

Calculation: Potential Doses and Margins of Exposure

Scenario: Occupational - Routine Exposure

Pathway: Dermal Contact with Herbicide

Herbicide: Diflufenzopyr

Program: Rangeland, Energy/Mineral, Rights-of-Way, Recreation/Cultural

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Rate (lb a.i./acre)	Dermal Unit Exposure (mg/lb ai)	Acres Treated per Hour	Hours Per Day	Dermal Absorption Factor	Body Weight (kg)	Dermal Dose (mg/kg-day)	Dermal NOAELs (mg/kg-day)			Margin of Exposure Dermal Exposure (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Ground	Human	Bpack	A/M/L	0.075	2.5	0.2	3	NA	70	NA	NA	NA	NA	NC	NC	NC
Typical	Ground	Human	Hback	A	0.075	0.39	0.75	6	NA	70	NA	NA	NA	NA	NC	NC	NC
Typical	Ground	Human	Hback	M/L	0.075	0.023	0.75	6	NA	70	NA	NA	NA	NA	NC	NC	NC
Typical	Ground	Human	Hback	A/M/L	0.075	0.413	0.75	6	NA	70	NA	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV	Spot	A	0.075	0.39	0.25	5	NA	70	NA	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV	Spot	M/L	0.075	0.023	0.25	3	NA	70	NA	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV	Spot	A/M/L	0.075	0.413	0.25	5	NA	70	NA	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV	B/B	A	0.075	0.014	0.8	5	NA	70	NA	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV	B/B	M/L	0.075	0.023	0.8	3	NA	70	NA	NA	NA	NA	NC	NC	NC
Typical	Ground	ATV	B/B	A/M/L	0.075	0.037	0.8	5	NA	70	NA	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	Spot	A	0.075	0.39	0.38	6	NA	70	NA	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	Spot	M/L	0.075	0.023	0.38	4	NA	70	NA	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	Spot	A/M/L	0.075	0.413	0.38	6	NA	70	NA	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	B/B	A	0.075	0.014	1.5	5	NA	70	NA	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	B/B	M/L	0.075	0.023	1.5	3	NA	70	NA	NA	NA	NA	NC	NC	NC
Typical	Ground	Truck Mount	B/B	A/M/L	0.075	0.037	1.5	5	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	Human	Bpack	A/M/L	0.1	2.5	0.4	6	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	Human	Hback	A	0.1	0.39	1	8	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	Human	Hback	M/L	0.1	0.023	1	8	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	Human	Hback	A/M/L	0.1	0.413	1	8	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	ATV	Spot	A	0.1	0.39	0.5	9	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	ATV	Spot	M/L	0.1	0.023	0.5	6	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	ATV	Spot	A/M/L	0.1	0.413	0.5	9	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	ATV	B/B	A	0.1	0.014	1.6	9	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	ATV	B/B	M/L	0.1	0.023	1.6	5	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	ATV	B/B	A/M/L	0.1	0.037	1.6	9	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	Spot	A	0.1	0.39	1	10	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	Spot	M/L	0.1	0.023	1	8	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	Spot	A/M/L	0.1	0.413	1	10	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	B/B	A	0.1	0.014	2.25	8	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	B/B	M/L	0.1	0.023	2.25	6	NA	70	NA	NA	NA	NA	NC	NC	NC
Max	Ground	Truck Mount	B/B	A/M/L	0.1	0.037	2.25	8	NA	70	NA	NA	NA	NA	NC	NC	NC

Notes:

