

EVALUATION OF MINIMUM DATA REQUIREMENTS

**FOR ACUTE TOXICITY
VALUE EXTRAPOLATION
WITH AQUATIC
ORGANISMS**

Final Report

Evaluation of Minimum Data Requirements For Acute Toxicity Value Extrapolation with Aquatic Organisms

by

Denny R. Buckler¹, Foster L. Mayer²,
Mark R. Ellersieck³, and Amha Asfaw³

¹U.S. Geological Survey, Columbia Environmental Research Center
4200 New Haven Road, Columbia, Missouri 65201

²U.S. Environmental Protection Agency
National Health and Environmental Effects Research Laboratory
Gulf Ecology Division, Sabine Island
Gulf Breeze, Florida 32561

³University of Missouri-Columbia, College of Agriculture, Food and Natural
Resources, Agriculture Experiment Station-Statistics
Columbia, Missouri 65211

Final Report

EPA Project No. DW-14-93900201-1

Submitted to the
U.S. Environmental Protection Agency
Office of Pesticide Programs
April 1, 2003

U.S. Environmental Protection Agency
National Health and Environmental Effects Research Laboratory
Gulf Ecology Division
1 Sabine Island Drive
Gulf Breeze, FL 32561-5299

Notice

The U.S. Environmental Protection Agency through its Office of Research and Development and Office of Pesticide Programs partially funded and collaborated in the research described herein under EPA Project No. DW14-93900201-0 to U.S. Geological Survey, Biological Resources Division, Columbia Environmental Research Center. It has been subjected to the Agency's peer and administrative review and has been approved for publication as an EPA document. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

Abstract

Assessment of risk posed by an environmental contaminant to an aquatic community requires estimation of both its magnitude of occurrence (*exposure*) and its ability to cause harm (*effects*). Our ability to estimate *effects* is often hindered by limited toxicological information. As a result, resource managers and environmental regulators are often faced with the need to extrapolate across taxonomic groups in order to protect the more sensitive members of the aquatic community. The goals of this effort were to: 1) compile and organize an extensive body of acute toxicity data, 2) characterize the distribution of toxicant sensitivity across taxa and species, and 3) to establish appropriate toxicity extrapolation factors based upon toxicological relations among species and chemicals. The results of this effort allow for better use of available information for predicting the sensitivity of untested species to environmental contaminants.

Three extensive databases containing acute toxicity information were obtained. The first was the combined acute toxicity database of the U.S. Geological Survey's Columbia Environmental Research Center and the U.S. EPA's Gulf Ecology Division. A second database was obtained from the U.S. EPA's Office of Pesticide Programs. The third database (EVISTRRA, a component of the AQUIRE/ECOTOX database) was obtained from U.S. EPA's Office of Research and Development. In order to develop the most useful database for the purpose of evaluating toxicological relations across chemicals and taxa, it was necessary to standardize the information to be incorporated and establish a core data set. This was accomplished in a series of iterative steps. In general terms, data that were derived from studies that approximated the acute toxicity test conditions outlined by the American Society for Testing and Materials (2002) and/or the Committee on Methods for Toxicity Tests with Aquatic Organisms (1975) were retained, while other data were eliminated. This paring of information greatly reduced the number of data points retained, but served to eliminate variability that would have hindered discernment of toxicological relations.

As a part of this project, a software program entitled "Ecological Risk Analysis" (ERA) was developed. The utility of this program is to assign sensitivity rankings (as percentile values) to species with known acute toxicity values for a given chemical and then predict an acute toxicity value for theoretical species with designated sensitivities. For this effort we chose to focus on estimating LC50 values for the theoretical 5th percentile most-sensitive species. The ERA program was used to establish initial estimates of 5th percentile values using the core data sets. Subsequently, various extrapolation and prediction methods were evaluated in terms of their ability to estimate comparable 5th percentile values for severely limited data sets.

While it is obviously desirable to have high quality acute toxicity values for as many species as possible for predicting toxicity values for sensitive members of the aquatic community, it is often necessary to make predictions for new or existing chemicals based upon limited data. The results indicate that the ERA program can be used with limited data sets to predict reasonable taxa-specific values for sensitive organisms. Further, if simple extrapolation from data on a single species must be used, the most satisfactory results were obtained with rainbow trout, bluegill, or scud.

Contents

Notice ..□	ii
Abstract	iii
Contents	iv
Figure ..□	v
Tables ...□	v
Acknowledgements	vi
Introduction.....	1
Methods	1
Database Development	1
Analyses	2
Results and Discussion.....	4
Results with Combined Data Sets	4
Results with Taxa-Specific Core Data Sets	5
Comparison of Results Obtained with Taxa-Specific..... vs. Combined Core Data Sets	6
Conclusions	7
References	8
Appendix I Final Acute Toxicity Database.....	63
Appendix II Summary of Number of Species Tested per Chemical	
Appendix II - A Freshwater Fishes	125
Appendix II - B Freshwater Invertebrates	139
Appendix II - C Saltwater Fishes	151
Appendix II - D Saltwater Invertebrates	157
Appendix II - E Amphibia and Others	165

Figure

Figure 1. Example of ERA analysis for azinphos-methyl, indicating C50s for selected species and predicted 5th and 50th percentile LC50s..... Page 8

Tables

Tables 1- 54..... Starting on page 9 through 60

Acknowledgements

Funding for this project was provided in part by the U.S. Environmental Protection Agency, Office of Pesticide Programs. In particular, we thank Les Touart, Kathryn Gallagher, Tim Barger, and Donna Randall for their suggestions and general assistance with this project; Chris Russom for providing the EVISTRA database; and Brian Montague and Kathryn Gallagher for assistance with the database.

Introduction

Assessment of risk posed by an environmental contaminant to an aquatic community requires estimation of both its magnitude of occurrence (*exposure*) and its ability to cause harm (*effects*). Our ability to estimate *exposure* is primarily limited by our analytical capability and our understanding of environmental compartmentalization and factors controlling bioavailability. Our ability to estimate *effects* is most often hindered by limited toxicological information. When toxicity information does exist, it is frequently available for only a limited number of aquatic species. Consequently, resource managers and environmental regulators are often faced with the need to extrapolate across taxonomic groups in order to protect the more sensitive members of the aquatic community.

The Environmental Fate and Effects Division (Office of Pesticide Programs, U.S Environmental Protection Agency) has undertaken approaches to implementing probabilistic risk assessments for aquatic ecosystems based, as a starting point, on the Ecological Committee on FIFRA Risk Assessment Methods (ECOFRAM) Aquatic Draft Report (1999). The proposed plan is to move the U.S. EPA towards an improved method for conducting pesticide risk assessments based upon considerations of magnitude and probability of effect. Many implicit assumptions exist involving the validity of extrapolations that are not explicitly addressed in current risk assessment methodology. It is important to note that current estimates of potential risk do not account for a number of factors that may profoundly affect the actual risk outcome. The present report addresses two of those factors: 1) intra-species sensitivity differences and 2) inter-species sensitivity differences for select aquatic species.

The goals of this effort were to: 1) compile and organize an extensive body of acute toxicity data, 2) characterize the distribution of toxicant sensitivity across taxa and species, and 3) to establish appropriate toxicity extrapolation factors based upon toxicological relations among species and chemicals. The results of this effort allow for better use of available information for predicting the sensitivity of untested species to environmental contaminants.

A fundamental assumption for this effort is that sensitivity to a given toxicant is distributed across all species in the broad aquatic community in the same manner that toxicant sensitivity is distributed across the individual members of a species within a population. In other words, a population is comprised of a few very sensitive individuals and a few very tolerant individuals, with the majority of individuals falling in the mid-range. The width of this normal distribution curve (distribution of sensitivity of individuals within a species) determines the slope of the dose-response

curve for a given species-chemical combination. If we assume that toxicant sensitivity across species is similarly distributed (with a few very sensitive species and a few very tolerant species, with the majority of species falling in the mid-range), we can use the sensitivity of tested species (existing toxicity data) to define the slope of the toxicity curve across all species within the broad aquatic community. Using the slope of the curve we can estimate acute toxicity values for species of varying sensitivity. For this effort, we chose to focus on estimating acute toxicity values for the theoretical 5th percentile most-sensitive species. Obviously, the procedure does not identify this theoretical species, but that is not necessary if the goal is to protect the aquatic community at-large based upon the distribution of sensitivity.

Methods

Database Development

Three extensive databases containing acute toxicity information were obtained. The first was the combined acute toxicity database of the U.S. Geological Survey's Columbia Environmental Research Center (CERC) and the U.S. EPA's Gulf Ecology Division (GED). The CERC-GED database is a compilation of acute toxicity information generated by the two laboratories over several decades. The database contains 4901 observations on 410 chemicals with 66 species of freshwater organisms (Mayer and Ellersieck 1986) and 1500 observations on 197 chemicals with 52 species of estuarine and marine organisms (Mayer 1987). A second database was obtained from the U.S. EPA's Office of Pesticide Programs (OPP). The OPP database is a compilation of acute toxicity information for a wide variety of aquatic and terrestrial organisms and birds that has been developed in support of the registration process for pesticides. The database contains 14,257 observations on 786 chemicals and 418 species. The third database (EVISTRA - Evaluation and Interpretation of Some Test Results in AQUIRE), which is a component of the U.S. EPA's AQUIRE/ECOTOX database, was obtained from the U.S. EPA's Office of Research and Development. The EVISTRA database was developed in support of the derivation of Ambient Water Quality Criteria. The entire AQUIRE/ECOTOX database contains 77,468 observations on 299 chemicals and 2522 species of fresh- and saltwater organisms; Table 1 (EVISTRA) data includes 3464 observations on 176 chemicals and 263 species.

In order to develop the most useful database for the purpose of evaluating toxicological relations across chemicals and taxa, it was important to standardize the information to be incorporated. This was accomplished in a series of

iterative steps. First, the databases were standardized in terms of nomenclature for chemicals and species and for the fields of data reported. After selecting common fields to be incorporated, data from the three databases were combined into a Microsoft® Excel spreadsheet. Chemical names and CAS numbers were compared and standardized across all three data sources. Subsequently, taxonomic and common names of species were standardized. This effort, along with comparison of original data source citations, made it possible to eliminate redundant reporting across and within each data source. The result of this effort was a single database containing acute toxicity information for a large number of chemical and species combinations, with no redundant reporting of values.

The next major step was to pare the data down to a core set that would be most useful for comparing values across species and chemicals. The goal was to retain as much information as possible, while eliminating data that would contribute more to variability than it would to revealing toxicological relations. For example, while a one-hour test of the toxicity of a chemical to a newly-hatched fathead minnow at 1° C might well produce useful information for a very specific purpose, its utility for producing data that would be useful to the development of extrapolation factors for use across taxa would be minimal. So, selection criteria were developed for a number of study design parameters that could be used to derive an optimal data set. In general terms, data that were derived from studies that approximated the acute toxicity test conditions outlined by the American Society for Testing and Materials (2002) and/or the Committee on Methods for Toxicity Tests with Aquatic Organisms (1975) were retained, while other data were eliminated. The selection criteria used were as follows:

1. Only data for aquatic organisms was retained.
2. Only 96-h LC50 data was retained for fish.
3. Only 48-h LC50 and EC50 data was retained for invertebrates, except for those invertebrate species that are most commonly tested for 96 h.
4. Only values obtained for fish ≤ 0.2 g and # 5.0 g were retained.
5. Only values for fish # 3 months old or # 50 mm were retained.
6. Only values for chemicals identified as Technical Grade or better, or ≥ 90% Active Ingredient were retained.
7. Only values from studies conducted at a water hardness of 30-60 mg/L were retained.
8. Only values from studies conducted at a pH of 6.8-7.8 were retained.
9. Only values from studies conducted at temperatures “appropriate” for the species were retained.

10. Data for algae, plants, and diatoms were eliminated.
11. Data for fish and shrimp identified as “larval” were eliminated.
12. Data for mature blue crabs and adult oysters and shrimp were eliminated.

This paring of information greatly reduced the number of data points retained, but served to eliminate variability that would have hindered, rather than enhanced, discernment of toxicological relations. After paring, the database contains 3734 tests on 654 chemicals and 136 species of aquatic organisms (Appendix 1). A final step before analysis was to calculate geometric means of multiple values for single chemical-species combinations. For example, if three LC50 values were reported for rainbow trout exposed to copper sulfate, the geometric mean of those values was calculated and used as the single database entry for that chemical-species combination. The final database represents a major distillation of a very large body of acute toxicity values, but provides the necessary comparability for analyses of chemical and species correlations.

Analyses

As a part of this project, statisticians from the Agricultural Experiment Station, College of Agriculture, Food and Natural Resources, University of Missouri-Columbia developed a software program entitled “Ecological Risk Analysis” (ERA). The utility of this program is its ability to assign sensitivity rankings (as percentile values) to species with known acute toxicity values for a given chemical, and its ability to then predict an acute toxicity value for theoretical species with designated sensitivities (e.g. 5th percentile). As previously mentioned, for this effort we chose to focus on estimating LC50 values for the theoretical 5th percentile most-sensitive species. A brief description of the functioning of the ERA Program follows:

1. Using the database described above, each species with a known acute toxicity value for a given chemical is assigned a percentile sensitivity ranking using the formula: $\text{Percent} = (100 * n / (N + 1))$, where n = the rank number of the species in terms of sensitivity to the chemical, and N = the total number of species with values for that chemical.
2. For a given chemical, a simple linear regression is then performed with log10 LC50 values on the X-axis and species percentile values on the Y-axis.
3. The LC50 value corresponding to any percentile value of interest can then be estimated from the line. In this effort, we focused on the 5th percentile sensitivity value.

4. Confidence intervals, at selected levels of significance, can be calculated for all point estimates.
5. Values for either the X- or Y-axis can be predicted from values from the opposite axis (i.e. percentile sensitivity values corresponding to LC50s, or LC50s corresponding to percentile sensitivity values).

The theoretical basis for this log-normal distribution method is described by Solomon, et al. (1996), and an approach to the use of species distributions of toxicity values in probabilistic risk assessment is discussed by Solomon et al. (2000). Other models have been suggested (log-logistic, log-triangular, and bootstrap techniques), as well as using censored data sets, for estimating the 5th percentile, but a consensus does not seem to exist (Posthuma et al. 2002). Thus, for this initial assessment of extrapolation factors, we used the log-normal distribution model (Solomon et al. 1996).

The ERA program was used to evaluate toxicant sensitivity relations for all chemicals in the database for which ten or more species were represented (Table 1). There were 53 such chemicals. Evaluations of toxicant sensitivity relationships with these chemicals formed the foundation for all subsequent analyses – our presumption being that this was our “best” data for evaluation of sensitivity relationships across species. The first step was to use the ERA program to estimate a 5th percentile LC50 value for each chemical. This value represents our best estimate of the LC50 for the theoretical 5th percentile most-sensitive species. Subsequently, four methods were evaluated in terms of their ability to predict 5th percentile LC50 values from severely limited data sets. The four methods included: 1) development of simple extrapolation factors for use with commonly tested species using raw LC50 data to predict 5th percentile LC50 values, 2) development of simple extrapolation factors using log10 transformed data to predict 5th percentile LC50 values, 3) prediction of 5th percentile LC50 values based upon regression analysis with values for commonly tested species, and 4) use of the ERA program with limited data sets to predict 5th percentile LC50 values. Each of these methods is described in more detail below:

Method 1: Simple extrapolation factors – Simple extrapolation factors were calculated for each of the 10 most commonly tested species in the database (Table 2) for each of the 53 chemicals. This was accomplished by dividing the original ERA estimate of the 5th percentile LC50 value by the species’ LC50 value (expressed in (ig/L)). Median extrapolation factors for each of the 10 species were then calculated across all 53 chemicals. Finally, the LC50 for a species-chemical combination was multiplied by the species’ median extrapolation factor to yield a “new” estimate

of the 5th percentile LC50.

Method 2: Simple extrapolation factors using log-transformed data – A process identical to that described above was applied, using log10 transformed LC50 values to moderate variability.

Method 3: Regression analysis of log-transformed values – A third method used regression analysis to derive equations from which 5th percentile LC50 values could be calculated from acute toxicity values for commonly tested species. For each of the ten commonly tested species, a simple linear regression was performed. Data for the log10 5th percentile LC50 values derived from the ERA program for each of the 53 chemicals in the core data set comprised the Y-axis and log10 acute toxicity values for the individual tested species comprised the X-axis. New estimates of the 5th percentile LC50 for each chemical were then made using the species-specific equations and the original acute toxicity values.

Method 4: ERA with limited data sets – Finally, the ERA program was used with intentionally limited minimal data sets comprised of various combinations of the most commonly tested species. Six combinations of species were used (Table 3).

Analysis by chemical class – Each of the previously described methods draws upon data derived from a relatively wide array of chemical classes, representing a variety of biochemical modes of action. Theoretically, less variable results should be obtained by limiting the analysis to chemicals representing a single mode of toxic action. Within the core data set of 53 chemicals, inhibitors of acetylcholinesterase (organophosphates and carbamates) comprised the most highly represented class. Each of the four evaluation methods was applied to a more limited data set comprised only of cholinesterase inhibitors.

Calculation of error values – The results obtained with each of the methods were evaluated for their ability to predict 5th percentile LC50 values. Estimates of “error” associated with each method were calculated as follows: First, we assumed that the ERA estimates of the 5th percentile LC50 values for chemicals derived from core data sets are the “true” values for these chemicals. Dividing the new estimate of the 5th percentile LC50 value for a chemical (derived by one of the four alternative approaches) by the original ERA estimate yields a proportion that can be used as an “error value.” Mean and median error values were calculated for each species (or species combination) across all chemicals to compare the utility of the alternative approaches.

Analysis Using Taxa-Specific Core Data Sets

An attempt was made to improve the analysis by segregating freshwater organisms from saltwater organisms, and fish from invertebrates. It was assumed that analysis within groups of more closely related taxa would yield less variable results. Whereas the previous analysis predicted a 5th percentile LC50 value for an unclassified theoretical species, this subsequent analysis would predict 5th percentile LC50 values for a theoretical species of freshwater fish, a freshwater invertebrate, etc. Such an analysis is more compatible with the current methodology of the Office of Pesticide Programs, which predicts separate fish-specific and invertebrate-specific values.

After segregation of the database, the components (freshwater fishes, freshwater invertebrates, saltwater fishes, saltwater invertebrates, and "amphibia and others") were evaluated in terms of the number of species represented per chemical (Appendix 2) in order to establish new "core" data sets. In the previous analysis, only those chemicals for which ten or more species were represented were used to form the "core" data set of 53 chemicals. This criterion was also used for the freshwater fish database, resulting in a core data set of 13 chemicals (Table 4). For freshwater invertebrates, only five chemicals met the 10-species criterion (Table 4). A lack of diversity of tested saltwater species (both fishes and invertebrates) and "amphibia and others" resulted in no chemicals meeting the 10-species criterion, so these categories of organisms were not further evaluated. Each of the four previously described methods of analysis was applied to the taxa-specific data sets for freshwater fish and freshwater invertebrates. The commonly tested freshwater species used in this analysis are listed in Table 5. For Method 4 (ERA analysis of limited data sets), four freshwater species combinations were evaluated (Table 6).

Comparison of Results Obtained with Taxa-Specific vs. Combined Core Data Sets

Finally, the results obtained using the segregated taxa-specific data sets were compared to the results obtained with the original combined core data set. Error values were calculated in a manner similar to other comparisons. The 5th percentile LC50 values derived from the taxa-specific data sets were divided by the respective 5th percentile values derived from the original combined core data set, yielding estimates of "error".

Results and Discussion

Results with Combined Data Set

A summary of the extrapolation factors developed for Methods 1 and 2 is presented in Table 7. Estimates of the 5th percentile LC50 values obtained using Methods 1 and 2 are presented in Tables 8 and 9. Values for the equations derived for each species for use with Method 3 are presented in Table 10. Estimates of the 5th percentile LC50 values obtained using Methods 3 and 4 are presented in Tables 11 and 12. Error values calculated for the four methods are presented in Tables 13-16. Summary statistics for the error analysis for the four methods are presented in Table 17.

Method 1: Simple extrapolation factors resulted in median error values that were very close to 1.0 for all 10 commonly tested species (Table 17). An error value of 1.0 represents perfect correspondence of 5th percentile LC50 estimates. Thus, a median value of 1.0 simply suggests that one is equally likely to over-predict as to under-predict the LC50 using this method. However, mean error values were quite high, ranging from 7.3 for stonefly to 14,000 for scud. Minimum and maximum values ranged widely. Of the ten species evaluated, extrapolation factors based on stonefly data provided 5th percentile LC50 estimates that were closest to those predicted by the ERA program using the core data set.

Method 2: Simple extrapolation factors using log-transformed data resulted in median error values ranging from 0.8 for channel catfish to 2.8 for mysid shrimp (Table 17). Mean error values were much lower than with Method 1, but still ranged from 4.2 for stonefly to 50 for sheepshead minnow. Again, minimum and maximum values ranged widely. As before, extrapolation factors based on stonefly data provided estimates that were most similar to those of the ERA program.

Success with either Method 1 or 2 depends upon the tested species occupying a relatively constant position within the range of sensitivities of all species within the aquatic community. Our analysis suggests that this is not the case (Table 18). For example, the mean and median percentile ranking for rainbow trout across the 53 chemicals in the core data set was 50. However, it was the most sensitive species to trifluralin with a percentile ranking of 7.7, while being the least sensitive species to coumaphos with a ranking of 91. Similar variability in sensitivity across chemicals was observed for each of the other commonly tested species. This variability in relative sensitivity is the primary contributor to the lack of consistency of these two predictive methods.

Method 3: Regression analysis of log-transformed

values resulted in median error values ranging from 0.7 for bluegill and mysid shrimp to 1.1 for Eastern oyster (Table 17). Mean error values were smaller than mean values obtained with Method 1 and were generally smaller than, or similar to, values obtained by Method 2, ranging from 2.8 for stonefly to 48 for Eastern oyster. Minimum and maximum values generally ranged less widely than either Method 1 or 2. As with both previous methods, stonefly data provided estimates that were closest to those predicted by the ERA program using the combined core data set.

Method 4: ERA with limited data sets provided the most satisfactory results. Median error values obtained for the six species combinations ranged from 0.4 to 0.9 (Table 17). Mean error values were much smaller than with the other methods, ranging from 0.9 to 5.2. Minimum and maximum error values ranged from 0.01 to 36, still a wide range, but the range was smaller than with any of the three other methods. Species combinations A (rainbow trout, bluegill, daphnia, and mysid shrimp), D (rainbow trout, bluegill, daphnia, mysid shrimp, and channel catfish), E (rainbow trout, bluegill, daphnia, mysid shrimp, and fathead minnow), and F (rainbow trout, bluegill, daphnia, mysid shrimp, channel catfish, and fathead minnow) provided median error values ranging from 0.4 to 0.6. Species combinations B (rainbow trout, bluegill, daphnia, and channel catfish) and C (rainbow trout, bluegill, daphnia, and fathead minnow), provided estimates that were closer to the original ERA values, with median error values of 0.9. However, mean error values for species combinations A, D, E, and F were closer to original ERA values, ranging from 0.9 to 1.0. Although there was still a wide range in minimum and maximum values, the range was much smaller than for any of the other three methods (particularly in terms of maximum values). The minimum error value obtained with species combinations A, D, E, and F was 0.01 for species combination A with methyl parathion; the maximum error value for these species combinations was 4.0 for species combination E with pentachlorophenol. Overall, species combinations A, D, E, and F provided estimates for the 5th percentile LC50 that were closest to those resulting from the original ERA analysis of the combined core data set.

Analysis by chemical class provided results that were generally less variable than those obtained from the previous analysis using the entire combined core data set, which includes a wide range of chemicals with differing biochemical modes of action. A summary of the extrapolation factors developed for Methods 1 and 2 with cholinesterase inhibitors is presented in Table 19. Estimates of the 5th percentile LC50 values obtained for cholinesterase inhibitors using Methods 1 and 2 are presented in Tables 20 and 21. Values for the equations derived for each species for use with Method 3 are presented in Table 22. Estimates of the 5th percentile LC50 values obtained for cholinesterase

inhibitors using Methods 3 and 4 are presented in Tables 23 and 24. Error values calculated for the four methods are presented in Tables 25-28. Summary statistics for the error analysis with cholinesterase inhibitors are presented in Table 29.

By limiting the evaluation to data obtained with cholinesterase inhibitors, Methods 1 and 2 provided results that more closely approximated those obtained with the ERA program (Table 29) than in the previous analysis of the entire combined core data set. For Method 1 (excluding Eastern oyster and scud), mean error values ranged from 3.1 with channel catfish to 17 with sheepshead minnows, while median values ranged from 1.0 to 1.2 for all 10 species. For Method 2, mean error values ranged from 2.1 for Eastern oysters to 39 for scud, with median values ranging from 1.0 to 3.1. Method 3 also provided closer predictions with mean error values ranging from 2.7 to 8.0 and median values of 0.7 to 3.0. However, as with the analysis of the larger data set, minimum and maximum values for each of the three methods ranged rather widely. Also as with the larger data set, results with Method 4 were generally more satisfactory, providing less variable results than the other three methods.

Results with Taxa-Specific Core Data Sets

The extrapolation factors developed for the taxa-specific core data sets for use with Methods 1 and 2 are presented in Table 30. Estimates of the 5th percentile LC50 values obtained using the Methods 1 and 2 are presented in Tables 31 and 32. Values for the equations derived for each species for use with Method 3 are presented in Table 33. Estimates of the 5th percentile LC50 values obtained using Methods 3 and 4 with the taxa-specific data sets are presented in Tables 34 and 35. Error values calculated for the four methods are presented in Tables 36-39. Summary statistics for the error analysis for the four methods with taxa-specific data sets are presented in Table 40.

Method 1: Simple extrapolation factors provided results that were an improvement over the results obtained with the larger combined data set. Median error values were again close to 1.0 for all tested species (Table 40). Mean error values were generally higher than median values, ranging from 1.3 for scud to 310 for channel catfish. However, these values are much closer to 1.0 than the previous analysis using the larger combined core data set. In the previous analysis, mean error values ranged from a minimum of 7.3 for stonefly to 14,000 for scud (Table 17). Minimum and maximum values also ranged much less widely than in the previous combined analysis. Extrapolation factors based on scud data provided 5th percentile LC50 estimates that were closest to those predicted by the ERA program using the taxa-specific core data sets. Among freshwater

fish, rainbow trout and bluegill gave the most satisfactory results.

Method 2: Simple extrapolation factors using log-transformed data generally showed no improvement as a result of using the taxa-specific data sets. Median error values ranged from 0.4 for channel catfish to 33 for scud (Table 40). This compares to 0.8 for channel catfish to 2.8 for mysid shrimp in the previous analysis (Table 17). Mean error values were generally lower for freshwater fish and higher for freshwater invertebrates than with Method 1, but still ranged from 1.3 for rainbow trout to 58 for channel catfish and stonefly. As with Method 1, minimum and maximum values generally ranged less widely than with the analysis using the larger combined core data set and rainbow trout and bluegill gave the most satisfactory results.

Success with either Method 1 or 2 depends upon the tested species occupying a relatively constant position within the range of sensitivities of all species within the aquatic community. Our analysis suggests that this is not the case, even using the taxa-specific core data sets (Table 41). For example, the mean and median percentile rankings for rainbow trout across the 13 chemicals in the freshwater fish core data set were 31 and 25, respectively. However, while the rainbow trout was the most sensitive of the four freshwater fish species to several chemicals in the taxa-specific core data set, it was also the least sensitive to clonitralide with a percentile ranking of 84. Similar variability in sensitivity across chemicals was observed for each of the other freshwater fish and invertebrate species, although catfish and fathead minnows were never the most sensitive species. This variability in relative sensitivity is the primary contributor to the lack of consistency of these two predictive methods.

Method 3: Regression analysis of log-transformed values also showed a similar lack of improvement as a result of using the taxa-specific data sets. Median error values ranged from 0.2 for channel catfish to 0.9 rainbow trout (Table 40). This compares to 0.7 for bluegill and mysid shrimp to 1.1 for Eastern oyster in the previous analysis (Table 17). Mean error values ranged from 1.3 for rainbow trout to 73 for channel catfish compared to 2.8 for stonefly to 48 for Eastern oyster in the analysis of the larger combined data set. As with the larger data set, minimum and maximum values obtained with Method 3 generally ranged less widely than with either Method 1 or 2. A lack of sufficient data precluded analysis of freshwater invertebrates with Method 3.

Method 4: ERA with limited data sets again provided the most satisfactory results. Median error values obtained for the freshwater fish species combinations A (rainbow trout, bluegill, channel catfish, and fathead minnows), B (rain-

bow trout, bluegill, and channel catfish), and C (rainbow trout, bluegill, and fathead minnows) ranged from 0.9 to 1.0 (Table 40). Mean error values ranged from 1.1 to 1.3. Minimum and maximum error values ranged from 0.12 to 3.5, which is smaller than the range obtained with the larger combined data set (Table 17). The freshwater invertebrate species combination D (daphnia, scud, and stonefly) provided a median error value of 2.4 and a mean error value of 4.9. Analysis with this invertebrate species combination using Method 4 was based on only four chemicals, so the results should be used with caution.

Analysis by chemical class provided results that were generally similar to those obtained using the complete taxa-specific core data sets. Insufficient data existed for evaluation of the freshwater invertebrates. For the freshwater fishes, the extrapolation factors developed for Methods 1 and 2 with the cholinesterase inhibitors are presented in Table 42. Estimates of the 5th percentile LC50 values obtained for cholinesterase inhibitors with the taxa-specific core data sets, using Methods 1 and 2, are presented in Tables 43 and 44. Values for the equations derived for each species for use with Method 3 are presented in Table 45. Estimates of the 5th percentile LC50 values obtained for cholinesterase inhibitors with the taxa-specific data sets using Methods 3 and 4 are presented in Tables 46 and 47. Error values calculated for the each of the four methods are presented in Tables 48-51. Summary statistics for the error analysis for the four methods with cholinesterase inhibitors from the taxa-specific core data sets are presented in Table 52.

Contrary to the improvement obtained by specific consideration of cholinesterase inhibitors with the larger combined core data set, limiting the taxa-specific data sets to cholinesterase inhibitors failed to substantively reduce variability (Table 52). This is likely a result of having restricted the core data set to the point that it was too limited. As previously mentioned, insufficient data existed for evaluation of freshwater invertebrates, and for freshwater fishes, sufficient data existed for only 6 chemicals

Comparison of Results Obtained with Taxa-Specific vs. Combined Core Data Sets

As previously mentioned, Methods 1 and 4 provided approximations of 5th percentile LC50 values that were closer to the 5th percentile estimates derived from the taxa-specific core data sets than those derived from the larger combined core data set. This is not completely unexpected in that the individual comparisons were made based upon data from more closely related taxa. Additionally, since the smaller taxa-specific core data sets contain fewer data points, less variability could be expected. Also, with the smaller data sets, the data for an individual species contributes a greater

proportion of the total available data. Thus, it has a greater influence on the estimate of the “true” value. However, if the goal is to produce an estimate for a theoretical 5th percentile most-sensitive freshwater fish and a separate estimate for a freshwater invertebrate, then use of the taxa-specific methodologies appears to be superior.

Table 53 presents comparisons of the estimated 5th percentile values derived from the larger combined core data set and the estimates based on the taxa-specific core data sets. Table 54 examines the relation between the two methods using “error value” calculations as previously described. For this comparison, the “error value” is used simply to indicate whether a particular 5th percentile LC50 estimate derived from a taxa-specific data set is higher or lower than the corresponding estimate derived from the combined data set; not as an estimate of accuracy. In each instance, 5th percentile LC50s based upon the freshwater fish core data set were higher than those based upon the larger combined core data set. For all but endrin, 5th percentile LC50s based upon the freshwater invertebrate core data set were lower than those based upon the larger combined core data set. In other words, 5th percentile estimates based on fish only were higher than those based on all species combined, while 5th percentile estimates based on invertebrates only were lower than those based on all species.

Conclusions

Clearly, it is desirable to have high quality acute toxicity values for as many species as possible for predicting acute toxicity values for sensitive members of the aquatic community. However, it is often necessary to make predictions for new chemicals based upon limited data. Variability in sensitivity of commonly tested species across chemicals causes simple extrapolation factors (Methods 1 and 2) to be of limited utility. Equations derived from regression analysis (Method 3) provided more satisfactory predictions, but estimates based upon a single acute toxicity value from a single test species would still be of arguable utility. The current analysis suggests that using the ERA program with a minimum data set comprised of acute toxicity values for rainbow trout, bluegill, daphnia, and mysid shrimp (Method 4) provides the best estimates of a taxa-nonspecific 5th percentile LC50 value with the least amount of information. Obtaining acute toxicity values for these four species using standardized test conditions should not be an onerous undertaking, given the importance of protecting the aquatic community. More specific evaluations, focused on cholinesterase inhibitors, suggest that each of the four methods performed better with the combined species data set when applied within chemical classes.

The use of taxa-specific core data sets resulted in better correspondence between 5th percentile LC50 value estimates when using Methods 1 and 4. This is not completely unexpected in that the individual comparisons are made based upon data from more closely related taxa and each data point contributes more heavily to the estimate of the “true” 5th percentile LC50. However, the use of taxa-specific procedures is more compatible with current OPP procedures, since separate estimates can be derived for freshwater fish and freshwater invertebrates. Unfortunately, similar evaluations cannot be made for saltwater organisms, due to the lack of species diversity in extant data. It is also important to note that, although the number of chemicals with sufficient information with freshwater invertebrates was quite limited, our results support the conventional wisdom that invertebrates are generally more sensitive to contaminants than fish. Estimates of 5th percentile LC50 values using invertebrate data only were generally lower than those based on fish-only data, and were also lower than those based on the original combined data set. Thus, the most conservative approach (estimating the lowest number) would suggest using invertebrate data only. In any event, the best correspondence was obtained using the ERA program with limited combinations of fish species (Method 4).

If simple extrapolation factors for single species must be used, the most satisfactory results were obtained using Method 1 with median extrapolation factors derived from taxa-specific core data sets with rainbow trout, bluegill, or scud. Those extrapolation factors are 0.412 for rainbow trout, 0.331 for bluegill, and 0.041 for scud. Use of these simple extrapolation factors with Method 1 resulted in mean error values (\pm 95% CI) of 1.5 (\pm 0.36), 2.0 (\pm 0.52), and 1.3 (\pm 0.40) for rainbow trout, bluegill, and scud, respectively.

An important caveat for each of these conclusions is that they are based upon evaluation of the very small number of chemicals for which sufficient information exists. By augmenting our existing toxicity database through the addition of data for a few more species, more chemicals and chemical classes could be included in the analysis. Thus, generation of a relatively small amount of additional data could significantly improve our ability to evaluate species sensitivity relationships. Also, further analyses of the data should be conducted using log-logistic, log-triangular, maximum likelihood, bootstrap, and censored data techniques (Posthuma et al. 2002) to fully explore the concept of extrapolation factors. Finally, it should be noted that 5th percentile LC50 estimates are not protective levels *per se*. In theory, the 5th percentile LC50 represents a contaminant concentration at which greater than (or equal to) 50% mortality would occur in 5% of the species

comprising the aquatic community, while less than 50% mortality would occur in the remaining 95% of species. An appropriate use of the 5th percentile LC50 estimate would be its inclusion, along with acute toxicity values for species that have been tested, in subsequent methods for predicting protective levels.

References

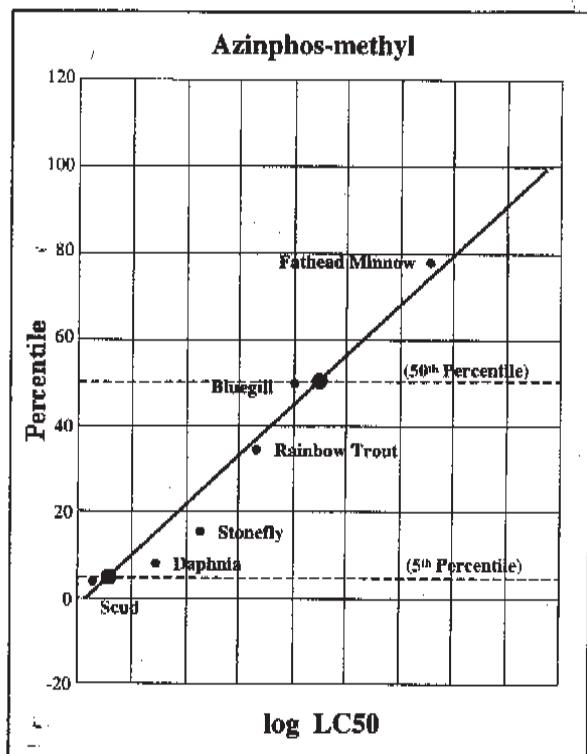


Figure 1. Example of ERA analysis for azinphos-methyl, indicating LC50s for selected species and predicted 5th and 50th percentile LC50s.

- American Society for Testing and Materials. 2002. Standard guide for conducting acute toxicity tests on test materials with fishes, macroinvertebrates, and amphibians. In: *Annual Book of ASTM Standards, E 729-96*, West Conshohocken, PA.
- Committee on Methods for Toxicity Tests with Aquatic Organisms. 1975. Methods for acute toxicity tests with fish, macroinvertebrates, and amphibians. Ecological Research Series No. EPA 660/3-75-009. United States Environmental Protection Agency, Corvallis, OR.
- Ecological Committee on FIFRA Risk Assessment Methods (ECOFRAM) Aquatic Draft Report 1999. <http://www.epa.gov/oppefed1/ecorisk/aquareport.pdf>
- Mayer, F.L. 1987. Acute toxicity handbook of chemicals to estuarine organisms. U.S. Environmental Protection Agency Rept. No. EPA/600/8-87/017, Gulf Breeze, FL. 274 p.
- Mayer, F.L. and M.R. Ellersiek. 1986. Manual of acute toxicity: Interpretation and data base for 410 chemicals and 66 species of freshwater animals. U.S. Fish and Wildlife Service Resource Publ. 160, Washington, DC. 579 p.
- Posthuma, L., G.W. Suter II, and T.P. Traas, eds. 2002. Species sensitivity distributions in ecotoxicology. Lewis Publ., Boca Raton, FL. 587 p.
- Solomon, K.R., D.B. Baker, R.P. Richards, K.R. Dixon, S.J. Klaine, T.W. La Point, R.J. Kendall, C.P. Weisskopf, J.M. Giddings, J.P. Giesy, L.W. Hall, Jr., and W.M. Williams. 1996. Ecological risk assessment of atrazine in North American surface waters. Environmental Toxicology and Chemistry. 15:31-76.
- Solomon, K., J. Giesy, and P. Jones. 2000. Probabilistic risk assessment of agrochemicals in the environment. Crop Protection. 19:649-655.

Table 1. Chemicals for which ten or more species were represented in the final database.

Chemical Name	CAS Number	Chemical Name	CAS Number
Aminocarb	2032-59-9	Fenthion	55-38-9
Antimycin A	1397-94-0	Fenvalerate	51630-58-1
Azinphos-methyl	86-50-0	Folpet	133-07-3
Cadmium chloride	10108-64-2	Glyphosate	1071-83-6
Captan	133-06-2	Heptachlor	76-44-8
Carbaryl	63-25-2	Hexachlorocyclohexane	58-89-9
Chlordane	57-74-9	Malathion	121-75-5
Chlordecone	143-50-0	Methiocarb	2032-65-7
Chlorpyrifos	2921-88-2	Methomyl	16752-77-5
Clonitralide	1420-04-8	Methoxychlor	72-43-5
Copper sulfate	7758-98-7	Methyl Parathion	298-00-0
Coumaphos	56-72-4	Metolachlor	51218-45-2
Cypermethrin	52315-07-8	Mexacarbate	315-18-4
DDD	72-54-8	Molinate	2212-67-1
DDT	50-29-3	Naled	300-76-5
DEF	78-48-8	Parathion	56-38-2
Demeton	8065-48-3	Pentachlorophenol	87-86-5
Diazinon	333-41-5	Permethrin	52645-53-1
Dichlorvos	62-73-7	Phosmet	732-11-6
Dieldrin	60-57-1	Phos�amidon	13171-21-6
Disulfoton	298-04-4	Piperonyl butoxide	51-03-6
Diuron	330-54-1	Thiobencarb/Benthiocarb	28249-77-6
Endosulfan	115-29-7	Toxaphene	8001-35-2
Endrin	72-20-8	Tributyltin oxide	56-35-9
EPN	2104-64-5	Trichlorfon	52-68-6
Ethion	563-12-2	Trifluralin	1582-09-8
Fenitrothion	122-14-5		

Table 2. Commonly tested species used for evaluation of extrapolation factors. Abbreviations are those used in subsequent tables.

