

## Acetochlor; CASRN 34256-82-1

Human health assessment information on a chemical substance is included in the IRIS database only after a comprehensive review of toxicity data, as outlined in the [IRIS assessment development process](#). Sections I (Health Hazard Assessments for Noncarcinogenic Effects) and II (Carcinogenicity Assessment for Lifetime Exposure) present the conclusions that were reached during the assessment development process. Supporting information and explanations of the methods used to derive the values given in IRIS are provided in the [guidance documents located on the IRIS website](#).

### STATUS OF DATA FOR Acetochlor

**File First On-Line 09/01/1993**

Category (section)	Assessment Available?	Last Revised
<b>Oral RfD (I.A.)</b>	yes	09/01/1993
<b>Inhalation RfC (I.B.)</b>	not evaluated	
<b>Carcinogenicity Assessment (II.)</b>	not evaluated	

## I. Chronic Health Hazard Assessments for Noncarcinogenic Effects

### I.A. Reference Dose for Chronic Oral Exposure (RfD)

Substance Name — Acetochlor

CASRN — 34256-82-1

Last Revised — 09/01/1993

The oral Reference Dose (RfD) is based on the assumption that thresholds exist for certain toxic effects such as cellular necrosis. It is expressed in units of mg/kg-day. In general, the RfD is an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. Please refer to the Background Document for an elaboration of these concepts. RfDs can also be derived for the noncarcinogenic health effects of substances that are also carcinogens. Therefore, it is essential to refer to other sources of

information concerning the carcinogenicity of this substance. If the U.S. EPA has evaluated this substance for potential human carcinogenicity, a summary of that evaluation will be contained in Section II of this file.

### I.A.1. Oral RfD Summary

Critical Effect	Experimental Doses*	UF	MF	RfD
<b>Salivation, increased ALT and ornithine carbamyl transferase; significant increases in triglyceride and decreased blood glucose levels; histopathological changes in kidneys and testes of males</b>	NOAEL: 2 mg/kg-day LOAEL: 10 mg/kg-day	100	1	2E-2 mg/kg-day
<b>1-Year Dog Feeding Study</b>				
<b>ICI, Inc., 1988a</b>				

\* Conversion Factors and Assumptions: Actual dose tested

### I.A.2. Principal and Supporting Studies (Oral RfD)

ICI, Inc. 1988a. MRID No. 41565118; HED Doc No. 008478. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

Groups of 20-week old purebred beagles (5/sex/dose) were administered acetochlor by gelatin capsule for 52 weeks at dose levels of 0, 2, 10, or 50 mg/kg-day. The capsules were administered orally once each day after feeding, 7 days a week. Control animals received empty capsules. All animals were individually housed with temperature and humidity control to provide a uniform environment. Each dog received 400 g of a dry pellet diet each morning before treatment. The uneaten food was withdrawn and weighed the following morning. Water was available ad libitum.

Systemic toxicity was evident at 10 and 50 mg/kg-day in both male and female dogs. Symptoms included excessive salivation and abnormal shaking of the head. At 50 mg/kg-day, significant increases in alanine aminotransferase (ALT), gamma-glutamyl transpeptidase, and ornithine carbamyl transferase were observed in male and female dogs over the course of treatment. At 10 mg/kg-day, histopathological changes were observed only in the kidneys, epididymides, and testes of males. Kidney changes consisted of interstitial nephritis and chronic vasculitis. Hypospermia of the epididymides and seminiferous tubule degeneration were reported at 10 mg/kg-day. Testicular toxicity, evident at both 10 and 50 mg/kg-day, consisted of decreased relative testes weight, atrophy, and degeneration of seminiferous tubules and hypospermia. Renal toxicity was evident at 50 mg/kg-day after 24 weeks of treatment as evidenced by increased water intake, urinary volume, and significantly increased blood urea and creatinine values. This was accompanied by renal histopathology consisting hyperplasia in the collecting duct, transitional cell hyperplasia, cortical atrophy with fibrosis and scarring accompanied by chronic vasculitis, interstitial nephritis, dilatation of Bowman's space, and deposition of lipofuscin pigment in cortical tubules. Significant neurological effects were also evident at 50 mg/kg-day and consisted of abnormal head movements; stiffness and rigidity of the hindlimbs; ataxia; tremor; depressed righting, hopping, and flexor reflexes; and exaggerated tonic neck reflex. These neurologic symptoms were accompanied by histopathological findings in the vermis cerebellum. Two males and 1 female were killed between weeks 39-51 due to severe neurological effects.

Based upon the results of this study, the LEL for systemic toxicity is 10 mg/kg-day based on salivation, increased alanine aminotransferase and ornithine carbamyl transferase accompanied by significant increases in triglyceride levels, and decreased blood glucose levels, and histopathological changes in the kidney and testes of males. The NOEL for systemic toxicity is 2 mg/kg-day.

### **I.A.3. Uncertainty and Modifying Factors (Oral RfD)**

UF — The uncertainty factor of 100 reflects 10 for interspecies extrapolation and 10 for intraspecies variability.

MF — None

### **I.A.4. Additional Studies/Comments (Oral RfD)**

1. 1-Year Feeding - dog: Principal study — see previous description; core grade guideline (ICI, Inc., 1988a)
2. 1-Year Feeding - dog: Dietary levels tested: 0, 4, 12, and 40 mg/kg-day; Purebred beagle dogs (6/sex/dose) were administered acetochlor by capsule for 12 months. Under the

conditions of this study, the NOEL for systemic toxicity is 12 mg/kg-day. The LEL for systemic effects is 40 mg/kg-day based on decreased ( $p < 0.05$ ) body weight gains in males, decreased terminal body weights in females, testicular atrophy (6/6) with accompanying decreased ( $p < 0.05$ ) absolute and relative (to body weight) testicular weights, increased absolute and relative adrenal weights in females, increased relative liver weights in males and females, and increased SGOT and SGPT levels. Core grade minimum (Monsanto Company, 1981)

3. 2-Year Feeding/Oncogenicity - rat: Dietary levels tested: 0, 40, 200, and 1000 ppm (0, 2, 10, and 50 mg/kg-day); Groups of Sprague-Dawley rats (60/sex/dose with an interim sacrifice of 10/sex/dose) received from Charles River Breeding Laboratory, Portage, MI were fed diets containing acetochlor for 2 years. Body weight and body weight gain showed a decrease in high-dose males from day 8 to the end of the study on (statistically significant from days 455-678). High-dose females also had a slight, but not statistically significant decrease in body weight and body weight gain. Statistically significant increases in gamma glutamyl transpeptidase were observed in high-dose males at 18 and 24 months (mid- and high-dose males at 1 year showed slight increases as did mid-dose males at 2 years). Also, cholesterol levels were increased (statistically significant) in high-dose males at 2 years (a slight decrease was noted at 18 months) and total bilirubin was increased in high-dose females at 2 years. Organ weights determined at the interim sacrifice showed a slight increase in absolute and relative kidney weights in high-dose males and a slight, dose-related increase in absolute and relative liver weights in treated males. This continued to final sacrifice where similar observations were noted including a statistically significant increase in relative liver weight of high-dose males and an increase in absolute and relative testicular weight (statistically significant) in high-dose males. Females were not similarly affected. Based on the effects observed at the high-dose, the LEL for systemic toxicity is 1000 ppm (50 mg/kg-day). The NOEL for systemic toxicity is 200 ppm (10 mg/kg-day). Core grade minimum (Monsanto Company, 1986a)
4. 2-Year Feeding/Oncogenicity - rat: Dietary Levels tested: 0, 18, 175, and 750 ppm (Male: 0, 0.67, 6.37, and 66.9 mg/kg-day; Female: 0, 0.88, 8.53, and 92.1 mg/kg-day); Groups of CD rats (50/sex/dose) received from Charles River UK Ltd were administered acetochlor in the diet for 104 weeks. For 52 weeks, an additional 10 males and females received doses of 18 and 175 ppm, and another group of 20 males and females received doses of 0 and 1750 ppm. In males and females, systemic toxicity in the form of reduced body weight gain, decreased food efficiency, ophthalmologic abnormalities, elevated GGT and cholesterol, and increased organ-to-body weight ratios were evident at 1750 ppm. No compound-related effects were noted at the low- and mid-dose. Based on the effects observed at the high-dose, the LEL for systemic toxicity is 1750 ppm (Male: 66.9 mg/kg-day; Female: 92.1 mg/kg-day). The NOEL for systemic toxicity is 175 ppm (Male: 6.37 mg/kg-day; Female: 8.53 mg/kg-day). Core grade minimum (ICI, Inc., 1988b)

5. 2-Generation Reproduction - rat: Dietary levels tested: 0, 500, 1500, and 5000 ppm (Male: 0, 30.4, 74.1, and 324.5 mg/kg-day; Female: 0, 44.9, 130.1, and 441.5 mg/kg-day); Groups of Charles River rats were fed diets containing acetochlor over two generations. A slight decrease (about 20%) in litter size was noted at the high-dose in all matings. The high-dose was also associated with decreased pup body weight gain during lactation for both generations. This effect was also noted in male F2b pups from the mid-dose group. Chronic nephritis was increased in females of the F1 generation fed 5000 ppm; a slight increase in prostatitis in this level may have been related to treatment. Apparent treatment-related increased thyroid weights were noted in low- and mid-dose F1b male pups, in F2b male and female pups, and in mid- and high-dose F1 dams. Liver weights (nonsignificant in males) and liver-to-body-weight ratios were increased in mid- (not statistically significant) and high-dose F1 parents. Pituitary weights were decreased at all doses in F1 adult males (absolute weights were decreased at low- and high-doses) and in low- and high-dose F2b male pups but were increased in low-dose F1b female pups. Decreases were observed for ovary weights for adult F1 females at all dose levels. Based on the decreased body weight gain of F2b pups, the LEL for reproductive toxicity is 1500 ppm (Male: 74.1 mg/kg-day; Female: 130.1 mg/kg-day). The NOEL for reproductive toxicity is 500 ppm (Male: 30.4 mg/kg-day; Female: 44.9 mg/kg-day). Based on changes in absolute and relative organ weight (decreased ovary weights in F1 females, decreased pituitary weights for F1 and F2 males, and increased thyroid weights in F1 and F2b pups), the LEL for systemic toxicity is 500 ppm (Male: 30.4 mg/kg-day; Female: 44.9 mg/kg-day), the lowest dose tested. A NOEL for systemic toxicity was not established. Core grade minimum (Monsanto Company, 1982)
6. 2-Generation Reproduction - rat: Dietary levels tested: 0, 18, 175, and 1750 ppm (0, 1.6, 21, and 160 mg/kg-day); Groups of Sprague-Dawley rats (25/sex/dose) received from Charles River UK Ltd were administered acetochlor in the diet over 2 generations. Systemic toxicity, as evidenced by reductions in body weight accompanied by slight reductions in food consumption and increases in relative organ weights, was observed in high-dose parental males and females. Based on these effects, the LEL for systemic toxicity is 1750 ppm (160 mg/kg-day). The NOEL for systemic toxicity is 175 ppm (21 mg/kg-day). Reproductive performance and the rate of physical development of offspring were not affected by the administration of the test material in the diet. However, compound-related reductions in body weight on lactational day 21 and total body weight gain during lactation were observed in high-dose pups from both generations. Based on these results, the LEL for reproductive toxicity is 1750 ppm (160 mg/kg-day). The NOEL for reproductive toxicity is 175 ppm (21 mg/kg-day). Core grade minimum (ICI Americas Inc., 1989a)
7. Developmental Toxicity - rat: Dose levels tested: 0, 50, 200, and 400 mg/kg-day; Groups of pregnant Charles River COBS CD rats (25/sex) were administered acetochlor orally by gavage as a single daily dose on days 6 through 19 of gestation. Matting and/or staining of the anogenital region was noted for rats in the high-dose group (13/25) and excessive salivation was observed in 3 rats as a post-dose response on one occasion. A

slight but not dose-related increase in matting and/or staining of the anogenital region was noted in the 50 and 200 mg/kg-day groups. A moderate decrease in mean maternal body weight gain during the treatment period and in the adjusted mean body weight gain on gestation day 20 was noted at 400 mg/kg-day when compared to the control group. Based on the above effects, the maternal NOEL and LEL are 200 and 400 mg/kg-day, respectively. A slight to moderate decrease in mean fetal body weight, although not statistically significant, was noted at 400 mg/kg-day. Mean fetal body weight values at 50 and 200 mg/kg-day were comparable to controls. Based on the decrease in mean fetal body weight, the NOEL and LEL for developmental toxicity are 200 and 400 mg/kg-day, respectively. Core grade minimum (Monsanto Company, 1980a)

8. Developmental Toxicity - rat: Dose levels tested: 0, 40, 150, and 600 mg/kg-day; Animals were apparently received "timed pregnant" from Charles River Breeding Laboratories, Portage, MI. According to the information provided, the females were mated with males of the same strain and shipped in 2 batches (Group A and B) mated one day apart. "The day of mating, as judged by the appearance of sperm in the vaginal smear or by the presence of a vaginal plug, was considered as Day 0 of gestation." Rats (Group A: 15/dose; Group B: 10/dose) were orally administered acetochlor on gestation days 6 through 15, inclusive. The LEL for maternal toxicity is 600 mg/kg-day based on animals sacrificed moribund, clinical observations, decreased body weight gain during the dosing period and the entire gestation period and corrected body weight gain for gestation day 6 through 20. The NOEL for maternal toxicity is 150 mg/kg-day. The LEL for developmental toxicity is 600 mg/kg-day based on increased resorptions per dam, postimplantation loss, and decreased mean fetal weight. The NOEL for developmental toxicity is 150 mg/kg-day. Core grade minimum (ICI Americas Inc., 1989b)
9. Developmental Toxicity - rabbit: Dose levels tested: 0, 15, 50, and 190 mg/kg-day; Groups of pregnant New Zealand White rabbits (20/dose) received from Hazleton-Dutchland, Inc., Denver, PA. were administered acetochlor via gastric intubation in 0.5 ml/kg of corn oil on gestation days 7 through 19. No mortality or spontaneous abortions were observed in any of the groups. There was a statistically significant mean body weight loss during the dosing period (days 7 through 19 of gestation) in the high-dose group. From days 19-29, the mean body weight gain for this group was greater than the control, low- and mid-dose groups. There were no apparent group differences regarding any other parameter. Based on body weight loss, the NOEL and LEL for maternal toxicity are 50 and 190 mg/kg-day, respectively. There were no apparent compound-related differences regarding any developmental toxicity parameters in any dose group. Therefore, the NOEL for developmental toxicity is equal to or greater than 190 mg/kg-day. Core grade minimum (Monsanto Company, 1986b)
10. Developmental Toxicity - rabbit: Dose levels tested: 0, 30, 100, and 300 mg/kg-day; Groups (16/dose) of time-mated New Zealand White rabbits received from Interfauna UK Ltd were administered acetochlor by gavage on gestation days 6 through 18,



inclusive. Based on the data provided, no significant effects on either the maternal animal or the fetus were noted at the dose levels tested. Therefore the NOEL for maternal and developmental toxicity is equal to or greater than 300 mg/kg-day. Core grade minimum (ICI Americas Inc., 1989c)

Other Data Reviewed:

1. 2-Year Feeding/Oncogenicity - mouse: Dietary levels tested: 0, 500, 1500, 5000 ppm (0, 75, 225, and 750 mg/kg-day); Groups of Swiss albino CD-1 mice (50/sex/dose with an 12-month interim sacrifice of 10/sex/dose) were fed 'diets containing acetochlor for 2 years. Dose-related changes included:
  1. increased mortality in both high-dose males and females;
  2. decreased mean body weights in both high-dose males and females;
  3. decreased red blood cell count, hematocrit, and hemoglobin in high-dose females at terminal sacrifice;
  4. increased white blood cell count in high-dose males at terminal sacrifice;
  5. increased platelet count in mid- and high-dose females at terminal sacrifice;
  6. increased mean liver weight and liver-to-body-weight ratios at study termination in all dose groups of males and in high-dose females as well, as increased liver-to-body-weight ratios in all dosed males and females at 12 months; increased absolute and relative kidney weights in all dose groups of males at termination; and increased absolute and relative adrenal weights in all groups of males and in high-dose females at study termination; and
  7. increased interstitial nephritis in high-dose males and females. Based on increased liver and kidney weights, the LEL for systemic toxicity is 500 ppm (75 mg/kg-day), the lowest dose tested. The NOEL for systemic toxicity was not established. Core grade minimum (Monsanto Company, 1983a)
2. 78-Week Feeding/Oncogenicity - mouse: Dietary levels tested: 0, 10, 100, and 1000 ppm (Male: 0, 1.1, 11, and 116 mg/kg-day; Female: 0, 1.4, 13, and 135 mg/kg-day); Groups of CD-1 mice (50/sex/dose with an 52-week interim sacrifice of 10/sex/dose) received from Charles River (UK) Ltd., Kent, England, were administered acetochlor in the diet for 78 weeks. In males, a dose-related increase in absolute and relative (to body weight) kidney weight was observed and accompanied by significant but not dose-dependent increases in renal tubular basophilia at all dietary levels. Similar effects were observed in the older CD-1 mouse study (Monsanto Co., 1983a) but were inconsistent and not dose-dependent. OPP considers the renal tubular basophilia observed at all dose levels to be most likely the result of normal aging. In females, the only compound-related

finding was a significant increase in anterior polar vacuoles in the lens of the eye at the high-dose level. Based on these results, the NOEL and LEL for systemic toxicity in females are 100 and 1000 ppm (13 and 135 mg/kg-day), respectively. Core grade minimum (ICI Americas Inc., 1989d)

3. 2-Year Feeding/Oncogenicity - rat: Dietary levels tested: 0, 500, 1500, and 5000 ppm (Male: 0, 22, 69, and 250 mg/kg-day; Female: 0, 30, 93, and 343 mg/kg-day); Groups of Sprague-Dawley rats (60/sex/dose with an 12-month interim sacrifice of 10/sex/dose) received from Charles River Breeding Laboratories, Wilmington, MA were fed diets containing acetochlor for 2 years. There was increased mortality in high-dose females. There was a significant ( $p < 0.05$ ) dose-related decrease in mean body weights in males and females of the mid- and high-dose groups, and a significant ( $p < 0.05$ ) decrease in food consumption in high-dose males and females. A decrease in the mean body weight of low-dose males also reached a significant ( $p < 0.05$ ) level at the end of the study (weeks 103-115). Histopathologic examination of the tissues indicated increased incidences of polyarteritis of the testis and arteries of high-dose males and liver necrosis and alveolar histiocytosis in high-dose females ( $p < 0.05$ ). Based on body weight, the LEL for systemic toxicity is 500 ppm (22 mg/kg-day), the lowest dose tested. A NOEL for systemic toxicity was not established. Core grade minimum (Monsanto Company, 1983b)
4. 119-Day Feeding - dog: Dietary levels tested: 0, 25, 25/50/1975, 50/100/150/200 mg/kg-day; Groups of beagle dogs (6/sex/dose) were administered acetochlor in capsules at various dose levels for 119 days. The dosages of acetochlor were as follows: (a) control animals received a sham capsule for the duration of the study; (b) the low-dose group received 25 mg/kg-day for the duration of the study; (c) the mid-dose group received 25 mg/kg-day during the 1st week, 50 mg/kg-day during the 2nd week, and 75 mg/kg-day for the remainder of the study; and (d) the high-dose group received 50 mg/kg-day during the 1st, 100 mg/kg-day during the 2nd, 150 mg/kg-day during the 3rd week, and 200 mg/kg-day for the remainder of the study. Capsules were given once daily, approximately 1 hour after feed was withdrawn. Under the conditions of this study, administration of acetochlor produced severe toxic effects at the high-dose (death or morbidity, decreased body weight, abnormal urinalysis, and histopathological findings), moderate toxic effects at the mid-dose (death or morbidity and histopathological findings), and mild toxic effects at the low-dose (abnormally elevated SGPT and increased liver-to-body-weight ratio). Therefore, the LEL for systemic toxicity is 25 mg/kg-day, the lowest dose tested. A NOEL for systemic toxicity was not established. Core grade minimum (Monsanto Company, 1980b)
5. 90-Day Feeding - dog: Dietary levels tested: 0, 2, 10, and 60 mg/kg-day; Groups of beagle dogs (4/sex/dose) were administered acetochlor by gelatin capsule for 13 weeks. At 60 mg/kg-day, systemic toxicity was evident in both male and female dogs and consisted of diarrhea and mucous in the feces, significant decreases in body weight gain in males (32%) and females (40%); a significant decrease in hemoglobin, hematocrit, and RBC values in females; a significant increase in alanine aminotransferase in both



