

US EPA ARCHIVE DOCUMENT

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

<u>Test</u>	<u>Species</u>	<u>% a.i.</u>	<u>Test Results</u>	<u>MRID#</u>	<u>Status</u>
<b>Terrestrial Toxicity:</b>					
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
<b>123-1(a) Tier II. Pre-emergence (Seedling emergence)</b>					
	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.
<b>123-1(a) Tier II. Postemergence - growth inhibition (Vegetative vigor)</b>					
	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
	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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Species/Lab/Session: Mullard  
 Test: Wildlife Intern  
 ID: 362834  
 Chemical: 98  
 Results: LD50 > 2500 mg/kg (95% C.L.) Contr. Mort.(%) = 0  
 Slope = — # Animals/Level = 10 Age (Days) = 140 Sex = both  
 14-Day Dose Level mg/kg/(% Mortality)  
 395 (0), 631 (0), 1000 (0), 1570 (0), 2520 (0)  
 Comments:

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Species: Mullard  
 Test: Wildlife Intern  
 ID: 362834  
 Chemical: 98  
 Results: LD50 = mg/kg (95% C.L.) Contr. Mort.(%) =  
 Slope = — # Animals/Level = Age (Days) = 140 Sex = both  
 14-Day Dose Level mg/kg/(% Mortality)  
~~395 (0), 631 (0), 1000 (0), 1570 (0), 2520 (0)~~  
 Comments:

Species: Bobwhite  
 Test: Wildlife Intern  
 ID: 362834  
 Results: LC50 > 5620 ppm (95% C.L.) Contr. Mort.(%) = 6  
 Slope = — # Animals/Level = 10 Age (Days) = 14 Sex = both  
 8-Day Dose Level ppm/(% Mortality)  
 522 (0), 1000 (0), 1780 (0), 3160 (0), 5620 (0)  
 Comments:

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Species: Mullard  
 Test: Wildlife Intern  
 ID: 362834  
 Results: LC50 > 5620 ppm (95% C.L.) Contr. Mort.(%) = 0  
 Slope = — # Animals/Level = 10 Age (Days) = 14 Sex = both  
 8-Day Dose Level ppm/(% Mortality)  
 522 (0), 1000 (0), 1780 (0), 3160 (0), 5620 (0)  
 Comments:

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Species: Bluegill  
 Test: Huskell  
 ID: 362834  
 Results: LC50 > 150 ppm (95% C.L.) Contr. Mort.(%) = 0  
 Sol. Contr. Mort.(%) = 0  
 Slope = — # Animals/Level = Temperature = 22.2°C  
 96-Hour Dose Level ppm/(% Mortality)  
 5 (0), 25 (0), 50 (0), 100 (0), 150 (0)  
 Comments:

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Species: Rainbow  
 Test: Huskell  
 ID: 362834  
 Results: LC50 > 150 ppm (95% C.L.) Con. Mor(%) = 0  
 Sol. Con. Mor.(%) = 0  
 Slope = — # Animals/Level = 10 Temp. = 12.2  
 96-Hour Dose Level ppm/(% Mortality)  
 5 (0), 25 (0), 50 (0), 100 (0), 150 (0)  
 Comments:

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Species: Daphnia magna  
 Test: Huskell  
 ID: 362834  
 Results: LC50 > 150 ppm (95% C.L.) Con. Mort.(%) = 0  
 Sol. Con. Mort.(%) = 0  
 Slope = — # Animals/Level = 10 Temp. = 10.2  
 96-Hour Dose Level ppm/(% Mortality)  
 25 (0), 50 (0), 100 (0), 150 (0), ( )  
 Comments:

File 3/23/83 core

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