Calculation: Potential Doses and Margins of Exposure

Scenario: Occupational - Routine Exposure

Pathway: Inhalation of Herbicide

Herbicide: Diflufenzopyr

Program: Rangeland, Energy/Mineral, Rights-of-Way, Recreation/Cultural

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Rate (lb a.i./acre)	Inhalation Unit Exposure (mg/lb ai)	Acres Treated per Hour	Hours Per Day	Inhalation Absorption Factor	Body Weight (kg)	Inhalation Dose (mg/kg-day)	Inhalation NOAELs (mg/kg-day)			Margin of Exposure Inhalation Exposure (unitless)		
												Short	Int	Long	Short	Int	Long
Typical	Ground	Human	Bpack	A/M/L	0.075	0.03	0.2	3	1	70	1.93E-05	58	58	26	3.01E+06	3.01E+06	1.35E+06
Typical	Ground	Human	Hback	A	0.075	0.0039	0.75	6	1	70	1.88E-05	58	58	26	3.08E+06	3.08E+06	1.38E+06
Typical	Ground	Human	Hback	M/L	0.075	0.0012	0.75	6	1	70	5.79E-06	58	58	26	1.00E+07	1.00E+07	4.49E+06
Typical	Ground	Human	Hback	A/M/L	0.075	0.0051	0.75	6	1	70	2.46E-05	58	58	26	2.36E+06	2.36E+06	1.06E+06
Typical	Ground	ATV	Spot	A	0.075	0.0039	0.25	5	1	70	5.22E-06	58	58	26	1.11E+07	1.11E+07	4.98E+06
Typical	Ground	ATV	Spot	M/L	0.075	0.0012	0.25	3	1	70	9.64E-07	58	58	26	6.01E+07	6.01E+07	2.70E+07
Typical	Ground	ATV	Spot	A/M/L	0.075	0.0051	0.25	5	1	70	6.83E-06	58	58	26	8.49E+06	8.49E+06	3.81E+06
Typical	Ground	ATV	B/B	A	0.075	0.00074	0.8	5	1	70	3.17E-06	58	58	26	1.83E+07	1.83E+07	8.20E+06
Typical	Ground	ATV	B/B	M/L	0.075	0.0012	0.8	3	1	70	3.09E-06	58	58	26	1.88E+07	1.88E+07	8.43E+06
Typical	Ground	ATV	B/B	A/M/L	0.075	0.00194	0.8	5	1	70	8.31E-06	58	58	26	6.98E+06	6.98E+06	3.13E+06
Typical	Ground	Truck Mount	Spot	A	0.075	0.0039	0.38	6	1	70	9.53E-06	58	58	26	6.09E+06	6.09E+06	2.73E+06
Typical	Ground	Truck Mount	Spot	M/L	0.075	0.0012	0.38	4	1	70	1.95E-06	58	58	26	2.97E+07	2.97E+07	1.33E+07
Typical	Ground	Truck Mount	Spot	A/M/L	0.075	0.0051	0.38	6	1	70	1.25E-05	58	58	26	4.66E+06	4.66E+06	2.09E+06
Typical	Ground	Truck Mount	B/B	A	0.075	0.00074	1.5	5	1	70	5.95E-06	58	58	26	9.75E+06	9.75E+06	4.37E+06
Typical	Ground	Truck Mount	B/B	M/L	0.075	0.0012	1.5	3	1	70	5.79E-06	58	58	26	1.00E+07	1.00E+07	4.49E+06
Typical	Ground	Truck Mount	B/B	A/M/L	0.075	0.00194	1.5	5	1	70	1.56E-05	58	58	26	3.72E+06	3.72E+06	1.67E+06
Max	Ground	Human	Bpack	A/M/L	0.1	0.03	0.4	6	1	70	1.03E-04	58	58	26	5.64E+05	5.64E+05	2.53E+05
Max	Ground	Human	Hback	A	0.1	0.0039	1	8	1	70	4.46E-05	58	58	26	1.30E+06	1.30E+06	5.83E+05
Max	Ground	Human	Hback	M/L	0.1	0.0012	1	8	1	70	1.37E-05	58	58	26	4.23E+06	4.23E+06	1.90E+06
Max	Ground	Human	Hback	A/M/L	0.1	0.0051	1	8	1	70	5.83E-05	58	58	26	9.95E+05	9.95E+05	4.46E+05
Max	Ground	ATV	Spot	A	0.1	0.0039	0.5	9	1	70	2.51E-05	58	58	26	2.31E+06	2.31E+06	1.04E+06
Max	Ground	ATV	Spot	M/L	0.1	0.0012	0.5	6	1	70	5.14E-06	58	58	26	1.13E+07	1.13E+07	5.06E+06
Max	Ground	ATV	Spot	A/M/L	0.1	0.0051	0.5	9	1	70	3.28E-05	58	58	26	1.77E+06	1.77E+06	7.93E+05
Max	Ground	ATV	B/B	A	0.1	0.00074	1.6	9	1	70	1.52E-05	58	58	26	3.81E+06	3.81E+06	1.71E+06
Max	Ground	ATV	B/B	M/L	0.1	0.0012	1.6	5	1	70	1.37E-05	58	58	26	4.23E+06	4.23E+06	1.90E+06
Max	Ground	ATV	B/B	A/M/L	0.1	0.00194	1.6	9	1	70	3.99E-05	58	58	26	1.45E+06	1.45E+06	6.51E+05
Max	Ground	Truck Mount	Spot	A	0.1	0.0039	1	10	1	70	5.57E-05	58	58	26	1.04E+06	1.04E+06	4.67E+05
Max	Ground	Truck Mount	Spot	M/L	0.1	0.0012	1	8	1	70	1.37E-05	58	58	26	4.23E+06	4.23E+06	1.90E+06
Max	Ground	Truck Mount	Spot	A/M/L	0.1	0.0051	1	10	1	70	7.29E-05	58	58	26	7.96E+05	7.96E+05	3.57E+05
Max	Ground	Truck Mount	B/B	A	0.1	0.00074	2.25	8	1	70	1.90E-05	58	58	26	3.05E+06	3.05E+06	1.37E+06
Max	Ground	Truck Mount	B/B	M/L	0.1	0.0012	2.25	6	1	70	2.31E-05	58	58	26	2.51E+06	2.51E+06	1.12E+06
Max	Ground	Truck Mount	B/B	A/M/L	0.1	0.00194	2.25	8	1	70	4.99E-05	58	58	26	1.16E+06	1.16E+06	5.21E+05

