72.

RECOMMENDATION

Favorable opinion.