

US EPA ARCHIVE DOCUMENT

CASE

PM

CHEM Chlorsulfuron

BRANCH TB DISC TOPIC Acute Oral LD₅₀ - Guinea Pigs

FORMULATION Technical 002644

FICHE/MASTER ID CONTENT CAT

Oral LD₅₀ Test In Guinea Pigs, Haskell Laboratory Report No.
308-80, Hall, J. A.

SUBST. CLASS =

OTHER SUBJECT DESCRIPTORS

DIRECT RVW TIME = 30 minutes START-DATE END DATE

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Conclusion:

- A. Core Supplementary (animal species - not preferred)
- B. Category III
- C. Technical chlorsulfuron administered orally to male guinea pigs has an LD₅₀ of 1363 mg/kg.
- D. This study provides supplemental information and is not needed to satisfy EPA Proposed Guidelines.

002644

Methods:

The test material, as a suspension in corn oil, was administered in single doses by intragastric intubation to three groups (1000, 1500, and 2000 mg/kg) of ten young adult DUH male guinea pigs. Previously a range-finding study produced death at 2250 mg/kg and above after dosing from 670 to 7500 mg/kg, one animal per dose level. The surviving animals were weighed and observed during a 14-day recovery period and then sacrificed. Two surviving animals from each of the test groups were sent to pathology for gross examination. The LD₅₀ value was calculated using the method of D. J. Finney, Probit Analysis, 3rd. Ed., 1971, Cambridge University Press.

Results:

Chlorsulfuron is slightly toxic when administered orally to young adult male DUH guinea pigs; its LD₅₀ is 1363 mg/kg of body weight. Three, six, and seven deaths occurred within one, nine, and one day(s) after dosing in the 1000, 1500, and 2000 mg/kg levels, respectively. The most commonly observed clinical signs were: stained perineal area, stained face, eyes half-closed, and weight loss. All deaths occurred within nine days after dosing.

Gross pathology revealed: lungs that were pale red at all levels tested in one-two animals; guinea pigs dosed at 2000 and 1000 mg/kg showed lungs that were hyperinflated and red gray mottling in one-two animals; one guinea pig at 2000 mg/kg showed lungs with dark red foci throughout; one guinea pig at 1500 mg/kg showed lungs with dark red mottling.

Discussion:

The methods, scientific principles, validity of conclusions, and adequacy of data for conclusions were adequate for the study.