Notes:

Calculation: Aggregate Risk Level
Scenario: Occupational - Routine Exposure
Pathway: Dermal Contact with and Inhalation of Herbicide
Herbicide: Diflufenzopyr
Program: Rangeland, Energy/Mineral, Rights-of-Way, Recreation/Cultural

Scenario	Application Type	Application Vehicle	Application Method	Receptor	Margin of Exposure Dermal Exposure (unitless)			Margin of Exposure Inhalation Exposure (unitless)			Target Margin of Exposure		Aggregate Risk Index		
					Short	Int	Long	Short	Int	Long	Dermal	Inhalation	Short	Int	Long
Typical	Ground	Human	Bpack	A/M/L	NC	NC	NC	3.01E+06	3.01E+06	1.35E+06	100	100	3.01E+04	3.01E+04	13481.481
Typical	Ground	Human	Hback	A	NC	NC	NC	3.08E+06	3.08E+06	1.38E+06	100	100	3.08E+04	3.08E+04	13827.16
Typical	Ground	Human	Hback	M/L	NC	NC	NC	1.00E+07	1.00E+07	4.49E+06	100	100	1.00E+05	1.00E+05	44938.272
Typical	Ground	Human	Hback	A/M/L	NC	NC	NC	2.36E+06	2.36E+06	1.06E+06	100	100	2.36E+04	2.36E+04	10573.711
Typical	Ground	ATV	Spot	A	NC	NC	NC	1.11E+07	1.11E+07	4.98E+06	100	100	1.11E+05	1.11E+05	49777.778
Typical	Ground	ATV	Spot	M/L	NC	NC	NC	6.01E+07	6.01E+07	2.70E+07	100	100	6.01E+05	6.01E+05	269629.63
Typical	Ground	ATV	Spot	A/M/L	NC	NC	NC	8.49E+06	8.49E+06	3.81E+06	100	100	8.49E+04	8.49E+04	38065.359
Typical	Ground	ATV	B/B	A	NC	NC	NC	1.83E+07	1.83E+07	8.20E+06	100	100	1.83E+05	1.83E+05	81981.982
Typical	Ground	ATV	B/B	M/L	NC	NC	NC	1.88E+07	1.88E+07	8.43E+06	100	100	1.88E+05	1.88E+05	84259.259
Typical	Ground	ATV	B/B	A/M/L	NC	NC	NC	6.98E+06	6.98E+06	3.13E+06	100	100	6.98E+04	6.98E+04	31271.478
Typical	Ground	Truck Mount	Spot	A	NC	NC	NC	6.09E+06	6.09E+06	2.73E+06	100	100	6.09E+04	6.09E+04	27290.448
Typical	Ground	Truck Mount	Spot	M/L	NC	NC	NC	2.97E+07	2.97E+07	1.33E+07	100	100	2.97E+05	2.97E+05	133040.94
Typical	Ground	Truck Mount	Spot	A/M/L	NC	NC	NC	4.66E+06	4.66E+06	2.09E+06	100	100	4.66E+04	4.66E+04	20869.166
