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DATA EVALUATION RECORD

TRICHLORFON

Subchronic Oral Toxicity In Rats

CITATION: Krustev L, Tasheva M, Kaloyanova F, Borov B, Boyadzheneva Zh. 1976. Ultrastructural changes in the levels of rats after chronic exposure to Dipterex. Zhigiena Zdraveopuzvane 19(4):350-354 [English translation].

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DATA EVALUATION RECORD

STUDY TYPE: Subchronic oral toxicity in rats.

CITATION: Krustev L, Tasheva M, Kaloyanova F, Borov B, Boyadzheneva Zh. 1976. Ultrastructural changes in the levels of rats after chronic exposure to dipterex. Zhigiena Zdraveopuzvane 19(4):350-354 [English translation].

ACCESSION NUMBER: Not available.

MRID NUMBER: Not available.

LABORATORY: Center for Hygiene, Medical Academy, Sovia.

TEST MATERIAL: Trichlorfon (Dipterex, purity unspecified).

PROTOCOL:

1. Dipterex (Trichlorfon, source and purity not specified) was the test compound.

2. The test animals were male white rats (source, age, and strain not specified) weighing 150±20 g.

3. The compound was administered daily for 3 months by gavage, at 36.6 mg/kg.

4. The groups of animals were:

I.	Control
II.	30 day-sacrifice
III.	60 day-sacrifice
IV.	90 day-sacrifice

The number of animals in each group were not specified.

5. Liver sections were fixed, stained, and examined by electron-microscopy at 30,000 to 50,000 magnification.

RESULTS:

Group II (30 days)
Smooth endoplasmic reticulum was moderately reduced, mitochrondria were polymorphic, and there was an increase in lysosomes.

Group III (60 days)
Mitochondria were degenerate, polymorphic, and had frequent myelin figures. Lysosomes contained fragments of cellular organelles.

Group IV (90 days)
There was regeneration in the liver, an increase in rough endoplasmic reticulum, and restoration of smooth endoplasmic reticulum and mitochondria.

CONCLUSIONS:

Oral administration of trichlorfon to rats at 36.6 mg/kg/day for 30 days resulted in ultrastructural changes in the liver, a reduction of endoplasmic reticulum, and an increase in lysosomes. By 60 days there was lipid and myelin degeneration of mitochondria but regeneration of smooth and rough endoplasmic reticulum. However, a no effect level cannot be determined since only one dose level was studied.

CORE CLASSIFICATION: Supplementary. The source and purity of the test material and the number of animals per group were not specified. Only one dosage level was used in this study.