<i>Species Common Name</i>	<i>Scientific Name</i>	<i>Abbreviated Name</i>	# Chemicals Tested
Rainbow Trout	<i>Oncorhynchus mykiss</i>	RBT	440
Bluegill	<i>Lepomis macrochirus</i>	BLG	396
Water Flea	<i>Daphnia magna</i>	Daphnia	347
Mysid Shrimp	<i>Americanamysis bahia</i>	Mysid	161
Channel Catfish	<i>Ictalurus punctatus</i>	CCF	126
Fathead Minnow	<i>Pimephales promelas</i>	FHM	123
Sheepshead Minnow	<i>Cyprinodon variegatus</i>	SHM	120
Eastern Oyster	<i>Crassostrea virginica</i>	E. Oyster	119
Scud	<i>Gammarus fasciatus</i>	Scud	79
Stonefly	<i>Pteronarcys californica</i>	Stonefly	57

Table 3. Combinations of commonly tested species used for ERA analysis of limited data sets (Method 4).

Combination	Species
A	Rainbow Trout, Bluegill, Daphnia, Mysid Shrimp
B	Rainbow Trout, Bluegill, Daphnia, Channel Catfish
C	Rainbow Trout, Bluegill, Daphnia, Fathead Minnow
D	Rainbow Trout, Bluegill, Daphnia, Mysid Shrimp, Channel Catfish
E	Rainbow Trout, Bluegill, Daphnia, Mysid Shrimp, Fathead Minnow
F	Rainbow Trout, Bluegill, Daphnia, Mysid Shrimp, Channel Catfish, Fathead Minnow

Table 4. Chemicals for which ten or more species (Spp) were represented in the taxa-specific data sets.

Freshwater Fish		Freshwater Invertebrates	
Chemical Name (CAS Number)	# Spp	Chemical Name (CAS Number)	# Spp
Antimycin A (1397-94-0)	12	Carbaryl (63-25-2)	11
Azinphos-methyl (86-50-0)	15	DDT (50-29-3)	17
Carbaryl (63-25-2)	17	Endrin (72-20-8)	15
Clonitralide (1420-04-8)	15	Malathion (121-75-5)	14
DDT (50-29-3)	18	Trichlorfon (52-68-6)	10
Fenitrothion (122-14-5)	11		
Hexachlorocyclohexane (58-89-9)	12		
Malathion (121-75-5)	13		
Methoxychlor (72-43-5)	12		
Methyl Parathion (298-00-0)	11		
Mexacarbate (315-18-4)	16		
Piperonyl butoxide (51-03-6)	10		
Toxaphene (8001-35-2)	11		

Table 5. Commonly tested species used for evaluation of extrapolation factors with taxa-specific data sets.

Species Common Name	Species Scientific Name	# Chemicals Tested
Rainbow Trout	<i>Oncorhynchus mykiss</i>	440
Bluegill	<i>Lepomis macrochirus</i>	396
Channel Catfish	<i>Ictalurus punctatus</i>	126
Fathead Minnow	<i>Pimephales promelas</i>	123
Water Flea	<i>Daphnia magna</i>	347
Scud	<i>Gammarus fasciatus</i>	79
Stonefly	<i>Pteronarcys californica</i>	57

Table 6. Combinations of commonly tested species used for ERA analysis of limited taxa-specific data sets (Method 4).

Combination	Species
A	Rainbow Trout, Bluegill, Channel Catfish, Fathead Minnow
B	Rainbow Trout, Bluegill, Channel Catfish
C	Rainbow Trout, Bluegill, Fathead Minnow
D	Daphnia, Scud, Stonefly

Table 7. Extrapolation factors for commonly tested species developed from 53 chemicals in the core data set.

	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Seud	Stonefly
<i>Method 1-- Simple Extrapolation Factors</i>										
Mean	0.092	0.054	0.334	0.430	0.111	0.047	0.050	0.201	0.283	0.290
Median	0.029	0.021	0.099	0.254	0.006	0.009	0.004	0.006	0.082	0.137
Std Dev	0.154	0.083	0.523	0.544	0.407	0.097	0.079	0.468	0.486	0.341
Minimum	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.002
Maximum	0.703	0.350	2.214	2.269	2.598	0.417	0.233	1.800	2.024	1.225
n	51	51	36	25	42	41	27	27	31	29
<i>Method 2 -- Simple Extrapolation Factors Using Log-Transformed Data</i>										
Mean	2.858	0.084	0.388	1.038	-0.241	1.881	0.989	-0.067	-0.240	-0.432
Median	0.179	0.135	0.361	0.737	-0.005	-0.028	0.172	-0.032	0.133	-0.089
Std Dev	12.667	2.363	9.312	2.387	1.181	13.661	4.248	0.656	2.080	1.952
Minimum	-5.120	-10.121	-17.998	-0.884	-4.467	-7.301	-1.218	-1.284	-10.418	-8.519
Maximum	82.845	11.335	46.637	12.131	0.884	86.724	21.950	1.108	2.119	1.918
n	51	51	36	25	42	41	27	27	31	29

Table 8. Estimates of 5th percentile LC50 values (Fg/L) calculated using simple extrapolation factors (Method 1).

(Extrapolation Factor)	5th % SPP (from ERA)	RB _T (0.029)	BLG (0.021)	Daphnia (0.099)	Mysid (0.254)	CCF (0.006)	FHM (0.009)	SHM (0.004)	E. Oyster (0.006)	Scud (0.082)	Stonefly (0.137)
Aminocarb	33.794	554.230	81.302	31.681		58.281	78.110				
Antimycin A	0.005	0.001	0.001			0.020	0.000		0.345		
Azinphos-methyl	0.259	0.150	0.201	0.109		19.174	1.714			0.012	0.261
Cadmium chloride	3.407	0.140	187.092	4.698		46.275	19.142				
Captan	5.640	2.112	4.440	831.626	2134.364	0.452					
Carbaryl	1.844	49.291	164.922	0.554	1.570	92.084	134.165	9.581		2.124	
Chlordane	2.078	0.769	1.210			0.005	1.057			3.267	2.059
Chlordecone	9.935	0.866	1.529	25.741	2.541	1.311			0.061		
Chlorpyrifos	0.101	0.313	0.096	0.041	0.011	1.632	2.531	1.082	0.297		1.373
Cloninalide	42.561	3.762	2.656			0.478	0.937			29.406	
Copper sulfate	4.974	3.895	18.773	0.990							
Coumaphos	0.041	25.679	7.220			4.896			1.614		
Cypermethrin	0.001	0.027	0.042	0.099	0.001			0.003	2.059		
DDD	0.460	2.020		0.881		8.742	40.433		0.139	0.049	
DDT	0.272	0.224	0.183	0.465		0.088	0.114		0.050	0.261	0.961
DEF	3.686	31.709	13.172	0.673	1.714	8.975		1.763	0.350	8.168	288.268
Demeton	12.333	17.312	2.336			21.564	26.649			6.371	
Diazinon	0.149	5.474	4.652	0.095			71.677	0.601		0.016	3.432
Dichlorvos	0.074	2.885	18.454		4.828		106.597	29.444	495.743	32672.865	0.014
Dieldrin	0.265	0.037	0.142			0.026	0.035		0.083	52.277	0.069
Disulfoton	4.006	67.973	0.828	1.287	25.409	27.392	39.514	4.006	4.006	3.061	0.686
Diuron	323.771	109.488	108.783		291.928		130.489	26.840	16.354	13.069	164.724
Endosulfan	0.089	0.023	0.040	27.259			0.013		0.234	0.490	0.316
Endrin	0.070	0.026	0.011	5.453			0.017	0.001	0.184	0.351	0.034
EPN	2.336		2.336		3.303	2.448		0.561	0.723	0.555	1.016
Ethion	0.124		3.509	0.006		44.293	6.616		0.223	0.336	0.384
Fenitrothion	0.620	59.997	70.507	1.089		30.905	34.087				0.620
Fenthion	0.047	20.962	36.102	0.539	0.046		29.406	4.807	1.838	8.985	0.618
Fenvalerate	0.022	0.025	0.015	0.136	0.003	0.014	0.009	0.092			

Table 8 (Cont.). Estimates of 5th percentile LC50 values (Fg/L) calculated using simple extrapolation factors (Method 1).

(Extrapolation Factor)	5th % SPP (from ERA)	RBT (0.029)	BLG (0.021)	Daphnia (0.099)	Mysid (0.254)	CCF (0.006)	FHM (0.009)	SHM (0.004)	E. Oyster (0.006)	Scud (0.082)	Stonefly (0.137)
Folpet	2.824	0.698	1.070	1.980	40.655	0.629		191.086	76.782	204.205	
Glyphosate	33178.259	3883.746	2012.048	13266.419	14283.435	757.650	891.368	961.440			
Heptachlor	0.444	0.444	0.276			0.146	0.211			4.574	0.151
Hexachlorocyclohexane	1.212	0.835	1.310			0.256	0.799		1.335	0.817	0.291
Malathion	0.559	3.315	1.176	0.099	0.559	52.278	79.488			0.062	1.373
Methiocarb	2.621	16.499	16.012	1.881							0.741
Methomyl	52.386	49.545	24.150	3.138	58.441	3.089	25.730	4.647			
Methoxychlor	0.937	0.726	1.011			0.303	0.358		0.501	0.155	0.192
Methyl Parathion	0.196	106.756	93.015	0.014	0.222	30.539	81.785	48.072		0.310	
Metolachlor	1802.797	112.527	212.364	2404.472	1245.045	28.558	73.515	35.248	8.902		
Mexacarbate	10.372	327.173	237.847			66.440	156.219			3.267	1.373
Molinate	416.543	195.605	503.601	1920.661	473.224		248.113	48.072	29.489	367.570	46.672
Naled	0.154	5.309	12.742	0.030			30.325	4.807	1.057		1.098
Parathion	0.065	28.500	5.452		0.030	15.444	10.016			0.106	0.741
Pentachlorophenol	9.106	2.128	1.274	40.193	81.309	0.390	1.783	0.881			
Permethrin	0.038	0.144	0.120	0.119	0.010	0.036	0.038	0.353			
Phosmet	1.068	10.648	2.538		4.065	61.778				0.163	
Phosphamidon	0.698	225.054		1.257	30.237	407.966	918.937	296.444	439.547	0.698	20.591
Piperonyl butoxide	414.040	93.680	95.245	50.492		37.300	56.974	10.668	1.280		
Thiobencarb/Benthiocarb	132.813	33.181	52.666	9.999	66.977	13.288		2.636			
Toxaphene	0.924	0.186	0.124	0.990		0.027	0.158		0.189	2.124	0.316
Tributyltin oxide	0.151	0.186	0.228	1.139		0.070		0.064	0.001		
Trichlorfon	0.730	41.873	51.048			15.072	72.596	57.286			4.804
Trifluralin	37.339	1.749	2.848			12.822	1.174	0.641		179.701	384.357

Table 9. Estimates of 5th percentile LC50 values (Fg/L) calculated using log-transformed data (Method 2).

(Extrapolation Factor)	5th % SPP (from ERA)	RB _T (0.179)	BLG (0.135)	Daphnia (0.361)	Mysid (0.737)	CCF (-0.005)	FHM (-0.028)	SHM (0.172)	E. Oyster (-0.032)	Scud (0.133)	Stonefly (-0.089)
Aminocarb	33.794	5.829	3.045	8.046		0.958	0.778				
Antimycin A	0.005	0.485	0.697			0.994	1.094		0.877		
Azinphos-methyl	0.259	1.343	1.354	1.035		0.963	0.865			0.777	0.945
Cadmium chloride	3.407	1.326	3.407	4.036		0.959	0.809				
Captan	5.640	2.154	2.056	26.217	778.175	0.980					
Carbaryl	1.844	3.782	3.349	1.864	3.826	0.956	0.766	3.803		1.541	
Chlordane	2.078	1.798	1.726			1.001	0.876			1.631	1.450
Chlordecone	9.935	1.837	1.781	7.464	5.454	0.975			0.926		
Chlorpyrifos	0.101	1.531	1.226	0.726	0.101	0.974	0.855	2.615	0.881		0.816
Clomotalide	42.561	2.388	1.919			0.980	0.879			2.184	
Copper sulfate	4.974	2.403	2.498	2.299							
Coumaphos	0.041	3.366	2.196			0.969			0.835		
Cypermethrin	0.001	0.985	1.096		0.019			0.947	0.828		
DDD	0.460	2.137		2.204		0.966	0.792		0.902	0.934	
DDT	0.272	1.442	1.337	1.750		0.987	0.932		0.932	1.167	0.842
DEF	3.686	3.496	2.382	2.000	4.081	0.966		2.844	0.876	1.842	0.508
Demeton	12.333	3.137	1.886			0.962	0.801			1.783	
Diazinon	0.149	2.554	2.069	0.985			0.779	2.364		0.808	0.752
Dichlorvos	0.074	2.278	2.492		8.751		0.771	4.611	0.695	5.538	1.226
Dieldrin	0.265	1.047	1.293			0.993	0.964		0.917	2.357	1.063
Disulfoton	4.006	4.006	1.640	2.527	29.746	0.961	0.792	3.274	0.811	1.617	0.867
Diuron	323.771	4.362	3.167		179.705		0.766	4.538	0.775	1.961	0.534
Endosulfan	0.089	0.963	1.090	7.620			0.991		0.888	1.268	0.929
Endrin	0.070	0.984	0.911	4.259			0.984	0.831	0.895	1.214	1.131
EPN	2.336		1.886		6.617	0.972		2.336	0.856	1.290	0.838
Ethion	0.124		1.992	0.353		0.959	0.833		0.889	1.206	0.913
Fenitrothion	0.620	3.918	2.987	2.379		0.961	0.796				0.875
Fenthion	0.047	3.246	2.729	1.845	0.286		0.799	3.378	0.831	1.866	0.875
Fenvalerate	0.022	0.972	0.956	1.122	0.041	0.996	1.001	1.713			

Table 9 (Cont.). Estimates of 5th percentile LC50 values (Fg/L) calculated using log-transformed data (Method 2).

(Extrapolation Factor)	5th % SPP (from ERA)	RBT (0.179)	BLG (0.135)	Daphnia (0.361)	Mysid (0.737)	CCF (-0.005)	FHM (-0.028)	SHM (0.172)	E. Oyster (-0.032)	Scud (0.133)	Stonefly (-0.089)
Folpet	2.824	1.767	1.697	2.953	42.054	0.978		6.357	0.738	2.824	
Glyphosate	33178.259	8.255	4.694	71.349	3157.062	0.946	0.727	8.390			
Heptachlor	0.444	1.630	1.414			0.985	0.916			1.706	0.992
Hexachlorocyclohexane	1.212	1.825	1.744			0.982	0.883		0.840	1.357	0.936
Malathion	0.559	2.335	1.719		1.788	0.958	0.777			0.964	0.816
Methiocarb	2.621	3.110	2.445	2.899							0.861
Methomyl	52.386	3.786	2.585	3.488	54.944	0.971	0.802	3.358			
Methoxychlor	0.937	1.780	1.684			0.982	0.903		0.866	1.089	0.971
Methyl Parathion	0.196	4.343	3.100	0.491	0.906	0.961	0.777	5.016		1.194	
Metolachlor	1802.797	4.384	3.466	38.482	523.148	0.961	0.779	4.756	0.790		
Mexacarbate	10.372	5.305	3.519			0.957	0.763			1.631	0.816
Molinate	416.543	4.839	3.894	35.480	256.517		0.753	5.016	0.761	3.053	0.597
Naled	0.154	2.540	2.371	0.647			0.798	3.378	0.846		0.832
Parathion	0.065	3.430	2.114		0.210	0.964	0.823			1.035	0.861
Pentachlorophenol	9.106	2.157	1.738	8.769	70.078	0.980	0.864	2.524			
Permethrin	0.038	1.333	1.263	1.068	0.095	0.991	0.961	2.157			
Phosmet	1.068	2.876	1.907		7.711	0.958				1.096	
Phosphamidon	0.698	4.962		2.506	33.813	0.949	0.726	6.855	0.698	1.329	0.642
Piperonyl butoxide	414.040	4.242	3.110	9.523		0.960	0.784	3.874	0.841		
Thiobencarb/Benthiocarb	132.813	3.524	2.871	5.303	60.749	0.964		3.047			
Toxaphene	0.924	1.395	1.268	2.299		0.993	0.924		0.894	1.541	0.929
Tributyltin oxide	0.151	1.395	1.377	2.418		0.988		1.610	1.068		
Trichlorfon	0.730	3.674	2.859			0.964	0.779	5.169			0.730
Trifluralin	37.339	2.083	1.937			0.965	0.874	2.390		2.777	0.495

Table 10. Values for equations used in Method 3 for prediction of 5th percentile LC50s from acute toxicity values for commonly tested species.

Parameter	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly
Intercept	-1.220	-1.428	-0.854	-0.581	-0.913	-1.210	-1.781	-0.812	-0.353	-0.705
Slope	0.673 **	0.732 **	0.813 **	0.809 **	0.444 **	0.511 **	0.739 **	0.317	0.296 *	0.355 **
r²	0.425	0.454	0.634	0.799	0.196	0.283	0.337	0.070	0.159	0.480
n	51	51	36	25	42	41	27	27	31	29

* p #0.05

**p #0.01

Table 11. Estimates of 5th percentile LC50 values (Fg/L) calculated using regression analysis of log-transformed values (Method 3).

Chemical	5th % SPP	GBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly
Aminocarb	33.794	46.079	15.689	15.269		7.295	6.302				
Antimycin A	0.005	0.004	0.005			0.211	0.012		0.571		
Azinphos-methyl	0.259	0.183	0.193	0.151		4.452	0.894			0.253	0.300
Cadmium chloride	3.407	0.174	28.874	3.232		6.584	3.070				
Captan	5.640	1.085	1.867	217.821	393.188	0.843					
Carbaryl	1.844	9.039	26.327	0.568	1.147	8.937	8.312	5.212		1.163	
Chlordane	2.078	0.549	0.721			0.111	0.698			1.321	1.163
Chlordecone	9.935	0.595	0.855	12.894	1.692	1.353			0.330		
Chlorpyrifos	0.101	0.300	0.113	0.068	0.021	1.491	1.091	1.039	0.545		0.892
Clomotalide	42.561	1.600	1.281			0.864	0.657			2.531	
Copper sulfate	4.974	1.638	5.364	0.911							
Coumaphos	0.041	5.828	2.665			2.429			0.933		
Cypermethrin	0.001	0.057	0.062	0.140	0.004			0.013	1.007		
DDD	0.460	1.052		0.829		3.142	4.501		0.428	0.381	
DDT	0.272	0.239	0.181	0.493		0.408	0.224		0.310	0.625	0.706
DEF	3.686	6.717	4.139	0.666	1.231	3.179		1.491	0.574	1.733	29.662
Demeton	12.333	4.470	1.167			4.691	3.637			1.610	
Diazinon	0.149	2.059	1.932	0.135			6.033	0.673		0.275	1.626
Dichlorvos	0.074	1.338	5.298		2.844		7.389	11.954	5.742	20.179	0.044
Dieldrin	0.265	0.072	0.150			0.238	0.122		0.364	3.001	0.125
Disulfoton	4.006	11.223	0.546	1.128	10.904	5.217	4.448	2.735	1.245	1.296	0.566
Diuron	323.771	15.467	19.413		78.614		8.194	11.163	1.945	1.991	20.554
Endosulfan	0.089	0.052	0.059	13.511			0.073		0.505	0.753	0.340
Endrin	0.070	0.057	0.022	3.649			0.083	0.007	0.468	0.683	0.079
EPN	2.336		1.167		2.093	1.785		0.639	0.723	0.782	0.732
Ethion	0.124		1.571	0.013		6.458	1.784		0.497	0.674	0.387
Fenitrothion	0.620	10.318	14.135	0.984		5.504	4.125				0.530
Fenthion	0.047	5.084	8.658	0.556	0.066		3.825	3.130	0.972	1.782	0.528
Fenvalerate	0.022	0.054	0.029	0.181	0.008	0.179	0.060	0.168			

Table 11 (Cont.). Estimates of 5th percentile LC50 values (Fg/L) calculated using regression analysis of log transformed values (Method 3).

Chemical	5th % SPP	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly
Folpet	2.824	0.515	0.659	1.601	15.951	0.977		47.643	3.177	4.493	
Glyphosate	33178.259	170.844	164.361	2072.526	1830.628	22.782	21.893	157.326			
Heptachlor	0.444	0.380	0.244			0.510	0.307			1.459	0.210
Hexachlorocyclohexane	1.212	0.581	0.764			0.656	0.605		0.878	0.876	0.323
Malathion	0.559	1.469	0.706	0.140	0.497	6.950	6.359			0.409	0.892
Methiocarb	2.621	4.327	4.774	1.535							0.595
Methomyl	52.386	9.070	6.451	2.328	21.394	1.980	3.572	3.053			
Methoxychlor	0.937	0.529	0.632			0.706	0.402		0.643	0.536	0.246
Methyl Parathion	0.196	15.205	17.310	0.028	0.236	5.475	6.454	17.175		0.658	
Metolachlor	1802.797	15.754	31.681	516.654	254.214	5.314	6.111	13.655	1.604		
Mexacarbate	10.372	32.315	34.427			7.732	8.985			1.321	0.892
Molinate	416.543	22.856	59.621	430.328	116.225		11.382	17.175	2.345	5.346	8.995
Naled	0.154	2.017	4.039	0.053			3.885	3.130	0.815		0.770
Parathion	0.065	6.252	2.170		0.047	4.045	2.205			0.479	0.595
Pentachlorophenol	9.106	1.090	0.749	18.527	27.945	0.790	0.912	0.893			
Permethrin	0.038	0.178	0.132	0.162	0.020	0.275	0.127	0.454			
Phosmet	1.068	3.223	1.240		2.475	7.485				0.544	
Phosphamidon	0.698	25.119		1.106	12.552	17.306	22.233	65.917	5.527	0.837	5.260
Piperonyl butoxide	414.040	13.925	17.616	22.305		5.983	5.364	5.643	0.866		
Thiobencarb/Benthiocarb	132.813	6.925	11.416	5.976	23.889	3.784		2.007			
Toxaphene	0.924	0.211	0.136	0.911		0.242	0.264		0.472	1.163	0.340
Tributyltin oxide	0.151	0.211	0.212	1.021		0.368		0.129	0.080		
Trichlorfon	0.730	8.100	11.158			4.001	6.072	19.552			2.027
Trifluralin	37.339	0.955	1.349			3.724	0.737	0.706		4.325	35.818

Table 12. Estimates of 5th percentile LC50 values (Fg/L) calculated using the ERA program with limited data sets (Method 4).

Chemical	5th % SPP (from ERA)	SPP Combination A	SPP Combination B	SPP Combination C	SPP Combination D	SPP Combination E	SPP Combination F
Aminocarb	33.794		146.020	148.449			
Antimycin A	0.005						
Azinphos-methyl	0.259		0.024	0.203			
Cadmium chloride	3.407		0.354	0.587			
Captan	5.640	10.188	3.697		6.719		
Carbaryl	1.844	0.134	1.028	1.019	0.328	0.330	0.659
Chlordane	2.078						
Chlordecone	9.935	4.380	16.843		6.015		
Chlorpyrifos	0.101	0.012	0.071	0.072	0.010	0.010	0.016
Cloninalide	42.561						
Copper sulfate	4.974						
Coumaphos	0.041						
Cypermethrin	0.001	0.001					
DDD	0.460						
DDT	0.272		3.514	3.853			
DEF	3.686	0.380	1.707		0.776		
Demeton	12.333						
Diazinon	0.149			0.142			
Dichlorvos	0.074						
Dieldrin	0.265						
Disulfoton	4.006	1.755	1.323	1.344	2.427	2.484	3.794
Diuron	323.771						
Endosulfan	0.089			0.019			
Endrin	0.070			0.046			
EPN	2.336						
Ethion	0.124						
Fenitrothion	0.620		2.194	1.935			
Fenthion	0.047	0.015		1.304		0.038	
Fenvalerate	0.022	0.004	0.457	0.575	0.007	0.006	0.010

Table 12 (Cont.). Estimates of 5th percentile LC50 values (Fg/L) calculated using the ERA program with limited data sets (Method 4).

Chemical	5th % SPP (from ERA)	SPP Combination A	SPP Combination B	SPP Combination C	SPP Combination D	SPP Combination E	SPP Combination F
Folpet	2.824	7.961	10.161		11.007		
Glyphosate	33178.259	45789.322	85274.670	78180.760	50268.285	51159.935	54841.190
Heptachlor	0.444						
Hexachlorocyclohexane	1.212						
Malathion	0.559	0.156	0.107	0.109	0.069	0.071	0.118
Methiocarb	2.621						
Methomyl	52.386	13.140	13.809	11.083	22.431	19.582	29.411
Methoxychlor	0.937						
Methyl Parathion	0.196	0.001	0.004	0.005	0.005	0.005	0.013
Metolachlor	1802.797	1883.819	1883.819	2434.842	1849.136	2331.792	2249.508
Mexacarbate	10.372						
Molinate	416.543	1050.201		4982.670		1354.625	
Naled	0.154			0.048			
Parathion	0.065						
Pentachlorophenol	9.106	25.224	15.592	27.906	23.051	36.038	31.565
Permethrin	0.038	0.014	0.766	0.828	0.022	0.023	0.033
Phosmet	1.068						
Phosphamidon	0.698						
Piperonyl butoxide	414.040		300.565	299.900			
Thiobencarb/Benthiocarb	132.813	41.987	47.284		57.486		
Toxaphene	0.924		3.629	3.680			
Tributyltin oxide	0.151		5.517				
Trichlorfon	0.730						
Trifluralin	37.339						

Table 13. Error values obtained using simple extrapolation factors (Method 1), calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly
Aminocarb	1.000	16.400	2.406	0.937		1.725	2.311				
Antimycin A	1.000	0.101	0.293			3.986	0.074		68.992		
Azinphos-methyl	1.000	0.580	0.775	0.420		74.032	6.617			0.047	1.007
Cadmium chloride	1.000	0.041	54.914	1.379		13.582	5.618				
Captan	1.000	0.374	0.787	147.451	378.433	0.080					
Carbaryl	1.000	26.731	89.437	0.301	0.852	49.937	72.757	5.196		1.152	
Chlordane	1.000	0.370	0.583			0.002	0.509			1.572	0.991
Chlordecone	1.000	0.087	0.154	2.591	0.256	0.132			0.006		
Chlorpyrifos	1.000	3.096	0.950	0.404	0.112	16.157	25.063	10.709	2.944		13.591
Clomotalide	1.000	0.088	0.062			0.011	0.022			0.691	
Copper sulfate	1.000	0.783	3.774	0.199							
Coumaphos	1.000	626.323	176.106			119.405			39.354		
Cypermethrin	1.000	26.545	42.024	99.003	1.194			2.924	2058.639		
DDD	1.000	4.391		1.915		19.005	87.898		0.302	0.107	
DDT	1.000	0.822	0.671	1.711		0.324	0.419		0.184	0.961	3.533
DEF	1.000	8.602	3.573	0.183	0.465	2.435		0.478	0.095	2.216	78.206
Demeton	1.000	1.404	0.189			1.748	2.161			0.517	
Diazinon	1.000	36.742	31.220	0.638			481.054	4.033		0.110	23.032
Dichlorvos	1.000	38.991	249.384		65.240		1440.495	397.893	6699.223	441525.202	0.186
Dieldrin	1.000	0.141	0.537			0.099	0.132		0.315	197.270	0.259
Disulfoton	1.000	16.968	0.207	0.321	6.343	6.838	9.864	1.000	1.000	0.764	0.171
Diuron	1.000	0.338	0.336		0.902		0.403	0.083	0.051	0.040	0.509
Endosulfan	1.000	0.262	0.451	306.286			0.144			2.626	5.507
Endrin	1.000	0.376	0.152	77.904			0.236	0.019	2.623	5.018	0.490
EPN	1.000		1.000		1.414	1.048		0.240	0.310	0.238	0.435
Ethion	1.000		28.297	0.045		357.205	53.358		1.795	2.710	3.100
Fenitrothion	1.000	96.769	113.721	1.757		49.847	54.980				1.000
Fenthion	1.000	445.999	768.124	11.468	0.987		625.659	102.281	39.109	191.171	13.143
Fenvalerate	1.000	1.116	0.689	6.187	0.150	0.623	0.400	4.184			

Table 13 (Cont.). Error values obtained using simple extrapolation factors (Method 1), calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly
Folpet	1.000	0.247	0.379	0.701	14.396	0.223		67.665	27.189	72.311	
Glyphosate	1.000	0.117	0.061	0.400	0.431	0.023	0.027	0.029			
Heptachlor	1.000	1.000	0.622			0.328	0.476			10.302	0.340
Hexachlorocyclohexane	1.000	0.689	1.081			0.212	0.660		1.102	0.674	0.240
Malathion	1.000	5.930	2.104	0.177	1.000	93.520	142.197			0.111	2.456
Methiocarb	1.000	6.295	6.109	0.718							0.283
Methomyl	1.000	0.946	0.461	0.060	1.116	0.059	0.491	0.089			
Methoxychlor	1.000	0.775	1.079			0.323	0.382		0.534	0.166	0.205
Methyl Parathion	1.000	544.675	474.568	0.071	1.133	155.812	417.272	245.265		1.584	
Metolachlor	1.000	0.062	0.118	1.334	0.691	0.016	0.041	0.020	0.005		
Mexacarbate	1.000	31.544	22.932			6.406	15.062			0.315	0.132
Molinate	1.000	0.470	1.209	4.611	1.136		0.596	0.115	0.071	0.882	0.112
Naled	1.000	34.477	82.739	0.193			196.915	31.216	6.865		7.131
Parathion	1.000	438.457	83.875		0.469	237.606	154.094			1.634	11.404
Pentachlorophenol	1.000	0.234	0.140	4.414	8.929	0.043	0.196	0.097			
Permethrin	1.000	3.798	3.146	3.124	0.274	0.956	1.000	9.277			
Phosmet	1.000	9.970	2.377		3.807	57.844				0.153	
Phosphamidon	1.000	322.427		1.801	43.319	584.478	1316.528	424.705	629.724	1.000	29.499
Piperonyl butoxide	1.000	0.226	0.230	0.122		0.090	0.138	0.026	0.003		
Thiobencarb/Benthiocarb	1.000	0.250	0.397	0.075	0.504	0.100		0.020			
Toxaphene	1.000	0.201	0.134	1.071		0.029	0.171		0.205	2.298	0.342
Tributyltin oxide	1.000	1.230	1.507	7.540		0.463		0.424	0.005		
Trichlorfon	1.000	57.360	69.929			20.647	99.447	78.474			6.581
Trifluralin	1.000	0.047	0.076			0.343	0.031	0.017		4.813	10.294

Table 14. Error values obtained using log-transformed data (Method 2), calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly
Aminocarb	1.000	0.172	0.090	0.238		0.028	0.023				
Antimycin A	1.000	97.041	139.433			198.851	218.733		175.342		
Azinphos-methyl	1.000	5.185	5.228	3.996		3.717	3.338			3.002	3.648
Cadmium chloride	1.000	0.389	1.000	1.185		0.281	0.237				
Captan	1.000	0.382	0.365	4.648	137.974	0.174					
Carbaryl	1.000	2.051	1.816	1.011	2.075	0.518	0.415	2.062		0.836	
Chlordane	1.000	0.865	0.830			0.482	0.422			0.785	0.698
Chlordecone	1.000	0.185	0.179	0.751	0.549	0.098			0.093		
Chlorpyrifos	1.000	15.159	12.137	7.188	1.000	9.643	8.469	25.890	8.721		8.075
Clomotalide	1.000	0.056	0.045			0.023	0.021			0.051	
Copper sulfate	1.000	0.483	0.502	0.462							
Coumaphos	1.000	82.104	53.560			23.633			20.357		
Cypermethrin	1.000	985.208	1096.483		19.275			947.401	828.174		
DDD	1.000	4.645		4.791		2.101	1.721		1.962	2.031	
DDT	1.000	5.302	4.915	6.433		3.630	3.428		3.428	4.290	3.095
DEF	1.000	0.948	0.646	0.542	1.107	0.262		0.771	0.238	0.500	0.138
Demeton	1.000	0.254	0.153			0.078	0.065			0.145	
Diazinon	1.000	17.139	13.889	6.613			5.231	15.865		5.421	5.047
Dichlorvos	1.000	30.777	33.681		118.262		10.416	62.313	9.396	74.833	16.569
Dieldrin	1.000	3.953	4.878			3.747	3.636		3.461	8.894	4.012
Disulfoton	1.000	1.000	0.409	0.631	7.425	0.240	0.198	0.817	0.202	0.404	0.216
Diuron	1.000	0.013	0.010		0.555		0.002	0.014	0.002	0.006	0.002
Endosulfan	1.000	10.819	12.242	85.623			11.133		9.974	14.252	10.437
Endrin	1.000	14.054	13.010	60.849			14.054	11.870	12.779	17.336	16.151
EPN	1.000		0.807		2.833	0.416		1.000	0.367	0.552	0.359
Ethion	1.000		16.066	2.845		7.734	6.716		7.170	9.729	7.362
Fenitrothion	1.000	6.319	4.817	3.838		1.549	1.283				1.411
Fenthion	1.000	69.071	58.056	39.259	6.076		16.998	71.874	17.684	39.698	18.624
Fenvalerate	1.000	44.163	43.435	50.997	1.850	45.273	45.510	77.858			

Table 14 (Cont.). Error values obtained using log-transformed data (Method 2), calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly
Folpet	1.000	0.626	0.601	1.046	14.892	0.346		2.251	0.261	1.000	
Glyphosate	1.000	0.000	0.000	0.002	0.095	0.000	0.000	0.000			
Heptachlor	1.000	3.671	3.184			2.219	2.064			3.842	2.233
Hexachlorocyclohexane	1.000	1.506	1.439			0.811	0.729		0.693	1.120	0.772
Malathion	1.000	4.177	3.075		3.198	1.714	1.390			1.725	1.459
Methiocarb	1.000	1.187	0.933	1.106							0.329
Methomyl	1.000	0.072	0.049	0.067	1.049	0.019	0.015	0.064			
Methoxychlor	1.000	1.900	1.798			1.048	0.964		0.925	1.162	1.036
Methyl Parathion	1.000	22.156	15.818	2.507	4.621	4.901	3.962	25.592		6.091	
Metolachlor	1.000	0.002	0.002	0.021	0.290	0.001	0.000	0.003	0.000		
Mexacarbate	1.000	0.511	0.339			0.092	0.074			0.157	0.079
Molinate	1.000	0.012	0.009	0.085	0.616		0.002	0.012	0.002	0.007	0.001
Naled	1.000	16.492	15.395	4.202			5.183	21.936	5.493		5.402
Parathion	1.000	52.763	32.527		3.226	14.827	12.665			15.930	13.251
Pentachlorophenol	1.000	0.237	0.191	0.963	7.696	0.108	0.095	0.277			
Permethrin	1.000	35.089	33.228	28.102	2.502	26.091	25.297	56.763			
Phosmet	1.000	2.693	1.786		7.220	0.897				1.027	
Phosphamidon	1.000	7.109		3.591	48.443	1.360	1.040	9.821	1.000	1.904	0.919
Piperonyl butoxide	1.000	0.010	0.008	0.023		0.002	0.002	0.009	0.002		
Thiobencarb/Benthiocarb	1.000	0.027	0.022	0.040	0.457	0.007		0.023			
Toxaphene	1.000	1.510	1.373	2.488		1.074	1.000		0.967	1.668	1.005
Tributyltin oxide	1.000	9.238	9.121	16.012		6.546		10.660	7.075		
Trichlorfon	1.000	5.032	3.917			1.320	1.067	7.081			1.000
Trifluralin	1.000	0.056	0.052			0.026	0.023	0.064		0.074	0.013

Table 15. Error values obtained using regression analysis of log-transformed values (Method 3), calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly
Aminocarb	1.000	1.364	0.464	0.452		0.216	0.186				
Antimycin A	1.000	0.777	1.055			42.182	2.378		114.296		
Azinphos-methyl	1.000	0.707	0.747	0.584		17.191	3.451			0.976	1.159
Cadmium chloride	1.000	0.051	8.475	0.949		1.933	0.901				
Captan	1.000	0.192	0.331	38.621	69.714	0.149					
Carbaryl	1.000	4.902	14.277	0.308	0.622	4.847	4.508	2.826		0.631	
Chlordane	1.000	0.264	0.347			0.053	0.336			0.636	0.560
Chlordecone	1.000	0.060	0.086	1.298	0.170	0.136			0.033		
Chlorpyrifos	1.000	2.969	1.116	0.674	0.211	14.763	10.804	10.287	5.397		8.828
Clomotalide	1.000	0.038	0.030			0.020	0.015			0.059	
Copper sulfate	1.000	0.329	1.078	0.183							
Coumaphos	1.000	142.140	65.000			59.240			22.747		
Cypermethrin	1.000	57.016	61.574	139.991	3.610			13.119	1007.474		
DDD	1.000	2.288		1.801		6.830	9.785		0.931	0.828	
DDT	1.000	0.880	0.664	1.812		1.500	0.822		1.139	2.299	2.595
DEF	1.000	1.822	1.123	0.181	0.334	0.862		0.404	0.156	0.470	8.047
Demeton	1.000	0.362	0.095			0.380	0.295			0.131	
Diazinon	1.000	13.820	12.963	0.909			40.487	4.516		1.848	10.910
Dichlorvos	1.000	18.083	71.593		38.439		99.855	161.536	77.601	272.689	0.589
Dieldrin	1.000	0.271	0.568			0.899	0.461		1.375	11.325	0.472
Disulfoton	1.000	2.801	0.136	0.282	2.722	1.302	1.110	0.683	0.311	0.323	0.141
Diuron	1.000	0.048	0.060		0.243		0.025	0.034	0.006	0.006	0.063
Endosulfan	1.000	0.588	0.669	151.813			0.821		5.674	8.465	3.824
Endrin	1.000	0.810	0.321	52.132			1.190	0.107	6.683	9.752	1.135
EPN	1.000		0.499		0.896	0.764		0.274	0.309	0.335	0.313
Ethion	1.000		12.673	0.108		52.081	14.384		4.010	5.433	3.122
Fenitrothion	1.000	16.642	22.799	1.588		8.878	6.653				0.854
Fenthion	1.000	108.169	184.205	11.820	1.408		81.377	66.604	20.678	37.914	11.241
Fenvalerate	1.000	2.459	1.327	8.245	0.356	8.115	2.741	7.638			

