

3. *Short-term risk (1–30 days).* Short-term aggregate exposure takes into account residential exposure plus chronic exposure to food and water (considered to be a background exposure level).

Sethoxydim is currently registered for uses that could result in short-term residential exposure and the Agency has determined that it is appropriate to aggregate chronic food and water and short-term exposures for sethoxydim.

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 greater than 1,000 for all exposure scenarios in children aged 1–2 years, which includes oral hand-to-mouth, oral object-to-mouth and soil ingestion. These aggregate MOEs do not exceed the Agency's level of concern for aggregate exposure to food and residential uses. Short-term aggregate risk assessments were not calculated for adult handlers because oral and inhalation endpoints lack a common toxicity endpoint. The

children 1–2 years-of-age scenario was chosen because it was the highest estimated food exposure and thus, also protective of children 3–5 years of age. In addition, short-term DWLOCs were calculated and compared to the EECs for chronic exposure of sethoxydim in ground and surface water. After calculating DWLOCs and comparing them to the EECs for surface water and ground water, EPA does not expect short-term aggregate exposure to exceed the Agency's level of concern, as shown in the following Table 5:

TABLE 5.—AGGREGATE RISK ASSESSMENT FOR SHORT-TERM EXPOSURE TO SETHOXYDIM

Population Subgroup	Target MOE	Target Maximum Exposure ¹ (mg/kg/day)	Surface Water EEC ² (ppb)	Ground Water EEC ² (ppb)	Short-Term DWLOC (ppb)
Children 1–2 years old	1,000	0.18	20	1	1,650

¹ Target Maximum Exposure = NOAEL/Target MOE.

² Estimate for the highest use rate was chosen.

4. *Intermediate-term risk (1–6 months).* Intermediate-term aggregate exposure takes into account residential exposure plus chronic exposure to food and water (considered to be a background exposure level).

Sethoxydim is currently registered for use(s) that could result in intermediate-term residential exposure and the Agency has determined that it is appropriate to aggregate chronic food and water and intermediate-term exposures for sethoxydim.

Using the exposure assumptions described in this unit for intermediate-term exposures, EPA has concluded that food and residential exposures aggregated result in aggregate MOEs of greater than 1,000 for all exposure scenarios in children aged 1–2 years old, which includes oral hand-to-mouth, oral object-to-mouth and soil ingestion. These aggregate MOEs do not exceed the Agency's level of concern for aggregate exposure to food and residential uses. Intermediate term aggregate risk assessments were not calculated for

adult handlers because oral and inhalation endpoints lack a common toxicity endpoint. The children 1–2 years-of-age scenario were chosen because it was the highest estimated food exposure and thus, also protective of children 3–5 years of age. After calculating DWLOCs and comparing them to the EECs for surface water and ground water, EPA does not expect intermediate-term aggregate exposure to exceed the Agency's level of concern, as shown in the following Table 6:

TABLE 6.—AGGREGATE RISK ASSESSMENT FOR INTERMEDIATE-TERM EXPOSURE TO SETHOXYDIM

Population Subgroup	Target MOE	Target Maximum Exposure ¹ (mg/kg/day)	Surface Water EEC ² (ppb)	Ground Water EEC ² (ppb)	Intermediate-Term DWLOC (ppb)
Children 1–2 years old	1,000	0.046	20	1	330

¹Target Maximum Exposure = NOAEL/Target MOE.

²Estimate for the highest use rate was chosen.

5. *Aggregate cancer risk for U.S. population.* Sethoxydim is not expected to pose a cancer risk because no evidence of carcinogenicity was found in adequate animal tests in two different species.

6. *Determination of safety.* Based on these risk assessments, EPA concludes that there is a reasonable certainty that no harm will result to the general population, and to infants and children from aggregate exposure to sethoxydim residues.

IV. Other Considerations

A. Analytical Enforcement Methodology

Adequate enforcement methodology (gas-liquid chromatography with flame photometric detection (GLC/FPD) in the sulfur mode) is available [BASF Wyandotte Corporation's (BWC's) Method No. 30, 3/15/82; MRID 44864501; Method I, PAM II] to enforce the tolerance expression in plant and livestock commodities.

B. International Residue Limits

There are no Codex, Canadian, or Mexican maximum residue limits or tolerances for sethoxydim on lingonberry, junberry, salal, or safflower. Therefore, international harmonization is not an issue for the proposed uses of sethoxydim on lingonberry, junberry, salal, pistachio, or safflower.

There are no Codex or Mexican maximum residue limits or tolerances for sethoxydim on sweet corn. There is a Canadian tolerance on corn of 0.5 ppm for sethoxydim and metabolites