

US EPA ARCHIVE DOCUMENT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: June 26, 1978

SUBJECT: Ortho Sewin Garden Dust Precautionary Labeling Revision,
Caswell No. 160

FROM: Toxicology Branch
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TO: Frank T. Sanders (PM-12)

Registration No. 239-2181

Recommendation: The submitted studies support label statements as follows:

Acute test

Toxicity Category

oral LD50
dermal LD50
Skin Irritation
Eye Irritation
Inhalation LD50

III-Caution (2-4 g/kg)
III-Caution
IV-No statement
III-Caution
III-Caution

Chemical Name : Carbaryl

Acute Oral Toxicity in Rats: (S-1083, 10/18/77)

Fasted adult Sprague Dawley rats were used in groups of 5 per sex dose. The formulated product was suspended in 1.0% carboxymethyl cellulose and given by gavage. Observations continued for 14 days.

Results: LD50 - Males 4.3 (2.2-8.5) g/kg
Females 2.5 (1.3-4.6) g/kg

Salivation, tremors, and ataxia developed rapidly in treated animals of all doses. Reduced food intake and depression was noted. At necropsy, no gross lesions were found.

Classification: Minimum Data

Toxicity Category: III Caution

Acute Dermal Toxicity in Rabbits (S-855, 4/30/75)

Six adult Male New Zealand rabbits were clipped. The next day, the skin on three was abraded. The formulated product, at 5 g/kg, was mixed with an equal amount of saline and applied to the skins. Occlusion was provided by plastic wraps for 24 hours, and then removed. Observations continued for 14 days.

Results: No lethality occurred. Erythema and edema were seen at 24 hours. No other signs appeared. At necropsy, no gross lesions were found.

Classification: Core Minimum Data. Although females were not tested they would have to be several fold more sensitive than males to alter the toxicity category assignment.

Toxicity Category: III- Caution

Skin Irritation in Rabbits: (S-850, 4/30/75)

Six adult male New Zealand rabbits were clipped. One test site was intact skin and one test site was abraded skin on each rabbit. The material applied to each test site consisted of 0.5 gr. of powder mixed with 0.5 ml of distilled water (see memo of phone call 5/25/78). The areas were covered by gauze and tape followed by plastic. After 24 hours the wrappings and material were removed. Draize scores were recorded at 24, 48 and 72 hours after application.

Results: The primary irritation score was 0.5. Uniform slight erythema was seen at 24 hours. Only 2 animals still showed erythema by 48 hours. At 72 hours all skin was normal.

Classification: Core Minimum Data

Toxicity Category: IV- No precautionary statement needed.

Eye Irritation in Rabbits: (S-851, 4/30/75)

Six adult male rabbits were tested in one eye with the other eye serving as control. One tenth of a milliter of powder, which weighed an average of 338 mg, was introduced into the conjunctiva sac. Draize scores were recorded at 1, 24, 48, and 72 hours.

Results: No corneal opacity, iritis, or chemosis occurred. Redness of conjunctiva was slight and persisted 48 hours in only 2 animals. Discharge was moderate in half the animals at 24 hours but had ceased by 48 hours. No effects were seen at 72 hours.

Classification

Toxicity Category: III - Caution

Acute Inhalation Toxicity in Rats: (S-1084, 9/14/77)

Five adult Sprague Dawley rats of each sex were exposed to dust in a chamber for 1 hour and observed for 7 days. The dust concentration in the chamber was sampled at 2 locations for different intervals during exposure.

Results: The average concentration of the formulation was 2.0 mg/l. No lethality occurred. Three males and all 5 females had slight tremors by the end of exposure. All were normal the next day. No

gross lesions were found.

Classification: Minimum Data

Toxicity Category: III - Caution

RD initial G.E.W. 6/6/78:1f

E for GEW 7/10/78

G.E.W. 7/11/78