

US EPA ARCHIVE DOCUMENT

CARBARYL

Acute Rat Oral (Sevin-4-011)

Five animals were tested per dosage level of 0.5, 1.0, and 2.0 ml/KG.

Results:

The LD_{50} = 0.71 ml/KG. The highest dosage levels produced total mortality. Typical anticholinesterase symptoms were noted at the high level.

Acute Rabbit Dermal (Sevin-4-011)

Four animals were tested per dosage level of 10 and 20 ml/KG.

Results:

LD_{50} = 20 ml/KG. The gross pathology noted included congested livers, pale spleens and off color kidneys.

A skin penetration test was also done on the additives which were used in the formulation. Two of four rabbits died within five days after application of a dosage level of 20 ml/KG. Gross examination at autopsy revealed congestion of the lungs.

Acute Rat Inhalation (Sevin-4-011)

Six animals were tested at a concentration of 19.17 mg/L. Length of exposure was four hours. The droplets used in the aerosol averaged two microns in diameter.

Results:

No deaths occurred during this study period. The concentration was 19.17 mg/L.

Fine tremors were noted at four hours. The gross pathology findings were negative.

Acute Rabbit Dermal Irritation (Sevin-4-011)

Approximately 0.01 ml of the test material was applied to the intact skin of five rabbits. The chemical was applied either undiluted or in progressive dilutions of 10, 1, 0.1, and 0.01% in solvent.

Results:

No irritation was noted on the five animals.

Rabbit Eye Irritation (Sevin-4-011)

The undiluted test material was instilled into the right eye of each of five rabbits. The quantity of material used was 0.5 ml.

Results:

No injury was noted in the five rabbits tested.

Acute Rat Intraperitoneal (Sevin-4-011)

Five animals were tested per dosage level of 0.25, 0.5, and 1.0 ml/KG.

The animals used for this study were male rats weighing from 120 to 160 gms.

Results:

The LD₅₀ = 0.71 ml/KG. Gross pathology consisted of congestion and hemorrhage in the lungs, and congestion throughout the abdominal viscera.

Rat Dunk Test

Groups of five male weanlings were held by the jaw and submersed up to and including the scapular area for about 2 seconds in the test material. It is estimated that approximately 18 ml of the test material was retained on the animal.

Results:

This procedure produced typical anticholinesterase symptoms soon after the first dunking and death within the ensuing 24 hours.