Releasable

DATA EVALUATION RECORD

TRICHLORFON

ACUTE TOXICITY

CITATION: DuBois KP. 1958. Potentiation of the toxicity of insecticidal organic phosphates. Am. Med. Assoc. Arch. Ind. Health 18:488-495.

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2 pages

DATA EVALUATION RECORD

STUDY TYPE: Acute intraperitoneal toxicity/synergism in rats.

CITATION: DuBois KP. 1958. Potentiation of the toxicity of insecticidal organic phosphates. Am. Med. Assoc. Arch. Ind. Health 18:488-495.

ACCESSION NUMBER: Not available.

MRID NUMBER: 00081198.

LABORATORY: Department of Pharmacology, University of Chicago, Illinois.

TEST MATERIAL: Trichlorfon (Dipterex, purity not specified).

PROTOCOL: Limited information was available on the materials and methods used. The potentiation of acute toxicity in pairs of insecticides (source and purity not specified) following intraperitoneal administration to groups of 20 female rats (age and strain not specified) at one-half of the LD_{50} dose of each compound was determined.

RESULTS: All 20 rats in groups receiving Malathion/EPN, Malathion/Dipterex, or Dipterex/Guthion died following dosing (interval not specified).

CONCLUSIONS:

The authors concluded that potentiation of acute toxicity was found in these three pairs of compounds following ip administration. The authors also cited previous subchronic feeding studies conducted with these chemicals in dogs, where only the Malathion/EPN combination showed potentiation. In studying the mechanism of potentiation, additional experiments were conducted with rats, and results indicated that EPN interferes with enzymatic detoxification of Malathion by inhibiting an esterase in liver and other tissues.

CORE CLASSIFICATION: Invalid.

The information presented on the experimental methods and results was limited. Therefore an evaluation of this study could not be made.