sexes (51-59%); a decrease in blood glucose; and a significant increase in the liver-body-weight ratio for both sexes. No treatment-related effects were noted at the low- and mid-dose levels. Based on the effects observed at the high-dose, the LEL for systemic toxicity is 60 mg/kg-day. The NOEL for systemic toxicity is 10 mg/kg-day. Core grade supplementary (ICI Americas Inc., 1986)

6. 3-Month Feeding - rat: Dietary levels tested: 0, 800, 2000, and 6000 ppm (0, 40, 100, and 300 mg/kg-day); Groups of Sprague-Dawley rats (30/sex/dose) were fed diets containing acetochlor for 3 months. A statistically and biologically meaningful decrease in the food consumption and body weight was observed in mid- and high-dose males and females. The differences in these parameters between the control and low-dose group were statistically significant (3-8% decreases), but were not considered to be as biologically meaningful in either sex. Therefore, based on decreased food consumption and body weight, the NOEL and LEL for systemic toxicity are 800 and 2000 ppm (40 and 100 mg/kg-day), respectively. Core grade minimum (Monsanto Company, 1980c)

7. 13-Week Feeding - rat: Dietary levels tested: 0, 20, 200, and 2000 ppm (Male: 0, 1.6, 16.1, and 161.1 mg/kg-day; Female: 0, 1.9, 18.7, and 191.9 mg/kg-day); Groups of Sprague-Dawley CD rats (10/sex/dose) received from Charles River UK Ltd were administered acetochlor in the diet for 13 weeks. Systemic toxicity was observed at 2000 ppm. These effects, although somewhat marginal, included hematological effects in both male and female rats; increased organ-to-body weight ratios for the liver, kidney, and brain; decreased plasma acetyl- and butyrylcholinesterase activity; decreased brain acetylcholinesterase activity (males only); and increased plasma urea and cholesterol. No significant effects related to test article administration were observed at other doses. Based on the effects observed at the high-dose, the LEL for systemic toxicity is 2000 ppm (Male: 161.1 mg/kg-day; Female: 191.9 mg/kg-day). The NOEL for systemic toxicity is 200 ppm (Male: 16.1 mg/kg-day; Female: 18.7 mg/kg-day). Core grade supplementary (ICI Central Toxicology Lab., 1986)

Data Gap(s): None

#### **I.A.5. Confidence in the Oral RfD**

Study — High

Database — High

RfD — High

The principal study is of good quality and is given a high confidence rating. Additional studies are of adequate quality and supportive of the critical study. Therefore, the database is given a high confidence rating. High confidence in the RfD follows.

### **I.A.6. EPA Documentation and Review of the Oral RfD**

Source Document — This assessment is not presented in any existing U.S. EPA document.

Other EPA Documentation — None

Agency Work Group Review — 03/27/1991, 03/24/1992

Verification Date — 03/24/1992

Screening-Level Literature Review Findings — A screening-level review conducted by an EPA contractor of the more recent toxicology literature pertinent to the RfD for Acetochlor conducted in November 2001 identified one or more significant new studies. IRIS users may request the references for those studies from the IRIS Hotline at [hotline.iris@epa.gov](mailto:hotline.iris@epa.gov) or (202)566-1676.

