

TABLE 2.— AGGREGATE RISK ASSESSMENT FOR ACUTE EXPOSURE TO S-METOLACHLOR

Population Subgroup	aPAD (mg/kg)	% aPAD (Food)	Surface Water EEC (ppb)*	Ground Water EEC (ppb)*	Acute DWLOC (ppb)
U.S. Population	3.0	< 1	201	103	1.0 x 105
All Infants (< 1 year old)	3.0	<1	201	103	3.0 x 104
Children (1-6 years old)	3.0	<1	201	103	3.0 x 104
Children (7-12 years old)	3.0	<1	201	103	3.0 x 104
Females (13-50 years old)	3.0	<1	201	103	9.0 x 104
Males (13-19 years old)	3.0	<1	201	103	1.0 x 105
Males (20+ years old)	3.0	<1	201	103	1.0 x 105
Seniors (55+ years old)	3.0	<1	201	103	1.0 x 105

* Represents the combined value of parent plus the ESA and OA degradates.

2. *Chronic risk.* Using the exposure assumptions described in this unit for chronic exposure, EPA has concluded that exposure to s-metolachlor from food will utilize 2 % of the cPAD for the U.S. population, 2 % of the cPAD for all infants < 1 year old and 3 % of the cPAD

for children 1-6 years old. Based the use pattern, chronic residential exposure to residues of s-metolachlor is not expected. In addition, despite the potential for chronic dietary exposure to s-metolachlor in drinking water, after calculating DWLOCs and comparing

them to conservative model estimated environmental concentrations of s-metolachlor in surface and ground water, EPA does not expect the aggregate exposure to exceed 100% of the cPAD, as shown in Table 3 of this unit:

TABLE 3.— AGGREGATE RISK ASSESSMENT FOR CHRONIC (NON-CANCER) EXPOSURE TO S-METOLACHLOR

Population Subgroup	cPAD mg/kg/day	% cPAD (Food)	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Chronic DWLOC (ppb)
U.S. Population	0.1	2	92	103	3400
All Infants (< 1 year old)	0.1	2	92	103	980
Children (1-6 years old)	0.1	3	92	103	970
Children (7-12 years old)	0.1	2	92	103	980
Females (13-50 years old)	0.1	1	92	103	3000
Males (13-19 years old)	0.1	2	92	103	3400
Males (20+ years old)	0.1	1	92	103	3500
Seniors (55+ years old)	0.1	1	92	103	3500

3. *Short-term risk.* Short-term aggregate exposure takes into account residential exposure plus chronic exposure to food and water (considered to be a background exposure level).

For metolachlor and s-metolachlor, potential short-term, non-occupational risk scenarios include oral exposure of children to treated lawns. In this aggregate short-term risk assessment, exposure from food, drinking water, and residential lawns has been considered. Since only children have the potential for non-occupational, short-term risk, they are the only population subgroup

included below. Short-term DWLOC values have been calculated for both metolachlor and s-metolachlor, with the only difference in the calculations being different oral exposure values for metolachlor vs. s-metolachlor (based on different application rates).

Using the exposure assumptions described in this unit for short-term exposures, EPA has concluded that food and residential exposures aggregated result in aggregate MOEs of 640 for metolachlor and 1000 for s-metolachlor for children 1-6 years old (the only population sub-group of concern. These

aggregate MOEs do not exceed the Agency's level of concern for aggregate exposure to food and residential uses. In addition, short-term DWLOCs were calculated and compared to the EECs for chronic exposure of s-metolachlor in ground water and surface water. After calculating DWLOCs and comparing them to the EECs for surface and ground water, EPA does not expect short-term aggregate exposure to exceed the Agency's level of concern, as shown in Table 4 of this unit: