

US EPA ARCHIVE DOCUMENT

CASE

PM

CHEM Chlorsulfuron

BRANCH TB DISC

TOPIC Acute Oral LD₅₀ - Rats

002634

FORMULATION Formulated, 75% active

FICHE/MASTER ID

CONTENT CAT

Oral LD₅₀ Test In Rats - EPA Proposed Guidelines, Haskell
Laboratory Report No. 74-81, Hinckle, L.

SUBST. CLASS =

OTHER SUBJECT DESCRIPTORS

DIRECT RVW TIME = 1 1/4 hours

START-DATE

END DATE

REVIEWED BY: J. C. Summers

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DATE:

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Conclusion:

- A. Core Guideline
- B. Category III
- C. Oral LD₅₀s are 3053 mg/kg and 2341 mg/kg for male and female rats, respectively, for the 75% chlorsulfuron formulation.
- D. This study conforms to EPA proposed guidelines in section 163.81-1 Acute Oral Toxicity Study (43 Federal Register 37355, 8/22/78).

Methods:

The test material, as a suspension in corn oil, was administered by intragastric intubation in single doses to four groups of fasted young-adult male, and six groups of fasted young-adult female Crl:CD® rats, ten rats per group. The surviving rats were weighed and observed during a fourteen day recovery period and then sacrificed. All were given gross pathological examinations. The LD₅₀ was calculated using the method of D. J. Finney, Probit Analysis, 3rd Ed., 1971, Cambridge University Press.

Results:

The chlorsulfuron formulation is slightly toxic when administered orally to young adult Crl:CD® male and female rats; its LD₅₀ is 3,053 mg/kg of body weight for males and 2,341 mg/kg of body weight for females. Gross pathologic changes were observed in lungs at all dose levels in male and female rats. Changes were seen in the thymus, brain, stomach, G.I. tract, liver and eyes of male and female rats at most dose levels. Other organ changes were noted in salivary lymph nodes, spleen, adrenals, and kidneys in male rats. Clinical signs observed at most dose levels included: diarrhea, stained and we perineal area, stained face, eyes half-closed, weakness, lethargy, and weight loss. All deaths occurred within three days after dosing.

Mortality Ratio

<u>Dose</u> <u>mg/kg</u>	<u>Male</u>	<u>Female</u>	<u>Days After Dosing</u> <u>that Deaths</u> <u>Occurred Within</u>
5000	--	10/10	1
4000	8/10	10/10	1
3500	9/10	--	1
3200	7/10	---	2
3000	3/10	9/10	3
2500	--	5/10	2
2000	--	3/10	1
1000	--	0/10	-

Discussion:

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