### **I.A.7. EPA Contacts (Oral RfD)**

Please contact the IRIS Hotline for all questions concerning this assessment or IRIS, in general, at (202)566-1676 (phone), (202)566-1749 (FAX) or [hotline.iris@epa.gov](mailto:hotline.iris@epa.gov) (internet address).

---

### **I.B. Reference Concentration for Chronic Inhalation Exposure (RfC)**

Substance Name — Acetochlor

CASRN — 34256-82-1

Not available at this time.

---

## **II. Carcinogenicity Assessment for Lifetime Exposure**

Substance Name — Acetochlor

CASRN — 34256-82-1

Not available at this time.

**III. [reserved]**

**IV. [reserved]**

**V. [reserved]**

---

## **VI. Bibliography**

Substance Name — Acetochlor

CASRN — 34256-82-1

### **VI.A. Oral RfD References**

ICI Americas Inc. 1986. MRID No. 41565116; HED Doc. 008478. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

ICI Americas Inc. 1989a. MRID No. 41565120; HED Doc. No. 008478. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

ICI Americas Inc. 1989b. MRID No. 41592005; HED Doc. 008478. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

ICI Americas Inc. 1989c. MRID No. 41592006; HED Doc. 008478. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

ICI Americas Inc. 1989d. MRID No. 41565119; HED Doc. 008478. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

ICI Central Toxicology Laboratory. 1986. MRID No. 41565115; HED Doc No. 008478. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

ICI, Inc. 1988a. MRID No. 41565118; HED Doc No. 008478. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

ICI, Inc. 1988b. MRID No. 41592004; HED Doc No. 008478. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

Monsanto Company. 1980a. MRID No. 00050929; HED Doc No. 0005865. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

Monsanto Company. 1980b. MRID No. 00050928; HED Doc No. 005865. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

Monsanto Company. 1980c. MRID No. 00050933; HED Doc No. 005865. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

Monsanto Company. 1981. MRID No. 00116631, 00164944; HED Doc No. 004586, 005943. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

Monsanto Company. 1982. MRID No. 00131391; HED Doc No. 004586, 005353. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

Monsanto Company. 1983a. MRID No. 00131089; HED Doc No. 004586. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

Monsanto Company. 1983b. MRID No. 00131088, 40484801; HED Doc No. 004586, 006764. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

Monsanto Company. 1986a. MRID No. 40077601; HED Doc No. 006571, 007002. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

Monsanto Company. 1986b. MRID No. 40134101; HED Doc No. 005968. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

---

### **VI.B. Inhalation RfC References**

None

---

### **VI.C. Carcinogenicity Assessment References**

None

## VII. Revision History

Substance Name — Acetochlor  
CASRN — 34256-82-1

Date	Section	Description
09/01/1993	I.A.	Oral RfD on-line
12/03/2002	I.A.6.	Screening-Level Literature Review Findings message has been added.

## VIII. Synonyms

Substance Name — Acetochlor  
CASRN — 34256-82-1  
Last Revised — 09/01/1993

- 2-CHLORO-N-(ETHOXYMETHYL)-6'-ETHYLACET-O-TOLUIDIDE
- 2-CHLORO-N-(ETHOXYMETHYL)-6'-ETHYL-O-ACETOTOLUIDIDE
- 2-CHLORO-N-(ETHOXYMETHYL)-N-(2-ETHYL-6-METHYLPHENYL)ACETAMIDE
- 34256-82-1
- ACETAMIDE, 2-CHLORO-N-(ETHOXYMETHYL)-N-(2-ETHYL-6-METHYLPHENYL)-
- ACETOCHLOR
- ACETOCHLORE
- AZETOCHLOR
- CASWELL NO. 003B
- EPA PESTICIDE CHEMICAL CODE 121601
- MG 02
- MON 097
- NEVIREX
- O-ACETOTOLUIDIDE, 2-CHLORO-N-(ETHOXYMETHYL)-6'-ETHYL-