Table 15 (Cont.). Error values obtained using regression analysis of log-transformed values (Method 3), calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly
Folpet	1.000	0.182	0.233	0.567	5.649	0.346		16.871	1.125	1.591	
Glyphosate	1.000	0.005	0.005	0.062	0.055	0.001	0.001	0.005			
Heptachlor	1.000	0.855	0.550			1.149	0.690			3.286	0.473
Hexachlorocyclohexane	1.000	0.479	0.630			0.541	0.499		0.725	0.723	0.266
Malathion	1.000	2.628	1.263	0.250	0.889	12.433	11.376			0.731	1.595
Methiocarb	1.000	1.651	1.822	0.586							0.227
Methomyl	1.000	0.173	0.123	0.044	0.408	0.038	0.068	0.058			
Methoxychlor	1.000	0.564	0.674			0.754	0.429		0.687	0.572	0.262
Methyl Parathion	1.000	77.579	88.317	0.144	1.202	27.935	32.926	87.628		3.358	
Metolachlor	1.000	0.009	0.018	0.287	0.141	0.003	0.003	0.008	0.001		
Mexacarbate	1.000	3.116	3.319			0.745	0.866			0.127	0.086
Molinate	1.000	0.055	0.143	1.033	0.279		0.027	0.041	0.006	0.013	0.022
Naled	1.000	13.100	26.229	0.341			25.228	20.327	5.295		5.002
Parathion	1.000	96.180	33.380		0.727	62.228	33.922			7.370	9.160
Pentachlorophenol	1.000	0.120	0.082	2.035	3.069	0.087	0.100	0.098			
Permethrin	1.000	4.689	3.484	4.270	0.521	7.246	3.354	11.935			
Phosmet	1.000	3.017	1.161		2.318	7.009				0.510	
Phosphamidon	1.000	35.987		1.585	17.982	24.794	31.853	94.438	7.919	1.199	7.536
Piperonyl butoxide	1.000	0.034	0.043	0.054		0.014	0.013	0.014	0.002		
Thiobencarb/Benthiocarb	1.000	0.052	0.086	0.045	0.180	0.028		0.015			
Toxaphene	1.000	0.229	0.147	0.986		0.262	0.285		0.511	1.258	0.368
Tributyltin oxide	1.000	1.399	1.405	6.759		2.439		0.852	0.529		
Trichlorfon	1.000	11.096	15.285			5.481	8.317	26.784			2.776
Trifluralin	1.000	0.026	0.036			0.100	0.020	0.019		0.116	0.959

Table 16. Error values obtained using the ERA program with limited data sets (Method 4), calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP (from ERA)	SPP Combination A	SPP Combination B	SPP Combination C	SPP Combination D	SPP Combination E	SPP Combination F
Aminocarb	1.000		4.321	4.393			
Antimycin A	1.000						
Azinphos-methyl	1.000		0.093	0.784			
Cadmium chloride	1.000		0.104	0.172			
Captan	1.000	1.806	0.655		1.191		
Carbaryl	1.000	0.073	0.557	0.553	0.178	0.179	0.357
Chlordane	1.000						
Chlordecone	1.000	0.441	1.695		0.605		
Chlorpyrifos	1.000	0.119	0.703	0.713	0.099	0.099	0.158
Clonitralide	1.000						
Copper sulfate	1.000						
Coumaphos	1.000						
Cypermethrin	1.000	1.000					
DDD	1.000						
DDT	1.000		12.919	14.165			
DEF	1.000	0.103	0.463		0.211		
Demeton	1.000						
Diazinon	1.000			0.953			
Dichlorvos	1.000						
Dieldrin	1.000						
Disulfoton	1.000	0.438	0.330	0.335	0.606	0.620	0.947
Diuron	1.000						
Endosulfan	1.000			0.213			
Endrin	1.000			0.657			
EPN	1.000						
Ethion	1.000						
Fenitrothion	1.000		3.539	3.121			
Fenthion	1.000	0.319		27.745		0.809	
Fenvalerate	1.000	0.182	20.773	26.136	0.318	0.273	0.455

Table 16 (Cont.). Error values obtained using the ERA program with limited data sets (Method 4), calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP (from ERA)	SPP Combination A	SPP Combination B	SPP Combination C	SPP Combination D	SPP Combination E	SPP Combination F
Folpet	1.000	2.819	3.598		3.898		
Glyphosate	1.000	1.380	2.570	2.356	1.515	1.542	1.653
Heptachlor	1.000						
Hexachlorocyclohexane	1.000						
Malathion	1.000	0.279	0.191	0.195	0.123	0.127	0.211
Methiocarb	1.000						
Methomyl	1.000	0.251	0.264	0.212	0.428	0.374	0.561
Methoxychlor	1.000						
Methyl Parathion	1.000	0.005	0.020	0.026	0.026	0.026	0.066
Metolachlor	1.000	1.045	1.045	1.351	1.026	1.293	1.248
Mexacarbate	1.000						
Molinate	1.000	2.521		11.962		3.252	
Naled	1.000			0.312			
Parathion	1.000						
Pentachlorophenol	1.000	2.770	1.712	3.065	2.531	3.958	3.466
Permethrin	1.000	0.368	20.158	21.789	0.579	0.605	0.868
Phosmet	1.000						
Phosphamidon	1.000						
Piperonyl butoxide	1.000		0.726	0.724			
Thiobencarb/Benthiocarb	1.000	0.316	0.356		0.433		
Toxaphene	1.000		3.927	3.983			
Tributyltin oxide	1.000		36.536				
Trichlorfon	1.000						
Trifluralin	1.000						

Table 17. Summary statistics for error analysis for various predictive methods. Error values are calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly	
<i>Method 1-- Simple Extrapolation Factors</i>											
Mean	55	46	19	21.3	45	130	51	360	14,000	7.3	
Median	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Minimum	0.04	0.06	0.04	0.11	0.002	0.02	0.02	0.003	0.04	0.11	
Maximum	630	770	310	378	580	1400	420	6700	440,000	78	
n	51	51	36	25	42	41	27	27	31	29	
<i>Method 2 -- Simple Extrapolation Factors Using Log-Transformed Data</i>											
Mean	31	32	10	15.7	8.7	9.9	50	41	7.1	4.2	
Median	2.0	1.8	2.5	2.8	0.8	1.1	2.2	2.0	1.7	1.4	
Minimum	0.0002	0.0001	0.002	0.10	0.00003	0.00002	0.0002	0.0004	0.006	0.001	
Maximum	980	1100	86	138	200	220	950	830	75	19	
n	51	51	34	25	42	41	27	27	31	29	
<i>Method 3 – Regression Analysis of Log-Transformed Values</i>											
Mean	12	13	12	6.1	9.0	11	20	48	12	2.8	
Median	0.9	0.7	0.8	0.7	1.0	0.9	0.9	1.1	0.8	1.0	
Minimum	0.005	0.005	0.04	0.06	0.001	0.001	0.005	0.001	0.006	0.02	
Maximum	142	184	152	70	62	100	162	1000	273	11	
n	51	51	36	25	42	41	27	27	31	29	
<i>Method 4 -- ERA with Limited Data Sets</i>											
	A	B	C	D	E	F	A = RBT, BLG, Daphnia, Mysid				
Mean	0.9	4.9	5.2	0.9	1.0	0.9	B = RBT, BLG, Daphnia, CCF				
Median	0.4	0.9	0.9	0.5	0.6	0.6	C = RBT, BLG, Daphnia, FHM				
Minimum	0.01	0.02	0.03	0.03	0.03	0.07	D = RBT, BLG, Daphnia, Mysid, CCF				
Maximum	2.8	36	28	3.9	4.0	3.5	E = RBT, BLG, Daphnia, Mysid, FHM				
n	19	24	24	16	13	11	F = RBT, BLG, Daphnia, Mysid, CCF, FHM				

Table 18. Ranges in percentile sensitivity rankings of commonly tested species exposed to 53 chemicals in the core data set, as calculated by the ERA program.

	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly
Mean	50	56	38	25	68	71	67	61	41	31
Median	50	53	32	18	75	75	73	64	30	25
Minimum	7.7	12	4.5	4.0	7.7	22	21	7.1	3.8	6.5
Maximum	91	93	92	92	96	94	95	94	94	93
n	51	51	36	25	42	41	27	27	31	29

Table 19. Extrapolation factors for commonly tested species developed for cholinesterase inhibitors in the core data set.

	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Seud	Stonefly
<i>Method 1-- Simple Extrapolation Factors</i>										
Mean	0.013	0.018	0.547	0.376	0.009	0.002	0.021	0.015	0.295	0.287
Median	0.001	0.003	0.277	0.228	0.000	0.000	0.001	0.002	0.093	0.056
Std Dev	0.027	0.031	0.650	0.553	0.025	0.005	0.052	0.027	0.442	0.390
Minimum	0.000	0.000	0.009	0.004	0.000	0.000	0.000	0.000	0.000	0.002
Maximum	0.115	0.112	2.214	2.269	0.099	0.019	0.202	0.079	1.727	1.225
n	24	25	18	15	20	20	15	11	17	19
<i>Method 2 -- Simple Extrapolation Factors Using Log-Transformed Data</i>										
Mean	-0.056	-0.058	2.432	1.223	0.037	-0.029	0.040	-0.131	-0.400	-0.284
Median	-0.042	-0.040	0.611	0.683	-0.013	-0.061	-0.032	-0.228	0.283	-0.089
Std Dev	0.439	0.489	11.972	3.097	0.307	0.305	0.385	0.437	2.717	1.078
Minimum	-0.962	-1.520	-14.174	-0.884	-0.474	-0.408	-0.431	-0.576	-10.418	-2.105
Maximum	0.694	0.626	46.637	12.131	0.632	0.591	0.753	0.703	2.119	1.131
n	24	25	17	15	20	20	15	11	17	19

Table 20. Estimates of 5th percentile LC50 values (Fg/L) for cholinesterase inhibitors calculated using simple extrapolation factors (Method 1).

(Extrapolation Factor)	5th % SPP (from ERA)	RBT (0.001)	BLG (0.003)	Daphnia (0.277)	Mysid (0.228)	CCF (0.0002)	FHM (0.0001)	SHM (0.001)	E. Oyster (0.002)	Scud (0.093)	Stonefly (0.056)
Aminocarb	33.974	26.699	13.308	88.498		1.996	1.247				
Azinphos-methyl	0.259	0.007	0.033	0.304		0.657	0.027		0.014	0.106	
Carbaryl	1.844	2.374	26.996	1.549	1.408	3.154	2.142	1.844		2.407	0.268
Chlorpyrifos	0.101	0.015	0.016	0.114	0.010	0.056	0.040	0.208	0.101		0.559
Coumaphos	0.041	1.237	1.182			0.168			0.548		
DEF	3.686	1.527	2.156	1.881	1.536	0.307		0.339	0.119	9.257	117.390
Demeton	12.333	0.834	0.382			0.739	0.425			7.220	
Diazinon	0.149	0.264	0.761	0.265			1.144	0.116		0.019	1.398
Dichlorvos	0.074	0.139	3.021		4.328		1.702	5.667	168.391	37026.044	0.006
Disulfoton	4.006	3.274	0.136	3.595	22.777	0.938	0.631	0.771	1.361	3.468	0.280
EPN	2.336		0.382		2.961	0.084		0.108	0.246	0.629	0.414
Ethion	0.124		0.574	0.015		1.517	0.106		0.076	0.381	0.157
Fenitrothion	0.620	2.890	11.541	3.042		1.058	0.544				0.252
Fenthion	0.047	1.010	5.909	1.506	0.042		0.470	0.925	0.624	10.182	0.252
Malathion	0.559	0.160	0.193	0.277	0.501	1.790	1.269			0.070	0.559
Methiocarb	2.621	0.795	2.621	5.255							0.302
Methomyl	52.386	2.387	3.953	8.767	52.386	0.106	0.411	0.894			
Methyl Parathion	0.196	5.143	15.225	0.039	0.199	1.046	1.306	9.252		0.352	
Mexacarbate	10.372	15.761	38.933			2.275	2.494			3.703	0.559
Molinate	416.543	9.423	82.433	5365.214	424.194		3.961	9.252	10.017	416.543	19.006
Naled	0.154	0.256	2.086	0.083			0.484	0.925	0.359		0.447
Parathion	0.065	1.373	0.892		0.027	0.529	0.160			0.120	0.302
Phosmet	1.068	0.513	0.416		3.644	2.116				0.185	
Phosphamidon	0.698	10.841		3.512	27.104	13.972	14.672	57.055	149.303	0.791	8.385
Thiobencarb/Benthiocarb	132.813	1.598	8.621	27.932	60.038	0.455		0.507			
Trichlorfon	0.730	2.017	8.356			0.516	1.159	11.026			1.957

Table 21. Estimates of 5th percentile LC50 values (Fg/L) for cholinesterase inhibitors calculated using log-transformed data (Method 2).

(Extrapolation Factor)	5th % SPP (from ERA)	RBT (-0.042)	BLG (-0.040)	Daphnia (0.611)	Mysid (0.683)	CCF (-0.013)	FHM (-0.061)	SHM (-0.032)	E. Oyster (-0.228)	Scud (0.283)	Stonefly (-0.089)
Aminocarb	33.974	0.663	0.716	33.974		0.891	0.575				
Azinphos-methyl	0.259	0.934	0.913	1.060		0.903	0.726			0.584	0.945
Carbaryl	1.844	0.733	0.696	2.866	3.472	0.886	0.556	0.779		2.517	0.870
Chlorpyrifos	0.101	0.905	0.941	0.582	0.119	0.932	0.709	0.836	0.403		0.816
Coumaphos	0.041	0.754	0.790			0.919			0.274		
DEF	3.686	0.747	0.771	3.227	3.686	0.912		0.823	0.388	3.686	0.508
Demeton	12.333	0.766	0.827			0.902	0.614			3.435	
Diazinon	0.149	0.804	0.804	0.975			0.578	0.852		0.634	0.752
Dichlorvos	0.074	0.825	0.761		7.481		0.564	0.752	0.074	38.631	1.226
Disulfoton	4.006	0.724	0.862	4.796	23.276	0.899	0.599	0.801	0.222	2.791	0.867
EPN	2.336		0.827		5.772	0.927		0.853	0.329	1.721	0.838
Ethion	0.124		0.813	0.172		0.894	0.669		0.431	1.493	0.913
Fenitrothion	0.620	0.727	0.721	4.330		0.898	0.605				0.875
Fenthion	0.047	0.760	0.740	2.817	0.313		0.610	0.797	0.266	3.787	0.875
Malathion	0.559	0.821	0.850	1.000	1.714	0.892	0.574			0.925	0.816
Methiocarb	2.621	0.768	0.765	6.047							0.861
Methomyl	52.386	0.733	0.752	8.269	41.127	0.924	0.615	0.797			
Methyl Parathion	0.196	0.710	0.713	0.301	0.912	0.898	0.573	0.740		1.460	
Mexacarbate	10.372	0.678	0.686			0.889	0.551			2.843	0.816
Molinate	416.543	0.692	0.665	417.544	171.768		0.536	0.740	0.141	10.836	0.597
Naled	0.154	0.805	0.772	0.479			0.609	0.797	0.302		0.832
Parathion	0.065	0.750	0.799		0.235	0.906	0.652			1.077	0.861
Phosmet	1.068	0.782	0.824		6.652	0.890				1.217	
Phosphamidon	0.698	0.688		4.728	26.214	0.869	0.495	0.698	0.076	1.836	0.642
Thiobencarb/Benthiocarb	132.813	0.746	0.729	16.790	45.143	0.907		0.812			
Trichlorfon	0.730	0.738	0.730			0.906	0.578	0.736			0.730

Table 22. Values for equations used in Method 3 for prediction of 5th percentile LC50s from acute toxicity values for cholinesterase inhibitors with commonly tested species.

Parameter	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly
Intercept	-1851	-1.307	-0.431	-0.576	-0.118	-2.390	-0.023	-0.687	-0.269	-0.777
Slope	0.674 *	0.507 *	0.765 **	0.764 **	0.072	0.647	0.051	0.162	0.188	0.584 *
r²	0.263	0.177	0.750	0.706	0.002	0.144	0.001	0.026	0.084	0.306
n	24	25	18	15	20	20	15	11	17	18

* p #0.05

** p #0.01

Table 23. Estimates of 5th percentile LC50 values (Fg/L) for cholinesterase inhibitors calculated using regression analysis of log-transformed values (Method 3).

Chemical	5th % SPP	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly
Aminocarb	33.974	10.827	3.240	30.493		1.482	1.425				
Azinphos-methyl	0.259	0.043	0.154	0.398		1.368	0.120		0.377	0.243	
Carbaryl	1.844	2.121	4.638	1.383	1.068	1.532	2.022	1.416		0.994	
Chlorpyrifos	0.101	0.070	0.106	0.188	0.025	1.145	0.155	1.266	0.391		0.640
Coumaphos	0.041	1.367	0.948			1.240			0.514		
DEF	3.686	1.576	1.287	1.604	1.142	1.295		1.298	0.401	1.280	14.508
Demeton	12.333	1.048	0.535			1.380	0.710			1.222	
Diazinon	0.149	0.483	0.759	0.359			1.347	1.228		0.398	1.093
Dichlorvos	0.074	0.313	1.527		2.520		1.742	1.500	1.296	6.091	0.044
Disulfoton	4.006	2.634	0.316	2.633	8.966	1.404	0.916	1.354	0.595	1.065	0.427
EPN	2.336		0.535		1.886	1.179		1.223	0.451	0.772	0.537
Ethion	0.124		0.658	0.041		1.453	0.288		0.373	0.703	0.305
Fenitrothion	0.620	2.422	3.014	2.317		1.416	0.833				0.403
Fenthion	0.047	1.192	2.146	1.353	0.072		0.757	1.366	0.525	1.303	0.402
Malathion	0.559	0.344	0.378	0.371	0.485	1.471	1.441			0.512	0.640
Methiocarb	2.621	1.015	1.421	3.520							0.447
Methomyl	52.386	2.129	1.750	5.206	16.947	1.199	0.694	1.364			
Methyl Parathion	0.196	3.570	3.468	0.082	0.867	1.415	1.468	1.538		0.692	
Mexacarbate	10.372	7.591	5.585			1.497	2.231			1.078	0.640
Molinate	416.543	5.368	8.171	703.396	83.811		3.010	1.538	0.822	2.619	5.013
Naled	0.154	0.473	1.265	0.148			0.772	1.366	0.480		0.562
Parathion	0.065	1.467	0.822		0.053	1.347	0.377			0.566	0.447
Phosmet	1.068	0.755	0.558		2.210	1.489				0.614	
Phosphamidon	0.698	5.901		2.586	10.242	1.706	7.026	1.689	1.271	0.806	3.110
Thiobencarb/Benthiocarb	132.813	1.625	2.599	12.624	18.810	1.332		1.325			
Trichlorfon	0.730	1.900	2.559			1.345	1.359	1.552			1.330

Table 24. Estimates of 5th percentile LC50 values (Fg/L) for cholinesterase inhibitors calculated using the ERA program with limited data sets (Method4)

Chemical	5th % SPP (from ERA)	SPP Combination A	SPP Combination B	SPP Combination C	SPP Combination D	SPP Combination E	SPP Combination F
Aminocarb	33.974		146.020	148.449			
Azinphos-methyl	0.259		0.024	0.203			
Carbaryl	1.844	0.134	1.028	1.019	0.328	0.330	0.659
Chlorpyrifos	0.101	0.012	0.071	0.072	0.010	0.010	0.016
Coumaphos	0.041						
DEF	3.686	0.380	1.707		0.776		
Demeton	12.333						
Diazinon	0.149			0.142			
Dichlorvos	0.074						
Disulfoton	4.006	1.755	1.323	1.344	2.427	2.484	3.794
EPN	2.336						
Ethion	0.124						
Fenitrothion	0.620		2.194	1.935			
Fenthion	0.047	0.015		1.304		0.038	
Malathion	0.559	0.156	0.107	0.109	0.069	0.071	0.118
Methiocarb	2.621						
Methomyl	52.386	13.140	13.809	11.083	22.431	19.582	29.411
Methyl Parathion	0.196	0.001	0.004	0.005	0.005	0.005	0.013
Mexacarbate	10.372						
Molinate	416.543	1050.201		4982.670		1354.625	
Naled	0.154			0.048			
Parathion	0.065						
Phosmet	1.068						
Phosphamidon	0.698						
Thiobencarb/Benthiocarb	132.813	41.987	47.284		57.486		
Trichlorfon	0.730						

Table 25. Error values for cholinesterase inhibitors using simple extrapolation factors (Method 1). Error values are calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP	GBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly
Aminocarb	1.000	0.790	0.394	2.619		0.059	0.037				
Azinphos-methyl	1.000	0.028	0.127	1.175		2.535	0.106			0.054	0.410
Carbaryl	1.000	1.288	14.640	0.840	0.763	1.710	1.162	1.000		1.305	0.146
Chlorpyrifos	1.000	0.149	0.156	1.129	0.100	0.553	0.400	2.061	1.000		5.535
Coumaphos	1.000	30.172	28.826			4.089			13.368		
DEF	1.000	0.414	0.585	0.510	0.417	0.083		0.092	0.032	2.511	31.848
Demeton	1.000	0.068	0.031			0.060	0.035			0.585	
Diazinon	1.000	1.770	5.110	1.782			7.681	0.776		0.124	9.379
Dichlorvos	1.000	1.878	40.821		58.480		23.000	76.581	2275.560	500351.952	0.076
Disulfoton	1.000	0.817	0.034	0.897	5.686	0.234	0.157	0.192	0.340	0.866	0.070
EPN	1.000		0.164		1.268	0.036		0.046	0.105	0.269	0.177
Ethion	1.000		4.632	0.125		12.233	0.852		0.610	3.071	1.262
Fenitrothion	1.000	4.662	18.615	4.907		1.707	0.878				0.407
Fenthion	1.000	21.485	125.732	32.035	0.884		9.990	19.685	13.284	216.642	5.352
Malathion	1.000	0.286	0.344	0.495	0.896	3.203	2.270			0.126	1.000
Methiocarb	1.000	0.303	1.000	2.005							0.115
Methomyl	1.000	0.046	0.075	0.167	1.000	0.002	0.008	0.017			
Methyl Parathion	1.000	26.238	77.681	0.198	1.016	5.336	6.662	47.205		1.795	
Mexacarbate	1.000	1.520	3.754			0.219	0.240			0.357	0.054
Molinate	1.000	0.023	0.198	12.880	1.018		0.010	0.022	0.024	1.000	0.046
Naled	1.000	1.661	13.543	0.539			3.144	6.008	2.332		2.904
Parathion	1.000	21.122	13.729		0.420	8.137	2.460			1.851	4.644
Phosmet	1.000	0.480	0.389		3.412	1.981				0.173	
Phosphamidon	1.000	15.532		5.032	38.831	20.017	21.020	81.741	213.902	1.133	12.013
Thiobencarb/Benthiocarb	1.000	0.012	0.065	0.210	0.452	0.003		0.004			
Trichlorfon	1.000	2.763	11.447			0.707	1.588	15.103			2.680

Table 26. Error values for cholinesterase inhibitors using log-transformed data (Method 2). Error values are calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly
Aminocarb	1.000	0.020	0.021	1.000		0.026	0.017				
Azinphos-methyl	1.000	3.605	3.526	4.093		3.487	2.804		2.256	3.648	
Carbaryl	1.000	0.398	0.378	1.554	1.883	0.480	0.302	0.423		1.365	0.472
Chlorpyrifos	1.000	8.965	9.315	5.761	1.180	9.224	7.022	8.274	3.990		8.075
Coumaphos	1.000	18.378	19.270			22.412			6.679		
DEF	1.000	0.203	0.209	0.876	1.000	0.247		0.223	0.105	1.000	0.138
Demeton	1.000	0.062	0.067			0.073	0.050			0.279	
Diazinon	1.000	5.394	5.398	6.546			3.879	5.715		4.254	5.047
Dichlorvos	1.000	11.154	10.279		101.096		7.624	10.157	1.000	522.044	16.569
Disulfoton	1.000	0.181	0.215	1.197	5.810	0.224	0.150	0.200	0.056	0.697	0.216
EPN	1.000		0.354		2.471	0.397		0.365	0.141	0.737	0.359
Ethion	1.000		6.560	1.385		7.208	5.393		3.472	12.038	7.362
Fenitrothion	1.000	1.173	1.162	6.984		1.448	0.976				1.411
Fenthion	1.000	16.168	15.751	59.939	6.652		12.987	16.950	5.655	80.572	18.624
Malathion	1.000	1.468	1.521	1.789	3.066	1.596	1.028			1.655	1.459
Methiocarb	1.000	0.293	0.292	2.307							0.329
Methomyl	1.000	0.014	0.014	0.158	0.785	0.018	0.012	0.015			
Methyl Parathion	1.000	3.623	3.635	1.534	4.654	4.582	2.925	3.775		7.447	
Mexacarbate	1.000	0.065	0.066			0.086	0.053			0.274	0.079
Molinate	1.000	0.002	0.002	1.002	0.412		0.001	0.002	0.000	0.026	0.001
Naled	1.000	5.225	5.014	3.111			3.956	5.173	1.958		5.402
Parathion	1.000	11.542	12.294		3.612	13.934	10.030			16.572	13.251
Phosmet	1.000	0.732	0.772		6.229	0.833				1.139	
Phosphamidon	1.000	0.986		6.773	37.556	1.245	0.708	1.000	0.109	2.631	0.919
Thiobencarb/Benthiocarb	1.000	0.006	0.005	0.126	0.340	0.007		0.006			
Trichlorfon	1.000	1.011	1.000			1.241	0.791	1.008			1.000

Table 27. Error values for cholinesterase inhibitors using regression analysis of log-transformed values (Method 3). Error values are calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly
Aminocarb	1.000	0.319	0.095	0.898		0.044	0.042				
Azinphos-methyl	1.000	0.165	0.595	1.539		5.282	0.464			1.455	0.938
Carbaryl	1.000	1.150	2.515	0.750	0.579	0.831	1.097	0.768		0.539	
Chlorpyrifos	1.000	0.695	1.049	1.862	0.246	11.339	1.532	12.531	3.871		6.340
Coumaphos	1.000	33.344	23.132			30.242			12.532		
DEF	1.000	0.428	0.349	0.435	0.310	0.351		0.352	0.109	0.347	3.936
Demeton	1.000	0.085	0.043			0.112	0.058			0.099	
Diazinon	1.000	3.239	5.093	2.410			9.043	8.240		2.671	7.335
Dichlorvos	1.000	4.236	20.633		34.054		23.543	20.271	17.517	82.313	0.589
Disulfoton	1.000	0.657	0.079	0.657	2.238	0.350	0.229	0.338	0.149	0.266	0.107
EPN	1.000		0.229		0.807	0.505		0.524	0.193	0.331	0.230
Ethion	1.000		5.305	0.330		11.719	2.325		3.009	5.667	2.457
Fenitrothion	1.000	3.906	4.861	3.738		2.284	1.343				0.650
Fenthion	1.000	25.369	45.656	28.794	1.536		16.107	29.074	11.166	27.733	8.549
Malathion	1.000	0.616	0.676	0.663	0.868	2.631	2.577			0.915	1.145
Methiocarb	1.000	0.387	0.542	1.343							0.171
Methomyl	1.000	0.041	0.033	0.099	0.324	0.023	0.013	0.026			
Methyl Parathion	1.000	18.216	17.695	0.420	4.423	7.218	7.488	7.848		3.532	
Mexacarbate	1.000	0.732	0.538			0.144	0.215			0.104	0.062
Molinate	1.000	0.013	0.020	1.689	0.201		0.007	0.004	0.002	0.006	0.012
Naled	1.000	3.070	8.216	0.958			5.014	8.873	3.117		3.650
Parathion	1.000	22.562	12.653		0.808	20.720	5.799			8.705	6.875
Phosmet	1.000	0.707	0.523		2.069	1.394				0.575	
Phosphamidon	1.000	8.454		3.705	14.674	2.444	10.066	2.420	1.822	1.155	4.455
Thiobencarb/Benthiocarb	1.000	0.012	0.020	0.095	0.142	0.010		0.010			
Trichlorfon	1.000	2.603	3.505			1.842	1.861	2.126			1.822

Table 28. Error values obtained using the ERA program for cholinesterase inhibitors with limited data sets (Method 4), calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP (from ERA)	SPP Combination A	SPP Combination B	SPP Combination C	SPP Combination D	SPP Combination E	SPP Combination F
Aminocarb	1.000		4.321	4.393			
Azinphos-methyl	1.000		0.093	0.784			
Carbaryl	1.000	0.073	0.557	0.553	0.178	0.179	0.357
Chlorpyrifos	1.000	0.119	0.703	0.713	0.099	0.099	0.158
Coumaphos	1.000						
DEF	1.000	0.103	0.463		0.211		
Demeton	1.000						
Diazinon	1.000			0.953			
Dichlorvos	1.000						
Disulfoton	1.000	0.438	0.330	0.335	0.606	0.620	0.947
EPN	1.000						
Ethion	1.000						
Fenitrothion	1.000		3.539	3.121			
Fenthion	1.000	0.319		27.745		0.809	
Malathion	1.000	0.279	0.191	0.195	0.123	0.127	0.211
Methiocarb	1.000						
Methomyl	1.000	0.251	0.264	0.212	0.428	0.374	0.561
Methyl Parathion	1.000	0.005	0.020	0.026	0.026	0.026	0.066
Mexacarbate	1.000						
Molinate	1.000	2.521		11.962		3.252	
Naled	1.000			0.312			
Parathion	1.000						
Phosmet	1.000						
Phosphamidon	1.000						
Thiobencarb/Benthiocarb	1.000	0.316	0.356		0.433		
Trichlorfon	1.000						

Table 29. Summary statistics of error analysis for cholinesterase inhibitors using various predictive methods. Error values are calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

	RBT	BLG	Daphnia	Mysid	CCF	FHM	SHM	E. Oyster	Scud	Stonefly	
<i>Method 1-- Simple Extrapolation Factors</i>											
Mean	5.6	14	3.8	7.6	3.1	4.1	17	230	29000	4.1	
Median	1.1	1.0	1.0	1.0	1.2	1.0	1.0	1.0	1.0	1.0	
Minimum	0.01	0.03	0.1	0.1	0.002	0.01	0.004	0.02	0.05	0.05	
Maximum	30	126	32	58	20	23	82	2300	500000	32	
n	24	25	18	15	20	20	15	11	17	19	
<i>Method 2 -- Simple Extrapolation Factors Using Log-Transformed Data</i>											
Mean	3.8	3.9	5.9	12	3.4	3.0	3.6	2.1	39	4.4	
Median	1.0	1.0	1.7	3.1	1.0	1.0	1.0	1.0	1.7	1.4	
Minimum	0.002	0.002	0.1	0.3	0.01	0.001	0.002	0.0003	0.03	0.001	
Maximum	18	19	60	100	22	13	17	6.7	520	19	
n	24	25	18	15	20	20	15	11	17	19	
<i>Method 3 – Regression Analysis of Log-Transformed Values</i>											
Mean	5.5	6.2	2.8	4.2	5.0	4.4	6.2	4.9	8.0	2.7	
Median	0.7	0.7	0.9	1.5	1.6	1.7	2.1	3.0	0.9	1.5	
Minimum	0.01	0.02	0.10	0.14	0.01	0.01	0.004	0.002	0.01	0.01	
Maximum	33	46	29	34	30	24	29	18	82	8.5	
n	24	25	18	15	20	20	15	11	17	18	
<i>Method 4 -- ERA with Limited Data Sets</i>											
	A	B	C	D	E	F	A = RBT, BLG, Daphnia, Mysid B = RBT, BLG, Daphnia, CCF C = RBT, BLG, Daphnia, FHM D = RBT, BLG, Daphnia, Mysid, CCF E = RBT, BLG, Daphnia, Mysid, FHM F = RBT, BLG, Daphnia, Mysid, CCF, FHM				
Mean	0.4	1.0	3.9	0.3	0.7	0.4	A = RBT, BLG, Daphnia, Mysid B = RBT, BLG, Daphnia, CCF C = RBT, BLG, Daphnia, FHM D = RBT, BLG, Daphnia, Mysid, CCF E = RBT, BLG, Daphnia, Mysid, FHM F = RBT, BLG, Daphnia, Mysid, CCF, FHM				
Median	0.3	0.4	0.7	0.2	0.3	0.3	A = RBT, BLG, Daphnia, Mysid B = RBT, BLG, Daphnia, CCF C = RBT, BLG, Daphnia, FHM D = RBT, BLG, Daphnia, Mysid, CCF E = RBT, BLG, Daphnia, Mysid, FHM F = RBT, BLG, Daphnia, Mysid, CCF, FHM				
Minimum	0.01	0.02	0.03	0.03	0.03	0.07	A = RBT, BLG, Daphnia, Mysid B = RBT, BLG, Daphnia, CCF C = RBT, BLG, Daphnia, FHM D = RBT, BLG, Daphnia, Mysid, CCF E = RBT, BLG, Daphnia, Mysid, FHM F = RBT, BLG, Daphnia, Mysid, CCF, FHM				
Maximum	2.5	4.3	28	0.6	3.3	0.9	A = RBT, BLG, Daphnia, Mysid B = RBT, BLG, Daphnia, CCF C = RBT, BLG, Daphnia, FHM D = RBT, BLG, Daphnia, Mysid, CCF E = RBT, BLG, Daphnia, Mysid, FHM F = RBT, BLG, Daphnia, Mysid, CCF, FHM				
n	10	11	13	8	8	6	A = RBT, BLG, Daphnia, Mysid B = RBT, BLG, Daphnia, CCF C = RBT, BLG, Daphnia, FHM D = RBT, BLG, Daphnia, Mysid, CCF E = RBT, BLG, Daphnia, Mysid, FHM F = RBT, BLG, Daphnia, Mysid, CCF, FHM				

Table 30. Extrapolation factors for commonly tested species developed from chemicals included in the taxon-specific core data sets.

	RBT	BLG	CCF	FHM	Daphnia	Scud	Stonefly
<i>Method 1-- Simple Extrapolation Factors</i>							
Mean	0.541	0.388	0.334	0.269	0.058	0.068	0.133
Median	0.412	0.331	0.322	0.235	0.049	0.041	0.023
Std Dev	0.330	0.289	0.304	0.208	0.056	0.073	0.236
Minimum	0.056	0.031	0.000	0.002	0.003	0.014	0.003
Maximum	0.988	0.971	0.954	0.640	0.133	0.175	0.552
n	13	13	13	13	4	4	5
<i>Method 2 -- Simple Extrapolation Factors Using Log-Transformed Data</i>							
Mean	0.692	0.723	0.269	0.664	-0.761	1.024	-0.343
Median	0.896	0.792	0.734	0.740	-0.600	-0.837	-0.665
Std Dev	0.511	0.540	1.338	0.446	0.374	4.254	0.999
Minimum	-0.752	-0.553	-4.035	-0.237	-1.188	-1.581	-0.945
Maximum	1.218	1.856	0.995	1.541	-0.494	7.351	1.429
n	13	13	13	13	3	4	5

Table 31. Estimates of 5th percentile LC50 values (Fg/L) calculated using simple extrapolation factors (Method 1) with taxa-specific core data sets.

(Extrapolation Factor)	5th % SPP (from ERA)	RBT (0.412)	BLG (0.331)	CCF (0.322)	FHM (0.235)	Daphnia (0.049)	Scud (0.041)	Stonefly (0.023)
Antimycin A	0.007	0.007	0.023	1.102	0.009			
Azinphos-methyl	0.289	2.143	3.127	1059.664	43.751			
Carbaryl	1209.864	703.442	2568.576	5088.962	3425.126			
Clonitralide	49.127	53.688	41.363	26.411	23.929			
DDT	1.739	3.193	2.844	4.869	2.909			
Fenitrothion	1707.968	856.222	1098.112	1707.968	870.228			
Hexachlorocyclohexane	20.410	11.913	20.410	14.172	20.410			
Malathion	14.966	47.308	18.320	2889.113	2029.270			
Methoxychlor	9.423	10.366	15.749	16.748	9.149			
Methyl Parathion	3654.805	1523.529	1448.667	1687.732	2087.920			
Mexacarbate	10874.694	4669.119	3704.354	3671.783	3988.161			
Piperonyl butoxide	3115.785	1336.909	1483.391	2061.352	1454.506			
Toxaphene	2.050	2.654	1.927	1.505	4.022			
Carbaryl	0.356					0.273	1.063	0.109
DDT	0.159					0.229	0.131	0.159
Endrin	0.138					2.683	0.176	0.006
Malathion	0.133					0.049	0.031	0.227
Trichlorfon	0.094							0.795

Table 32. Estimates of 5th percentile LC50 values (Fg/L) calculated using log-transformed data (Method 2) with taxa-specific core data sets.

(Extrapolation Factor)	5th % SPP (from ERA)	RBT (0.896)	BLG (0.792)	CCF (0.734)	FHM (0.740)	Daphnia (-0.600)	Scud (-0.837)	Stonefly (-0.665)
Antimycin A	0.007	0.012	0.050	1.074	0.032			
Azinphos-methyl	0.289	1.980	2.468	166.394	16.397			
Carbaryl	1209.864	356.464	503.461	526.599	413.626			
Clonitralide	49.127	35.523	19.101	11.064	10.490			
DDT	1.739	2.831	2.290	3.197	2.204			
Fenitrothion	1707.968	425.131	256.756	236.238	150.008			
Hexachlorocyclohexane	20.410	9.214	10.914	7.005	9.325			
Malathion	14.966	31.715	10.018	347.505	280.748			
Methoxychlor	9.423	8.134	8.887	7.919	5.149			
Methyl Parathion	3654.805	712.589	319.792	234.180	286.733			
Mexacarbate	10874.694	1944.433	672.945	414.384	462.952			
Piperonyl butoxide	3115.785	633.832	325.852	271.216	219.410			
Toxaphene	2.050	2.398	1.681	1.350	2.802			
Carbaryl	0.356					2.179	0.950	4.366
DDT	0.159					2.421	5.491	3.397
Endrin	0.138					0.553	4.287	31.155
Malathion	0.133						18.299	2.680
Trichlorfon	0.094							1.165

Table 33. Values for equations used in Method 3 for prediction of 5th percentile LC50s from acute toxicity values for commonly tested species with taxa-specific core data sets.

Parameter	RBT	BLG	CCF	FHM	Daphnia	Scud	Stonefly
Intercept	-0.630	-0.907	-1.005	-0.884			
Slope	1.128 **	1.168 **	0.967 **	0.985 **	Insufficient	Insufficient	Insufficient
r ²	0.971	0.971	0.533	0.779	Data	Data	Data
n	13	13	13	13			

** p < 0.01

Table 34. Estimates of 5th percentile LC50 values (Fg/L) calculated using regression analysis of log-transformed values (Method 3) with taxa-specific core data sets.

Chemical	5th % SPP	RBT	BLG	CCF	FHM	Daphnia	Scud	Stonefly
Antimycin A	0.007	0.002	0.005	0.325	0.005			
Azinphos-methyl	0.289	1.507	1.707	248.485	22.568			
Carbaryl	1209.864	1035.619	4331.118	1132.661	1656.151			
Clonitralide	49.127	56.911	34.858	7.003	12.454			
DDT	1.739	2.361	1.529	1.366	1.562			
Fenitrothion	1707.968	1292.409	1605.462	394.185	429.438			
Hexachlorocyclohexane	20.410	10.421	15.276	3.836	10.646			
Malathion	14.966	49.351	13.465	655.239	989.008			
Methoxychlor	9.423	8.908	11.285	4.508	4.829			
Methyl Parathion	3654.805	2475.141	2218.707	389.673	1017.185			
Mexacarbate	10874.694	8749.838	6643.547	826.228	1924.421			
Piperonyl butoxide	3115.785	2135.994	2280.867	472.825	712.361			
Toxaphene	2.050	1.917	0.970	0.439	2.149			
Carbaryl	0.356					Insufficient	Insufficient	Insufficient
DDT	0.159					Data	Data	Data
Endrin	0.138							
Malathion	0.133							
Trichlorfon	0.094							

Table 35. Estimates of 5th percentile LC50 values (Fg/L) calculated using the ERA program with limited taxa-specific data sets (Method 4).

Chemical	5th % SPP (from ERA)	SPP Combination A	SPP Combination B	SPP Combination C	SPP Combination D
Antimycin A	0.007	0.001	0.001	0.010	
Azinphos-methyl	0.289	0.353	0.045	0.519	
Carbaryl	1209.864	1043.322	735.332	752.380	
Clonitralide	49.127	73.610	66.090	91.989	
DDT	1.739	6.071	4.998	5.886	
Fenitrothion	1707.968	1712.850	1429.834	1638.843	
Hexachlorocyclohexane	20.410	22.485	21.603	19.045	
Malathion	14.966	4.878	1.820	1.876	
Methoxychlor	9.423	21.802	18.220	19.766	
Methyl Parathion	3654.805	2618.930	3213.246	2154.211	
Mexacarbate	10874.694	8019.489	11124.709	7946.799	
Piperonyl butoxide	3115.785	2746.257	2460.411	2506.245	
Toxaphene	2.050	2.422	4.137	2.693	
Carbaryl	0.356				1.382
DDT	0.159				2.334
Endrin	0.138				0.030
Malathion	0.133				0.120
Trichlorfon	0.094				

Table 36. Error values obtained using simple extrapolation factors (Method 1) with taxa-specific core data sets, calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP	RBT	BLG	CCF	FHM	Daphnia	Scud	Stonefly
Antimycin A	1.000	1.000	3.260	157.362	1.341			
Azinphos-methyl	1.000	7.416	10.818	3666.656	151.388			
Carbaryl	1.000	0.581	2.123	4.206	2.831			
Clonitralide	1.000	1.093	0.842	0.538	0.487			
DDT	1.000	1.836	1.636	2.800	1.673			
Fenitrothion	1.000	0.501	0.643	1.000	0.510			
Hexachlorocyclohexane	1.000	0.584	1.000	0.694	1.000			
Malathion	1.000	3.161	1.224	193.045	135.592			
Methoxychlor	1.000	1.100	1.671	1.777	0.971			
Methyl Parathion	1.000	0.417	0.396	0.462	0.571			
Mexacarbate	1.000	0.429	0.341	0.338	0.367			
Piperonyl butoxide	1.000	0.429	0.476	0.662	0.467			
Toxaphene	1.000	1.295	0.940	0.734	1.962			
Carbaryl	1.000					0.766	2.986	0.306
DDT	1.000					1.440	0.823	1.000
Endrin	1.000					19.439	1.274	0.041
Malathion	1.000					0.366	0.234	1.708
Trichlorfon	1.000							8.457

Table 37. Error values obtained using log-transformed data (Method 2) with taxa-specific core data sets, calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Table 38. Error values obtained using regression analysis of log-transformed values (Method 3) with taxon-specific core data sets, calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP	RBT	BLG	CCF	FHM	Daphnia	Scud	Stonefly
Antimycin A	1.000	0.339	0.779	46.377	0.784			
Azinphos-methyl	1.000	5.213	5.907	859.809	78.091			
Carbaryl	1.000	0.856	3.580	0.936	1.369			
Clonitralide	1.000	1.158	0.710	0.143	0.254			
DDT	1.000	1.358	0.879	0.785	0.898			
Fenitrothion	1.000	0.757	0.940	0.231	0.251			
Hexachlorocyclohexane	1.000	0.511	0.748	0.188	0.522			
Malathion	1.000	3.298	0.900	43.782	66.084			
Methoxychlor	1.000	0.945	1.198	0.478	0.513			
Methyl Parathion	1.000	0.677	0.607	0.107	0.278			
Mexacarbate	1.000	0.805	0.611	0.076	0.177			
Piperonyl butoxide	1.000	0.686	0.732	0.152	0.229			
Toxaphene	1.000	0.935	0.473	0.214	1.048			
Carbaryl	1.000							
DDT	1.000							
Endrin	1.000					Insufficient	Insufficient	Insufficient
Malathion	1.000					Data	Data	Data
Trichlorfon	1.000							

Table 39. Error values obtained using the ERA program with limited taxa-specific data sets (Method 4), calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP (from ERA)	SPP Combination	SPP Combination	SPP Combination	SPP Combination
		A	B	C	D
Antimycin A	1.000	0.143	0.143	1.429	
Azinphos-methyl	1.000	1.221	0.156	1.796	
Carbaryl	1.000	0.862	0.608	0.622	
Clonitralide	1.000	1.498	1.345	1.872	
DDT	1.000	3.491	2.874	3.385	
Fenitrothion	1.000	1.003	0.837	0.960	
Hexachlorocyclohexane	1.000	1.102	1.058	0.933	
Malathion	1.000	0.326	0.122	0.125	
Methoxychlor	1.000	2.314	1.934	2.098	
Methyl Parathion	1.000	0.717	0.879	0.589	
Mexacarbate	1.000	0.737	1.023	0.731	
Piperonyl butoxide	1.000	0.881	0.790	0.804	
Toxaphene	1.000	1.181	2.018	1.314	
Carbaryl	1.000				3.882
DDT	1.000				14.679
Endrin	1.000				0.217
Malathion	1.000				0.902
Trichlorfon	1.000				

Table 40. Summary statistics for error analysis for various predictive methods with taxa-specific core data sets. Error values are calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

	RBT	BLG	CCF	FHM	Daphnia	Scud	Stonefly
<i>Method 1-- Simple Extrapolation Factors</i>							
Mean	1.5	2.0	310	23	5.5	1.3	2.3
Median	1.0	1.0	1.0	1.0	1.1	1.0	1.0
Minimum	0.42	0.34	0.34	0.37	0.37	0.23	0.04
Maximum	7.4	11	3700	150	19	3.0	8.5
n	13	13	13	13	4	4	5
<i>Method 2 -- Simple Extrapolation Factors Using Log-Transformed Data</i>							
Mean	1.3	1.6	58	6.5	8.5	51	58
Median	0.7	0.5	0.4	0.5	6.1	33	20
Minimum	0.18	0.06	0.04	0.04	4.0	2.7	12
Maximum	6.9	8.5	580	57	15	140	230
n	13	13	13	13	3	4	5
<i>Method 3 – Regression Analysis of Log-Transformed Values</i>							
Mean	1.3	1.4	73	12	Insufficient Data	Insufficient Data	Insufficient Data
Median	0.9	0.8	0.2	0.5			
Minimum	0.34	0.47	0.08	0.18			
Maximum	5.2	5.9	860	78			
n	13	13	13	13			
<i>Method 4 -- ERA with Limited Data Sets</i>							
	A	B	C	D			
Mean	1.2	1.1	1.3	4.9	A = RBT, BLG, CCF, FHM		
Median	1.0	0.9	1.0	2.4	B = RBT, BLG, CCF		
Minimum	0.14	0.12	0.12	0.22	C = RBT, BLG, FHM		
Maximum	3.5	2.9	3.4	15	D = Daphnia, Scud, Stonefly		
n	13	13	13	4			

Table 41. Ranges in percentile sensitivity rankings of commonly tested species exposed to chemicals in the taxa-specific core data sets, as calculated by the ERA program.

	RBT	BLG	CCF	FHM	Daphnia	Scud	Stonefly
Mean	30.995	44.213	63.547	67.459	52.917	48.646	47.338
Median	25.000	50.000	78.571	68.750	52.084	53.125	63.333
Minimum	8.333	5.882	17.647	26.923	20.000	13.333	12.500
Maximum	84.375	76.923	84.615	91.667	87.500	75.000	72.222
n	13	13	13	13	4	4	5

Table 42. Extrapolation factors for commonly tested species developed for cholinesterase inhibitors in the taxa-specific core data sets.

	RBT	BLG	CCF	FHM
<i>Method 1-- Simple Extrapolation Factors</i>				
Mean	0.610	0.463	0.342	0.266
Median	0.765	0.392	0.199	0.247
Std Dev	0.414	0.379	0.401	0.273
Minimum	0.056	0.031	0.000	0.002
Maximum	0.988	0.971	0.954	0.640
n	6	6	6	6
<i>Method 2 -- Simple Extrapolation Factors Using Log-Transformed Data</i>				
Mean	0.623	0.635	0.617	0.594
Median	0.964	0.855	0.801	0.821
Std Dev	0.694	0.594	0.454	0.474
Minimum	-0.752	-0.553	-0.153	-0.237
Maximum	0.999	0.997	0.995	0.954
n	6	6	6	6

Table 43. Estimates of 5th percentile LC50 values (Fg/L) calculated for cholinesterase inhibitors using simple extrapolation factors (Method 1) with taxa-specific core data sets.

(Extrapolation Factor)	5th % SPP (from ERA)	GBT (0.765)	BLG (0.392)	CCF (0.199)	FHM (0.247)
Azinphos-methyl	0.289	3.981	3.709	655.795	46.019
Carbaryl	1209.864	1306.536	3046.684	3149.413	3602.693
Fenitrothion	1707.968	1590.300	1302.511	1057.013	915.342
Malathion	14.966	87.867	21.730	1787.989	2134.472
Methyl Parathion	3654.805	2829.721	1718.318	1044.489	2196.162
Mexacarbate	10874.694	8672.169	4393.872	2272.361	4194.917

Table 44. Estimates of 5th percentile LC50 values (Fg/L) calculated for cholinesterase inhibitors using log-transformed data (Method 2) with taxa-specific core data sets.

(Extrapolation Factor)	5th % SPP (from ERA)	GBT (0.964)	BLG (0.855)	CCF (0.801)	FHM (0.821)
Azinphos-methyl	0.289	4.904	6.829	656.863	73.226
Carbaryl	1209.864	1306.257	2123.262	2308.681	2628.831
Fenitrothion	1707.968	1578.733	1026.562	962.816	853.323
Malathion	14.966	96.828	30.977	1466.940	1710.306
Methyl Parathion	3654.805	2751.376	1301.032	953.667	1750.795
Mexacarbate	10874.694	8098.366	2904.035	1777.511	2978.795

Table 45. Values for equations used in Method 3 for prediction of 5th percentile LC50s from acute toxicity values for cholinesterase inhibitors using taxa-specific core data sets.

Parameter	GBT	BLG	CCF	FHM
Intercept	-1.603	-1.535	-11.804	-4.852
Slope	1.426 **	1.333 **	3.685	1.974 *
r ²	0.995	0.957	0.282	0.680
n	6	6	6	6

* p #0.05

** p #0.01

Table 46. Estimates of 5th percentile LC50 values (Fg/L) calculated for cholinesterase inhibitors using regression analysis of log-transformed values (Method 3) with taxa-specific core data sets.

Chemical	5th % SPP	GBT	BLG	CCF	FHM
Azinphos-methyl	0.289	0.262	0.583	14.328	0.426
Carbaryl	1209.864	1014.378	4485.388	4647.292	2331.310
Fenitrothion	1707.968	1342.456	1444.442	83.196	155.955
Malathion	14.966	21.617	6.157	577.032	829.469
Methyl Parathion	3654.805	3052.812	2090.259	79.616	877.607
Mexacarbate	10874.694	15069.540	7309.708	1396.047	3147.748

Table 47. Estimates of 5th percentile LC50 values (Fg/L) calculated for cholinesterase inhibitors using the ERA program with limited taxa-specific data sets (Method 4).

Chemical	5th % SPP (from ERA)	SPP Combination A	SPP Combination B	SPP Combination C
Azinphos-methyl	0.289	0.353	0.045	0.519
Carbaryl	1209.864	1043.322	735.332	752.380
Fenitrothion	1707.968	1712.850	1429.834	1638.843
Malathion	14.966	4.878	1.820	1.876
Methyl Parathion	3654.805	2618.930	3213.246	2154.211
Mexacarbate	10874.694	8019.489	11124.709	7946.799

Table 48. Error values obtained for cholinesterase inhibitors using simple extrapolation factors (Method 1) with taxa-specific core data sets, calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP	GBT	BLG	CCF	FHM
Azinphos-methyl	1.000	13.774	12.832	2269.188	159.236
Carbaryl	1.000	1.080	2.518	2.603	2.978
Fenitrothion	1.000	0.931	0.763	0.619	0.536
Malathion	1.000	5.871	1.452	119.470	142.621
Methyl Parathion	1.000	0.774	0.470	0.286	0.601
Mexacarbate	1.000	0.797	0.404	0.209	0.386

Table 49. Error values obtained for cholinesterase inhibitors using log-transformed data (Method 2) with taxa-specific core data sets, calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP	RB _T	BLG	CCF	FHM
Azinphos-methyl	1.000	16.970	23.628	2272.882	253.379
Carbaryl	1.000	1.080	1.755	1.908	2.173
Fenitrothion	1.000	0.924	0.601	0.564	0.500
Malathion	1.000	6.470	2.070	98.018	114.279
Methyl Parathion	1.000	0.753	0.356	0.261	0.479
Mexacarbate	1.000	0.745	0.267	0.163	0.274

Table 50. Error values obtained for cholinesterase inhibitors using regression analysis of log-transformed values (Method 3) with taxa-specific core data sets, calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP	RB _T	BLG	CCF	FHM
Azinphos-methyl	1.000	0.908	2.017	49.580	1.475
Carbaryl	1.000	0.838	3.707	3.841	1.927
Fenitrothion	1.000	0.786	0.846	0.049	0.091
Malathion	1.000	1.444	0.411	38.556	55.424
Methyl Parathion	1.000	0.835	0.572	0.022	0.240
Mexacarbate	1.000	1.386	0.672	0.128	0.289

Table 51. Error values obtained for cholinesterase inhibitors using the ERA program with limited taxa-specific data sets (Method 4), calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

Chemical	5th % SPP (from ERA)	SPP Combination A	SPP Combination B	SPP Combination C
Azinphos-methyl	1.000	1.221	0.156	1.796
Carbaryl	1.000	0.862	0.608	0.622
Fenitrothion	1.000	1.003	0.837	0.960
Malathion	1.000	0.326	0.122	0.125
Methyl Parathion	1.000	0.717	0.879	0.589
Mexacarbate	1.000	0.737	1.023	0.731

Table 52. Summary statistics for error analysis for cholinesterase inhibitors using various predictive methods with taxa-specific core data sets. Error values are calculated as species estimate of 5th percentile LC50 value divided by ERA estimate of 5th percentile LC50 value (i.e. 1.0 represents perfect correspondence).

RBT	BLG	CCF	FHM
3.9	3.1	400	51
1.0	1.1	1.6	1.8
0.78	0.40	0.21	0.39
14	13	2300	160
6	6	6	6
4.5	4.8	400	62
1.0	1.2	1.2	1.3
0.74	0.27	0.16	0.27
17	24	2300	250
6	6	6	6
1.0	1.4	15	9.9
0.9	0.8	2.0	0.9
0.79	0.41	0.02	0.09
1.4	3.7	50	55
6	6	6	6
A	B	C	
0.8	0.6	0.8	
0.8	0.7	0.7	
0.33	0.12	0.12	A = RBT, BLG, CCF, FHM
1.2	1.0	1.8	B = RBT, BLG, CCF
6	6	6	C = RBT, BLG, FHM

Table 53. Comparison of estimates of 5th percentile LC50 values (Fg/L) calculated using the ERA program with the combined core data set (all species) vs. estimates calculated using taxon-specific core data sets (freshwater fish and freshwater invertebrates).

Chemical	5th % LC50 (all species)	5th % LC50 (freshwater fish)	5th % LC50 (freshwater invertebrates)
Antimycin A	0.005	0.007	
Azinphos-methyl	0.259	0.289	
Carbaryl	1.844	1209.864	
Clonitralide	42.561	49.127	
DDT	0.272	1.739	
Fenitrothion	0.620	1707.968	
Hexachlorocyclohexane	1.212	20.410	
Malathion	0.559	14.966	
Methoxychlor	0.937	9.423	
Methyl Parathion	0.196	3654.805	
Mexacarbate	10.372	10874.694	
Piperonyl butoxide	414.040	3115.785	
Toxaphene	0.924	2.050	
Carbaryl	1.844		0.356
DDT	0.272		0.159
Endrin	0.070		0.138
Malathion	0.559		0.133
Trichlorfon	0.730		0.094

Table 54. Ratios of estimates of 5th percentile LC50 values (error values) calculated using the ERA program with the combined core data set (all species) vs. estimates calculated using taxaspecific core data sets (freshwater fish and freshwater invertebrates).

Chemical	Error (all species)	Error (freshwater fish)	Error (freshwater invertebrates)
Antimycin A	1.000	1.4	
Azinphos-methyl	1.000	1.1	
Carbaryl	1.000	660	
Clonitralide	1.000	1.2	
DDT	1.000	6.4	
Fenitrothion	1.000	2800	
Hexachlorocyclohexane	1.000	17	
Malathion	1.000	27	
Methoxychlor	1.000	10	
Methyl Parathion	1.000	19000	
Mexacarbate	1.000	1000	
Piperonyl butoxide	1.000	7.5	
Toxaphene	1.000	2.2	
Carbaryl	1.000		0.19
DDT	1.000		0.58
Endrin	1.000		2.0
Malathion	1.000		0.24
Trichlorfon	1.000		0.13
Mean	1.000	1800	0.62
Median	1.000	10	0.24
Min	1.000	1.1	0.13
Max	1.000	19000	2.0
n	18	13	5

Appendix I

Final Acute Toxicity Database

Appendix I

Final Acute Toxicity Database

Appendix 1
Final Acute Toxicity Database

Data Source ¹	CAS Number	Chemical Name	Species Latin Name	Species Common Name	Duration	Endpoint	Value (µg/L)	Water	Exposure Type
OPP	71-55-6	1,1,1-Tribromoethane M ethylchlorform)	Daphnia magna	Water flea	48 hr	EC50	11200.00000	Freshwater	Static
OPP	71-55-6	1,1,1-Tribromoethane M ethylchlorform)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	58000.00000	Freshwater	Static
OPP	71-55-6	1,1,1-Tribromoethane M ethylchlorform)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	52000.00000	Freshwater	Static
ECOTOX	79-34-5	1,1,2,2-Tetraethylbenzene	Pimephales promelas	Fathead minnow	96 hr	LC50	20300.00000	Freshwater	Fbw Through
ECOTOX	75-35-4	1,1-Dibromoethene	Menidia beryllina	Inland silverside	96 hr	LC50	250000.00000	Saltwater	Static
ECOTOX	120-82-1	1,2,4-Tribromobenzene	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1530.00000	Freshwater	Fbw Through
OPP	643-79-8	1,2-Benzenedibroboxylhyde	Daphnia magna	Water flea	48 hr	EC50	87.00000	Freshwater	Static Renewal
OPP	643-79-8	1,2-Benzenedibroboxylhyde	Daphnia magna	Water flea	48 hr	EC50	90.00000	Freshwater	Static
OPP	643-79-8	1,2-Benzenedibroboxylhyde	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	72.00000	Freshwater	Fbw Through
CERC-GED	84-74-2	1,2-Benzenedibroxylic acid, D butylester (Phthalate D butyl)	Chionomus plumosus	Midge	48 hr	EC50	4000.00000	Freshwater	Static
CERC-GED	84-74-2	1,2-Benzenedibroxylic acid, D butylester (Phthalate D butyl)	Italicus punctatus	Channelcatfish	96 hr	LC50	2910.00000	Freshwater	Static
CERC-GED	84-74-2	1,2-Benzenedibroxylic acid, D butylester (Phthalate D butyl)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	730.00000	Freshwater	Static
CERC-GED	84-74-2	1,2-Benzenedibroxylic acid, D butylester (Phthalate D butyl)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2560.00000	Freshwater	Static
CERC-GED	84-74-2	1,2-Benzenedibroxylic acid, D butylester (Phthalate D butyl)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6470.00000	Freshwater	Static
CERC-GED	84-74-2	1,2-Benzenedibroxylic acid, D butylester (Phthalate D butyl)	Pimephales promelas	Fathead minnow	96 hr	LC50	1300.00000	Freshwater	Static
ECOTOX	131-11-3	1,2-Benzenedibroxylic acid, D ethylester	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	50000.00000	Freshwater	Static
ECOTOX	95-50-1	1,2-Dibromobenzene	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	27000.00000	Freshwater	Static
ECOTOX	95-50-1	1,2-Dibromobenzene	Menidia beryllina	Inland silverside	96 hr	LC50	7300.00000	Saltwater	Static
ECOTOX	95-50-1	1,2-Dibromobenzene	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1580.00000	Freshwater	Fbw Through
ECOTOX	95-50-1	1,2-Dibromobenzene	Tanytarsus discinilis	Midge	48 hr	LC50	12000.00000	Freshwater	Static
OPP	107-06-2	1,2-Dibromoethane	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	225000.00000	Freshwater	Static
ECOTOX	78-87-5	1,2-Dibromopropane	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	320000.00000	Freshwater	Static
ECOTOX	78-87-5	1,2-Dibromopropane	Menidia beryllina	Inland silverside	96 hr	LC50	240000.00000	Saltwater	Static
ECOTOX	142-28-9	1,3-Dibromopropane	Pimephales promelas	Fathead minnow	96 hr	LC50	131000.00000	Freshwater	Fbw Through
CERC-GED	542-75-6	1,3-Dibromopropane	Daphnia magna	Water flea	48 hr	EC50	90.00000	Freshwater	Static
OPP	542-75-6	1,3-Dibromopropane	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	6700.00000	Freshwater	Static
OPP	542-75-6	1,3-Dibromopropane	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	7090.00000	Freshwater	Static
OPP	542-75-6	1,3-Dibromopropane	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3940.00000	Freshwater	Static
CERC-GED	542-75-6	1,3-Dibromopropane	Pimephales promelas	Fathead minnow	96 hr	LC50	4100.00000	Freshwater	Static
OPP	106-46-7	1,4-Dibromobenzene (Paradi bromobenzene)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	6400.00000	Freshwater	Static
OPP	106-46-7	1,4-Dibromobenzene (Paradi bromobenzene)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	880.00000	Freshwater	Static
ECOTOX	106-46-7	1,4-Dibromobenzene (Paradi bromobenzene)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1120.00000	Freshwater	Fbw Through
OPP	106-46-7	1,4-Dibromobenzene (Paradi bromobenzene)	Salvelinus fontinalis	Brook trout	96 hr	LC50	1670.00000	Freshwater	Static
ECOTOX	106-46-7	1,4-Dibromobenzene (Paradi bromobenzene)	Tanytarsus discinilis	Midge	48 hr	LC50	13000.00000	Freshwater	Static
OPP	34375-28-5	2-Hydroxymethylbenzeneethanol	Daphnia magna	Water flea	48 hr	EC50	25200.00000	Freshwater	Fbw Through
CERC-GED	25167-83-3	2,3,4,6-Tetachlorophenol	Daphnia magna	Water flea	48 hr	EC50	500.00000	Freshwater	Static
CERC-GED	25167-83-3	2,3,4,6-Tetachlorophenol	Italicus punctatus	Channelcatfish	96 hr	LC50	140.00000	Freshwater	Static
CERC-GED	25167-83-3	2,3,4,6-Tetachlorophenol	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	100.00000	Freshwater	Static
CERC-GED	25167-83-3	2,3,4,6-Tetachlorophenol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	85.00000	Freshwater	Static
CERC-GED	25167-83-3	2,3,4,6-Tetachlorophenol	Pimephales promelas	Fathead minnow	96 hr	LC50	170.00000	Freshwater	Static
CERC-GED	50-31-7	2,3,6-Tribromobenzoic acid	Pimephales promelas	Fathead minnow	96 hr	LC50	8500.00000	Freshwater	Static
OPP	94-75-7	2,4-D Acid	Crassostrea virginica	Eastern oyster	96 hr	EC50	58700.00000	Saltwater	Fbw Through
OPP	94-75-7	2,4-D Acid	Crassostrea virginica	Eastern oyster	96 hr	EC50	146000.00000	Saltwater	Fbw Through
OPP	94-75-7	2,4-D Acid	Daphnia magna	Water flea	48 hr	EC50	25000.00000	Freshwater	Static
CERC-GED	94-75-7	2,4-D Acid	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	180000.00000	Freshwater	Static
OPP	94-75-7	2,4-D Acid	Menidia beryllina	Inland silverside	96 hr	LC50	175000.00000	Saltwater	Fbw Through
CERC-GED	94-75-7	2,4-D Acid	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	44000.00000	Freshwater	Static
CERC-GED	94-75-7	2,4-D Acid	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	64000.00000	Freshwater	Static
CERC-GED	94-75-7	2,4-D Acid	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	130000.00000	Freshwater	Static
CERC-GED	94-75-7	2,4-D Acid	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	169000.00000	Freshwater	Static
CERC-GED	94-75-7	2,4-D Acid	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	110000.00000	Freshwater	Static
OPP	94-75-7	2,4-D Acid	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	358000.00000	Freshwater	Static
CERC-GED	94-75-7	2,4-D Acid	Pimephales promelas	Fathead minnow	96 hr	LC50	133000.00000	Freshwater	Static
CERC-GED	94-75-7	2,4-D Acid	Salvelinus namaycush	Lake trout	96 hr	LC50	44500.00000	Freshwater	Static
CERC-GED	94-75-7	2,4-D Acid	Salvelinus namaycush	Lake trout	96 hr	LC50	105000.00000	Freshwater	Static
CERC-GED	1929-73-3	2,4-D Butoxyethanol ester	Chionomus plumosus	Midge	48 hr	EC50	790.00000	Freshwater	Static
CERC-GED	1929-73-3	2,4-D Butoxyethanol ester	Daphnia magna	Water flea	48 hr	EC50	6400.00000	Freshwater	Static
OPP	1929-73-3	2,4-D Butoxyethanol ester	Daphnia magna	Water flea	48 hr	EC50	7200.00000	Freshwater	Static
CERC-GED	1929-73-3	2,4-D Butoxyethanol ester	Gammarellus fasciatus	Scud	96 hr	LC50	440.00000	Freshwater	Static
CERC-GED	1929-73-3	2,4-D Butoxyethanol ester	Italicus punctatus	Channelcatfish	96 hr	LC50	780.00000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDERA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	1929-73-3	2,4-D Butoxyethanolester	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	620.000000	Freshwater	Static
CERC-GED	1929-73-3	2,4-D Butoxyethanolester	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	760.000000	Freshwater	Static
OPP	1929-73-3	2,4-D Butoxyethanolester	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2090.000000	Freshwater	Static
CERC-GED	1929-73-3	2,4-D Butoxyethanolester	Penaeus aztecus	Brown shrimp	48 hr	EC50	5600.000000	Saltwater	Static
OPP	1929-73-3	2,4-D Butoxyethanolester	Pimephales promelas	Fathead minnow	96 hr	LC50	2500.000000	Freshwater	Static
CERC-GED	1929-73-3	2,4-D Butoxyethanolester	Pimephales promelas	Fathead minnow	96 hr	LC50	3250.000000	Freshwater	Static
OPP	94-80-4	2,4-D Butylester	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	300.000000	Freshwater	Static
CERC-GED	94-80-4	2,4-D Butylester	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	540.000000	Freshwater	Static
OPP	94-80-4	2,4-D Butylester	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	550.000000	Freshwater	Flow Through
CERC-GED	94-80-4	2,4-D Butylester	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	670.000000	Freshwater	Static
CERC-GED	94-80-4	2,4-D Butylester	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	740.000000	Freshwater	Static
CERC-GED	94-80-4	2,4-D Butylester	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	770.000000	Freshwater	Static
CERC-GED	94-80-4	2,4-D Butylester	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	860.000000	Freshwater	Static
OPP	94-80-4	2,4-D Butylester	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	400.000000	Freshwater	Static
OPP	94-80-4	2,4-D Butylester	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	800.000000	Freshwater	Static
CERC-GED	94-80-4	2,4-D Butylester	Pteronarcyla badia	Stonefly	96 hr	LC50	1480.000000	Freshwater	Static
CERC-GED	94-80-4	2,4-D Butylester	Salvelinus namaycush	Lake trout	96 hr	LC50	640.000000	Freshwater	Static
CERC-GED	94-80-4	2,4-D Butylester	Salvelinus namaycush	Lake trout	96 hr	LC50	720.000000	Freshwater	Static
CERC-GED	94-80-4	2,4-D Butylester	Salvelinus namaycush	Lake trout	96 hr	LC50	840.000000	Freshwater	Static
CERC-GED	94-80-4	2,4-D Butylester	Salvelinus namaycush	Lake trout	96 hr	LC50	880.000000	Freshwater	Static
CERC-GED	2008-39-1	2,4-D Dimethylamino Salt	Ictalurus punctatus	Channel catfish	96 hr	EC50	119000.000000	Freshwater	Static
CERC-GED	2008-39-1	2,4-D Dimethylamino Salt	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	168000.000000	Freshwater	Static
CERC-GED	2008-39-1	2,4-D Dimethylamino Salt	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	177000.000000	Freshwater	Static
CERC-GED	2008-39-1	2,4-D Dimethylamino Salt	Pimephales promelas	Fathead minnow	96 hr	LC50	335000.000000	Freshwater	Static
CERC-GED	2008-39-1	2,4-D Dimethylamino Salt	Pimephales promelas	Fathead minnow	96 hr	LC50	630000.000000	Freshwater	Static
CERC-GED	2008-39-1	2,4-D Dimethylamino Salt	Pimephales promelas	Fathead minnow	96 hr	LC50	740000.000000	Freshwater	Static
CERC-GED	2008-39-1	2,4-D Dimethylamino Salt	Pimephales promelas	Fathead minnow	96 hr	LC50	760000.000000	Freshwater	Static
CERC-GED	Unknown	2,4-D Dodecy/Tetradodecyl Amine Salt	Ictalurus punctatus	Channel catfish	96 hr	LC50	7000.000000	Freshwater	Static
CERC-GED	Unknown	2,4-D Dodecy/Tetradodecyl Amine Salt	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	7400.000000	Freshwater	Static
CERC-GED	Unknown	2,4-D Dodecy/Tetradodecyl Amine Salt	Micropodus dominicus	Small mouth bass	96 hr	LC50	1050.000000	Freshwater	Static
CERC-GED	Unknown	2,4-D Dodecy/Tetradodecyl Amine Salt	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3050.000000	Freshwater	Static
CERC-GED	Unknown	2,4-D Dodecy/Tetradodecyl Amine Salt	Oncorhynchus tshawytscha	Chinook salmon	96 hr	LC50	4800.000000	Freshwater	Static
CERC-GED	Unknown	2,4-D Dodecy/Tetradodecyl Amine Salt	Pimephales promelas	Fathead minnow	96 hr	LC50	2350.000000	Freshwater	Static
CERC-GED	Unknown	2,4-D Dodecy/Tetradodecyl Amine Salt	Pimephales promelas	Fathead minnow	96 hr	LC50	2360.000000	Freshwater	Static
CERC-GED	Unknown	2,4-D Dodecy/Tetradodecyl Amine Salt	Pimephales promelas	Fathead minnow	96 hr	LC50	2700.000000	Freshwater	Static
CERC-GED	Unknown	2,4-D Dodecy/Tetradodecyl Amine Salt	Pimephales promelas	Fathead minnow	96 hr	LC50	3900.000000	Freshwater	Static
CERC-GED	Unknown	2,4-D Dodecy/Tetradodecyl Amine Salt	Pimephales promelas	Fathead minnow	96 hr	LC50	4000.000000	Freshwater	Static
OPP	25168-26-7	2,4-D BoocetylEster	Daphnia magna	Water flea	48 hr	EC50	18.800000	Freshwater	Static
OPP	25168-26-7	2,4-D BoocetylEster	Daphnia magna	Water flea	48 hr	EC50	54.000000	Freshwater	Static
CERC-GED	25168-26-7	2,4-D BoocetylEster	Gammarellus fasciatus	Scud	96 hr	LC50	2400.000000	Freshwater	Static
OPP	25168-26-7	2,4-D BoocetylEster	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	18000.000000	Freshwater	Static
OPP	25168-26-7	2,4-D BoocetylEster	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	19500.000000	Freshwater	Static
OPP	25168-26-7	2,4-D BoocetylEster	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	22000.000000	Freshwater	Static
OPP	94-11-1	2,4-D BopropylEster	Daphnia magna	Water flea	48 hr	EC50	2600.000000	Freshwater	Flow Through
OPP	94-11-1	2,4-D BopropylEster	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	310.000000	Freshwater	Flow Through
OPP	94-11-1	2,4-D BopropylEster	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	690.000000	Freshwater	Flow Through
CERC-GED	4834-49-5	2,4-D O-Epoxypiperidine he salt	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	760.000000	Freshwater	Static
OPP	1320-18-9	2,4-D Propylene glycolbutyletherester	Calanectes sapidus	Blue crab	48 hr	LC50	2800.000000	Saltwater	Static
CERC-GED	1320-18-9	2,4-D Propylene glycolbutyletherester	Cypridopsis vires	Ostracod	48 hr	EC50	420.000000	Freshwater	Static
CERC-GED	1320-18-9	2,4-D Propylene glycolbutyletherester	Gammarellus fasciatus	Scud	96 hr	LC50	1600.000000	Freshwater	Static
CERC-GED	1320-18-9	2,4-D Propylene glycolbutyletherester	Gammarellus fasciatus	Scud	96 hr	LC50	2850.000000	Freshwater	Static
CERC-GED	1320-18-9	2,4-D Propylene glycolbutyletherester	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	560.000000	Freshwater	Static
OPP	1320-18-9	2,4-D Propylene glycolbutyletherester	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	330.000000	Freshwater	Flow Through
CERC-GED	1320-18-9	2,4-D Propylene glycolbutyletherester	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	490.000000	Freshwater	Static
CERC-GED	1320-18-9	2,4-D Propylene glycolbutyletherester	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	610.000000	Freshwater	Static
CERC-GED	1320-18-9	2,4-D Propylene glycolbutyletherester	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	1030.000000	Freshwater	Static
CERC-GED	1320-18-9	2,4-D Propylene glycolbutyletherester	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	1220.000000	Freshwater	Static
CERC-GED	1320-18-9	2,4-D Propylene glycolbutyletherester	Pteronarcyla badia	Stonefly	96 hr	LC50	2430.000000	Freshwater	Static
CERC-GED	1320-18-9	2,4-D Propylene glycolbutyletherester	Pteronarcyla californica	Stonefly	96 hr	LC50	1800.000000	Freshwater	Static
CERC-GED	1320-18-9	2,4-D Propylene glycolbutyletherester	Salvelinus namaycush	Lake trout	96 hr	LC50	630.000000	Freshwater	Static
CERC-GED	1320-18-9	2,4-D Propylene glycolbutyletherester	Salvelinus namaycush	Lake trout	96 hr	LC50	1050.000000	Freshwater	Static
CERC-GED	1320-18-9	2,4-D Propylene glycolbutyletherester	Salvelinus namaycush	Lake trout	96 hr	LC50	1070.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

CERC-GED	1320-18-9	2,4-D Propylene glycolbutyletherester	<i>Saleminus nam ayush</i>	Lake trout	96 hr	LC50	1125.000000	Freshwater	Static
CERC-GED	1320-18-9	2,4-D Propylene glycolbutyletherester	<i>Sinoccephalus semilatus</i>	Water flea	48 hr	EC50	4900.000000	Freshwater	Static
OPP	94-82-6	2,4-DB Acid	<i>Daphnia magna</i>	Water flea	48 hr	EC50	25000.000000	Freshwater	Fbw Through
CERC-GED	94-82-6	2,4-DB Acid	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	7480.000000	Freshwater	Static
OPP	94-82-6	2,4-DB Acid	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	16800.000000	Freshwater	Static
CERC-GED	94-82-6	2,4-DB Acid	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1970.000000	Freshwater	Static
OPP	94-82-6	2,4-DB Acid	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	14300.000000	Freshwater	Static
CERC-GED	94-82-6	2,4-DB Acid	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	18000.000000	Freshwater	Static
CERC-GED	94-82-6	2,4-DB Acid	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	15000.000000	Freshwater	Static
CERC-GED	51-28-5	2,4-Dinophenol	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	17700.000000	Saltwater	Static
CERC-GED	51-28-5	2,4-Dinophenol	<i>Gambusia pseudoleucaeus</i>	Scud	96 hr	LC50	3600.000000	Freshwater	Static
CERC-GED	51-28-5	2,4-Dinophenol	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1800.000000	Freshwater	Static
CERC-GED	51-28-5	2,4-Dinophenol	<i>Pahem onites pugn</i>	Grass shrimp	96 hr	LC50	26300.000000	Saltwater	Static
OPP	79270-78-3	2,4-DP, 2-EH Ester	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	7700.000000	Freshwater	Static
OPP	79270-78-3	2,4-DP, 2-EH Ester	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	7900.000000	Freshwater	Static
OPP	120-36-5	2,4-DP, Dithiobisprop	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	500.000000	Freshwater	Static
OPP	120-32-1	2-Benzyl-4-chlorophenol	<i>Daphnia magna</i>	Water flea	48 hr	EC50	590.000000	Freshwater	Static
OPP	120-32-1	2-Benzyl-4-chlorophenol	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	330.000000	Freshwater	Static
OPP	120-32-1	2-Benzyl-4-chlorophenol	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	720.000000	Freshwater	Static
CERC-GED	104-76-7	2-Ethyhexanol	<i>Chironomus plumosus</i>	Midge	48 hr	EC50	34000.000000	Freshwater	Static
OPP	3547-33-9	2-Hydroxyethyloctylsulfide	<i>Daphnia magna</i>	Water flea	48 hr	EC50	370.000000	Freshwater	Fbw Through
OPP	3547-33-9	2-Hydroxyethyloctylsulfide	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2800.000000	Freshwater	Fbw Through
OPP	3547-33-9	2-Hydroxyethyloctylsulfide	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	2900.000000	Freshwater	Fbw Through
OPP	7745-89-3	3-Chloro-p-toluene hydrochloride	<i>Daphnia magna</i>	Water flea	48 hr	EC50	70.000000	Freshwater	Static
OPP	7745-89-3	3-Chloro-p-toluene hydrochloride	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	9700.000000	Freshwater	Static
OPP	55406-53-6	3-Iodo-2-propynylbutylarabamate	<i>American yew baba</i>	Mysid	96 hr	LC50	89.800000	Saltwater	Fbw Through
OPP	55406-53-6	3-Iodo-2-propynylbutylarabamate	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	234.000000	Saltwater	Fbw Through
OPP	55406-53-6	3-Iodo-2-propynylbutylarabamate	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	418.000000	Saltwater	Fbw Through
OPP	55406-53-6	3-Iodo-2-propynylbutylarabamate	<i>Daphnia magna</i>	Water flea	48 hr	EC50	160.000000	Freshwater	Fbw Through
OPP	55406-53-6	3-Iodo-2-propynylbutylarabamate	<i>Daphnia magna</i>	Water flea	48 hr	EC50	956.000000	Freshwater	Static
OPP	55406-53-6	3-Iodo-2-propynylbutylarabamate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	226.000000	Freshwater	Fbw Through
OPP	55406-53-6	3-Iodo-2-propynylbutylarabamate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	67.000000	Freshwater	Fbw Through
OPP	55406-53-6	3-Iodo-2-propynylbutylarabamate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	72.000000	Freshwater	Fbw Through
OPP	55406-53-6	3-Iodo-2-propynylbutylarabamate	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	200.000000	Freshwater	Fbw Through
OPP	52315-07-8	3-phenoxyl benzoic acid (cypermethrin degradation product)	<i>Daphnia magna</i>	Water flea	48 hr	EC50	89000.000000	Freshwater	Static
OPP	51200-87-4	4,4-D in ethylbenzidine	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	95200.000000	Freshwater	Static
OPP	504-24-5	4-Am inopyridine	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	4000.000000	Freshwater	Static
OPP	504-24-5	4-Am inopyridine	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2820.000000	Freshwater	Static
OPP	88-04-0	4-Chloro-3,5-xylenol	<i>Daphnia magna</i>	Water flea	48 hr	EC50	7700.000000	Freshwater	Static
OPP	88-04-0	4-Chloro-3,5-xylenol	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2700.000000	Freshwater	Static
OPP	88-04-0	4-Chloro-3,5-xylenol	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	360.000000	Freshwater	Static
OPP	88-04-0	4-Chloro-3,5-xylenol	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	760.000000	Freshwater	Static
CERC-GED	100-02-7	4-N-phenol	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	26700.000000	Saltwater	Fbw Through
OPP	100-02-7	4-N-phenol	<i>Cyprinus inconspicuus</i>	Oscar	48 hr	LC50	26000.000000	Freshwater	Static
OPP	100-02-7	4-N-phenol	<i>Daphnia magna</i>	Water flea	48 hr	EC50	6000.000000	Freshwater	Static
OPP	100-02-7	4-N-phenol	<i>Daphnia magna</i>	Water flea	48 hr	EC50	36000.000000	Freshwater	Static
CERC-GED	100-02-7	4-N-phenol	<i>Gammarus pseudoleucus</i>	Scud	96 hr	LC50	6600.000000	Freshwater	Fbw Through
OPP	100-02-7	4-N-phenol	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	6600.000000	Freshwater	Fbw Through
OPP	100-02-7	4-N-phenol	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	4500.000000	Freshwater	Static
CERC-GED	100-02-7	4-N-phenol	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	6900.000000	Freshwater	Fbw Through
OPP	100-02-7	4-N-phenol	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	13000.000000	Freshwater	Static
CERC-GED	100-02-7	4-N-phenol	<i>Pahem onites pugn</i>	Grass shrimp	96 hr	LC50	14000.000000	Saltwater	Fbw Through
CERC-GED	4684-94-0	6-Chloro-2-picolinic acid	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	88000.000000	Freshwater	Static
CERC-GED	4684-94-0	6-Chloro-2-picolinic acid	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	82000.000000	Freshwater	Static
CERC-GED	30560-19-1	Acephate	<i>Idegenus sp.</i>	Stonefly	96 hr	LC50	11700.000000	Freshwater	Static
CERC-GED	30560-19-1	Acephate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	110000.000000	Freshwater	Static
CERC-GED	30560-19-1	Acephate	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	9500.000000	Freshwater	Static
OPP	26532-25-2	Acetaldehyde	<i>Daphnia magna</i>	Water flea	48 hr	EC50	4700.000000	Freshwater	Static
OPP	26532-25-2	Acetaldehyde	<i>Daphnia magna</i>	Water flea	48 hr	EC50	7000.000000	Freshwater	Static
OPP	26532-25-2	Acetaldehyde	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	21000.000000	Freshwater	Static
OPP	26532-25-2	Acetaldehyde	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	2200.000000	Freshwater	Static
OPP	34256-82-1	Acetochbr	<i>American yew baba</i>	Mysid	96 hr	LC50	2200.000000	Saltwater	Fbw Through

