

Summary of Environmental Toxicity of Metsulfuron methyl (12/10/93)

Test	Species	% a.i.	Test Results	MRID#	Status
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Terrestrial Toxicity:

71-1a	Mallard Duck	98 %	LD50 > 2510 mg/kg	071434	Core
71-2a	Bobwhite Quail	98 %	LC50 > 5620 ppm	071434	Core
71-2b	Mallard Duck	98 %	LC50 > 5620 ppm	071434	Core

123-1(a) Tier II. Pre-emergence (Seedling emergence)

Soybean	99 %	EC25 0.00041 lb/A	40639301	Suppl.
Cocklebur	99 %	EC25 0.00048 lb/A	40639301	Suppl.
Cotton	99 %	EC25 0.00036 lb/A	40639301	Suppl.
Morningglory	99 %	EC25 0.000009 lb/A	40639301	Suppl.
Wild Buckwheat	99 %	EC25 0.00035 lb/A	40639301	Suppl.
Sugar Beet	99 %	EC25 0.000045 lb/A	40639301	Suppl.
Corn	99 %	EC25 0.00091 lb/A	40639301	Suppl.
Barnyardgrass	99 %	EC25 0.00187 lb/A	40639301	Suppl.
Rice	99 %	EC25 0.00071 lb/A	40639301	Suppl.
Nutsedge	99 %	EC25 0.00257 lb/A	40639301	Suppl.

123-1(a) Tier II. Postemergence - growth inhibition (Vegetative vigor)

Soybean	99 %	EC25 0.000018 lb/A	40639301	Suppl.
Cocklebur	99 %	EC25 0.00012 lb/A	40639301	Suppl.
Cotton	99 %	EC25 0.00054 lb/A	40639301	Suppl.
Morningglory	99 %	EC25 0.00032 lb/A	40639301	Suppl.
Wild Buckwheat	99 %	EC25 > 0.001 lb/A	40639301	Suppl.
		(90 % effect at 0.001 lb ai/A)		
Sugar Beet	99 %	EC25 > 0.001 lb/A	40639301	Suppl.
		(100% effect at 0.001 lb ai/A)		
Corn	99 %	EC50 0.00303 lb/A	40639301	Suppl.
		(only one partial; no slope)		
Barnyardgrass	99 %	EC25 0.00034 lb/A	40639301	Suppl.
Rice	99 %	EC50 0.015 lb/A	40639301	Suppl.
		(only one partial; no slope)		
Nutsedge	99 %	EC25 0.00025 lb/A	40639301	Suppl.

141-1	Honey Bee	95 %	Contact LD50 > 25 ug/bee	072765	Core
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Rat (male)	Tech.	LD50 > 5000 mg/kg	-	-
Rat (female)	Tech.	LD50 > 5000 mg/kg	-	-
Rat (male)	70 DF	LD50 > 5000 mg/kg	-	-
Rat (female)	70 DF	LD50 > 5000 mg/kg	-	-
Rabbit (dermal)	Tech.	LD50 > 2000 mg/kg	-	-
Rat (inhal.)	Tech.	LC50 > 5.0 mg/l (4 hr)	-	-
Rat (90 days)	Unkn.	NOEL 1000 ppm	-	-

Aquatic Toxicity:

72.1a	Bluegill	92.9%	LC50	> 150	ppm	00125817	Core
72.1c	Rainbow Trout	92.9%	LC50	> 150	ppm	00125816	Core
72.2a	Daphnia magna	92.9%	LC50	> 150	ppm	00125818	Core
123-2	Selenastrum capricornutum	99 %	EC50	286	ppb	40639302 (5 days)	Core
123-2	Duckweed Lemna gibba G3	99.2%	EC50	0.36	ppb	41773902 (14 days)	Suppl.

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Chemical Name MSA-TG 376

Chemical Class H

Page 1 of 1

Reviewer/Date

Validation Status

Results

95% C.L.

LD50 ≥ 2500 mg/kg ()

Contr. Mort.(%) = 0

Species/Lab/Session

1-Day Single Dose Oral LD50

98

Mullard

Wildlife Intern

362834

Slope =

Animals/Level = 10

Age(Days) = 170

Sex = male

Fite 3/23/83 Core

14-Day Dose Level mg/kg/(% Mortality)

398 (0), 1,631 (0), 1,666 (0), 1,170 (0), 2520 (0)

Comments:

Day Single Dose Oral LD50

95% C.L.

LD50 = mg/kg ()

Contr. Mort.(%) =

98

Bibwhite

Wildlife Intern

362834

Slope =

Animals/Level =

Age(Days) = 150

Sex = female

Fite 3/24/83 Core

14-Day Dose Level mg/kg/(% Mortality)

~~398 (0), 1,631 (0), 1,666 (0), 1,170 (0), 2520 (0)~~

Comments:

ay Dietary LC50

95% C.L.

LC50 ≥ 5620 ppm ()

Contr. Mort.(%) = 6

98

Bibwhite

Wildlife Intern

362834

Slope =

Animals/Level = 10

Age(Days) = 14

Sex = male

Fite 3/24/83 Core

8-Day Dose Level ppm/(% Mortality)

522 (0), 1,000 (0), 1,170 (0), 3,160 (0), 5620 (0)

Comments:

ay Dietary LC50

95% C.L.

LC50 ≥ 5620 ppm ()

Contr. Mort.(%) = 0

98

Mullard

Wildlife Intern

362834

Slope =

Animals/Level = 10

Age(Days) = 14

Sex = both

Fite 3/25/83 Core

8-Day Dose Level ppm/(% Mortality)

522 (0), 1,000 (0), 1,170 (0), 3,160 (0), 5620 (0)

Comments:

96-hour LC50

95% C.L.

LC50 ≥ 150 ppm ()

Contr. Mort.(%) = 0

Sol. Contr. Mort.(%) = 0

92.9

Bluegill

Huskeil

362834

Slope =

Animals/Level =

Temperature = 22.2°C

Fite 3/23/83 Core

96-Hour Dose Level ppm/(% Mortality)

5 (0), 25 (0), 50 (0), 100 (0), 150 (0)

Comments:

96-hour LC50

95% C.L.

LC50 ≥ 150 ppm ()

Con. Mor(%) = 0

Sol. Con. Mor.(%) = 0

92.9

Rainbow

Huskeil

362834

Slope =

Animals/Level = 10

Temp. = 12.2

Fite 3/23/83 Core

96-Hour Dose Level ppm/(% Mortality)

5 (0), 25 (0), 50 (0), 100 (0), 150 (0)

Comments:

96-hour Invertebrate

95% C.L.

LC50 ≥ 150 ppm ()

Con. Mort.(%) = 0

Sol. Con. Mort.(%) = 0

92.9

Daphnia magna

Huskeil

362834

Slope =

Animals/Level = 10

Temp. = 20.2

Fite 3/23/83 Core

96-Hour Dose Level ppm/(% Mortality)

25 (0), 50 (0), 100 (0), 150 (0), ()

Comments:

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