



## Evaluation Report for Category B, Subcategory 5.0 Application

<b>Application Number:</b>	2009-0124
<b>Application:</b>	New maximum residue limit for previously assessed technical grade active ingredient.
<b>Product:</b>	Sevin Brand Technical Carbaryl Insecticide
<b>Registration Number:</b>	18463
<b>Active ingredients (a.i.):</b>	Carbaryl
<b>PMRA Document Number :</b>	1986434

### Purpose of Application

The purpose of this application was to establish maximum residue limits (MRLs) for residues of carbaryl (Sevin Brand Technical Carbaryl Insecticide; Registration Number 18463) in/on certain plant commodities imported into Canada.

### Chemistry, Environment and Value Assessments

Chemistry, environment and value assessments were not required for this application.

### Health Assessments

Toxicology and occupational assessments were not required for this application.

Residue data for carbaryl in soybeans, flax, pineapples, prickly pear cactus, sweet potato, sorghum, dried beans and peas, rice, and sunflower seeds were submitted to support the import of these commodities into Canada. An analytical method for carbaryl residues in/on plant commodities and freezer storage stability data were also submitted to support the residue studies.

Based on the maximum residues observed in crops treated according to US and Mexico label directions, maximum residue limits (MRLs) to cover residues of carbaryl in/on crops will be established as shown in Table 1. Residues of carbaryl in processed commodities not listed in Table 1 are covered under established MRLs for the raw agricultural commodities (RACs).

Table 1: Maximum residue limits (MRLs) to cover residues of carbaryl in/on crops

Commodity	Application Method/ Total Application Rate (kg a.i./ha)	PHI (days)	Residues (ppm)		Currently Established MRL	Recommended MRL
			Min	Max		
Soybean seed	Foliar/ 6.72	21	0.03	0.33	-	0.5
Flaxseed	Foliar/ 3.36	42	<0.02	<0.02	-	0.02
Pineapples	Foliar/ 8.5	14	<0.02	0.078	-	2
Cactus fruit	Foliar/ 15.7	3	4.60	4.72	-	5
Cactus pads	Foliar/ 15.7	3	6.00	7.85	-	12
Sweet potato roots	Foliar/ 8.96	7	<0.02	<0.02	-	0.02
Sorghum	Foliar/ 6.72	14	<0.02	9.91	-	10
Dried beans	Foliar/ 6.72	21	<0.02	0.16	Beans 5.0	1.0
Dried peas	Foliar/ 6.72	21	<0.02	0.59	Peas 5.0	(Pea and bean, dried shelled, except soybean, subgroup 6C)
Rice	Foliar/ 4.48	14	2.44	11.80	-	15
Sunflower seeds	Foliar/ 16.8	60	0.02	0.33	-	0.5

Following the review of all available data, MRLs shown above in Table 1 for various crops imported into Canada are recommended to cover residues of carbaryl. Exposure to residues of carbaryl in these crop commodities will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

### Conclusion

The PMRA has completed an assessment of available information for carbaryl (Sevin Brand Technical Carbaryl Insecticide) and has found the information sufficient to support the establishment of MRLs for the crops listed in Table 1 above.

## References

PMRA Document Number	Reference
1701119	1995, Storage stability of carbaryl on frozen raw agricultural commodity substrates and selected processing fractions, DACO: 7.3
1701133	1995, Carbaryl: Magnitude of carbaryl residue in / on soybeans, DACO: 7.4.1
1701138	2007, Sevin XLR 48 SC (Sevin XLR plus) - Magnitude of the residue in/on pineapple, DACO: 7.4.1
1839686	1995, Independent laboratory confirmation of the tolerance enforcement method by EPA PR Notice 88-5 for carbaryl: General method for the determination of residues in crop samples by high performance liquid chromatography, DACO: 7.2.3
1839688	1996, Independent laboratory validation of a method for the determination of residues of carbaryl in crop samples, DACO: 7.2.3
1839692	2009, Petition proposing a tolerance for carbaryl for use in prickly pear cactus production, DACO: 7.4.1
1812301	1995, Radiovalidation of the method No. CARC-0194 revised March 27, 1995 - Carbaryl: General method for the determination of residue in crop samples by high performance liquid chromatography, DACO: 7.2.2
1812328	1995, Method validation for Rhone-Poulenc AG Company method No: CACR-0194 revised march 27, 1995 "Carbaryl: General method for the determination of residue in crop samles by high performance liquid chromatography", DACO: 7.2.2
1701127	1995, Carbaryl: Magnitude of residues in sweet potato RAC resulting from application of Sevin (R) XLR Plus insecticide (1994), DACO: 7.4.1
1701128	1995, Carbaryl: Magnitude of carbaryl residues in / on sorghum, DACO: 7.4.1
1701130	1995, Carbaryl: Magnitude of carbaryl residue in / on dried beans, DACO: 7.4.1
1701132	1995, Carbaryl: Magnitude of carbaryl residue in / on dried peas, DACO: 7.4.1
1701134	1995, Carbaryl: Magnitude of residues in / on rice resulting from foliar applications of Sevin (R) XLR Plus (1994), DACO: 7.4.1
1701136	1996, Determination of the magnitude of residues on flax seed and straw treated with foliar applications of Sevin (R) XLR Plus brand of carbaryl insecticide, DACO: 7.4.1
1701140	1995, Determination of the magnitude of residues in sunflower seed processed fractions treated with foliar applications of Sevin (R) XLR Plus brand of carbaryl insecticide, DACO: 7.4.1,7.4.5

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