Typical	Ground	Truck Mount	B/B	A	NC	NC	NC	9.75E+06	9.75E+06	4.37E+06	100	100	9.75E+04	9.75E+04	43723.724
Typical	Ground	Truck Mount	B/B	M/L	NC	NC	NC	1.00E+07	1.00E+07	4.49E+06	100	100	1.00E+05	1.00E+05	44938.272
Typical	Ground	Truck Mount	B/B	A/M/L	NC	NC	NC	3.72E+06	3.72E+06	1.67E+06	100	100	3.72E+04	3.72E+04	16678.121
Max	Ground	Human	Bpack	A/M/L	NC	NC	NC	5.64E+05	5.64E+05	2.53E+05	100	100	5.64E+03	5.64E+03	2527.7778
Max	Ground	Human	Hback	A	NC	NC	NC	1.30E+06	1.30E+06	5.83E+05	100	100	1.30E+04	1.30E+04	5833.3333
Max	Ground	Human	Hback	M/L	NC	NC	NC	4.23E+06	4.23E+06	1.90E+06	100	100	4.23E+04	4.23E+04	18958.333
Max	Ground	Human	Hback	A/M/L	NC	NC	NC	9.95E+05	9.95E+05	4.46E+05	100	100	9.95E+03	9.95E+03	4460.7843
Max	Ground	ATV	Spot	A	NC	NC	NC	2.31E+06	2.31E+06	1.04E+06	100	100	2.31E+04	2.31E+04	10370.37
Max	Ground	ATV	Spot	M/L	NC	NC	NC	1.13E+07	1.13E+07	5.06E+06	100	100	1.13E+05	1.13E+05	50555.556
Max	Ground	ATV	Spot	A/M/L	NC	NC	NC	1.77E+06	1.77E+06	7.93E+05	100	100	1.77E+04	1.77E+04	7930.2832
Max	Ground	ATV	B/B	A	NC	NC	NC	3.81E+06	3.81E+06	1.71E+06	100	100	3.81E+04	3.81E+04	17079.58
Max	Ground	ATV	B/B	M/L	NC	NC	NC	4.23E+06	4.23E+06	1.90E+06	100	100	4.23E+04	4.23E+04	18958.333
Max	Ground	ATV	B/B	A/M/L	NC	NC	NC	1.45E+06	1.45E+06	6.51E+05	100	100	1.45E+04	1.45E+04	6514.8912
Max	Ground	Truck Mount	Spot	A	NC	NC	NC	1.04E+06	1.04E+06	4.67E+05	100	100	1.04E+04	1.04E+04	4666.6667
Max	Ground	Truck Mount	Spot	M/L	NC	NC	NC	4.23E+06	4.23E+06	1.90E+06	100	100	4.23E+04	4.23E+04	18958.333
Max	Ground	Truck Mount	Spot	A/M/L	NC	NC	NC	7.96E+05	7.96E+05	3.57E+05	100	100	7.96E+03	7.96E+03	3568.6275
Max	Ground	Truck Mount	B/B	A	NC	NC	NC	3.05E+06	3.05E+06	1.37E+06	100	100	3.05E+04	3.05E+04	13663.664
Max	Ground	Truck Mount	B/B	M/L	NC	NC	NC	2.51E+06	2.51E+06	1.12E+06	100	100	2.51E+04	2.51E+04	11234.568
Max	Ground	Truck Mount	B/B	A/M/L	NC	NC	NC	1.16E+06	1.16E+06	5.21E+05	100	100	1.16E+04	1.16E+04	5211.9129

Notes: