

US EPA ARCHIVE DOCUMENT

(6) TOPIC: This study has information pertinent to discipline toxicology, topic metabolism. It relates to none of the Proposed Guidelines data requirements.

(7) CONCLUSION: The metabolism of trichlorfon in an in vitro system by rat brain homogenates was investigated. Four metabolites, three acidic and one nonacidic, were demonstrated. The acidic metabolites were identified as monodemethylated trichlorfon (O-methyl-2,2,2-trichloro-1-hydroxyethylphosphonate), monomethylphosphate, and the third one was suggested to be 2,2,2-trichloro-1-hydroxyethyl phosphonic acid. The nonacidic compound was not identified. Preliminary evidence indicated that the reaction of trichlorfon and acetylcholine esterase was a first-order reaction. Addition of acetylcholine to the in vitro system before the addition of trichlorfon largely prevented inhibition of acetylcholine esterase.

CORE CLASSIFICATION: Not applicable

(8) MATERIALS AND METHODS:

Test Substance:  $^{32}\text{P}$ -trichlorfon of specific activity 0.6 mCi/g, and nonlabeled trichlorfon were used. Both compounds were 98% pure. Source was not specified.

Organism: Rats were used in the metabolism studies.

No further information on the test animals was provided.

Experimental Procedure: Studies of both the metabolism of trichlorfon by rat brain homogenate and reaction kinetics