

US EPA ARCHIVE DOCUMENT

DATA EVALUATION RECORD

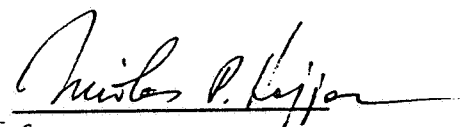
TRICHLORFON

Acute Oral Toxicity in Rat

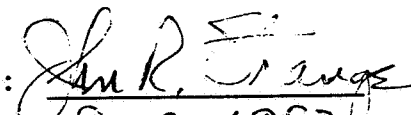
CITATION: Staszyc J, Kifer E (Undated). Histophysiological studies of rat organs after exposure to Foschlor. Ann. Univ. Mariae Curie-Sklodowska, Sect. D: 73(28):75-79 [English translation].

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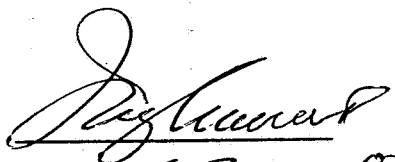
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DATA EVALUATION RECORD

STUDY TYPE: Acute oral toxicity in rat.

CITATION: Staszyc J, Kifer E (Undated). Histophysiological studies of rat organs after exposure to Foschlor. Ann. Univ. Mariae Curie-Sklodowska, Sect. D: 73(28):75-79. [English translation].

ACCESSION NUMBER: Not available.

MRID NUMBER: Not available.

LABORATORY: Department of Histology and Embryology, Biology-Morphology Institute, Laboratory of Experimental Cytology, Academy of Medicine, Lublin, USSR.

TEST MATERIAL: Liquid foschlor, 50 percent 0,0-dimethyl-1-hydroxy-2,2,2-dichloroethylphosphonate [The technical material was not tested].

PROTOCOL:

1. The organo-phosphorus compound was liquid Foschlor, containing 50 percent 0,0-dimethyl-1-hydroxy-2,2,2-dichloroethylphosphonate as an active ingredient.
2. Three groups of white female rats (unspecified group size) weighing between 250 and 300 grams were used. The two test groups were given Foschlor (concentration unknown) by gastric intubation at a dose level of 25 mg/kg/day for either 9 or 16 days. Control animals received sweetened water, that was "used to dissolve the Foschlor."
3. Sections of liver, pancreas, and kidney were examined to determine effects on enzymatic activity by cytochemical staining.

RESULTS:

Liver--The activity of acid phosphatase rose after 16 days of Foschlor administration. A strong hydrolase reaction was observed in the lysosomes located along the internal sections of the bile ducts.

Kidney--A significant rise in acid phosphatase activity was observed in the main tubules and in the medullary nephrons in the 16-day group. Marked activity of thiamine pyrophosphatase was observed in all the functioning urinary tubules.

Pancreas--After 16 days of exposure, the glycogen granules were located irregularly in the extra secretory cells of the "vesica" [vesicles].

CONCLUSIONS:

The authors stated that increased acid phosphatase activity was indicative of cellular metabolic disorders and concluded that after 16 days of exposure to Foschlor, damage occurred in the intracellular enzyme production system.

In the opinion of this reviewer, this conclusion cannot be substantiated since no quantitative data were presented. Only one dose level was tested, preventing conclusions as to dose relationship and the determination of NOEL and LEL values.

CORE CLASSIFICATION: Invalid. The test compound used was a formulation and not the technical material, and quantitative data were not presented.