US EPA ARCHIVE DOCUMENT

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TOXICOLOGY ENDPOINT SELECTION DOCUMENT

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Chemical Name: Metolachlor

PC Code: 108801

Based upon a review of the toxicology database for the chemical listed above, toxicology endpoints and dose levels of concern have been identified for use in risk assessments corresponding to the categories below. A brief capsule of the study is presented for use preparation of risk assessments.

Where no appropriate data have been identified or a risk assessment is not warranted, this is noted. Data required to describe the uncertainties in the risk assessment due to the toxicology database are presented. These include but are not limited to extrapolation from different time frames or conversions due to route differences. If route to route extrapolation is necessary, the data to perform this extrapolation are provided.

Reviewer: _____ Date: _____

Marcia van Gemert

Branch Chief: M. van Gemert Date: 3/14/94

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Dermal Absorption Data (If available)

MRID: 418331-02

% absorbed: 62.8% after 24 hours in a rat dermal penetration study in which 0.01 mg/cm^2 was applied.

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Acute Dietary Endpoint (One Day)

Study Selected - Guideline No.: None

MRID No.: None

Summary (Enter Standard Executive Summary or equivalent):

None

Endpoint and dose for use in risk assessment.

None

Comments about study and/or endpoint:

None

This risk assessment is not required. No study was identified from the database which indicated the potential for adverse effects after a single dietary exposure.

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Short Term Occupational or Residential Exposure (1 to 7 Days)

Study Selected - Guideline No.: None

MRID No.: None

Summary (Enter Standard Executive Summary or equivalent):

None

Endpoint and dose for use in risk assessment.

None.

Comments about study and/or endpoint:

None

This risk assessment is not required. No study was identified that indicated the potential for adverse effects after a short term (less than 1 week) occupational or residential exposure.

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Intermediate Term Occupational or Residential (1 Week to Several Months)
Study Selected - Guideline No.: 21-Day Dermal Toxicity Study - Rabbit (82-2)

MRID No.: 418331-01

Summary: A 21-day dermal toxicity study was performed in New Zealand white rabbits with 0, 10, 100 or 1000 mg/kg/day of metolachlor. Very slight or moderate erythema was observed in all groups. There were dose-related increases in minor histopathological alterations of the skin, in total bilirubin for females, in absolute and relative liver weights for males, and in relative kidney weights for females. The systemic NOELs were 10 mg/kg/day for females and 100 mg/kg/day for males. The systemic LOELs were 100 mg/kg/day and 1000 mg/kg/day for females and males, respectively.

Endpoint and dose for use in risk assessment: NOEL = 10 mg/kg/day. See summary above.

Comments about study and/or endpoint: None

This risk assessment is required.

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Cancer Classification and Basis: C (Possible Human Carcinogen) based upon liver tumors in female rats.

$Q_1^* = 9.2E-3\ (mg/kg/day)^{-1}$

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R_fD and basis: 0.097 mg/kg/day based uponthe results of a one-year toxicity study in dogs.

NOEL for critical study: 9.7 mg/kg/day; LOEL = 32.7 mg/kg/day based upon decreased body weight gain in females.

Study Type - Guideline No.: One-year Oral Toxicity Study - Dog (83-1)

MRID: 411645-01

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