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	34256-82-1	Acetochbr	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	3820.000000	Salwater	Fbw Through
OPP	34256-82-1	Acetochbr	<i>Cyprinodon variegatus</i>	Sheepshead m innow	96 hr	LC50	2100.000000	Salwater	Fbw Through
OPP	34256-82-1	Acetochbr	<i>Daphnia magna</i>	W aterflea	48 hr	EC50	14000.000000	Freshwater	Static
OPP	34256-82-1	Acetochbr	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	420.000000	Freshwater	Static
OPP	34256-82-1	Acetochbr	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1200.000000	Freshwater	Static
CERC-GED	67-64-1	Acetone	<i>Am erican ys is bahia</i>	Mysid	96 hr	LC50	4100000.000000	Salwater	Static
CERC-GED	67-64-1	Acetone	<i>Cyprinodon variegatus</i>	Sheepshead m innow	96 hr	LC50	45000000.000000	Salwater	Static
CERC-GED	67-64-1	Acetone	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	55400000	Freshwater	Static
OPP	107-02-8	Acrolein 2-Propenal	<i>Am erican ys is bahia</i>	Mysid	96 hr	LC50	500.000000	Salwater	Fbw Through
OPP	107-02-8	Acrolein 2-Propenal	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	55.000000	Salwater	Fbw Through
OPP	107-02-8	Acrolein 2-Propenal	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	106.000000	Salwater	Fbw Through
OPP	107-02-8	Acrolein 2-Propenal	<i>Lepom is macrochirus</i>	Bluegill sunfish	96 hr	LC50	22.000000	Freshwater	Static
OPP	107-02-8	Acrolein 2-Propenal	<i>Penaeus aztecus</i>	Brown shrimp	48 hr	LC50	100.000000	Salwater	Fbw Through
CERC-GED	1757-18-2	Akton	<i>Italium punctatus</i>	Channelcatfish	96 hr	LC50	400.000000	Freshwater	Static
CERC-GED	1757-18-2	Akton	<i>Lepom is macrochirus</i>	Bluegill sunfish	96 hr	LC50	170.000000	Freshwater	Static
CERC-GED	15972-60-8	Akhbr	<i>Chironomus plumosus</i>	Midge	48 hr	EC50	3200.000000	Freshwater	Static
CERC-GED	15972-60-8	Akhbr	<i>Daphnia magna</i>	W aterflea	48 hr	EC50	21000.000000	Freshwater	Static
OPP	15972-60-8	Akhbr	<i>Lepom is macrochirus</i>	Bluegill sunfish	96 hr	LC50	2800.000000	Freshwater	Static
CERC-GED	15972-60-8	Akhbr	<i>Lepom is macrochirus</i>	Bluegill sunfish	96 hr	LC50	4300.000000	Freshwater	Static
OPP	15972-60-8	Akhbr	<i>Lepom is macrochirus</i>	Bluegill sunfish	96 hr	LC50	5600.000000	Freshwater	Static
OPP	15972-60-8	Akhbr	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1000.000000	Freshwater	Static
OPP	15972-60-8	Akhbr	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1800.000000	Freshwater	Static
CERC-GED	15972-60-8	Akhbr	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	2400.000000	Freshwater	Static
CERC-GED	116-06-3	Alikab	<i>Am erican ys is bahia</i>	Mysid	96 hr	LC50	13.000000	Salwater	Static
CERC-GED	116-06-3	Alikab	<i>Cyprinodon variegatus</i>	Sheepshead m innow	96 hr	LC50	170.000000	Salwater	Static
OPP	116-06-3	Alikab	<i>Daphnia magna</i>	W aterflea	48 hr	EC50	410.700000	Freshwater	Static
CERC-GED	116-06-3	Alikab	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	560.000000	Freshwater	Static
OPP	116-06-3	Alikab	<i>Penaeus stylopterus</i>	W hite shrimp	96 hr	LC50	72.000000	Salwater	Static
OPP	116-06-3	Alikab	<i>Pim elphais prom ehs</i>	Fathead m innow	96 hr	LC50	1370.000000	Freshwater	Fbw Through
OPP	1646-88-4	Aloxycarb	<i>Daphnia magna</i>	W aterflea	48 hr	EC50	280.000000	Freshwater	Static
OPP	1646-88-4	Aloxycarb	<i>Lepom is macrochirus</i>	Bluegill sunfish	96 hr	LC50	53000.000000	Freshwater	Static
CERC-GED	309-00-2	Alin	<i>Cypridopsis vitua</i>	Ostracod	48 hr	EC50	18.000000	Freshwater	Static
CERC-GED	309-00-2	Alin	<i>Daphnia pulex</i>	W aterflea	48 hr	EC50	28.000000	Freshwater	Static
CERC-GED	309-00-2	Alin	<i>Gammams fasciatus</i>	Scud	96 hr	LC50	4300.000000	Freshwater	Static
CERC-GED	309-00-2	Alin	<i>Gammams fasciatus</i>	Scud	96 hr	LC50	5600.000000	Freshwater	Static
CERC-GED	309-00-2	Alin	<i>Lepom is macrochirus</i>	Bluegill sunfish	96 hr	LC50	6.200000	Freshwater	Static
CERC-GED	309-00-2	Alin	<i>Lepom is macrochirus</i>	Bluegill sunfish	96 hr	LC50	12.000000	Freshwater	Static
CERC-GED	309-00-2	Alin	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	2.600000	Freshwater	Static
CERC-GED	309-00-2	Alin	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	8.200000	Freshwater	Static
CERC-GED	309-00-2	Alin	<i>Palaemonetes kadiakensis</i>	Grass shrimp	96 hr	LC50	50.000000	Freshwater	Static
CERC-GED	309-00-2	Alin	<i>Pim elphais prom ehs</i>	Fathead m innow	96 hr	LC50	8.200000	Freshwater	Static
CERC-GED	309-00-2	Alin	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	1.300000	Freshwater	Static
CERC-GED	309-00-2	Alin	<i>Sinocyprinus semilatus</i>	W aterflea	48 hr	EC50	23.000000	Freshwater	Static
CERC-GED	309-00-2	Alin	<i>Sinocyprinus semilatus</i>	W aterflea	48 hr	EC50	32.000000	Freshwater	Static
OPP	91745-52-7	Akylam ne Hydrochbride	<i>Daphnia magna</i>	W aterflea	48 hr	EC50	27.000000	Freshwater	Fbw Through
OPP	91745-52-7	Akylam ne Hydrochbride	<i>Lepom is macrochirus</i>	Bluegill sunfish	96 hr	LC50	480.000000	Freshwater	Fbw Through
OPP	91745-52-7	Akylam ne Hydrochbride	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	180.000000	Freshwater	Fbw Through
CERC-GED	584-79-2	Alethrin D Trans Alethrin)	<i>Daphnia pulex</i>	W aterflea	48 hr	EC50	21.000000	Freshwater	Static
CERC-GED	584-79-2	Alethrin D Trans Alethrin)	<i>Gammams fasciatus</i>	Scud	96 hr	LC50	11.000000	Freshwater	Static
CERC-GED	584-79-2	Alethrin D Trans Alethrin)	<i>Lepom is macrochirus</i>	Bluegill sunfish	96 hr	LC50	35.000000	Freshwater	Static
CERC-GED	584-79-2	Alethrin D Trans Alethrin)	<i>Lepom is macrochirus</i>	Bluegill sunfish	96 hr	LC50	47.000000	Freshwater	Static
CERC-GED	584-79-2	Alethrin D Trans Alethrin)	<i>Oncorhynchus kisutch</i>	Coho salmon	96 hr	LC50	22.200000	Freshwater	Static
CERC-GED	584-79-2	Alethrin D Trans Alethrin)	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	13.900000	Freshwater	Static
CERC-GED	584-79-2	Alethrin D Trans Alethrin)	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	19.000000	Freshwater	Static
CERC-GED	584-79-2	Alethrin D Trans Alethrin)	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	5.600000	Freshwater	Static
CERC-GED	584-79-2	Alethrin D Trans Alethrin)	<i>Salvelinus nam ayacush</i>	Lake trout	96 hr	LC50	17.300000	Freshwater	Static
CERC-GED	584-79-2	Alethrin D Trans Alethrin)	<i>Sinocyprinus semilatus</i>	W aterflea	48 hr	EC50	56.000000	Freshwater	Static
ECOTOX	7446-70-0	Alum num chbrde	<i>Ceriodaphnia sp.</i>	W aterflea	48 hr	LC50	36900.000000	Freshwater	Not Reported
ECOTOX	7446-70-0	Alum num chbrde	<i>Daphnia magna</i>	W aterflea	48 hr	EC50	3900.000000	Freshwater	Static
ECOTOX	7446-70-0	Alum num chbrde	<i>Physa integra</i>	Pouch snail	96 hr	LC50	55500.000000	Freshwater	Not Reported
CERC-GED	13473-90-0	Alum num nitate	<i>Pim elphais prom ehs</i>	Fathead m innow	96 hr	LC50	4250.000000	Freshwater	Static
CERC-GED	10043-01-3	Alum num sulfate	<i>Pim elphais prom ehs</i>	Fathead m innow	96 hr	LC50	4400.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

CERC-GED	67485-29-4	Am dio Pyrim iinone)	Chironomus plumosus	Midge	48 hr	EC50	140.000000	Freshwater	Static
CERC-GED	67485-29-4	Am dio Pyrim iinone)	Daphnia magna	Water flea	48 hr	EC50	130.000000	Freshwater	Static
OPP	67485-29-4	Am dio Pyrim iinone)	Daphnia magna	Water flea	48 hr	EC50	1140.000000	Freshwater	Static
CERC-GED	67485-29-4	Am dio Pyrim iinone)	Ictalurus punctatus	Channelcatfish	96 hr	LC50	70.000000	Freshwater	Static
OPP	67485-29-4	Am dio Pyrim iinone)	Ictalurus punctatus	Channelcatfish	96 hr	LC50	90.000000	Freshwater	Static
CERC-GED	67485-29-4	Am dio Pyrim iinone)	Lagodon rhomboides	Pinfish	96 hr	LC50	200.000000	Saltwater	Static
CERC-GED	67485-29-4	Am dio Pyrim iinone)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	120.000000	Freshwater	Static
OPP	67485-29-4	Am dio Pyrim iinone)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1700.000000	Freshwater	Static
CERC-GED	67485-29-4	Am dio Pyrim iinone)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	76.000000	Freshwater	Static
OPP	67485-29-4	Am dio Pyrim iinone)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	150.000000	Freshwater	Static
OPP	67485-29-4	Am dio Pyrim iinone)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	160.000000	Freshwater	Static
CERC-GED	67485-29-4	Am dio Pyrim iinone)	Pimephales promelas	Fathead minnow	96 hr	LC50	75.000000	Freshwater	Static
OPP	834-12-8	Am etyn	American eel	Mysid	96 hr	LC50	2300.000000	Saltwater	Static
OPP	834-12-8	Am etyn	Carassius auratus	Goldfish	96 hr	LC50	14000.000000	Freshwater	Static
OPP	834-12-8	Am etyn	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	5800.000000	Saltwater	Static
OPP	834-12-8	Am etyn	Daphnia magna	Water flea	48 hr	EC50	28000.000000	Freshwater	Static
OPP	834-12-8	Am etyn	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	4100.000000	Freshwater	Static
OPP	834-12-8	Am etyn	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	8500.000000	Freshwater	Static
CERC-GED	834-12-8	Am etyn	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3200.000000	Freshwater	Static
OPP	834-12-8	Am etyn	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3600.000000	Freshwater	Static
OPP	834-12-8	Am etyn	Pimephales promelas	Fathead minnow	96 hr	LC50	16000.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Chironomus plumosus	Midge	48 hr	EC50	13500.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Daphnia magna	Water flea	48 hr	EC50	320.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Gammarellus pseudoimmaeus	Scud	96 hr	LC50	145.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Ictalurus punctatus	Channelcatfish	96 hr	LC50	10000.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3100.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3300.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3500.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	6000.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	22000.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	28000.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	13500.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	21000.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	25000.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Perca flavescens	Yellow perch	96 hr	LC50	5600.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Perca flavescens	Yellow perch	96 hr	LC50	6400.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Perca flavescens	Yellow perch	96 hr	LC50	7000.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Pimephales promelas	Fathead minnow	96 hr	LC50	8500.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Pteronarcetes badia	Stonefly	96 hr	LC50	19.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Salmofa sahar	Atlantic salmon	96 hr	LC50	2350.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Salmofa sahar	Atlantic salmon	96 hr	LC50	7600.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Salmofa trutta	Brown trout	96 hr	LC50	15000.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Salmofa trutta	Brown trout	96 hr	LC50	17000.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Salvelinus fontinalis	Brook trout	96 hr	LC50	10500.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Salvelinus fontinalis	Brook trout	96 hr	LC50	12100.000000	Freshwater	Static
CERC-GED	2032-59-9	Am inocab	Skwala sp.	Stonefly	96 hr	LC50	41.000000	Freshwater	Static
OPP	33089-61-1	Am hazard	Daphnia magna	Water flea	48 hr	EC50	35.000000	Freshwater	Static
OPP	33089-61-1	Am hazard	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	340.000000	Freshwater	Fbw Through
OPP	33089-61-1	Am hazard	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1340.000000	Freshwater	Static
OPP	33089-61-1	Am hazard	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	740.000000	Freshwater	Static
OPP	33089-61-1	Am hazard	Pachymenes vulgaris	Shore shrimp	96 hr	LC50	65100.000000	Saltwater	Static
OPP	33089-61-1	Am hazard (Degrad)	American eel	Mysid	96 hr	LC50	25200.000000	Saltwater	Static
OPP	33089-61-1	Am hazard (Degrad)	Crassostrea virginica	Eastern oyster	96 hr	EC50	13100.000000	Saltwater	Fbw Through
OPP	33089-61-1	Am hazard (Degrad)	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	11500.000000	Saltwater	Fbw Through
OPP	33089-61-1	Am hazard (Degrad)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	29300.000000	Freshwater	Static
OPP	33089-61-1	Am hazard (Degrad)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	28400.000000	Freshwater	Static
OPP	61-82-5	Am hole	American eel	Mysid	96 hr	LC50	2800.000000	Saltwater	Static
OPP	61-82-5	Am hole	Daphnia magna	Water flea	48 hr	EC50	18000.000000	Freshwater	Static
ECOTOX	12125-02-9	Amm monium chbride	Micropodus dolm eui	Small mouth bass	96 hr	LC50	820.000000	Freshwater	Fbw Through
ECOTOX	12125-02-9	Amm monium chbride	Micropodus dolm eui	Small mouth bass	96 hr	LC50	990.000000	Freshwater	Fbw Through
OPP	68424-85-1	Amm monium chbride -ADBAC	Daphnia magna	Water flea	48 hr	EC50	5.900000	Freshwater	Static Renewal
OPP	68424-85-1	Amm monium chbride -ADBAC	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	515.000000	Freshwater	Static Renewal

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDERA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	68424-85-1	Amm onium chbride -ADBAc	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	923.200000	Freshwater	Static Renewal
OPP	999-81-5	Amm onium chbride -Chbromethylm ethyl	Daphnia magna	W ater flea	48 hr	EC50	16700.000000	Freshwater	Static
OPP	7173-51-5	Amm onium chbride -DDAC	Daphnia magna	W ater flea	48 hr	EC50	18.000000	Freshwater	Static
OPP	7173-51-5	Amm onium chbride -DDAC	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	600.000000	Freshwater	Static
OPP	7173-51-5	Amm onium chbride -DDAC	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2800.000000	Freshwater	Static
OPP	101-05-3	Anilazhe	Ciassostea virginica	Eastern oyster	96 hr	EC50	25.000000	Saltwater	F bw Through
OPP	101-05-3	Anilazhe	Daphnia magna	W ater flea	48 hr	EC50	949.000000	Freshwater	Static
OPP	101-05-3	Anilazhe	Daphnia magna	W ater flea	48 hr	EC50	1100.000000	Freshwater	Static
CERC-GED	101-05-3	Anilazhe	Gammans fasciatus	Scud	96 hr	LC50	270.000000	Freshwater	Static
CERC-GED	101-05-3	Anilazhe	Ictalurus punctatus	Chanelcatfish	96 hr	LC50	240.000000	Freshwater	Static
CERC-GED	101-05-3	Anilazhe	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	320.000000	Freshwater	Static
CERC-GED	101-05-3	Anilazhe	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	140.000000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Am elius m eas	Black buthead	96 hr	LC50	4.800000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Am elius m eas	Black buthead	96 hr	LC50	7.500000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Carassius auratus	Goldfish	96 hr	LC50	0.180000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Carassius auratus	Goldfish	96 hr	LC50	0.190000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Carassius auratus	Goldfish	96 hr	LC50	0.200000	Freshwater	Static
OPP	1397-94-0	Antimycin A	Ciassostea virginica	Eastern oyster	96 hr	EC50	62.000000	Saltwater	F bw Through
CERC-GED	1397-94-0	Antimycin A	Gambusia affinis	Mosquitofish	96 hr	LC50	0.192000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Ictalurus punctatus	Chanelcatfish	96 hr	LC50	3.420000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Lepom is cyanellus	Green sunfish	96 hr	LC50	0.220000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	0.034000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	0.037000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	0.038000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	0.045000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	0.050000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	0.062000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	0.080000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	0.082000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	0.089000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	0.094000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	0.103000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	0.135000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	0.159000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Micropodus sah odes	Largemouth bass	96 hr	LC50	0.237000	Freshwater	Static
OPP	1397-94-0	Antimycin A	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	0.009000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	0.018000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	0.021000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	0.009000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	0.010000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	0.011000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	0.012000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	0.014000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	0.022000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	0.026000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	0.092000	Freshwater	Static
OPP	1397-94-0	Antimycin A	Penaeus duorarum	Pink shrimp	48 hr	LC50	24.000000	Saltwater	F bw Through
CERC-GED	1397-94-0	Antimycin A	Perca flavescens	Yellow perch	96 hr	LC50	0.040000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Pimephales promelas	Fathead minnow	96 hr	LC50	0.025000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Pimephales promelas	Fathead minnow	96 hr	LC50	0.032000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Pimephales promelas	Fathead minnow	96 hr	LC50	0.040000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Pimephales promelas	Fathead minnow	96 hr	LC50	0.080000	Freshwater	Static
CERC-GED	1397-94-0	Antimycin A	Pomoxis annularis	White crappie	96 hr	LC50	0.340000	Freshwater	Static
CERC-GED	Unknown	Aqua Cop	Ictalurus punctatus	Chanelcatfish	96 hr	LC50	24000.000000	Freshwater	Static
CERC-GED	Unknown	Aqua Cop	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	29000.000000	Freshwater	Static
CERC-GED	Unknown	Aqua Cop	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	24000.000000	Freshwater	Static
CERC-GED	Unknown	Aqua-Vator	Ictalurus punctatus	Chanelcatfish	96 hr	LC50	43000.000000	Freshwater	Static
CERC-GED	Unknown	Aqua-Vator	Lepom is macrochirus	Bl egsunfish	96 hr	LC50	92000.000000	Freshwater	Static
CERC-GED	Unknown	Aqua-Vator	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	18000.000000	Freshwater	Static
CERC-GED	140-57-8	Aram te	Gammans fasciatus	Scud	96 hr	LC50	60.000000	Freshwater	Static
CERC-GED	140-57-8	Aram te	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	320.000000	Freshwater	Static
ECOTOX	1327-53-3	Arsen i oxide (As203)	Apexa hypnom	Snail	96 hr	LC50	9280.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUATIC ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

ECOTOX	1327-53-3	Arsenite oxide (As203)	Tanytarsus dissimilis	Midge	48 hr	LC50	36700.000000	Freshwater	Static
ECOTOX	7784-46-5	Arsenite - Sodium	Daphnia magna	Water flea	96 hr	EC50	4340.000000	Freshwater	Static
CERC-GED	7784-46-5	Arsenite - Sodium	Daphnia pulex	Water flea	48 hr	EC50	3000.000000	Freshwater	Static
ECOTOX	7784-46-5	Arsenite - Sodium	Gammarus pseudolimnaeus	Scud	96 hr	LC50	875.000000	Freshwater	Fbw Through
ECOTOX	7784-46-5	Arsenite - Sodium	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	15300.000000	Freshwater	Static
CERC-GED	7784-46-5	Arsenite - Sodium	Pteronarcys californica	Stonefly	96 hr	LC50	38000.000000	Freshwater	Static
CERC-GED	7784-46-5	Arsenite - Sodium	Sinocyclocephalus semitubatus	Water flea	48 hr	EC50	1400.000000	Freshwater	Static
OPP	3244-90-4	Aspon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	76.000000	Freshwater	Static
OPP	3244-90-4	Aspon	Penaeus aztecus	Brown shrimp	48 hr	LC50	2.700000	Saltwater	Fbw Through
OPP	3337-71-1	Asulam	Daphnia magna	Water flea	48 hr	EC50	27000.000000	Freshwater	Static
OPP	3337-71-1	Asulam	Daphnia magna	Water flea	48 hr	EC50	29500.000000	Freshwater	Static
OPP	1912-24-9	Atazine	Amietiamysis bahia	Mysid	96 hr	LC50	5400.000000	Saltwater	Fbw Through
OPP	1912-24-9	Atazine	Carassius auratus	Golifish	96 hr	LC50	60000.000000	Freshwater	Static
OPP	1912-24-9	Atazine	Chironomus tentans	Midge	48 hr	LC50	720.000000	Freshwater	Static
OPP	1912-24-9	Atazine	Daphnia magna	Water flea	48 hr	EC50	6900.000000	Freshwater	Static
OPP	1912-24-9	Atazine	Daphnia magna	Water flea	48 hr	EC50	115000.000000	Freshwater	Static
OPP	1912-24-9	Atazine	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	24000.000000	Freshwater	Static
OPP	1912-24-9	Atazine	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	54510.000000	Freshwater	Static
OPP	1912-24-9	Atazine	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4500.000000	Freshwater	Static
OPP	1912-24-9	Atazine	Penaeus aztecus	Brown shrimp	48 hr	LC50	10000.000000	Saltwater	Fbw Through
OPP	1912-24-9	Atazine	Pimephales promelas	Fathead minnow	96 hr	LC50	15000.000000	Freshwater	Static
OPP	65195-55-3	Avemectin	Amietiamysis bahia	Mysid	96 hr	LC50	0.210000	Saltwater	Static
OPP	65195-55-3	Avemectin	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	15.000000	Saltwater	Static Renewal
OPP	65195-55-3	Avemectin	Daphnia magna	Water flea	48 hr	EC50	0.340000	Freshwater	Static
OPP	65195-55-3	Avemectin	Ictalurus punctatus	Channel catfish	96 hr	LC50	24.000000	Freshwater	Static
OPP	65195-55-3	Avemectin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	9.600000	Freshwater	Static
OPP	65195-55-3	Avemectin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3.600000	Freshwater	Static
CERC-GED	20762-60-1	Azide, potassium	Daphnia pulex	Water flea	48 hr	EC50	7500.000000	Freshwater	Static
CERC-GED	20762-60-1	Azide, potassium	Gammarus fasciatus	Scud	96 hr	LC50	6400.000000	Freshwater	Static
CERC-GED	20762-60-1	Azide, potassium	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	780.000000	Freshwater	Static
CERC-GED	20762-60-1	Azide, potassium	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1600.000000	Freshwater	Static
CERC-GED	20762-60-1	Azide, potassium	Pteronarcys californica	Stonefly	96 hr	LC50	8000.000000	Freshwater	Static
CERC-GED	20762-60-1	Azide, potassium	Sinocyclocephalus semitubatus	Water flea	48 hr	EC50	8400.000000	Freshwater	Static
CERC-GED	26628-22-8	Azide, sodium	Daphnia pulex	Water flea	48 hr	EC50	4200.000000	Freshwater	Static
CERC-GED	26628-22-8	Azide, sodium	Gammarus fasciatus	Scud	96 hr	LC50	5000.000000	Freshwater	Static
CERC-GED	26628-22-8	Azide, sodium	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	680.000000	Freshwater	Static
CERC-GED	26628-22-8	Azide, sodium	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	800.000000	Freshwater	Static
CERC-GED	26628-22-8	Azide, sodium	Pteronarcys californica	Stonefly	96 hr	LC50	9000.000000	Freshwater	Static
CERC-GED	26628-22-8	Azide, sodium	Sinocyclocephalus semitubatus	Water flea	48 hr	EC50	6400.000000	Freshwater	Static
CERC-GED	2642-71-9	Azinphos-ethyl	Daphnia magna	Water flea	48 hr	EC50	4.000000	Freshwater	Static
CERC-GED	2642-71-9	Azinphos-ethyl	Daphnia pulex	Water flea	48 hr	EC50	3.200000	Freshwater	Static
CERC-GED	2642-71-9	Azinphos-ethyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	20.000000	Freshwater	Static
CERC-GED	2642-71-9	Azinphos-ethyl	Pteronarcys californica	Stonefly	96 hr	LC50	1.500000	Freshwater	Static
CERC-GED	2642-71-9	Azinphos-ethyl	Sinocyclocephalus semitubatus	Water flea	48 hr	EC50	4.200000	Freshwater	Static
OPP	86-50-0	Azinphos-m ethyl	Amelium melas	Black bullhead	96 hr	LC50	3500.000000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-m ethyl	Asellus brevicaudus	Aquatic sow bug	96 hr	LC50	21.000000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-m ethyl	Bufo woodhousei/w leei	Fowler toad	96 hr	LC50	109.000000	Freshwater	Static
OPP	86-50-0	Azinphos-m ethyl	Callichetes sapidus	Blue crab	48 hr	LC50	320.000000	Saltwater	Fbw Through
CERC-GED	86-50-0	Azinphos-m ethyl	Carassius auratus	Golifish	96 hr	LC50	4270.000000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-m ethyl	Cyprinus carpio	Common carp	96 hr	LC50	695.000000	Freshwater	Static
OPP	86-50-0	Azinphos-m ethyl	Daphnia magna	Water flea	48 hr	EC50	1.100000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-m ethyl	Gammarus fasciatus	Scud	96 hr	LC50	0.150000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-m ethyl	Ictalurus punctatus	Channel catfish	96 hr	LC50	3290.000000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-m ethyl	Lepomis cyanellus	Green sunfish	96 hr	LC50	52.000000	Freshwater	Static
OPP	86-50-0	Azinphos-m ethyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	4.800000	Freshwater	Fbw Through
CERC-GED	86-50-0	Azinphos-m ethyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	8.000000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-m ethyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	22.000000	Freshwater	Static
OPP	86-50-0	Azinphos-m ethyl	Leuciscus idus melanotus	Golden orfe	96 hr	LC50	120.000000	Not Reported	Static
CERC-GED	86-50-0	Azinphos-m ethyl	Micropodus salmoides	Largemouth bass	96 hr	LC50	4.800000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-m ethyl	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	6.100000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-m ethyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4.300000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-m ethyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6.300000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	86-50-0	Azinphos-methyl	<i>Penaeus aztecus</i>	Brown shrimp	48 hr	LC50	2400000	Salwater	Fbw Through
CERC-GED	86-50-0	Azinphos-methyl	<i>Perca flavescens</i>	Yellow perch	96 hr	LC50	10000000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Perca flavescens</i>	Yellow perch	96 hr	LC50	20000000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Perca flavescens</i>	Yellow perch	96 hr	LC50	24000000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Perca flavescens</i>	Yellow perch	96 hr	LC50	29000000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Perca flavescens</i>	Yellow perch	96 hr	LC50	33000000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	14800000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	23500000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Pomoxis nigromaculatus</i>	Black crappie	96 hr	LC50	3000000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Percam barbus sp.</i>	Crayfish	96 hr	LC50	5600000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	1900000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Salmofalear</i>	Atlantic salmon	96 hr	LC50	2100000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Salmofalear</i>	Atlantic salmon	96 hr	LC50	2500000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Salmofalear</i>	Atlantic salmon	96 hr	LC50	2700000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Salmofalear</i>	Atlantic salmon	96 hr	LC50	3200000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Salmofalear</i>	Atlantic salmon	96 hr	LC50	3500000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Salmofalear</i>	Atlantic salmon	96 hr	LC50	3600000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Salmofalear</i>	Atlantic salmon	96 hr	LC50	4600000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Salmofalear</i>	Atlantic salmon	96 hr	LC50	6600000	Freshwater	Static
CERC-GED	86-50-0	Azinphos-methyl	<i>Salmofalear</i>	Brook trout	96 hr	LC50	1200000	Freshwater	Static
OPP	131860-33-8	Azoxystrobin	<i>American yew borer</i>	Mysid	96 hr	LC50	5600000	Salwater	Static
OPP	131860-33-8	Azoxystrobin	<i>Crassostrea gigas</i>	Pacific oyster	48 hr	EC50	130000000	Salwater	Static
OPP	131860-33-8	Azoxystrobin	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	67100000	Salwater	Fbw Through
OPP	131860-33-8	Azoxystrobin	<i>Daphnia magna</i>	Water flea	48 hr	EC50	25900000	Freshwater	Static
OPP	131860-33-8	Azoxystrobin	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	110000000	Freshwater	Fbw Through
OPP	131860-33-8	Azoxystrobin	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	47000000	Freshwater	Fbw Through
OPP	68038-71-1	Bacillus thuringiensis	<i>Dugesia sp.</i>	Flatworm	48 hr	LC50	65600000	Not Reported	Not Reported
CERC-GED	68038-71-1	Bacillus thuringiensis	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	9500000000	Freshwater	Static
CERC-GED	68038-71-1	Bacillus thuringiensis	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	100000000	Freshwater	Static
OPP	13701-59-2	Barium metabolite	<i>Daphnia magna</i>	Water flea	48 hr	EC50	2030000000	Freshwater	Static
OPP	13701-59-2	Barium metabolite	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	15100000000	Freshwater	Static
OPP	13701-59-2	Barium metabolite	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	6200000000	Freshwater	Static
OPP	22781-23-3	Bendictab	<i>American yew borer</i>	Mysid	96 hr	LC50	6700000	Salwater	Fbw Through
OPP	22781-23-3	Bendictab	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	67000000	Salwater	Fbw Through
OPP	22781-23-3	Bendictab	<i>Daphnia magna</i>	Water flea	48 hr	EC50	29200000	Freshwater	Static
OPP	22781-23-3	Bendictab	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	47000000	Freshwater	Static
OPP	22781-23-3	Bendictab	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	78000000	Freshwater	Static
OPP	22781-23-3	Bendictab	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	1350000000	Freshwater	Static
OPP	22781-23-3	Bendictab	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	165000000	Freshwater	Fbw Through
OPP	22781-23-3	Bendictab	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	120000000	Freshwater	Static
OPP	22781-23-3	Bendictab	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	155000000	Freshwater	Fbw Through
OPP	1861-40-1	Benefin - Benfluaih	<i>American yew borer</i>	Mysid	96 hr	LC50	4300000	Salwater	Fbw Through
CERC-GED	1861-40-1	Benefin - Benfluaih	<i>Carassius auratus</i>	Goldfish	96 hr	LC50	81000000	Freshwater	Static
OPP	1861-40-1	Benefin - Benfluaih	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	10300000000	Salwater	Fbw Through
CERC-GED	1861-40-1	Benefin - Benfluaih	<i>Gammarellus fasciatus</i>	Scud	96 hr	LC50	110000000	Freshwater	Static
OPP	1861-40-1	Benefin - Benfluaih	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	6500000	Freshwater	Fbw Through
OPP	1861-40-1	Benefin - Benfluaih	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	60000000	Freshwater	Static Renewal
OPP	1861-40-1	Benefin - Benfluaih	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	81000000	Freshwater	Static Renewal
OPP	17804-35-2	Benomyl	<i>American yew borer</i>	Mysid	96 hr	LC50	17500000	Salwater	Static
CERC-GED	17804-35-2	Benomyl	<i>Chironomus plumosus</i>	Midge	48 hr	EC50	7000000000	Freshwater	Static
OPP	17804-35-2	Benomyl	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	137600000	Salwater	Fbw Through
OPP	17804-35-2	Benomyl	<i>Daphnia magna</i>	Water flea	48 hr	EC50	28500000	Freshwater	Static
OPP	17804-35-2	Benomyl	<i>Daphnia magna</i>	Water flea	48 hr	EC50	35000000	Freshwater	Static
OPP	17804-35-2	Benomyl	<i>Daphnia magna</i>	Water flea	48 hr	EC50	39000000	Freshwater	Static
CERC-GED	17804-35-2	Benomyl	<i>Daphnia magna</i>	Water flea	48 hr	EC50	280000000	Freshwater	Static
CERC-GED	17804-35-2	Benomyl	<i>Gammarellus pseudolemaeus</i>	Scud	96 hr	LC50	75000000	Freshwater	Static
CERC-GED	17804-35-2	Benomyl	<i>Itanus punctatus</i>	Channelcatfish	96 hr	LC50	29000000	Freshwater	Static
CERC-GED	17804-35-2	Benomyl	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	390000000	Freshwater	Static
CERC-GED	17804-35-2	Benomyl	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	56000000	Freshwater	Static
CERC-GED	17804-35-2	Benomyl	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	85000000	Freshwater	Static
OPP	17804-35-2	Benomyl	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	92000000	Freshwater	Static
CERC-GED	17804-35-2	Benomyl	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	120000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

CERC-GED	17804-35-2	Benomyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1300.000000	Freshwater	Static
CERC-GED	17804-35-2	Benomyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	120.000000	Freshwater	Static
CERC-GED	17804-35-2	Benomyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	150.000000	Freshwater	Static
CERC-GED	17804-35-2	Benomyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	170.000000	Freshwater	Static
CERC-GED	17804-35-2	Benomyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	190.000000	Freshwater	Static
CERC-GED	17804-35-2	Benomyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	200.000000	Freshwater	Static
CERC-GED	17804-35-2	Benomyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	230.000000	Freshwater	Static
CERC-GED	17804-35-2	Benomyl	Pimephales promelas	Fathead minnow	96 hr	LC50	1300.000000	Freshwater	Static
CERC-GED	17804-35-2	Benomyl	Pimephales promelas	Fathead minnow	96 hr	LC50	2200.000000	Freshwater	Static
OPP	741-58-2	Bensulfide	Americamysis bahia	Mysid	96 hr	LC50	62400000	Saltwater	Fbw Through
OPP	741-58-2	Bensulfide	Crassostrea virginica	Eastern oyster	96 hr	EC50	250.000000	Saltwater	Fbw Through
OPP	741-58-2	Bensulfide	Crassostrea virginica	Eastern oyster	96 hr	EC50	450.000000	Saltwater	Fbw Through
OPP	741-58-2	Bensulfide	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	560.000000	Saltwater	Fbw Through
OPP	741-58-2	Bensulfide	Daphnia magna	Water flea	48 hr	EC50	580.000000	Freshwater	Static
CERC-GED	741-58-2	Bensulfide	Gammarus fasciatus	Scud	96 hr	LC50	1400.000000	Freshwater	Static
OPP	741-58-2	Bensulfide	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1400.000000	Freshwater	Static
OPP	741-58-2	Bensulfide	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	720.000000	Freshwater	Static
OPP	741-58-2	Bensulfide	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1100.000000	Freshwater	Static
OPP	50723-80-3	Bentazon	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	610000.000000	Freshwater	Static
OPP	50723-80-3	Bentazon	Menidia menidia	Quahog clam	48 hr	LC50	20000.000000	Saltwater	Static
OPP	50723-80-3	Bentazon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	190000.000000	Freshwater	Static
OPP	2634-33-5	Benzothiazole-3-one	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1600.000000	Freshwater	Fbw Through
CERC-GED	149-30-4	Benzothiazole-2-n-ecapto	Italimus punctatus	Channelpufffish	96 hr	LC50	1650.000000	Freshwater	Static
CERC-GED	149-30-4	Benzothiazole-2-n-ecapto	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2250.000000	Freshwater	Static
CERC-GED	149-30-4	Benzothiazole-2-n-ecapto	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	4200.000000	Freshwater	Static
CERC-GED	149-30-4	Benzothiazole-2-n-ecapto	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	760.000000	Freshwater	Static
CERC-GED	64036-43-7	Benzothiazole-2-methylm-ecapto	Chironomus plumosus	Midge	48 hr	EC50	1300.000000	Freshwater	Static
CERC-GED	64036-43-7	Benzothiazole-2-methylm-ecapto	Gammarus pseudolimnaeus	Scud	96 hr	LC50	4200.000000	Freshwater	Static
CERC-GED	64036-43-7	Benzothiazole-2-methylm-ecapto	Italimus punctatus	Channelpufffish	96 hr	LC50	7600.000000	Freshwater	Static
CERC-GED	64036-43-7	Benzothiazole-2-methylm-ecapto	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	4300.000000	Freshwater	Static
CERC-GED	64036-43-7	Benzothiazole-2-methylm-ecapto	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	5700.000000	Freshwater	Static
CERC-GED	64036-43-7	Benzothiazole-2-methylm-ecapto	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3700.000000	Freshwater	Static
CERC-GED	33878-50-1	Benzoylprop ethyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1200.000000	Freshwater	Static
CERC-GED	33878-50-1	Benzoylprop ethyl	Pimephales promelas	Fathead minnow	96 hr	LC50	860.000000	Freshwater	Static
OPP	149877-41-81	Bfenazate	Daphnia magna	Water flea	48 hr	EC50	500.000000	Freshwater	Fbw Through
OPP	149877-41-81	Bfenazate	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	580.000000	Freshwater	Fbw Through
OPP	149877-41-81	Bfenazate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	760.000000	Freshwater	Fbw Through
CERC-GED	485-31-4	Bnapacyl	Italimus punctatus	Channelpufffish	96 hr	LC50	15.000000	Freshwater	Static
CERC-GED	485-31-4	Bnapacyl	Lepomis cyanellus	Green sunfish	96 hr	LC50	43.000000	Freshwater	Static
CERC-GED	485-31-4	Bnapacyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	40.000000	Freshwater	Static
CERC-GED	485-31-4	Bnapacyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	50.000000	Freshwater	Static
OPP	2224-44-4	Bibian P-1487	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	750.000000	Freshwater	Static Renewal
OPP	28434-01-7	Bis(2-ethylhexyl)Sulfone	Daphnia magna	Water flea	48 hr	EC50	0.800000	Freshwater	Static
OPP	28434-01-7	Bis(2-ethylhexyl)Sulfone	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	0.800000	Freshwater	Static
OPP	28434-01-7	Bis(2-ethylhexyl)Sulfone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	0.620000	Freshwater	Static
OPP	3064-70-8	Bis(trichloromethyl)Sulfone	Daphnia magna	Water flea	48 hr	EC50	173.000000	Freshwater	Static
OPP	3064-70-8	Bis(trichloromethyl)Sulfone	Menidia menidia	Quahog clam	48 hr	EC50	9200000.000000	Saltwater	Static
OPP	3064-70-8	Bis(trichloromethyl)Sulfone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	29.000000	Freshwater	Static
OPP	10043-35-3	Boric acid	Daphnia magna	Water flea	48 hr	EC50	133000.000000	Freshwater	Static Renewal
OPP	10043-35-3	Boric acid	Daphnia magna	Water flea	48 hr	EC50	226000.000000	Freshwater	Static
OPP	10043-35-3	Boric acid	Daphnia magna	Water flea	48 hr	EC50	777000.000000	Freshwater	Static
OPP	56073-10-0	Brodifacoum	Daphnia magna	Water flea	48 hr	EC50	980.000000	Freshwater	Static
OPP	56073-10-0	Brodifacoum	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	120.000000	Freshwater	Fbw Through
OPP	56073-10-0	Brodifacoum	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	25.000000	Freshwater	Static Renewal
OPP	314-40-9	Brom acil	Americamysis bahia	Mysid	96 hr	LC50	112900.000000	Saltwater	Static
OPP	314-40-9	Brom acil	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	162800.000000	Saltwater	Static
OPP	314-40-9	Brom acil	Daphnia magna	Water flea	48 hr	EC50	121000.000000	Freshwater	Static
OPP	314-40-9	Brom acil	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	127000.000000	Freshwater	Static
OPP	314-40-9	Brom acil	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	36000.000000	Freshwater	Static
OPP	314-40-9	Brom acil	Penaeus aztecus	Brown shrimp	48 hr	LC50	1000.000000	Saltwater	Fbw Through
OPP	28772-56-7	Brom adibine	Daphnia magna	Water flea	48 hr	EC50	2000.000000	Freshwater	Fbw Through
OPP	63333-35-7	Brom ethaln	Daphnia magna	Water flea	48 hr	EC50	1980000.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	63333-35-7	Brom ethalin	Daphnia magna	Water flea	48 hr	EC50	5100000	Freshwater	Static
OPP	63333-35-7	Brom ethalin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	598000000	Freshwater	Static
OPP	13863-41-7	Bromo chlortite	Daphnia magna	Water flea	48 hr	LC50	710000000	Freshwater	Static
OPP	13863-41-7	Bromo chlortite	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	520000000	Freshwater	Static
OPP	13863-41-7	Bromo chlortite	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	310000000	Freshwater	Static
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)	Crassostrea virginica	Eastern oyster	96 hr	EC50	1080000000	Saltwater	Fbw Through
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)	Daphnia magna	Water flea	48 hr	EC50	750000000	Freshwater	Static
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)	Daphnia magna	Water flea	48 hr	EC50	870000000	Freshwater	Static
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)	Daphnia magna	Water flea	48 hr	EC50	2300000000	Freshwater	Static
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	360000000	Freshwater	Static
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	460000000	Freshwater	Static
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	117000000	Freshwater	Static
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	140000000	Freshwater	Static
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	400000000	Freshwater	Static
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	670000000	Freshwater	Static
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	750000000	Freshwater	Static
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH) - BCDMH dehydrate	Crassostrea virginica	Eastern oyster	96 hr	EC50	1100000000	Saltwater	Fbw Through
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH) - BCDMH dehydrate	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	810000000000	Saltwater	Static
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH) - BCDMH dehydrate	Daphnia magna	Water flea	48 hr	EC50	605100000000	Freshwater	Static
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH) - BCDMH dehydrate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1270000000000	Freshwater	Static
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH) - BCDMH dehydrate	Pimephales promelas	Grass shrimp	96 hr	LC50	1255000000000	Saltwater	Static
OPP	16079-88-2	Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH) - BCDMH dehydrate	Pimephales promelas	Fathead minnow	96 hr	LC50	1410000000000	Freshwater	Static
OPP	7166-19-0	Bromo isobutylene	Am erican yew baha	Mysid	96 hr	LC50	5100000	Saltwater	Fbw Through
OPP	7166-19-0	Bromo isobutylene	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	5700000	Saltwater	Fbw Through
OPP	7166-19-0	Bromo isobutylene	Daphnia magna	Water flea	48 hr	EC50	24000000	Freshwater	Fbw Through
OPP	7166-19-0	Bromo isobutylene	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	17000000	Freshwater	Fbw Through
OPP	7166-19-0	Bromo isobutylene	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	27000000	Freshwater	Fbw Through
OPP	3861-41-4	Bromo oxynil (Butyrate)	Daphnia magna	Water flea	48 hr	EC50	20000000	Freshwater	Static
OPP	3861-41-4	Bromo oxynil (Butyrate)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	4500000	Freshwater	Static
OPP	3861-41-4	Bromo oxynil (Butyrate)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	29000000	Freshwater	Static
OPP	1689-84-5	Bromo oxynil (Pheno)	Daphnia magna	Water flea	48 hr	EC50	1922000000	Freshwater	Static
OPP	1689-84-5	Bromo oxynil (Pheno)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	40000000	Freshwater	Static
OPP	1689-84-5	Bromo oxynil (Pheno)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	209000000	Freshwater	Static
OPP	56634-95-8	Bromo oxynil heptanoate	Daphnia magna	Water flea	48 hr	EC50	31000000	Freshwater	Fbw Through
OPP	56634-95-8	Bromo oxynil heptanoate	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	29000000	Freshwater	Fbw Through
OPP	1689-99-2	Bromo oxynil octanoate	Am erican yew baha	Mysid	96 hr	LC50	65000000	Saltwater	Fbw Through
OPP	1689-99-2	Bromo oxynil octanoate	Am erican yew baha	Mysid	96 hr	LC50	87000000	Saltwater	Static
OPP	1689-99-2	Bromo oxynil octanoate	Crassostrea virginica	Eastern oyster	96 hr	EC50	155000000	Saltwater	Fbw Through
OPP	1689-99-2	Bromo oxynil octanoate	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	170000000	Saltwater	Fbw Through
OPP	116255-48-2	Bromo uconazole	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	420000000	Freshwater	Fbw Through
OPP	116255-48-2	Bromo uconazole	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	170000000	Freshwater	Fbw Through
OPP	52-51-7	Bronopol	Am erican yew baha	Mysid	96 hr	LC50	590000000	Saltwater	Fbw Through
OPP	52-51-7	Bronopol	Crassostrea gigas	Pacific oyster	48 hr	EC50	780000000	Saltwater	Static
OPP	52-51-7	Bronopol	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	5900000000	Saltwater	Fbw Through
OPP	52-51-7	Bronopol	Daphnia magna	Water flea	48 hr	EC50	160000000	Freshwater	Static
OPP	52-51-7	Bronopol	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	360000000	Freshwater	Fbw Through
OPP	52-51-7	Bronopol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2000000000	Freshwater	Static
OPP	52-51-7	Bronopol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	42000000000	Freshwater	Fbw Through
CERC-GED	2282-34-0	Bufencaib	Am erican yew baha	Mysid	96 hr	LC50	1000000	Saltwater	Static
CERC-GED	2282-34-0	Bufencaib	Carassius auratus	Golifish	96 hr	LC50	29400000	Freshwater	Static
CERC-GED	2282-34-0	Bufencaib	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	46000000	Saltwater	Static
CERC-GED	2282-34-0	Bufencaib	Gammarus fasciatus	Scud	96 hr	LC50	10000000	Freshwater	Static
CERC-GED	9003-13-8	Butoxy polypropylene glycol	Gammarus fasciatus	Scud	96 hr	LC50	1700000000	Freshwater	Static
OPP	33629-47-9	Butaln	Am erican yew baha	Mysid	96 hr	LC50	70000000	Saltwater	Fbw Through
OPP	33629-47-9	Butaln	Crassostrea virginica	Eastern oyster	96 hr	EC50	120000000	Saltwater	Fbw Through
OPP	33629-47-9	Butaln	Daphnia magna	Water flea	48 hr	EC50	120000000	Freshwater	Static Renewal
OPP	33629-47-9	Butaln	Daphnia magna	Water flea	48 hr	EC50	100000000	Freshwater	Static
OPP	33629-47-9	Butaln	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1000000000	Freshwater	Static
OPP	33629-47-9	Butaln	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	370000000	Freshwater	Static
OPP	2008-41-5	Butylate	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	2700000000	Saltwater	Static
OPP	2008-41-5	Butylate	Daphnia magna	Water flea	48 hr	EC50	11900000000	Freshwater	Static
CERC-GED	2008-41-5	Butylate	Gammarus fasciatus	Scud	96 hr	LC50	12000000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	2008-41-5	Butylate	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	6900.000000	Freshwater	Static
OPP	2008-41-5	Butylate	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	7500.000000	Freshwater	Static
CERC-GED	2008-41-5	Butylate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2100.000000	Freshwater	Static
OPP	2008-41-5	Butylate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4200.000000	Freshwater	Static
OPP	2008-41-5	Butylate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	23000.000000	Freshwater	Static
CERC-GED	124-65-2	Cacodylic Acid/Sodium Cacodylate	Gammarus fasciatus	Scud	96 hr	LC50	140000.000000	Freshwater	Static
CERC-GED	124-65-2	Cacodylic Acid/Sodium Cacodylate	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	17000.000000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Ceriodaphnia reticulata	Water flea	48 hr	LC50	129.000000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Daphnia magna	Water flea	48 hr	LC50	9.900000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Daphnia magna	Water flea	48 hr	EC50	65.000000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Daphnia magna	Water flea	48 hr	LC50	166.000000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Gammarellus pseudolemnaeus	Scud	96 hr	LC50	54.400000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Gammarellus pseudolemnaeus	Scud	96 hr	LC50	68.300000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Hyalella azteca	Scud	96 hr	LC50	285.000000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Ictalurus punctatus	Channel catfish	96 hr	LC50	7940.000000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	8810.000000	Freshwater	Static
CERC-GED	10108-64-2	Cadmium chloride	Menidia peninsulae	Tidewater silverside	96 hr	LC50	310.000000	Saltwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2.300000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	10.200000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Paralipophrysa pnaepedra	Mayfly	96 hr	LC50	449.000000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Pimephales promelas	Fathead minnow	96 hr	LC50	1280.000000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Pimephales promelas	Fathead minnow	96 hr	LC50	3390.000000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Salmo trutta	Brown trout	96 hr	LC50	1.400000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Salmo trutta	Brown trout	96 hr	LC50	15.100000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Sinocyclopus senegalensis	Water flea	48 hr	LC50	24.500000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Sinocyclopus senegalensis	Water flea	48 hr	LC50	123.000000	Freshwater	Static
ECOTOX	10108-64-2	Cadmium chloride	Sinocyclopus veltinus	Water flea	48 hr	LC50	89.300000	Freshwater	Static
ECOTOX	10043-52-4	Carbamyl chloride	Daphnia magna	Water flea	48 hr	EC50	52000.000000	Freshwater	Static
ECOTOX	10043-52-4	Carbamyl chloride	Daphnia magna	Water flea	48 hr	EC50	464000.000000	Freshwater	Static
OPP	2425-06-1	Captabfl	American yestebah	Mysid	96 hr	LC50	210.000000	Saltwater	Static
OPP	2425-06-1	Captabfl	Crassostrea virginica	Eastern oyster	96 hr	EC50	34.000000	Saltwater	Fbw Through
OPP	2425-06-1	Captabfl	Daphnia magna	Water flea	48 hr	EC50	3440.000000	Freshwater	Static
OPP	2425-06-1	Captabfl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	45.000000	Freshwater	Static
OPP	2425-06-1	Captabfl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	130.000000	Freshwater	Static
OPP	2425-06-1	Captabfl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	157.800000	Freshwater	Static
OPP	2425-06-1	Captabfl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	27.000000	Freshwater	Static
OPP	2425-06-1	Captabfl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	34.000000	Freshwater	Static
OPP	2425-06-1	Captabfl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	190.000000	Freshwater	Static
OPP	133-06-2	Captan	American yestebah	Mysid	96 hr	LC50	8400.000000	Saltwater	Static
OPP	133-06-2	Captan	Cancer magister	Dungeness crab	96 hr	LC50	8000.000000	Saltwater	Static
OPP	133-06-2	Captan	Daphnia magna	Water flea	48 hr	EC50	8400.000000	Freshwater	Static
CERC-GED	133-06-2	Captan	Ictalurus punctatus	Channel catfish	96 hr	LC50	77.500000	Freshwater	Static
CERC-GED	133-06-2	Captan	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	141.000000	Freshwater	Static
OPP	133-06-2	Captan	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	310.000000	Freshwater	Static
CERC-GED	133-06-2	Captan	Oncorhynchus clarkii	Coho trout	96 hr	LC50	56.400000	Freshwater	Static
CERC-GED	133-06-2	Captan	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	137.000000	Freshwater	Static
CERC-GED	133-06-2	Captan	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	73.200000	Freshwater	Static
CERC-GED	133-06-2	Captan	Oncorhynchus tshawytscha	Chinook salmon	96 hr	LC50	120.000000	Freshwater	Static
CERC-GED	133-06-2	Captan	Salmo trutta	Brown trout	96 hr	LC50	80.000000	Freshwater	Static
CERC-GED	133-06-2	Captan	Salvelinus namaycush	Lake trout	96 hr	LC50	49.000000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	Amelium mels	Black bullhead	96 hr	LC50	20000.000000	Freshwater	Static
OPP	63-25-2	Caibaryl	Am erican yestebah	Mysid	96 hr	LC50	5.700000	Saltwater	Fbw Through
OPP	63-25-2	Caibaryl	Am erican yestebah	Mysid	96 hr	LC50	6.700000	Saltwater	Static
CERC-GED	63-25-2	Caibaryl	Asellus brevitaodus	Aquatic sow bug	96 hr	LC50	280.000000	Freshwater	Static
OPP	63-25-2	Caibaryl	Callichetes sapidus	Blue crab	48 hr	LC50	320.000000	Saltwater	Fbw Through
CERC-GED	63-25-2	Caibaryl	Carassius auratus	Golifish	96 hr	LC50	13200.000000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	Chassera sabulosa	Stone fly	96 hr	LC50	5.600000	Freshwater	Static
OPP	63-25-2	Caibaryl	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	2200.000000	Saltwater	Static
OPP	63-25-2	Caibaryl	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	2600.000000	Saltwater	Fbw Through
CERC-GED	63-25-2	Caibaryl	Cyprinus carpio	Common carp	96 hr	LC50	5280.000000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	Daphnia magna	Water flea	48 hr	EC50	5.600000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	Daphnia pulex	Water flea	48 hr	LC50	6.400000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

CERC-GED	63-25-2	Caibaryl	<i>Gammams fasciatus</i>	Scud	96 hr	LC50	26 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Gammams leucostis</i>	Scud	96 hr	LC50	22 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	15800 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Iogenus sp.</i>	Stonefly	96 hr	LC50	2 800 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Iogenus sp.</i>	Stonefly	96 hr	LC50	3 600 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Lepomis cyanellus</i>	Green sunfish	96 hr	LC50	11200 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	5200 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	6760 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	7000 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	8200 000 000	Freshwater	Static
OPP	63-25-2	Caibaryl	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	14000 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Micropodus salmoides</i>	Largemouth bass	96 hr	LC50	6400 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Oncorhynchus clarkii</i>	Coho trout	96 hr	LC50	6700 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Oncorhynchus clarkii</i>	Cutthroat trout	96 hr	LC50	6800 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Oncorhynchus clarkii</i>	Cutthroat trout	96 hr	LC50	7100 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Oncorhynchus kisutch</i>	Coho salmon	96 hr	LC50	4340 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	780 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1600 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1950 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	3500 000 000	Freshwater	Static
OPP	63-25-2	Caibaryl	<i>Penaeus aztecus</i>	Brown shrimp	48 hr	LC50	1 500 000	Saltwater	Fbw Through
OPP	63-25-2	Caibaryl	<i>Penaeus duorarum</i>	Pink shrimp	48 hr	LC50	32 000 000	Saltwater	Fbw Through
CERC-GED	63-25-2	Caibaryl	<i>Perca flavescens</i>	Yellow perch	96 hr	LC50	4200 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Perca flavescens</i>	Yellow perch	96 hr	LC50	5100 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Perca flavescens</i>	Yellow perch	96 hr	LC50	5400 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	14600 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Pomoxis nigromaculatus</i>	Black crappie	96 hr	LC50	2600 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Procambarus sp.</i>	Crayfish	96 hr	LC50	1900 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Pteronarcia laevis</i>	Stonefly	96 hr	LC50	1 700 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Pteronarcia laevis</i>	Stonefly	96 hr	LC50	13 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	4 800 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Salmo salar</i>	Atlantic salmon	96 hr	LC50	4500 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Salmo trutta</i>	Brown trout	96 hr	LC50	6300 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Salvelinus fontinalis</i>	Brook trout	96 hr	LC50	1200 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Salvelinus fontinalis</i>	Brook trout	96 hr	LC50	2100 000 000	Freshwater	Static
OPP	63-25-2	Caibaryl	<i>Salvelinus namaycush</i>	Lake trout	96 hr	LC50	690 000 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Sinocyclocephalus semilatus</i>	Water flea	48 hr	EC50	7 600 000	Freshwater	Static
CERC-GED	63-25-2	Caibaryl	<i>Sinocyclocephalus semilatus</i>	Water flea	48 hr	EC50	8 100 000	Freshwater	Static
OPP	1563-66-2	Caibofuran	<i>Daphnia magna</i>	Water flea	48 hr	EC50	29 000 000	Freshwater	Static
OPP	1563-66-2	Caibofuran	<i>Daphnia magna</i>	Water flea	48 hr	EC50	38 600 000	Freshwater	Static
CERC-GED	1563-66-2	Caibofuran	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	248 000 000	Freshwater	Static
CERC-GED	1563-66-2	Caibofuran	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	88 000 000	Freshwater	Static
OPP	1563-66-2	Caibofuran	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	125 700 000	Freshwater	Static
CERC-GED	1563-66-2	Caibofuran	<i>Oncorhynchus kisutch</i>	Coho salmon	96 hr	LC50	530 000 000	Freshwater	Static
OPP	1563-66-2	Caibofuran	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	362 000 000	Freshwater	Static
CERC-GED	1563-66-2	Caibofuran	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	380 000 000	Freshwater	Static
OPP	1563-66-2	Caibofuran	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	420 000 000	Freshwater	Static
OPP	1563-66-2	Caibofuran	<i>Penaeus duorarum</i>	Pink shrimp	48 hr	LC50	4 600 000	Saltwater	Fbw Through
CERC-GED	1563-66-2	Caibofuran	<i>Perca flavescens</i>	Yellow perch	96 hr	LC50	240 000 000	Freshwater	Static
CERC-GED	1563-66-2	Caibofuran	<i>Perca flavescens</i>	Yellow perch	96 hr	LC50	400 000 000	Freshwater	Static
CERC-GED	1563-66-2	Caibofuran	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	872 000 000	Freshwater	Static
OPP	1563-66-2	Caibofuran	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	1990 000 000	Freshwater	Static
CERC-GED	1563-66-2	Caibofuran	<i>Salmo trutta</i>	Brown trout	96 hr	LC50	560 000 000	Freshwater	Static
CERC-GED	786-19-6	Caibophenothrin	<i>Americanys bahia</i>	Mysid	96 hr	LC50	13 000 000	Saltwater	Static
CERC-GED	786-19-6	Caibophenothrin	<i>Cyprichodon variegatus</i>	Sheepshead minnow	96 hr	LC50	17 000 000	Saltwater	Static
CERC-GED	786-19-6	Caibophenothrin	<i>Gammams leucostis</i>	Scud	96 hr	LC50	5 200 000	Freshwater	Static
CERC-GED	786-19-6	Caibophenothrin	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	6000 000 000	Freshwater	Static
CERC-GED	786-19-6	Caibophenothrin	<i>Leiostomus xanthurus</i>	Spot	96 hr	LC50	500 000 000	Saltwater	Static
CERC-GED	786-19-6	Caibophenothrin	<i>Lepomis cyanellus</i>	Green sunfish	96 hr	LC50	280 000 000	Freshwater	Static
CERC-GED	786-19-6	Caibophenothrin	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	13 000 000	Freshwater	Static
CERC-GED	786-19-6	Caibophenothrin	<i>Penaeus setiferus</i>	White shrimp	96 hr	LC50	4 300 000	Saltwater	Static
OPP	5234-68-4	Carboxin	<i>Daphnia magna</i>	Water flea	48 hr	EC50	84400 000 000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	5234-68-4	Carboxin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1200.00000	Freshwater	Static
OPP	5234-68-4	Carboxin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3600.00000	Freshwater	Fbw Through
OPP	5234-68-4	Carboxin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2000.00000	Freshwater	Static
OPP	5234-68-4	Carboxin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2300.00000	Freshwater	Fbw Through
OPP	128639-02-1	Carfentazone-ethyl (F8246)	American shad	Mysid	96 hr	LC50	1160.00000	Saltwater	Fbw Through
OPP	128639-02-1	Carfentazone-ethyl (F8246)	Crassostrea virginica	Eastern oyster	96 hr	EC50	2050.00000	Saltwater	Fbw Through
OPP	128639-02-1	Carfentazone-ethyl (F8246)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2000.00000	Freshwater	Fbw Through
OPP	128639-02-1	Carfentazone-ethyl (F8246)	Menidia peninsulae	Tidewater silverside	96 hr	LC50	1140.00000	Saltwater	Fbw Through
OPP	128639-02-1	Carfentazone-ethyl (F8246)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1600.00000	Freshwater	Fbw Through
CERC-GED	37337-13-6	CCA Type III	Daphnia magna	Water flea	48 hr	EC50	40.00000	Freshwater	Static
CERC-GED	37337-13-6	CCA Type III	Gammarus pseudolimnaeus	Scud	96 hr	LC50	50.00000	Freshwater	Static
CERC-GED	37337-13-6	CCA Type III	Ictalurus punctatus	Channelcatfish	96 hr	LC50	1800.00000	Freshwater	Static
CERC-GED	37337-13-6	CCA Type III	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	12500.00000	Freshwater	Static
CERC-GED	13360-45-7	Chlordane	Ictalurus punctatus	Channelcatfish	96 hr	LC50	10200.00000	Freshwater	Static
CERC-GED	13360-45-7	Chlordane	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1400.00000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Daphnia pulex	Water flea	48 hr	EC50	29.00000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Gammarus fasciatus	Scud	96 hr	LC50	40.00000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Ictalurus punctatus	Channelcatfish	96 hr	LC50	0.80000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	57.00000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Micropterus salmoides	Largemouth bass	96 hr	LC50	32.00000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	27.00000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	13.90000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	14.00000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	10.00000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	42.00000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	45.00000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Pimephales promelas	Fathead minnow	96 hr	LC50	115.00000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Pteronarcys californica	Stonefly	96 hr	LC50	15.00000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Salmo trutta	Brown trout	96 hr	LC50	11.10000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Sinocyclopus semilatus	Water flea	48 hr	EC50	20.00000	Freshwater	Static
CERC-GED	57-74-9	Chlordane	Sinocyclopus semilatus	Water flea	48 hr	EC50	24.00000	Freshwater	Static
CERC-GED	5103-71-9	Chlordane cis	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	7.09000	Freshwater	Static
CERC-GED	5103-74-2	Chlordane trans	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	50.50000	Freshwater	Static
CERC-GED	57-74-9	Chlordane-HCS-3260	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	29.30000	Freshwater	Static
CERC-GED	57-74-9	Chlordane-HCS-3260	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	24.90000	Freshwater	Static
CERC-GED	57-74-9	Chlordane-HCS-3260	Pimephales promelas	Fathead minnow	96 hr	LC50	24.80000	Freshwater	Static
OPP	143-50-0	Chlordcone (Kepone)	American shad	Mysid	96 hr	LC50	10.00000	Saltwater	Fbw Through
CERC-GED	143-50-0	Chlordcone (Kepone)	Chironomus plumosus	Worm	48 hr	EC50	320.00000	Freshwater	Static
OPP	143-50-0	Chlordcone (Kepone)	Crassostrea virginica	Eastern oyster	96 hr	EC50	11.00000	Saltwater	Fbw Through
CERC-GED	143-50-0	Chlordcone (Kepone)	Daphnia magna	Water flea	48 hr	EC50	260.00000	Freshwater	Static
CERC-GED	143-50-0	Chlordcone (Kepone)	Gammarus pseudolimnaeus	Scud	96 hr	LC50	180.00000	Freshwater	Static
OPP	143-50-0	Chlordcone (Kepone)	Ictalurus punctatus	Channelcatfish	96 hr	LC50	225.00000	Freshwater	Static
OPP	143-50-0	Chlordcone (Kepone)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	72.00000	Freshwater	Static
CERC-GED	143-50-0	Chlordcone (Kepone)	Lepomis macrocephalus	Redear sunfish	96 hr	LC50	64.00000	Freshwater	Static
CERC-GED	143-50-0	Chlordcone (Kepone)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	30.00000	Freshwater	Static
OPP	143-50-0	Chlordcone (Kepone)	Pimephales promelas	Crab shrimp	96 hr	LC50	120.00000	Saltwater	Fbw Through
OPP	143-50-0	Chlordcone (Kepone)	Penaeus aztecus	Brown shrimp	48 hr	LC50	68.00000	Saltwater	Fbw Through
CERC-GED	6164-98-3	Chlordanefom	Ictalurus punctatus	Channelcatfish	96 hr	LC50	20200.00000	Freshwater	Static
CERC-GED	6164-98-3	Chlordanefom	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	13200.00000	Freshwater	Static
CERC-GED	1773-89-3	Chlrendate dim ethyl	Ictalurus punctatus	Channelcatfish	96 hr	LC50	2000.00000	Freshwater	Static
CERC-GED	1773-89-3	Chlrendate dim ethyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2240.00000	Freshwater	Static
CERC-GED	1773-89-3	Chlrendate dim ethyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1400.00000	Freshwater	Static
CERC-GED	1773-89-3	Chlrendate dim ethyl	Pimephales promelas	Fathead minnow	96 hr	LC50	1700.00000	Freshwater	Static
CERC-GED	80-06-8	Chlrendethol	Daphnia magna	Water flea	48 hr	EC50	270.00000	Freshwater	Static
CERC-GED	80-06-8	Chlrendethol	Ictalurus punctatus	Channelcatfish	96 hr	LC50	900.00000	Freshwater	Static
CERC-GED	80-06-8	Chlrendethol	Pimephales promelas	Fathead minnow	96 hr	LC50	1390.00000	Freshwater	Static
CERC-GED	470-90-6	Chlrendenviphos	Gammarus fasciatus	Scud	96 hr	LC50	9.60000	Freshwater	Static
CERC-GED	470-90-6	Chlrendenviphos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	23.00000	Freshwater	Static
CERC-GED	470-90-6	Chlrendenviphos	Pteronarcys californica	Stonefly	96 hr	LC50	0.70000	Freshwater	Static
OPP	56-95-1	Chbhexidine dicetate	Daphnia magna	Water flea	48 hr	EC50	63.00000	Freshwater	Static
OPP	56-95-1	Chbhexidine dicetate	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	600.00000	Freshwater	Static
OPP	56-95-1	Chbhexidine dicetate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1871.00000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	90982-32-4	Chromium Ethyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	8400.000000	Freshwater	Static
OPP	510-15-6	Chromobenzilate	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	880.000000	Saltwater	Static
CERC-GED	510-15-6	Chromobenzilate	Daphnia pulex	Water flea	48 hr	EC50	870.000000	Freshwater	Static
OPP	510-15-6	Chromobenzilate	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	1600.000000	Freshwater	Static
CERC-GED	510-15-6	Chromobenzilate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	670.000000	Freshwater	Static
OPP	510-15-6	Chromobenzilate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1300.000000	Freshwater	Static
CERC-GED	510-15-6	Chromobenzilate	Sinocyclopus semilatus	Water flea	48 hr	EC50	550.000000	Freshwater	Static
ECOTOX	74-87-3	Chromium ethane	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	550000.000000	Freshwater	Static
ECOTOX	74-87-3	Chromium ethane	Menidia beryllina	Inland silverside	96 hr	LC50	270000.000000	Saltwater	Static
OPP	2675-77-6	Chromium	Daphnia magna	Water flea	48 hr	EC50	6190.000000	Freshwater	Static
OPP	2675-77-6	Chromium	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	4900.000000	Freshwater	Static
OPP	2675-77-6	Chromium	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	7900.000000	Freshwater	Static
OPP	2675-77-6	Chromium	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3700.000000	Freshwater	Static
OPP	3691-35-8	Chlorthacinone	Daphnia magna	Water flea	48 hr	EC50	426.000000	Freshwater	Static
OPP	3691-35-8	Chlorthacinone	Daphnia magna	Water flea	48 hr	EC50	640.000000	Freshwater	Fbw Through
OPP	3691-35-8	Chlorthacinone	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	692.000000	Freshwater	Static
OPP	3691-35-8	Chlorthacinone	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	710.000000	Freshwater	Fbw Through
OPP	3691-35-8	Chlorthacinone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	252.000000	Freshwater	Static
OPP	3691-35-8	Chlorthacinone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	450.000000	Freshwater	Fbw Through
OPP	76-06-2	Chlorpirin	Daphnia pulex	Water flea	48 hr	EC50	63.000000	Freshwater	Static
OPP	76-06-2	Chlorpirin	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	105.000000	Freshwater	Static
OPP	76-06-2	Chlorpirin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	16.500000	Freshwater	Static
OPP	1897-45-6	Chlothalbin	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	32.000000	Saltwater	Static
OPP	1897-45-6	Chlothalbin	Daphnia magna	Water flea	48 hr	EC50	70.000000	Freshwater	Static
OPP	1897-45-6	Chlothalbin	Italims punctatus	Channelcatfish	96 hr	LC50	43.000000	Freshwater	Static
OPP	1897-45-6	Chlothalbin	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	51.000000	Freshwater	Static
OPP	1897-45-6	Chlothalbin	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	62.000000	Freshwater	Static
OPP	1897-45-6	Chlothalbin	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	84.000000	Freshwater	Static
OPP	1897-45-6	Chlothalbin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	47.000000	Freshwater	Static
OPP	1897-45-6	Chlothalbin	Penaeus duorarum	Pink shrimp	48 hr	LC50	320.000000	Saltwater	Fbw Through
OPP	1897-45-6	Chlothalbin (Eqad)	Crassostrea virginica	Eastern oyster	96 hr	EC50	3.600000	Saltwater	Fbw Through
CERC-GED	1982-47-4	Chloroxuron	Italims punctatus	Channelcatfish	96 hr	LC50	450.000000	Freshwater	Static
CERC-GED	1982-47-4	Chloroxuron	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	430.000000	Freshwater	Static
OPP	101-21-3	Chlriophoram	Daphnia magna	Water flea	48 hr	EC50	3700.000000	Freshwater	Static
OPP	101-21-3	Chlriophoram	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	6300.000000	Freshwater	Static
OPP	101-21-3	Chlriophoram	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	6800.000000	Freshwater	Static
OPP	101-21-3	Chlriophoram	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3020.000000	Freshwater	Static
OPP	101-21-3	Chlriophoram	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	5700.000000	Freshwater	Static
OPP	2921-88-2	Chlpyrifos	American yew baha	Mysid	96 hr	LC50	0.035000	Saltwater	Fbw Through
OPP	2921-88-2	Chlpyrifos	American yew baha	Mysid	96 hr	LC50	0.045000	Saltwater	Fbw Through
CERC-GED	2921-88-2	Chlpyrifos	American yew baha	Mysid	96 hr	LC50	0.056000	Saltwater	Static
OPP	2921-88-2	Chlpyrifos	Callinectes sapidus	Blue crab	48 hr	LC50	5.200000	Saltwater	Fbw Through
CERC-GED	2921-88-2	Chlpyrifos	Chlaenia sabulosa	Stonefly	96 hr	LC50	0.570000	Freshwater	Static
OPP	2921-88-2	Chlpyrifos	Crassostrea virginica	Eastern oyster	96 hr	EC50	34.000000	Saltwater	Fbw Through
OPP	2921-88-2	Chlpyrifos	Crassostrea virginica	Eastern oyster	96 hr	EC50	84.000000	Saltwater	Fbw Through
CERC-GED	2921-88-2	Chlpyrifos	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	270.000000	Saltwater	Static
OPP	2921-88-2	Chlpyrifos	Daphnia magna	Water flea	48 hr	EC50	0.100000	Freshwater	Fbw Through
OPP	2921-88-2	Chlpyrifos	Daphnia magna	Water flea	48 hr	EC50	1.700000	Freshwater	Static
OPP	2921-88-2	Chlpyrifos	Fundulus grandis	Gulf killifish	96 hr	LC50	1.800000	Saltwater	Fbw Through
OPP	2921-88-2	Chlpyrifos	Fundulus sinistris	Longnose killifish	96 hr	LC50	3.200000	Saltwater	Fbw Through
CERC-GED	2921-88-2	Chlpyrifos	Gammams lucubris	Scud	96 hr	LC50	0.110000	Freshwater	Static
CERC-GED	2921-88-2	Chlpyrifos	Italims punctatus	Channelcatfish	96 hr	LC50	280.000000	Freshwater	Static
CERC-GED	2921-88-2	Chlpyrifos	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	2.400000	Freshwater	Static
OPP	2921-88-2	Chlpyrifos	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	3.000000	Freshwater	Static
OPP	2921-88-2	Chlpyrifos	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	5.800000	Freshwater	Fbw Through
ECOTOX	2921-88-2	Chlpyrifos	Lepomis macrochirus	Bleegilsunfish	96 hr	LC50	10.000000	Freshwater	Fbw Through
CERC-GED	2921-88-2	Chlpyrifos	Leuresthes tenuis	California gurnard	96 hr	LC50	2.600000	Saltwater	Static
OPP	2921-88-2	Chlpyrifos	Menidia beryllina	Inland silverside	96 hr	LC50	4.200000	Saltwater	Fbw Through
OPP	2921-88-2	Chlpyrifos	Menidia menidia	Atlantic silverside	96 hr	LC50	1.700000	Saltwater	Fbw Through
CERC-GED	2921-88-2	Chlpyrifos	Menidia menidia	Atlantic silverside	96 hr	LC50	4.100000	Saltwater	Static
OPP	2921-88-2	Chlpyrifos	Menidia peninsulae	Tidewater silverside	96 hr	LC50	1.300000	Saltwater	Fbw Through
CERC-GED	2921-88-2	Chlpyrifos	Menidia peninsulae	Tidewater silverside	96 hr	LC50	3.900000	Saltwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	2921-88-2	Chbpyrifos	Mugilcephalus	Striped mullet	96 hr	LC50	5400000	Saltwater	Fbw Through
CERC-GED	2921-88-2	Chbpyrifos	Oncorhynchus chaki	Cutthroat trout	96 hr	LC50	18400000	Freshwater	Static
CERC-GED	2921-88-2	Chbpyrifos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	7100000	Freshwater	Static
OPP	2921-88-2	Chbpyrifos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	8000000	Freshwater	Fbw Through
ECOTOX	2921-88-2	Chbpyrifos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	9000000	Freshwater	Fbw Through
OPP	2921-88-2	Chbpyrifos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	27000000	Freshwater	Fbw Through
OPP	2921-88-2	Chbpyrifos	Opsanus beta	Gulf toadfish	96 hr	LC50	68000000	Saltwater	Fbw Through
CERC-GED	2921-88-2	Chbpyrifos	Opsanus beta	Gulf toadfish	96 hr	LC50	520000000	Saltwater	Static
OPP	2921-88-2	Chbpyrifos	Penaeus aztecus	Brown shrimp	48 hr	LC50	0200000	Saltwater	Fbw Through
OPP	2921-88-2	Chbpyrifos	Penaeus duorarum	Pink shrimp	48 hr	LC50	2400000	Saltwater	Fbw Through
OPP	2921-88-2	Chbpyrifos	Pimelopsgrovesi	Fathead minnow	96 hr	LC50	140000000	Freshwater	Fbw Through
ECOTOX	2921-88-2	Chbpyrifos	Pimelopsgrovesi	Fathead minnow	96 hr	LC50	54200000	Freshwater	Fbw Through
CERC-GED	2921-88-2	Chbpyrifos	Pteronarcys californica	Stonefly	96 hr	LC50	10000000	Freshwater	Static
OPP	2921-88-2	Chbpyrifos	Salvelinus namaycush	Lake trout	96 hr	LC50	73000000	Freshwater	Static
OPP	5598-13-0	Chbpyrifos-methyl	Daphnia magna	Water flea	48 hr	EC50	1110000	Freshwater	Static
OPP	5598-13-0	Chbpyrifos-methyl	Leponema macrochirius	Bluegill sunfish	96 hr	LC50	88000000	Freshwater	Static
CERC-GED	5598-13-0	Chbpyrifos-methyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	301000000	Freshwater	Static
OPP	5598-13-0	Chbpyrifos-methyl	Penaeus aztecus	Brown shrimp	48 hr	LC50	0680000	Saltwater	Static
OPP	5598-13-0	Chbpyrifos-methyl	Penaeus duorarum	Pink shrimp	48 hr	LC50	0028000	Saltwater	Static
CERC-GED	5598-13-0	Chbpyrifos-methyl	Pimelopsgrovesi	Fathead minnow	96 hr	LC50	678000000	Freshwater	Static
CERC-GED	5598-13-0	Chbpyrifos-methyl	Salvelinus fontinalis	Brook trout	96 hr	LC50	200000000	Freshwater	Static
OPP	64902-72-3	Chbsulfuron	American yarrow	Mystic	96 hr	LC50	8900000000	Saltwater	Static
OPP	64902-72-3	Chbsulfuron	Daphnia magna	Water flea	48 hr	EC50	37000000000	Freshwater	Static
OPP	64902-72-3	Chbsulfuron	Italurus punctatus	Channelcatfish	96 hr	LC50	50000000000	Freshwater	Static
ECOTOX	7789-00-6	Chloroacetic potassium salt	Leponema macrochirius	Bluegill sunfish	96 hr	LC50	170000000000	Freshwater	Static
OPP	95266-40-3	Cinectriab	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	180000000000	Saltwater	Fbw Through
OPP	95266-40-3	Cinectriab	Cyprinus carpio	Common carp	96 hr	LC50	570000000000	Freshwater	Fbw Through
OPP	95266-40-3	Cinectriab	Italiurus punctatus	Channelcatfish	96 hr	LC50	350000000000	Freshwater	Fbw Through
OPP	95266-40-3	Cinectriab	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	657000000000	Freshwater	Static Renewal
OPP	8000-29-1	Chromella oil	Daphnia magna	Water flea	48 hr	EC50	264000000000	Freshwater	Static
OPP	8000-29-1	Chromella oil	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	173000000000	Freshwater	Static
CERC-GED	Unknown	Chritte	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	130000000000	Freshwater	Static
OPP	105511-96-4	Cbdnafp-propargyl	Leponema macrochirius	Bluegill sunfish	96 hr	LC50	240000000	Freshwater	Fbw Through
OPP	105511-96-4	Cbdnafp-propargyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	300000000	Freshwater	Fbw Through
OPP	105511-96-4	Cbdnafp-propargyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	390000000	Freshwater	Static
OPP	81777-89-1	Cbm azone	American yarrow	Mystic	96 hr	LC50	566000000	Saltwater	Fbw Through
OPP	81777-89-1	Cbm azone	Crassostrea virginica	Eastern oyster	96 hr	EC50	53000000000	Saltwater	Fbw Through
OPP	81777-89-1	Cbm azone	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	406000000000	Saltwater	Fbw Through
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Amiums mels	Black bullhead	96 hr	LC50	88000000	Freshwater	Static
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Amiums nebusus	Brown bullhead	96 hr	LC50	56000000	Freshwater	Static
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Carassius auratus	Golifish	96 hr	LC50	230000000	Freshwater	Static
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Catostomus commersoni	White sucker	96 hr	LC50	810000000	Freshwater	Static
CERC-GED	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Cyprinodon variegatus	Oscar cod	48 hr	LC50	310000000	Freshwater	Static
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Cyprinus carpio	Common carp	96 hr	LC50	1200000000	Freshwater	Static
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Cyprinus carpio	Common carp	96 hr	LC50	1390000000	Freshwater	Static
CERC-GED	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Gammarellus fasciatus	Scud	96 hr	LC50	360000000	Freshwater	Static
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Italiurus punctatus	Channelcatfish	96 hr	LC50	820000000	Freshwater	Static
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Lepomis cyanellus	Green sunfish	96 hr	LC50	1000000000	Freshwater	Static
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Lepomis cyanellus	Green sunfish	96 hr	LC50	1700000000	Freshwater	Static
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Leponema macrochirius	Bluegill sunfish	96 hr	LC50	680000000	Freshwater	Static
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Lepomis macrochirius	Bluegill sunfish	96 hr	LC50	2300000000	Freshwater	Fbw Through
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Micropodus oblongus	Small mouth bass	96 hr	LC50	60000000	Freshwater	Static
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	620000000	Freshwater	Static
CERC-GED	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	340000000	Freshwater	Static
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Perca flavescens	Yellow perch	96 hr	LC50	81000000	Freshwater	Static
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Pimelopsgrovesi	Fathead minnow	96 hr	LC50	102000000	Freshwater	Static
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Salvelinus fontinalis	Brook trout	96 hr	LC50	610000000	Freshwater	Static
OPP	1420-04-8	Cbnhalide N-ribksam ide (ethanolam ne salt)	Tilapia sp.	Tilapia	96 hr	LC50	109000000	Freshwater	Static
OPP	57754-85-5	Cbpyalid,monoethanolam ne salt	Daphnia magna	Water flea	48 hr	EC50	225000000000	Freshwater	Static
OPP	57754-85-5	Cbpyalid,monoethanolam ne salt	Lepomis macrochirius	Bluegill sunfish	96 hr	LC50	125400000000	Freshwater	Static
OPP	57754-85-5	Cbpyalid,monoethanolam ne salt	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	103500000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	8007-45-2	CoalTar	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2000.00000	Freshwater	Static
OPP	8007-45-2	CoalTar	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	3130.00000	Freshwater	Static
OPP	8007-45-2	CoalTar	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	900.00000	Freshwater	Static
OPP	1338-02-9	Coppernaphthalene	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	161.00000	Freshwater	Static Renewal
CERC-GED	10031-43-3	Coppernitrate	<i>Leiostomus xanthurus</i>	Spot	96 hr	LC50	280.00000	Saltwater	Static
CERC-GED	10031-43-3	Coppernitrate	<i>Menticirrhus peninsulae</i>	Tidewater silverside	96 hr	LC50	140.00000	Saltwater	Static
ECOTOX	7758-98-7	Coppersulfate	<i>Anguilla rostata</i>	American eel	96 hr	LC50	2540.00000	Freshwater	Static
ECOTOX	7758-98-7	Coppersulfate	<i>Anguilla rostata</i>	American eel	96 hr	LC50	3200.00000	Freshwater	Static
ECOTOX	7758-98-7	Coppersulfate	<i>Caranx ater</i>	Brown mystery snail	96 hr	EC50	1700.00000	Freshwater	Fbw Through
ECOTOX	7758-98-7	Coppersulfate	<i>Carassius auratus</i>	Golifish	96 hr	LC50	300.00000	Freshwater	Fbw Through
ECOTOX	7758-98-7	Coppersulfate	<i>Daphnia magna</i>	Water flea	48 hr	LC50	10.00000	Freshwater	Static
ECOTOX	7758-98-7	Coppersulfate	<i>Daphnia pulex</i>	Water flea	48 hr	LC50	20.00000	Freshwater	Static
ECOTOX	7758-98-7	Coppersulfate	<i>Gammarus pseudolemaeus</i>	Scud	96 hr	EC50	20.00000	Freshwater	Fbw Through
CERC-GED	7758-98-7	Coppersulfate	<i>Lepomis cyanellus</i>	Green sunfish	96 hr	LC50	3510.00000	Freshwater	Static
CERC-GED	7758-98-7	Coppersulfate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	884.00000	Freshwater	Static
OPP	7758-98-7	Coppersulfate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	135.00000	Freshwater	Static
ECOTOX	7758-98-7	Coppersulfate	<i>Physa integra</i>	Pouch snail	96 hr	EC50	39.00000	Freshwater	Fbw Through
OPP	7758-99-8	Coppersulfate, pentahydrate	<i>Daphnia magna</i>	Water flea	48 hr	EC50	180.00000	Freshwater	Static
OPP	7758-99-8	Coppersulfate, pentahydrate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	1300.00000	Freshwater	Static
OPP	7758-99-8	Coppersulfate, pentahydrate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2800.00000	Freshwater	Static
OPP	7758-99-8	Coppersulfate, pentahydrate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2870.00000	Freshwater	Static
OPP	7758-99-8	Coppersulfate, pentahydrate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2950.00000	Freshwater	Static
OPP	7758-99-8	Coppersulfate, pentahydrate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	32.00000	Freshwater	Static
OPP	7758-99-8	Coppersulfate, pentahydrate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	130.00000	Freshwater	Static
OPP	7758-99-8	Coppersulfate, pentahydrate	<i>Palaemonetes vulgaris</i>	Shore shrimp	96 hr	LC50	17000.00000	Saltwater	Static
OPP	7758-99-8	Coppersulfate, pentahydrate	<i>Trachinotus carolinus</i>	Fibrilla pompano	96 hr	LC50	1420.00000	Saltwater	Static
OPP	52316-55-9	Conex (Lipasian BLP)	<i>Daphnia magna</i>	Water flea	48 hr	EC50	140.00000	Freshwater	Static
CERC-GED	52316-55-9	Conex (Lipasian BLP)	<i>Ictalurus punctatus</i>	Channel catfish	96 hr	LC50	22.00000	Freshwater	Static
OPP	52316-55-9	Conex (Lipasian BLP)	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	25700.00000	Freshwater	Static
CERC-GED	52316-55-9	Conex (Lipasian BLP)	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1600.00000	Freshwater	Static
OPP	56-72-4	Coumaphos	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	290.00000	Saltwater	Fbw Through
CERC-GED	56-72-4	Coumaphos	<i>Gammarus lacustris</i>	Scud	96 hr	LC50	0.07400	Freshwater	Static
OPP	56-72-4	Coumaphos	<i>Gammarus lacustris</i>	Scud	96 hr	LC50	0.15000	Freshwater	Static
CERC-GED	56-72-4	Coumaphos	<i>Ictalurus punctatus</i>	Channel catfish	96 hr	LC50	840.00000	Freshwater	Static
CERC-GED	56-72-4	Coumaphos	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	340.00000	Freshwater	Static
CERC-GED	56-72-4	Coumaphos	<i>Oncorhynchus clarkii</i>	Cutthroat trout	96 hr	LC50	862.00000	Freshwater	Static
CERC-GED	56-72-4	Coumaphos	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	890.00000	Freshwater	Static
OPP	56-72-4	Coumaphos	<i>Penaeus duorarum</i>	Pink shrimp	48 hr	LC50	2.00000	Saltwater	Fbw Through
OPP	56-72-4	Coumaphos	<i>Salvelinus namaycush</i>	Lake trout	96 hr	LC50	593.00000	Freshwater	Static
CERC-GED	56-72-4	Coumaphos	<i>Sinocyclophorus semilatus</i>	Water flea	48 hr	EC50	0.10000	Freshwater	Static
OPP	56-72-4	Coumaphos	<i>Stenostedion vitreum</i>	Walleye	96 hr	LC50	780.00000	Freshwater	Static
CERC-GED	8001-58-9	Cresote-CoalTardistillate	<i>Amberlyssabahia</i>	Mysid	96 hr	LC50	18.00000	Saltwater	Static
CERC-GED	8001-58-9	Cresote-CoalTardistillate	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	720.00000	Saltwater	Static
OPP	8001-58-9	Cresote-CoalTardistillate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	600.00000	Freshwater	Static
OPP	7700-17-6	Crotoxyphos	<i>Gammarus fasciatus</i>	Scud	96 hr	LC50	11.00000	Freshwater	Static
CERC-GED	7700-17-6	Crotoxyphos	<i>Ictalurus punctatus</i>	Channel catfish	96 hr	LC50	2600.00000	Freshwater	Static
CERC-GED	7700-17-6	Crotoxyphos	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	152.00000	Freshwater	Static
CERC-GED	7700-17-6	Crotoxyphos	<i>Menticirrhus saxatilis</i>	Largemouth bass	96 hr	LC50	1100.00000	Freshwater	Static
CERC-GED	7700-17-6	Crotoxyphos	<i>Oncorhynchus clarkii</i>	Cutthroat trout	96 hr	LC50	51.00000	Freshwater	Static
CERC-GED	7700-17-6	Crotoxyphos	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	11900.00000	Freshwater	Static
CERC-GED	299-86-5	Cumamate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	1800.00000	Freshwater	Static
CERC-GED	15096-52-3	Cyrole	<i>Daphnia pulex</i>	Water flea	48 hr	EC50	10000.00000	Freshwater	Static
CERC-GED	15096-52-3	Cyrole	<i>Sinocyclophorus semilatus</i>	Water flea	48 hr	EC50	5000.00000	Freshwater	Static
ECOTOX	7447-39-4	Cupric chloride	<i>Acrocercops altaceus</i>	Chisel mouth	96 hr	LC50	143.00000	Freshwater	Fbw Through
ECOTOX	7447-39-4	Cupric chloride	<i>Daphnia magna</i>	Water flea	48 hr	EC50	9.80000	Freshwater	Static
ECOTOX	7447-39-4	Cupric chloride	<i>Daphnia magna</i>	Water flea	48 hr	LC50	26.00000	Freshwater	Static
ECOTOX	7447-39-4	Cupric chloride	<i>Oncorhynchus nerka</i>	Sockeye salmon	96 hr	LC50	240.00000	Freshwater	R
ECOTOX	3251-23-8	Cupric nitrate	<i>Gambusia affinis</i>	Mosquitofish	96 hr	LC50	93.00000	Freshwater	Static
OPP	1317-39-1	Cuprous oxide	<i>Amberlyssabahia</i>	Mysid	96 hr	LC50	69.70000	Saltwater	Static
OPP	1111-67-7	Cuprous thiocyanate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	79.00000	Freshwater	Static
OPP	1111-67-7	Cuprous thiocyanate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	77.00000	Freshwater	Static
CERC-GED	66555-33-7	Cuthe-Plis	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	1320.00000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

CERC-GED	66555-33-7	Cutrine-Plus	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2300.000000	Freshwater	Static
CERC-GED	66555-33-7	Cutrine-Plus	<i>Pomacea paludosa</i>	Apple snail	96 hr	LC50	48.000000	Freshwater	Static
OPP	21725-46-2	Cyanazine	<i>Daphnia magna</i>	Water flea	48 hr	EC50	42000.000000	Freshwater	Static
OPP	21725-46-2	Cyanazine	<i>Daphnia magna</i>	Water flea	48 hr	EC50	49000.000000	Freshwater	Static
CERC-GED	21725-46-2	Cyanazine	<i>Pinnaeplata pinnifera</i>	Fathead minnow	96 hr	LC50	16300.000000	Freshwater	Static
OPP	113136-77-9	Cyclanilide	<i>American shad</i>	Mysid	96 hr	LC50	5000.000000	Saltwater	Fbw Through
OPP	113136-77-9	Cyclanilide	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	19000.000000	Saltwater	Fbw Through
OPP	113136-77-9	Cyclanilide	<i>Daphnia magna</i>	Water flea	48 hr	EC50	5000.000000	Freshwater	Fbw Through
OPP	1134-23-2	Cycbate	<i>Daphnia magna</i>	Water flea	48 hr	EC50	24000.000000	Freshwater	Static
OPP	1134-23-2	Cycbate	<i>Gammams fasciatus</i>	Scud	96 hr	LC50	2600.000000	Freshwater	Static
OPP	1134-23-2	Cycbate	<i>Leponis macrochirus</i>	Bluegill sunfish	96 hr	LC50	4600.000000	Freshwater	Static
OPP	1134-23-2	Cycbate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	6800.000000	Freshwater	Static
OPP	1134-23-2	Cycbate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	4500.000000	Freshwater	Static
OPP	1134-23-2	Cycbate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	7000.000000	Freshwater	NR
OPP	68359-37-5	Cyfluthrin	<i>American shad</i>	Mysid	96 hr	LC50	0.002420	Saltwater	Fbw Through
OPP	68359-37-5	Cyfluthrin	<i>American shad</i>	Mysid	96 hr	LC50	0.006370	Saltwater	Fbw Through
OPP	68359-37-5	Cyfluthrin	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	2.690000	Saltwater	Fbw Through
OPP	91465-08-6	Cyhalothrin	<i>American shad</i>	Mysid	96 hr	LC50	0.004100	Saltwater	Fbw Through
OPP	91465-08-6	Cyhalothrin	<i>Daphnia magna</i>	Water flea	48 hr	EC50	0.230000	Freshwater	Static
OPP	91465-08-6	Cyhalothrin	<i>Daphnia magna</i>	Water flea	48 hr	EC50	0.380000	Freshwater	Static
OPP	91465-08-6	Cyhalothrin	<i>Leponis macrochirus</i>	Bluegill sunfish	96 hr	LC50	0.210000	Freshwater	Fbw Through
OPP	91465-08-6	Cyhalothrin	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	0.460000	Freshwater	Fbw Through
OPP	91465-08-6	Cyhalothrin	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	0.240000	Freshwater	Fbw Through
OPP	91465-08-6	Cyhalothrin	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	0.540000	Freshwater	Fbw Through
OPP	13121-70-5	Cyhexatin (Pictran)	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	0.124000	Saltwater	Fbw Through
CERC-GED	13121-70-5	Cyhexatin (Pictran)	<i>Daphnia magna</i>	Water flea	48 hr	EC50	0.170000	Freshwater	Static
CERC-GED	13121-70-5	Cyhexatin (Pictran)	<i>Gammams fasciatus</i>	Scud	96 hr	LC50	5.000000	Freshwater	Static
OPP	13121-70-5	Cyhexatin (Pictran)	<i>Lebstomus xanthurus</i>	Spot	96 hr	LC50	2.000000	Saltwater	Static
OPP	13121-70-5	Cyhexatin (Pictran)	<i>Leponis macrochirus</i>	Bluegill sunfish	96 hr	LC50	3.700000	Freshwater	Static
CERC-GED	13121-70-5	Cyhexatin (Pictran)	<i>Leponis macrochirus</i>	Bluegill sunfish	96 hr	LC50	6.700000	Freshwater	Static
OPP	13121-70-5	Cyhexatin (Pictran)	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1.290000	Freshwater	Static
OPP	57966-95-7	Cymoxanil	<i>Cyprinus carpio</i>	Common carp	96 hr	LC50	91000.000000	Freshwater	Static
OPP	57966-95-7	Cymoxanil	<i>Daphnia magna</i>	Water flea	48 hr	EC50	28000.000000	Freshwater	Static
OPP	57966-95-7	Cymoxanil	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	61000.000000	Freshwater	Static
OPP	52315-07-8	Cypemethrin	<i>Am erican shad</i>	Mysid	96 hr	LC50	0.004700	Saltwater	Fbw Through
OPP	52315-07-8	Cypemethrin	<i>Cheon dipteron</i>	Mayfly	96 hr	LC50	0.030000	Freshwater	Fbw Through
OPP	52315-07-8	Cypemethrin	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	370.000000	Saltwater	Fbw Through
OPP	52315-07-8	Cypemethrin	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	0.730000	Saltwater	Fbw Through
OPP	52315-07-8	Cypemethrin	<i>Daphnia magna</i>	Water flea	48 hr	EC50	1.000000	Freshwater	Static
OPP	52315-07-8	Cypemethrin	<i>Leponis macrochirus</i>	Bluegill sunfish	96 hr	LC50	1.780000	Freshwater	Fbw Through
OPP	52315-07-8	Cypemethrin	<i>Leponis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2.200000	Freshwater	Fbw Through
OPP	52315-07-8	Cypemethrin	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	0.920000	Freshwater	Fbw Through
OPP	52315-07-8	Cypemethrin	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	0.069000	Freshwater	Fbw Through
OPP	52315-07-8	Cypemethrin	<i>Palaemonetes pugio</i>	Grass shrimp	96 hr	LC50	0.016000	Saltwater	Fbw Through
OPP	52315-07-8	Cypemethrin	<i>Uca pugilator</i>	Fiddler crab	96 hr	LC50	0.197000	Saltwater	Fbw Through
OPP	39515-40-7	Cyphenothrin	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	0.340000	Freshwater	Fbw Through
CERC-GED	22936-86-3	Cyprazine	<i>Leponis macrochirus</i>	Bluegill sunfish	96 hr	LC50	30400.000000	Freshwater	Static
CERC-GED	22936-86-3	Cyprazine	<i>Pinnaeplata pinnifera</i>	Fathead minnow	96 hr	LC50	13800.000000	Freshwater	Static
OPP	94361-06-5	Cyproconazole	<i>American shad</i>	Mysid	96 hr	LC50	9600.000000	Saltwater	Fbw Through
OPP	94361-06-5	Cyproconazole	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	2600.000000	Saltwater	Fbw Through
OPP	94361-06-5	Cyproconazole	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	21000.000000	Saltwater	Fbw Through
OPP	94361-06-5	Cyproconazole	<i>Daphnia magna</i>	Water flea	48 hr	EC50	26000.000000	Freshwater	Static
OPP	94361-06-5	Cyproconazole	<i>Leponis macrochirus</i>	Bluegill sunfish	96 hr	LC50	21000.000000	Freshwater	Static
OPP	94361-06-5	Cyproconazole	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	19000.000000	Freshwater	Static
OPP	121552-61-2	Cyprodinil	<i>American shad</i>	Mysid	96 hr	EC50	8140.000000	Saltwater	Fbw Through
OPP	121552-61-2	Cyprodinil	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	433.000000	Saltwater	Fbw Through
OPP	121552-61-2	Cyprodinil	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	1250.000000	Saltwater	Fbw Through
OPP	121552-61-2	Cyprodinil	<i>Daphnia magna</i>	Water flea	48 hr	EC50	32.000000	Freshwater	Fbw Through
OPP	121552-61-2	Cyprodinil	<i>Leponis macrochirus</i>	Bluegill sunfish	96 hr	LC50	3200.000000	Freshwater	Fbw Through
OPP	121552-61-2	Cyprodinil	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	2410.000000	Freshwater	Static
CERC-GED	75-99-0	Dalpon	<i>Daphnia pulex</i>	Water flea	48 hr	EC50	11000.000000	Freshwater	Static
CERC-GED	75-99-0	Dalpon	<i>Sinocyclophorus semilatus</i>	Water flea	48 hr	EC50	16000.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	1596-84-5	Dam nozide	<i>Daphnia magna</i>	Water flea	48 hr	EC50	98500.000000	Freshwater	Static
OPP	1596-84-5	Dam nozide	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	448000.000000	Freshwater	Static
OPP	1596-84-5	Dam nozide	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	149300.000000	Freshwater	Static
OPP	533-74-4	Dazomet	<i>American shad</i>	Mysid	96 hr	LC50	710.000000	Saltwater	Fbw Through
OPP	533-74-4	Dazomet	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	730.000000	Saltwater	Fbw Through
OPP	533-74-4	Dazomet	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	500.000000	Saltwater	Static
OPP	533-74-4	Dazomet	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	97000.000000	Saltwater	Fbw Through
OPP	533-74-4	Dazomet	<i>Daphnia magna</i>	Water flea	48 hr	EC50	310.000000	Freshwater	Static
OPP	533-74-4	Dazomet	<i>Daphnia magna</i>	Water flea	48 hr	EC50	11900.000000	Freshwater	Fbw Through
OPP	533-74-4	Dazomet	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	300.000000	Freshwater	Static
OPP	533-74-4	Dazomet	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	160.000000	Freshwater	Static
OPP	533-74-4	Dazomet	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	160.000000	Freshwater	Static
OPP	533-74-4	Dazomet	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	162000.000000	Freshwater	Fbw Through
OPP	533-74-4	Dazomet	<i>Salvelinus fontinalis</i>	Brook trout	96 hr	LC50	500.000000	Freshwater	Static
OPP	10222-01-2	DBNPA	<i>American shad</i>	Mysid	96 hr	LC50	720.000000	Saltwater	Fbw Through
OPP	10222-01-2	DBNPA	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	3400.000000	Saltwater	Static
OPP	10222-01-2	DBNPA	<i>Daphnia magna</i>	Water flea	48 hr	EC50	860.000000	Freshwater	Static
OPP	10222-01-2	DBNPA	<i>Daphnia magna</i>	Water flea	48 hr	EC50	900.000000	Freshwater	Static
OPP	10222-01-2	DBNPA	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	1300.000000	Freshwater	Static
OPP	10222-01-2	DBNPA	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2300.000000	Freshwater	Static
OPP	10222-01-2	DBNPA	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1000.000000	Freshwater	Static
OPP	10222-01-2	DBNPA	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	2300.000000	Freshwater	Static
OPP	10222-01-2	DBNPA	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	1800.000000	Freshwater	Static
OPP	10222-01-2	DBNPA	<i>Uca pugilator</i>	Fiddler crab	96 hr	LC50	13900.000000	Saltwater	Static
OPP	118-52-5	DCDMH GlychbrFormulation)	<i>Daphnia magna</i>	Water flea	48 hr	EC50	500.000000	Freshwater	Static
OPP	118-52-5	DCDMH GlychbrFormulation)	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2350.000000	Freshwater	Static
OPP	118-52-5	DCDMH GlychbrFormulation)	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	910.000000	Freshwater	Static
OPP	1861-32-1	DCPA Dacthal	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	620.000000	Saltwater	Fbw Through
OPP	1861-32-1	DCPA Dacthal	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	6600.000000	Freshwater	Static
CERC-GED	8003-19-8	D-D SoilFumigant	<i>Italium punctatum</i>	Channelcatfish	96 hr	LC50	4400.000000	Freshwater	Static
CERC-GED	8003-19-8	D-D SoilFumigant	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	5530.000000	Freshwater	Static
CERC-GED	72-54-8	DDD	<i>Aesalus brevirostris</i>	Aquatic sow bug	96 hr	LC50	16.000000	Freshwater	Static
CERC-GED	72-54-8	DDD	<i>Bufo woodhouseiwei</i>	Fowler toad	96 hr	LC50	140.000000	Freshwater	Static
OPP	72-54-8	DDD	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	25.000000	Saltwater	Fbw Through
CERC-GED	72-54-8	DDD	<i>Cypridopsis viridis</i>	Ostracod	48 hr	EC50	45.000000	Freshwater	Static
CERC-GED	72-54-8	DDD	<i>Daphnia magna</i>	Water flea	48 hr	EC50	8.900000	Freshwater	Static
CERC-GED	72-54-8	DDD	<i>Daphnia pulex</i>	Water flea	48 hr	EC50	3.200000	Freshwater	Static
CERC-GED	72-54-8	DDD	<i>Gammarus fasciatus</i>	Scud	96 hr	LC50	0.600000	Freshwater	Static
CERC-GED	72-54-8	DDD	<i>Italium punctatum</i>	Channelcatfish	96 hr	LC50	1500.000000	Freshwater	Static
CERC-GED	72-54-8	DDD	<i>Ichnuus verticalis</i>	Damselfly	96 hr	LC50	34.000000	Freshwater	Static
CERC-GED	72-54-8	DDD	<i>Menticirrhus saimoides</i>	Largemouth bass	96 hr	LC50	42.000000	Freshwater	Static
CERC-GED	72-54-8	DDD	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	70.000000	Freshwater	Static
CERC-GED	72-54-8	DDD	<i>Pahononetes kadiakensis</i>	Grass shrimp	96 hr	LC50	2400000.000000	Freshwater	Static
OPP	72-54-8	DDD	<i>Penaeus duorarum</i>	Pink shrimp	48 hr	LC50	2.400000	Saltwater	Fbw Through
CERC-GED	72-54-8	DDD	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	4400.000000	Freshwater	Static
CERC-GED	72-54-8	DDD	<i>Sinocyprinus semilatus</i>	Water flea	48 hr	EC50	4.500000	Freshwater	Static
CERC-GED	72-54-8	DDD	<i>Sinocyprinus semilatus</i>	Water flea	48 hr	EC50	5.200000	Freshwater	Static
CERC-GED	72-54-8	DDD	<i>Stizostedion vitreum</i>	Walleye	96 hr	LC50	14.000000	Freshwater	Static
CERC-GED	72-55-9	DDE	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	240.000000	Freshwater	Static
CERC-GED	72-55-9	DDE	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	32.000000	Freshwater	Static
CERC-GED	72-55-9	DDE	<i>Salmo salar</i>	Atlantic salmon	96 hr	LC50	96.000000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Amelium meles</i>	Black bulthead	96 hr	LC50	4.800000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Aesalus brevirostris</i>	Aquatic sow bug	96 hr	LC50	4.000000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Atherin variegata</i>	Snipe fly	96 hr	LC50	17.000000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Bufo woodhouseiwei</i>	Fowler toad	96 hr	LC50	1000.000000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Carassius auratus</i>	Golifish	96 hr	LC50	15.500000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Chassera sabubsa</i>	Stonefly	96 hr	LC50	3.500000	Freshwater	Static
OPP	50-29-3	DDT	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	9.000000	Saltwater	Fbw Through
CERC-GED	50-29-3	DDT	<i>Cypridopsis viridis</i>	Ostracod	48 hr	LC50	15.000000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Cyprinus carpio</i>	Common carp	96 hr	LC50	9.700000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Daphnia magna</i>	Water flea	48 hr	EC50	4.700000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Daphnia pulex</i>	Water flea	48 hr	EC50	0.360000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

CERC-GED	50-29-3	DDT	<i>Ephemera</i> sp.	Mayfly	96 hr	LC50	1 200000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Gammarellus fasciatus</i>	Scud	96 hr	LC50	3 200000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Gammarellus lacustris</i>	Scud	96 hr	LC50	1 000000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Hexagenia bilineata</i>	Mayfly	96 hr	LC50	1000 000000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	6 900000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	16 000000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	21 500000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	22 000000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Isoptera</i> sp.	Stonefly	96 hr	LC50	1 200000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Lepomis cyanellus</i>	Green sunfish	96 hr	LC50	6 500000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Lepomis cyanellus</i>	Green sunfish	96 hr	LC50	10 900000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	8 600000	Freshwater	Static
OPP	50-29-3	DDT	<i>Lepomis macrochirus</i>	Redear sunfish	96 hr	LC50	15 000000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Menticirrhus salmoides</i>	Largemouth bass	96 hr	LC50	1 500000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Norfolkia bennisi</i>	River shiner	96 hr	LC50	5 800000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Oncorhynchus clarkii</i>	Coho salmon	96 hr	LC50	5 500000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Oncorhynchus kisutch</i>	Coho salmon	96 hr	LC50	4 000000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	4 700000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	8 700000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	11 400000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Ophidognathus sp.</i>	Dragonfly	96 hr	LC50	32 000000	Freshwater	Static
OPP	50-29-3	DDT	<i>Penaeus duorarum</i>	Pink shrimp	48 hr	LC50	0 600000	Saltwater	Fbw Through
CERC-GED	50-29-3	DDT	<i>Pentaneus sp.</i>	Midge	96 hr	LC50	1 500000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Pimelodus promelas</i>	Fathead minnow	96 hr	LC50	12 400000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Pomoxis nigromaculatus</i>	Black crappie	96 hr	LC50	5 600000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Pseudacris triseriata</i>	Western chorus frog	96 hr	LC50	800 000000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Pteronarcella badia</i>	Stonefly	96 hr	LC50	1 900000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	7 000000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Salmo salar</i>	Atlantic salmon	96 hr	LC50	1 800000	Freshwater	Static
OPP	50-29-3	DDT	<i>Salmo trutta</i>	Brown trout	96 hr	LC50	1 800000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Sinocyclocephalus semilatus</i>	Warter flea	48 hr	EC50	2 500000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Sinocyclocephalus semilatus</i>	Warter flea	48 hr	EC50	2 800000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Stizostedion vitreum</i>	Walleye	96 hr	LC50	2 900000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Tilapia mossambica</i>	Mozambique tilapia	96 hr	LC50	17 000000	Freshwater	Static
CERC-GED	50-29-3	DDT	<i>Tripula sp.</i>	True crane fly	96 hr	LC50	1 600000	Freshwater	Static
CERC-GED	8030-30-6	Dead-X	<i>Daphnia pulex</i>	Warter flea	48 hr	LC50	3700 000000	Freshwater	Static
CERC-GED	8030-30-6	Dead-X	<i>Gammarellus fasciatus</i>	Scud	96 hr	LC50	800 000000	Freshwater	Static
CERC-GED	8030-30-6	Dead-X	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	2300 000000	Freshwater	Static
CERC-GED	8030-30-6	Dead-X	<i>Sinocyclocephalus semilatus</i>	Warter flea	48 hr	LC50	7600 000000	Freshwater	Static
OPP	112-30-1	Decanol	<i>Daphnia magna</i>	Warter flea	48 hr	EC50	6500 000000	Freshwater	Static
OPP	112-30-1	Decanol	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	5050 000000	Freshwater	Static
OPP	78-48-8	DEF (Tribophos)	<i>Am ericanus ypsilon bahia</i>	Mysid	96 hr	LC50	4 600000	Saltwater	Fbw Through
CERC-GED	78-48-8	DEF (Tribophos)	<i>Am ericanus ypsilon bahia</i>	Mysid	96 hr	LC50	5 800000	Saltwater	Static
OPP	78-48-8	DEF (Tribophos)	<i>Am ericanus ypsilon bahia</i>	Mysid	96 hr	LC50	11 500000	Saltwater	Fbw Through
CERC-GED	78-48-8	DEF (Tribophos)	<i>Chionomus plusculus</i>	Midge	48 hr	EC50	40 000000	Freshwater	Static
OPP	78-48-8	DEF (Tribophos)	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	39 600000	Saltwater	Fbw Through
OPP	78-48-8	DEF (Tribophos)	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	100 000000	Saltwater	Fbw Through
CERC-GED	78-48-8	DEF (Tribophos)	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	440 000000	Saltwater	Static
CERC-GED	78-48-8	DEF (Tribophos)	<i>Daphnia magna</i>	Warter flea	48 hr	EC50	6 800000	Freshwater	Static
CERC-GED	78-48-8	DEF (Tribophos)	<i>Gammarellus fasciatus</i>	Scud	96 hr	LC50	100 000000	Freshwater	Static
CERC-GED	78-48-8	DEF (Tribophos)	<i>Gammarellus pseudolemnaceus</i>	Scud	96 hr	LC50	27 000000	Freshwater	Static
CERC-GED	78-48-8	DEF (Tribophos)	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	1540 000000	Freshwater	Static
CERC-GED	78-48-8	DEF (Tribophos)	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	540 000000	Freshwater	Static
CERC-GED	78-48-8	DEF (Tribophos)	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	570 000000	Freshwater	Static
CERC-GED	78-48-8	DEF (Tribophos)	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	620 000000	Freshwater	Static
OPP	78-48-8	DEF (Tribophos)	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	630 000000	Freshwater	Fbw Through
CERC-GED	78-48-8	DEF (Tribophos)	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	640 000000	Freshwater	Static
CERC-GED	78-48-8	DEF (Tribophos)	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	740 000000	Freshwater	Static
CERC-GED	78-48-8	DEF (Tribophos)	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	660 000000	Freshwater	Static
CERC-GED	78-48-8	DEF (Tribophos)	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1000 000000	Freshwater	Static
CERC-GED	78-48-8	DEF (Tribophos)	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1300 000000	Freshwater	Static
OPP	78-48-8	DEF (Tribophos)	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1700 000000	Freshwater	Fbw Through

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	78-48-8	DEF (tribophos)	Pahem onetes pugib	Glass shrimp	96 hr	LC50	22.000000	Salwater	Fbw Through
OPP	78-48-8	DEF (tribophos)	Penaeus styloctes	W hite shrimp	96 hr	LC50	25.000000	Salwater	Static
CERC-GED	78-48-8	DEF (tribophos)	Pteronarcys californica	Stonefly	96 hr	LC50	2100.000000	Freshwater	Static
OPP	52918-63-5	Delam ethrin	Am erican ys is bahia	Mysid	96 hr	LC50	0.001700	Salwater	Static Renewal
OPP	52918-63-5	Delam ethrin	Am erican ys is bahia	Mysid	96 hr	LC50	0.003700	Salwater	Static Renewal
OPP	52918-63-5	Delam ethrin	Crassostrea virginica	Eastern oyster	96 hr	EC50	8.200000	Salwater	Fbw Through
OPP	52918-63-5	Delam ethrin	Cyprinodon variegatus	Sheepshead m innow	96 hr	LC50	0.580000	Salwater	Fbw Through
OPP	52918-63-5	Delam ethrin	Daphnia magna	W ater flea	48 hr	EC50	3.500000	Freshwater	Static
OPP	52918-63-5	Delam ethrin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1.400000	Freshwater	Static
OPP	52918-63-5	Delam ethrin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	0.910000	Freshwater	Static
OPP	8065-48-3	Dem eton	Carassius auratus	Golifish	96 hr	LC50	1200.000000	Freshwater	Static
OPP	8065-48-3	Dem eton	Cyprinus carpio	Common carp	96 hr	LC50	14300.000000	Freshwater	Static
CERC-GED	8065-48-3	Dem eton	Daphnia pulex	W ater flea	48 hr	EC50	14.000000	Freshwater	Static
CERC-GED	8065-48-3	Dem eton	Gammarellus fasciatus	Scud	96 hr	LC50	78.000000	Freshwater	Static
CERC-GED	8065-48-3	Dem eton	Ictalurus punctatus	Channelcatfish	96 hr	LC50	3700.000000	Freshwater	Static
OPP	8065-48-3	Dem eton	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	110.000000	Freshwater	Static
CERC-GED	8065-48-3	Dem eton	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	600.000000	Freshwater	Static
OPP	8065-48-3	Dem eton	Penaeus duorarum	Pink shrimp	48 hr	LC50	48.000000	Salwater	Fbw Through
OPP	8065-48-3	Dem eton	Pimephales promelas	Fathead m innow	96 hr	LC50	2900.000000	Freshwater	Static
OPP	8065-48-3	Dem eton	Poecilia reticulata	Guppy	96 hr	LC50	660.000000	Freshwater	Static
OPP	13684-56-5	Desmedipham	Daphnia magna	W ater flea	48 hr	EC50	1880.000000	Freshwater	Static
OPP	13684-56-5	Desmedipham	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	6000.000000	Freshwater	Static
OPP	13684-56-5	Desmedipham	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1700.000000	Freshwater	Static
OPP	333-41-5	Diaznon	Cyprinodon variegatus	Sheepshead m innow	96 hr	LC50	150.000000	Salwater	Fbw Through
OPP	333-41-5	Diaznon	Daphnia magna	W ater flea	48 hr	EC50	0.960000	Freshwater	Static
OPP	333-41-5	Diaznon	Daphnia magna	W ater flea	48 hr	EC50	0.960000	Freshwater	Static
CERC-GED	333-41-5	Diaznon	Daphnia pulex	W ater flea	48 hr	EC50	0.800000	Freshwater	Static
CERC-GED	333-41-5	Diaznon	Gammarellus fasciatus	Scud	96 hr	LC50	0.200000	Freshwater	Static
OPP	333-41-5	Diaznon	Jordanella floridae	Flagfish	96 hr	LC50	1600.000000	Freshwater	Fbw Through
OPP	333-41-5	Diaznon	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	136.000000	Freshwater	Static
CERC-GED	333-41-5	Diaznon	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	168.000000	Freshwater	Static
OPP	333-41-5	Diaznon	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	460.000000	Freshwater	Fbw Through
CERC-GED	333-41-5	Diaznon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	90.000000	Freshwater	Static
OPP	333-41-5	Diaznon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	400.000000	Freshwater	Static
OPP	333-41-5	Diaznon	Penaeus aztecus	Brown shrimp	48 hr	LC50	28.000000	Salwater	Fbw Through
OPP	333-41-5	Diaznon	Pimephales promelas	Fathead m innow	96 hr	LC50	7800.000000	Freshwater	Fbw Through
CERC-GED	333-41-5	Diaznon	Pteronarcys californica	Stonefly	96 hr	LC50	25.000000	Freshwater	Static
OPP	333-41-5	Diaznon	Salvelinus fontinalis	Brook trout	96 hr	LC50	770.000000	Freshwater	Fbw Through
CERC-GED	333-41-5	Diaznon	Sinocyclopus semilatus	W ater flea	48 hr	EC50	1.400000	Freshwater	Static
CERC-GED	333-41-5	Diaznon	Sinocyclopus semilatus	W ater flea	48 hr	EC50	1.800000	Freshwater	Static
OPP	35691-65-7	Dibromodiryanobutane	Am erican ys is bahia	Mysid	96 hr	LC50	2700.000000	Salwater	Fbw Through
OPP	35691-65-7	Dibromodiryanobutane	Cyprinodon variegatus	Sheepshead m innow	96 hr	LC50	8300.000000	Salwater	Fbw Through
OPP	35691-65-7	Dibromodiryanobutane	Cyprinodon variegatus	Sheepshead m innow	96 hr	LC50	17000.000000	Salwater	Static
OPP	35691-65-7	Dibromodiryanobutane	Daphnia magna	W ater flea	48 hr	EC50	2200.000000	Freshwater	Static
OPP	35691-65-7	Dibromodiryanobutane	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	4100.000000	Freshwater	Static
OPP	35691-65-7	Dibromodiryanobutane	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1750.000000	Freshwater	Static
CERC-GED	1918-00-9	Diram ba (Acid)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	28000.000000	Freshwater	Static
OPP	1194-65-6	Dithbenil	Am erican ys is bahia	Mysid	96 hr	LC50	2350.000000	Salwater	Fbw Through
CERC-GED	1194-65-6	Dithbenil	Carassius auratus	Golifish	96 hr	LC50	7830.000000	Freshwater	Static
OPP	1194-65-6	Dithbenil	Crassostrea virginica	Eastern oyster	96 hr	EC50	1630.000000	Salwater	Fbw Through
OPP	1194-65-6	Dithbenil	Cyprinodon variegatus	Sheepshead m innow	96 hr	LC50	12700.000000	Salwater	Fbw Through
OPP	1194-65-6	Dithbenil	Daphnia magna	W ater flea	48 hr	EC50	6200.000000	Freshwater	Static
CERC-GED	1194-65-6	Dithbenil	Lepomis cyanellus	Green sunfish	96 hr	LC50	5700.000000	Freshwater	Static
CERC-GED	1194-65-6	Dithbenil	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	8310.000000	Freshwater	Static
CERC-GED	1194-65-6	Dithbenil	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6260.000000	Freshwater	Static
CERC-GED	1194-65-6	Dithbenil	Pimephales promelas	Fathead m innow	96 hr	LC50	6000.000000	Freshwater	Static
CERC-GED	97-17-6	Dithbenthon	Gammarellus fasciatus	Scud	96 hr	LC50	110.000000	Freshwater	Static
CERC-GED	97-17-6	Dithbenthon	Gammarellus fasciatus	Scud	96 hr	LC50	56.000000	Freshwater	Static
CERC-GED	97-17-6	Dithbenthon	Ictalurus punctatus	Channelcatfish	96 hr	LC50	4800.000000	Freshwater	Static
CERC-GED	97-17-6	Dithbenthon	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1230.000000	Freshwater	Static
CERC-GED	97-17-6	Dithbenthon	Oncorhynchus chilensis	Cuthroat trout	96 hr	LC50	640.000000	Freshwater	Static

Appendix 1
Final Acute Toxicity Database

CERC-GED	97-17-6	Dihbenthon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1250.00000	Freshwater	Static
CERC-GED	97-17-6	Dihbenthon	Pteronarcys californica	Stonefly	96 hr	LC50	4.100000	Freshwater	Static
OPP	64359-81-5	Dihbm-2-n-octyl3 (2H)-bothiazobine	American yéé bahá	Mysid	96 hr	LC50	4.700000	Saltwater	Fbw Through
OPP	64359-81-5	Dihbm-2-n-octyl3 (2H)-bothiazobine	Cyprinodon variegatus	Sheepshead m innow	96 hr	LC50	20.500000	Saltwater	Fbw Through
OPP	64359-81-5	Dihbm-2-n-octyl3 (2H)-bothiazobine	Daphnia magna	Water flea	48 hr	EC50	5.220000	Freshwater	Fbw Through
OPP	64359-81-5	Dihbm-2-n-octyl3 (2H)-bothiazobine	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	14.000000	Freshwater	Fbw Through
OPP	64359-81-5	Dihbm-2-n-octyl3 (2H)-bothiazobine	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2.700000	Freshwater	Fbw Through
OPP	62-73-7	Dihbwos	American yéé bahá	Mysid	96 hr	LC50	19.000000	Saltwater	Fbw Through
OPP	62-73-7	Dihbwos	Crassostrea virginica	Eastern oyster	96 hr	EC50	89100.000000	Saltwater	Fbw Through
OPP	62-73-7	Dihbwos	Cyprinodon variegatus	Sheepshead m innow	96 hr	LC50	7350.000000	Saltwater	Fbw Through
CERC-GED	62-73-7	Dihbwos	Daphnia pulex	Water flea	48 hr	EC50	0.070000	Freshwater	Static
OPP	62-73-7	Dihbwos	Fundulus heteroclitus	Mummichog	96 hr	LC50	3200.000000	Saltwater	Static
OPP	62-73-7	Dihbwos	Fundulus major	Striped killifish	96 hr	LC50	2300.000000	Saltwater	Static
OPP	62-73-7	Dihbwos	Gammarellus fasciatus	Scud	96 hr	LC50	400000.000000	Freshwater	Static
CERC-GED	62-73-7	Dihbwos	Gammarellus lacustris	Scud	96 hr	LC50	0.500000	Freshwater	Static
CERC-GED	62-73-7	Dihbwos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	869.000000	Freshwater	Static
OPP	62-73-7	Dihbwos	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	170.000000	Freshwater	Static
OPP	62-73-7	Dihbwos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	100.000000	Freshwater	Static
OPP	62-73-7	Dihbwos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	100.000000	Freshwater	Static
OPP	62-73-7	Dihbwos	Penaeus duorarum	Pink shrimp	48 hr	LC50	24.000000	Saltwater	Fbw Through
CERC-GED	62-73-7	Dihbwos	Pimephales promelas	Fathead minnow	96 hr	LC50	11600.000000	Freshwater	Static
CERC-GED	62-73-7	Dihbwos	Pteronarcys californica	Stonefly	96 hr	LC50	0.100000	Freshwater	Static
OPP	62-73-7	Dihbwos	Salvelinus namaycush	Lake trout	96 hr	LC50	183.000000	Freshwater	Static
CERC-GED	62-73-7	Dihbwos	Sinocyclopus semilatus	Water flea	48 hr	EC50	0.260000	Freshwater	Static
CERC-GED	62-73-7	Dihbwos	Sinocyclopus semilatus	Water flea	48 hr	EC50	0.280000	Freshwater	Static
OPP	62-73-7	Dihbwos	Synodus fuscus	Nothern pipefish	96 hr	LC50	2200.000000	Saltwater	Static
OPP	51338-27-3	Dibfp-methyl	Daphnia magna	Water flea	48 hr	EC50	230.000000	Freshwater	Static
OPP	51338-27-3	Dibfp-methyl	Daphnia magna	Water flea	48 hr	EC50	540.000000	Freshwater	Static
OPP	51338-27-3	Dibfp-methyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	150.000000	Freshwater	Static
OPP	51338-27-3	Dibfp-methyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	240.000000	Freshwater	Static
OPP	51338-27-3	Dibfp-methyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	290.000000	Freshwater	Static
OPP	51338-27-3	Dibfp-methyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	310.000000	Freshwater	Static
CERC-GED	51338-27-3	Dibfp-methyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	540.000000	Freshwater	Static
OPP	51338-27-3	Dibfp-methyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	170.000000	Freshwater	Static
OPP	51338-27-3	Dibfp-methyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	230.000000	Freshwater	Static
CERC-GED	51338-27-3	Dibfp-methyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	250.000000	Freshwater	Static
OPP	51338-27-3	Dibfp-methyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	540.000000	Freshwater	Static
OPP	51338-27-3	Dibfp-methyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	620.000000	Freshwater	Static
OPP	51338-27-3	Dibfp-methyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1800.000000	Freshwater	Static
OPP	99-30-9	Dibian DCNA)	Carassius auratus	Goldfish	96 hr	LC50	32000.000000	Freshwater	Static
OPP	99-30-9	Dibian DCNA)	Daphnia magna	Water flea	48 hr	EC50	2070.000000	Freshwater	Static
OPP	99-30-9	Dibian DCNA)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1080.000000	Freshwater	Static
OPP	99-30-9	Dibian DCNA)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	560.000000	Freshwater	Static
OPP	99-30-9	Dibian DCNA)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1600.000000	Freshwater	Static
OPP	145701-21-9	Dibulan KR-564, XDE-564)	Daphnia magna	Water flea	48 hr	EC50	72000.000000	Freshwater	Static
OPP	115-32-2	Dirof	American yéé bahá	Mysid	96 hr	LC50	60.000000	Saltwater	Static
OPP	115-32-2	Dirof	Crassostrea virginica	Eastern oyster	96 hr	EC50	21.000000	Saltwater	Fbw Through
CERC-GED	115-32-2	Dirof	Italurus punctatus	Channel catfish	96 hr	LC50	360.000000	Freshwater	Static
OPP	115-32-2	Dirof	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	510.000000	Freshwater	Static
CERC-GED	115-32-2	Dirof	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	520.000000	Freshwater	Static
OPP	115-32-2	Dirof	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	124.000000	Freshwater	Fbw Through
OPP	115-32-2	Dirof	Penaeus duorarum	Pink shrimp	48 hr	LC50	52.000000	Saltwater	Fbw Through
OPP	115-32-2	Dirof	Pimephales promelas	Fathead minnow	96 hr	LC50	509.000000	Freshwater	Fbw Through
CERC-GED	115-32-2	Dirof	Pteronarcys californica	Stonefly	96 hr	LC50	650.000000	Freshwater	Static
CERC-GED	141-66-2	Dirotophos	Gammarellus fasciatus	Scud	96 hr	LC50	2600.000000	Freshwater	Static
CERC-GED	141-66-2	Dirotophos	Gammarellus lacustris	Scud	96 hr	LC50	540.000000	Freshwater	Static
CERC-GED	141-66-2	Dirotophos	Italurus punctatus	Channel catfish	96 hr	LC50	7660.000000	Freshwater	Static
CERC-GED	141-66-2	Dirotophos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	24200.000000	Freshwater	Static
CERC-GED	141-66-2	Dirotophos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6300.000000	Freshwater	Static
OPP	141-66-2	Dirotophos	Oreocnecetes náis	Crayfish	96 hr	LC50	5500.000000	Freshwater	Static
CERC-GED	141-66-2	Dirotophos	Sinocyclopus semilatus	Water flea	48 hr	EC50	270.000000	Freshwater	Static
CERC-GED	60-57-1	Dílm	Aesalus brevirostris	Aquatic sow bug	96 hr	LC50	5.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDERA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

CERC-GED	60-57-1	D ₁ ethrin		Bufo woodhousei Fowler	Fowler's toad	96 hr	LC50	150.000000	Freshwater	Static
OPP	60-57-1	D ₁ ethrin		Calanctes sapidus	Blue crab	48 hr	LC50	240.000000	Saltwater	Fbw Through
CERC-GED	60-57-1	D ₁ ethrin		Carassius auratus	Golifish	96 hr	LC50	1.800000	Freshwater	Static
CERC-GED	60-57-1	D ₁ ethrin		Chassera sabubsa	Stonefly	96 hr	LC50	0.580000	Freshwater	Static
OPP	60-57-1	D ₁ ethrin		Crassostrea virginica	Eastern oyster	96 hr	EC50	15.000000	Saltwater	Fbw Through
CERC-GED	60-57-1	D ₁ ethrin		Daphnia pulex	Water flea	48 hr	EC50	250.000000	Freshwater	Static
CERC-GED	60-57-1	D ₁ ethrin		Gammarellus fasciatus	Scud	96 hr	LC50	640.000000	Freshwater	Static
CERC-GED	60-57-1	D ₁ ethrin		Ictalurus punctatus	Channel catfish	96 hr	LC50	4.500000	Freshwater	Static
CERC-GED	60-57-1	D ₁ ethrin		Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3.100000	Freshwater	Static
CERC-GED	60-57-1	D ₁ ethrin		Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	14.500000	Freshwater	Static
CERC-GED	60-57-1	D ₁ ethrin		Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1.200000	Freshwater	Static
CERC-GED	60-57-1	D ₁ ethrin		Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1.400000	Freshwater	Static
CERC-GED	60-57-1	D ₁ ethrin		Oreocetes nae	Crayfish	96 hr	LC50	740.000000	Freshwater	Static
OPP	60-57-1	D ₁ ethrin		Palaemonetes pugio	Grass shrimp	96 hr	LC50	8.600000	Saltwater	Fbw Through
CERC-GED	60-57-1	D ₁ ethrin		Pimephales promelas	Fathead minnow	96 hr	LC50	3.800000	Freshwater	Static
CERC-GED	60-57-1	D ₁ ethrin		Pseudacris triseriata	Western chorus frog	96 hr	LC50	100.000000	Freshwater	Static
CERC-GED	60-57-1	D ₁ ethrin		Pteronarcia badia	Stonefly	96 hr	LC50	0.500000	Freshwater	Static
CERC-GED	60-57-1	D ₁ ethrin		Pteronarcia californica	Stonefly	96 hr	LC50	0.500000	Freshwater	Static
CERC-GED	60-57-1	D ₁ ethrin		Sinocyprinus semilatus	W. water flea	48 hr	EC50	190.000000	Freshwater	Static
CERC-GED	60-57-1	D ₁ ethrin		Sinocyprinus semilatus	W. water flea	48 hr	EC50	240.000000	Freshwater	Static
CERC-GED	60-57-1	D ₁ ethrin		Tlapa mossoam brata	Mozambique tilapia	96 hr	LC50	9.200000	Freshwater	Static
OPP	2227-17-0	D ₁ enoachbr		Daphnia magna	Water flea	48 hr	EC50	1200.000000	Freshwater	Static
OPP	2227-17-0	D ₁ enoachbr		Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	600.000000	Freshwater	Static
OPP	2227-17-0	D ₁ enoachbr		Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	50.000000	Freshwater	Static
OPP	119446-68-3	D ₁ enoconazole		Am ericanus ypsilon bahia	Mysis	96 hr	LC50	150.000000	Saltwater	Fbw Through
OPP	119446-68-3	D ₁ enoconazole		Crassostrea virginica	Eastern oyster	96 hr	EC50	420.000000	Saltwater	Fbw Through
OPP	119446-68-3	D ₁ enoconazole		Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	1.100000	Saltwater	Fbw Through
OPP	119446-68-3	D ₁ enoconazole		Daphnia magna	Water flea	48 hr	EC50	770.000000	Freshwater	Static
OPP	119446-68-3	D ₁ enoconazole		Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1200.000000	Freshwater	Static
OPP	119446-68-3	D ₁ enoconazole		Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	810.000000	Freshwater	Static
OPP	119446-68-3	D ₁ enoconazole		Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1060.000000	Freshwater	Fbw Through
OPP	43222-48-6	D ₁ enzoquat		Daphnia magna	Water flea	48 hr	EC50	2530.000000	Freshwater	Static
OPP	43222-48-6	D ₁ enzoquat		Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	46500.000000	Freshwater	Static
OPP	43222-48-6	D ₁ enzoquat		Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	58000.000000	Freshwater	Static
OPP	43222-48-6	D ₁ enzoquat		Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	668000.000000	Freshwater	Static
OPP	43222-48-6	D ₁ enzoquat		Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	711000.000000	Freshwater	Static
OPP	104653-34-1	D ₁ ethabne		Daphnia magna	Water flea	48 hr	EC50	4.400000	Freshwater	Static
OPP	104653-34-1	D ₁ ethabne		Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	75.000000	Freshwater	Static
OPP	104653-34-1	D ₁ ethabne		Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	51.000000	Freshwater	Static
OPP	35367-38-5	D ₁ lubenzuron		Am ericanus ypsilon bahia	Mysis	96 hr	LC50	2.100000	Saltwater	Fbw Through
OPP	35367-38-5	D ₁ lubenzuron		Daphnia magna	Water flea	48 hr	EC50	3.700000	Freshwater	Static
OPP	35367-38-5	D ₁ lubenzuron		Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	135000.000000	Freshwater	Fbw Through
OPP	35367-38-5	D ₁ lubenzuron		Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	140000.000000	Freshwater	Fbw Through
OPP	35367-38-5	D ₁ lubenzuron		Palaemonetes pugio	Grass shrimp	96 hr	LC50	0.640000	Saltwater	Static
OPP	109293-98-2	D ₁ ufenopyrsodium		Am ericanus ypsilon bahia	Mysis	96 hr	LC50	18900.000000	Saltwater	Static
OPP	109293-98-2	D ₁ ufenopyrsodium		Daphnia magna	Water flea	48 hr	EC50	15000.000000	Freshwater	Static
OPP	109293-98-2	D ₁ ufenopyrsodium		Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	106000.000000	Freshwater	Static
OPP	20018-09-1	D ₁ odom ethyl-p-tolylsulfone		Daphnia magna	Water flea	48 hr	EC50	71.000000	Freshwater	Static
OPP	20018-09-1	D ₁ odom ethyl-p-tolylsulfone		Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	750.000000	Freshwater	Static
OPP	20018-09-1	D ₁ odom ethyl-p-tolylsulfone		Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	130.000000	Freshwater	Static
CERC-GED	8027-00-7	D ₁ ian		Gammarellus lacustris	Scud	96 hr	LC50	350.000000	Freshwater	Static
CERC-GED	8027-00-7	D ₁ ian		Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	14.000000	Freshwater	Static
CERC-GED	8027-00-7	D ₁ ian		Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	34.000000	Freshwater	Static
OPP	87674-68-8	D ₁ inethenam ii		Am ericanus ypsilon bahia	Mysis	96 hr	LC50	4800.000000	Saltwater	Static
OPP	87674-68-8	D ₁ inethenam ii		Crassostrea virginica	Eastern oyster	96 hr	EC50	5000.000000	Saltwater	Fbw Through
OPP	87674-68-8	D ₁ inethenam ii		Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	7200.000000	Saltwater	Static
OPP	87674-68-8	D ₁ inethenam ii		Daphnia magna	Water flea	48 hr	EC50	16000.000000	Freshwater	Static
OPP	87674-68-8	D ₁ inethenam ii		Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	6400.000000	Freshwater	Static
OPP	87674-68-8	D ₁ inethenam ii		Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2600.000000	Freshwater	Static
OPP	163515-14-8	D ₁ inethenam ii - (S)-D ₁ inethenam ii		Am ericanus ypsilon bahia	Mysis	96 hr	LC50	3200.000000	Saltwater	Fbw Through
OPP	163515-14-8	D ₁ inethenam ii - (S)-D ₁ inethenam ii		Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	12000.000000	Saltwater	Fbw Through
OPP	163515-14-8	D ₁ inethenam ii - (S)-D ₁ inethenam ii		Daphnia magna	Water flea	48 hr	EC50	12000.000000	Freshwater	Fbw Through

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	163515-14-8	D in ethenam ii - (S)-D in ethenam ii	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	10000.00000	Freshwater	Fbw Through
OPP	163515-14-8	D in ethenam ii - (S)-D in ethenam ii	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6300.00000	Freshwater	Fbw Through
OPP	55290-64-7	D in ethepin	American shad	Mysid	96 hr	LC50	13900.00000	Saltwater	Fbw Through
OPP	55290-64-7	D in ethepin	Crassostrea virginica	Eastern oyster	96 hr	EC50	12400.00000	Saltwater	Fbw Through
OPP	55290-64-7	D in ethepin	Crassostrea virginica	Eastern oyster	96 hr	EC50	18600.00000	Saltwater	Fbw Through
OPP	55290-64-7	D in ethepin	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	17800.00000	Saltwater	Fbw Through
OPP	55290-64-7	D in ethepin	Daphnia magna	Water flea	48 hr	EC50	21300.00000	Freshwater	Fbw Through
OPP	55290-64-7	D in ethepin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	20900.00000	Freshwater	Fbw Through
OPP	55290-64-7	D in ethepin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	56000.00000	Freshwater	Fbw Through
OPP	60-51-5	D in ethoate	American shad	Mysid	96 hr	LC50	15000.00000	Saltwater	Fbw Through
OPP	60-51-5	D in ethoate	Crassostrea virginica	Eastern oyster	96 hr	EC50	113000.00000	Saltwater	Fbw Through
CERC-GED	60-51-5	D in ethoate	Gammams lacustris	Scud	96 hr	LC50	200.00000	Freshwater	Static
CERC-GED	60-51-5	D in ethoate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6200.00000	Freshwater	Static
OPP	60-51-5	D in ethoate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	7500.00000	Freshwater	Static
OPP	110488-70-5	D in ethomorph	American shad	Mysid	96 hr	LC50	33000.00000	Saltwater	Fbw Through
OPP	110488-70-5	D in ethomorph	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6200.00000	Freshwater	Static
CERC-GED	70-38-2	D in ethrin	Ictalurus punctatus	Channelcatfish	96 hr	LC50	1140.00000	Freshwater	Static
CERC-GED	70-38-2	D in ethrin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	57.90000	Freshwater	Static
CERC-GED	70-38-2	D in ethrin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	85.00000	Freshwater	Static
CERC-GED	70-38-2	D in ethrin	Perca flavescens	Yellow perch	96 hr	LC50	28.00000	Freshwater	Static
CERC-GED	29091-05-2	D in tamine	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	600.00000	Freshwater	Static
CERC-GED	29091-05-2	D in tamine	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	820.00000	Freshwater	Static
CERC-GED	29091-05-2	D in tamine	Perca flavescens	Yellow perch	96 hr	LC50	1000.00000	Freshwater	Static
CERC-GED	29091-05-2	D in tamine	Salmo trutta	Brown trout	96 hr	LC50	590.00000	Freshwater	Static
CERC-GED	29091-05-2	D in tamine	Salvelinus namaycush	Lake trout	96 hr	LC50	920.00000	Freshwater	Static
CERC-GED	973-21-7	D inobuton	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	14.00000	Freshwater	Static
CERC-GED	39300-45-3	D inocap	Carassius auratus	Goldfish	96 hr	LC50	33.00000	Freshwater	Static
OPP	39300-45-3	D inocap	Daphnia magna	Water flea	48 hr	EC50	4.20000	Freshwater	Fbw Through
CERC-GED	39300-45-3	D inocap	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	20.00000	Freshwater	Static
CERC-GED	39300-45-3	D inocap	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	15.00000	Freshwater	Static
CERC-GED	88-85-7	D noseb	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	67.00000	Freshwater	Static
CERC-GED	88-85-7	D noseb	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	71.00000	Freshwater	Static
CERC-GED	88-85-7	D noseb	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	130.00000	Freshwater	Static
OPP	88-85-7	D noseb	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	152.00000	Freshwater	Fbw Through
CERC-GED	88-85-7	D noseb	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	550.00000	Freshwater	Static
CERC-GED	88-85-7	D noseb	Salvelinus namaycush	Lake trout	96 hr	LC50	44.00000	Freshwater	Static
CERC-GED	88-85-7	D noseb	Salvelinus namaycush	Lake trout	96 hr	LC50	77.00000	Freshwater	Static
OPP	88-85-7	D noseb	Salvelinus namaycush	Lake trout	96 hr	LC50	79.00000	Freshwater	Fbw Through
CERC-GED	88-85-7	D noseb	Salvelinus namaycush	Lake trout	96 hr	LC50	280.00000	Freshwater	Static
CERC-GED	78-34-2	D ixathion	Daphnia magna	Water flea	48 hr	EC50	0.35000	Freshwater	Static
CERC-GED	78-34-2	D ixathion	Gammams fasciatus	Scud	96 hr	LC50	8.60000	Freshwater	Static
CERC-GED	78-34-2	D ixathion	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	12.00000	Freshwater	Static
OPP	82-66-6	D phachone	Daphnia magna	Water flea	48 hr	EC50	1800.00000	Freshwater	Fbw Through
OPP	82-66-6	D phachone	Ictalurus punctatus	Channelcatfish	96 hr	LC50	2090.00000	Freshwater	Static
OPP	82-66-6	D phachone	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	7610.00000	Freshwater	Static
OPP	82-66-6	D phachone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2820.00000	Freshwater	Static
CERC-GED	957-51-7	D phenam ii	Carassius auratus	Goldfish	96 hr	LC50	53300.00000	Freshwater	Static
CERC-GED	957-51-7	D phenam ii	Pimephales promelas	Fathead minnow	96 hr	LC50	48000.00000	Freshwater	Static
OPP	136-45-8	D propylisocinchromuronate	Daphnia magna	Water flea	48 hr	EC50	18000.00000	Freshwater	Fbw Through
OPP	136-45-8	D propylisocinchromuronate	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	440.00000	Freshwater	Fbw Through
OPP	136-45-8	D propylisocinchromuronate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1000.00000	Freshwater	Fbw Through
OPP	298-04-4	D isuliton	American shad	Mysid	96 hr	LC50	100.00000	Saltwater	Fbw Through
OPP	298-04-4	D isuliton	Carassius auratus	Goldfish	96 hr	LC50	7200.00000	Freshwater	Static
OPP	298-04-4	D isuliton	Crassostrea virginica	Eastern oyster	96 hr	EC50	720.00000	Saltwater	Fbw Through
OPP	298-04-4	D isuliton	Crassostrea virginica	Eastern oyster	96 hr	EC50	720.00000	Saltwater	Fbw Through
OPP	298-04-4	D isuliton	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	1000.00000	Saltwater	Fbw Through
OPP	298-04-4	D isuliton	Daphnia magna	Water flea	48 hr	EC50	13.00000	Freshwater	Static
OPP	298-04-4	D isuliton	Gammams fasciatus	Scud	96 hr	LC50	27.00000	Freshwater	Static
CERC-GED	298-04-4	D isuliton	Gammams fasciatus	Scud	96 hr	LC50	52.00000	Freshwater	Static
CERC-GED	298-04-4	D isuliton	Ictalurus punctatus	Channelcatfish	96 hr	LC50	4700.00000	Freshwater	Static
OPP	298-04-4	D isuliton	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	39.00000	Freshwater	Static
CERC-GED	298-04-4	D isuliton	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1850.00000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	298-04-4	D isulfoton	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3000.00000	Freshwater	Static
OPP	298-04-4	D isulfoton	Penaeus aztecus	Brown shrimp	48 hr	LC50	15.000000	Saltwater	Static
CERC-GED	298-04-4	D isulfoton	Pimephales promelas	Fathead minnow	96 hr	LC50	4300.00000	Freshwater	Static
OPP	298-04-4	D isulfoton	Poecilia reticulata	Guppy	96 hr	LC50	280.000000	Freshwater	Static
CERC-GED	298-04-4	D isulfoton	Pteronarcys californica	Stonefly	96 hr	LC50	5.000000	Freshwater	Static
OPP	298-04-4	D isulfoton sulfide	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	11300.00000	Saltwater	Static
CERC-GED	3347-22-6	D thiabon	Carassius auratus	Golifish	96 hr	LC50	150.000000	Freshwater	Static
CERC-GED	3347-22-6	D thiabon	Pimephales promelas	Fathead minnow	96 hr	LC50	165.000000	Freshwater	Static
OPP	1192-52-5	D thib-3-one 4,5-dihydro	Daphnia magna	Water flea	48 hr	EC50	11.000000	Freshwater	Fbw Through
OPP	1192-52-5	D thib-3-one 4,5-dihydro	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	18.000000	Freshwater	Fbw Through
OPP	1192-52-5	D thib-3-one 4,5-dihydro	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	14.000000	Freshwater	Fbw Through
OPP	97886-45-8	D thiopyr	American shad bahia	Mysid	96 hr	LC50	580.00000	Saltwater	Fbw Through
OPP	97886-45-8	D thiopyr	Crassostrea virginica	Eastern oyster	96 hr	EC50	168.000000	Saltwater	Fbw Through
OPP	97886-45-8	D thiopyr	Daphnia magna	Water flea	48 hr	EC50	17000.00000	Freshwater	Static
OPP	97886-45-8	D thiopyr	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	470.000000	Freshwater	Static
OPP	97886-45-8	D thiopyr	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	460.000000	Freshwater	Static
OPP	330-54-1	D iron	American shad bahia	Mysid	96 hr	LC50	1100.00000	Saltwater	Static
OPP	330-54-1	D iron	American shad bahia	Mysid	96 hr	LC50	1200.00000	Saltwater	Static
CERC-GED	330-54-1	D iron	Asellus leviorvarius	Aquatic sow bug	96 hr	LC50	15500.00000	Freshwater	Static
OPP	330-54-1	D iron	Crassostrea virginica	Eastern oyster	96 hr	EC50	1800.00000	Saltwater	Fbw Through
OPP	330-54-1	D iron	Crassostrea virginica	Eastern oyster	96 hr	EC50	4800.00000	Saltwater	Fbw Through
OPP	330-54-1	D iron	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	6700.00000	Saltwater	Static
CERC-GED	330-54-1	D iron	Daphnia pulex	Water flea	48 hr	EC50	1400.00000	Freshwater	Static
CERC-GED	330-54-1	D iron	Gammarellus fasciatus	Scud	96 hr	LC50	160.000000	Freshwater	Static
OPP	330-54-1	D iron	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3200.00000	Freshwater	Static
CERC-GED	330-54-1	D iron	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	8200.00000	Freshwater	Static
CERC-GED	330-54-1	D iron	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	1400.00000	Freshwater	Static
CERC-GED	330-54-1	D iron	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	1500.00000	Freshwater	Static
CERC-GED	330-54-1	D iron	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	1700.00000	Freshwater	Static
CERC-GED	330-54-1	D iron	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	1900.00000	Freshwater	Fbw Through
OPP	330-54-1	D iron	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1950.00000	Freshwater	Static
CERC-GED	330-54-1	D iron	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3500.00000	Freshwater	Static
CERC-GED	330-54-1	D iron	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4900.00000	Freshwater	Static
CERC-GED	330-54-1	D iron	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6200.00000	Freshwater	Static
OPP	330-54-1	D iron	Pimephales promelas	Fathead minnow	96 hr	LC50	14200.00000	Freshwater	Static
CERC-GED	330-54-1	D iron	Pteronarcys californica	Stonefly	96 hr	LC50	1200.00000	Freshwater	Static
CERC-GED	330-54-1	D iron	Salvelinus namaycush	Lake trout	96 hr	LC50	1800.00000	Freshwater	Static
CERC-GED	330-54-1	D iron	Salvelinus namaycush	Lake trout	96 hr	LC50	2400.00000	Freshwater	Static
CERC-GED	330-54-1	D iron	Salvelinus namaycush	Lake trout	96 hr	LC50	2700.00000	Freshwater	Static
CERC-GED	330-54-1	D iron	Sinocyclopus senegalensis	Water flea	48 hr	EC50	2000.00000	Freshwater	Static
CERC-GED	534-52-1	DNC	Daphnia pulex	Water flea	48 hr	EC50	145.000000	Freshwater	Static
CERC-GED	534-52-1	DNC	Gammarellus fasciatus	Scud	96 hr	LC50	1100.00000	Freshwater	Static
CERC-GED	534-52-1	DNC	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	360.000000	Freshwater	Static
CERC-GED	534-52-1	DNC	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	66.000000	Freshwater	Static
CERC-GED	534-52-1	DNC	Pteronarcys californica	Stonefly	96 hr	LC50	320.000000	Freshwater	Static
OPP	2439-10-3	Dodine	Daphnia magna	Water flea	48 hr	EC50	17.800000	Freshwater	Fbw Through
OPP	2439-10-3	Dodine	Daphnia magna	Water flea	48 hr	EC50	86.000000	Freshwater	Static
CERC-GED	2439-10-3	Dodine	Gammarellus fasciatus	Scud	96 hr	LC50	1100.00000	Freshwater	Static
OPP	2439-10-3	Dodine	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	860.000000	Freshwater	Static
OPP	2439-10-3	Dodine	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	570.000000	Freshwater	Static
OPP	4080-31-3	Dowril	Daphnia magna	Water flea	48 hr	EC50	40000.00000	Freshwater	Static
OPP	4080-31-3	Dowril	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	20500.00000	Freshwater	Static
OPP	4080-31-3	Dowril	Pimephales promelas	Fathead minnow	96 hr	LC50	34000.00000	Freshwater	Static
OPP	36362-09-1	DTEA	Daphnia magna	Water flea	48 hr	EC50	36.000000	Freshwater	Static Renewal
OPP	36362-09-1	DTEA	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	770.000000	Freshwater	Static
OPP	36362-09-1	DTEA	Pimephales promelas	Fathead minnow	96 hr	LC50	220.000000	Freshwater	Static
OPP	Unknown	Ecolyst	American shad bahia	Mysid	96 hr	LC50	20000.00000	Saltwater	Fbw Through
OPP	Unknown	Ecolyst	Crassostrea virginica	Eastern oyster	96 hr	EC50	7000.00000	Saltwater	Fbw Through
OPP	Unknown	Ecolyst	Daphnia magna	Water flea	48 hr	EC50	24000.00000	Freshwater	Fbw Through
OPP	Unknown	Ecolyst	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	12600.00000	Freshwater	Fbw Through
OPP	Unknown	Ecolyst	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6700.00000	Freshwater	Fbw Through
OPP	137512-74-4	Emamectin benzoate	American shad bahia	Mysid	96 hr	EC50	0.040000	Saltwater	Fbw Through

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	137512-74-4	Em am ecti benzoate	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	490.000000	Salwater	Fbw Through
OPP	137512-74-4	Em am ecti benzoate	<i>Cyprinodon variegatus</i>	Sheepshead m innow	96 hr	LC50	1430.000000	Salwater	Fbw Through
OPP	137512-74-4	Em am ecti benzoate	<i>Daphnia magna</i>	W ater flea	48 hr	EC50	1.000000	Freshwater	Fbw Through
OPP	137512-74-4	Em am ecti benzoate	<i>Lepomis macrochirus</i>	Ble gill sunfish	96 hr	LC50	180.000000	Freshwater	Fbw Through
OPP	137512-74-4	Em am ecti benzoate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	174.000000	Freshwater	Fbw Through
OPP	137512-74-4	Em am ecti benzoate	<i>Pimephales promelas</i>	Fathead m innow	96 hr	LC50	194.000000	Freshwater	Fbw Through
CERC-GED	Unknown	Em colAD-410	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	9000.000000	Freshwater	Static
OPP	115-29-7	Endosulfan	<i>Callihectes sapidus</i>	Ble crab	48 hr	LC50	19.000000	Salwater	Fbw Through
OPP	115-29-7	Endosulfan	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	42.000000	Salwater	Fbw Through
ECOTOX	115-29-7	Endosulfan	<i>Daphnia magna</i>	W ater flea	48 hr	LC50	158.000000	Freshwater	Static
OPP	115-29-7	Endosulfan	<i>Daphnia magna</i>	W ater flea	48 hr	EC50	166.000000	Freshwater	Static
ECOTOX	115-29-7	Endosulfan	<i>Daphnia magna</i>	W ater flea	48 hr	LC50	218.000000	Freshwater	Static
ECOTOX	115-29-7	Endosulfan	<i>Daphnia magna</i>	W ater flea	48 hr	LC50	266.000000	Freshwater	Static
ECOTOX	115-29-7	Endosulfan	<i>Daphnia magna</i>	W ater flea	48 hr	LC50	282.000000	Freshwater	Static
ECOTOX	115-29-7	Endosulfan	<i>Daphnia magna</i>	W ater flea	48 hr	LC50	378.000000	Freshwater	Static
ECOTOX	115-29-7	Endosulfan	<i>Daphnia magna</i>	W ater flea	48 hr	LC50	740.000000	Freshwater	Static
CERC-GED	115-29-7	Endosulfan	<i>Gammams fasciatus</i>	Scud	96 hr	LC50	6.000000	Freshwater	Static
CERC-GED	115-29-7	Endosulfan	<i>Gammams lucustris</i>	Scud	96 hr	LC50	5.800000	Freshwater	Static
CERC-GED	115-29-7	Endosulfan	<i>Lepomis macrochirus</i>	Ble gill sunfish	96 hr	LC50	1.200000	Freshwater	Static
OPP	115-29-7	Endosulfan	<i>Lepomis macrochirus</i>	Ble gill sunfish	96 hr	LC50	1.700000	Freshwater	Static
OPP	115-29-7	Endosulfan	<i>Lepomis macrochirus</i>	Ble gill sunfish	96 hr	LC50	3.300000	Freshwater	Static
OPP	115-29-7	Endosulfan	<i>Morone saxatilis</i>	Striped bass	96 hr	LC50	0.100000	Not reported	Fbw Through
OPP	115-29-7	Endosulfan	<i>Mugil cephalus</i>	Striped mullet	96 hr	LC50	0.380000	Salwater	Fbw Through
ECOTOX	115-29-7	Endosulfan	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	0.260000	Freshwater	Fbw Through
ECOTOX	115-29-7	Endosulfan	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	0.410000	Freshwater	Fbw Through
ECOTOX	115-29-7	Endosulfan	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	0.630000	Freshwater	Static
OPP	115-29-7	Endosulfan	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	0.830000	Freshwater	Static
ECOTOX	115-29-7	Endosulfan	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1.210000	Freshwater	Static
ECOTOX	115-29-7	Endosulfan	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1.300000	Freshwater	Static
CERC-GED	115-29-7	Endosulfan	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1.400000	Freshwater	Static
OPP	115-29-7	Endosulfan	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1.500000	Freshwater	Static
OPP	115-29-7	Endosulfan	<i>Pahemoneutes pugn</i>	Grass shrimp	96 hr	LC50	1.300000	Salwater	Fbw Through
ECOTOX	115-29-7	Endosulfan	<i>Pimephales promelas</i>	Fathead m innow	96 hr	LC50	0.800000	Freshwater	Fbw Through
ECOTOX	115-29-7	Endosulfan	<i>Pimephales promelas</i>	Fathead m innow	96 hr	LC50	0.810000	Freshwater	Fbw Through
ECOTOX	115-29-7	Endosulfan	<i>Pimephales promelas</i>	Fathead m innow	96 hr	LC50	0.970000	Freshwater	Static
ECOTOX	115-29-7	Endosulfan	<i>Pimephales promelas</i>	Fathead m innow	96 hr	LC50	1.200000	Freshwater	Fbw Through
CERC-GED	115-29-7	Endosulfan	<i>Pimephales promelas</i>	Fathead m innow	96 hr	LC50	1.500000	Freshwater	Static
ECOTOX	115-29-7	Endosulfan	<i>Pimephales promelas</i>	Fathead m innow	96 hr	LC50	1.900000	Freshwater	Static
ECOTOX	115-29-7	Endosulfan	<i>Pimephales promelas</i>	Fathead m innow	96 hr	LC50	1.910000	Freshwater	Fbw Through
ECOTOX	115-29-7	Endosulfan	<i>Pimephales promelas</i>	Fathead m innow	96 hr	LC50	3.450000	Freshwater	Static
CERC-GED	115-29-7	Endosulfan	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	2.300000	Freshwater	Static
OPP	145-73-3	Endothall	<i>American yabby bairii</i>	Mysis	96 hr	LC50	39000.000000	Salwater	Fbw Through
OPP	145-73-3	Endothall	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	43000.000000	Salwater	Fbw Through
CERC-GED	72-20-8	Endrin	<i>Aesulus brevirostris</i>	Aquatic sow bug	96 hr	LC50	1.500000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Atherix variegata</i>	Snipe fly	96 hr	LC50	4.600000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Baetis sp.</i>	Mayfly	96 hr	LC50	0.900000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Bufo woodhousei/wilcox</i>	Fowler's toad	96 hr	LC50	120.000000	Freshwater	Static
OPP	72-20-8	Endrin	<i>Callihectes sapidus</i>	Ble crab	48 hr	LC50	15.000000	Salwater	Fbw Through
CERC-GED	72-20-8	Endrin	<i>Chassonia sabulosa</i>	Stonefly	96 hr	LC50	0.076000	Freshwater	Static
OPP	72-20-8	Endrin	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	33.000000	Salwater	Fbw Through
CERC-GED	72-20-8	Endrin	<i>Cypridopsis vires</i>	Ostracod	48 hr	EC50	1.800000	Freshwater	Static
OPP	72-20-8	Endrin	<i>Cyprinodon variegatus</i>	Sheepshead m innow	96 hr	LC50	0.340000	Salwater	Fbw Through
CERC-GED	72-20-8	Endrin	<i>Daphnia magna</i>	W ater flea	48 hr	EC50	41.000000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Daphnia magna</i>	W ater flea	48 hr	EC50	74.000000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Daphnia pulex</i>	W ater flea	48 hr	EC50	20.000000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Gambusia affinis</i>	Mosquitofish	96 hr	LC50	1.100000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Gammams fasciatus</i>	Scud	96 hr	LC50	4.300000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Gammams lucustris</i>	Scud	96 hr	LC50	3.000000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Hexagenia bilineata</i>	Mayfly	96 hr	LC50	62.000000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Ichnuus verticalis</i>	Damselfly	96 hr	LC50	2.400000	Freshwater	Static
ECOTOX	72-20-8	Endrin	<i>Jordanelle fibriatae</i>	Flagfish	96 hr	LC50	0.850000	Freshwater	Fbw Through
CERC-GED	72-20-8	Endrin	<i>Lepomis macrochirus</i>	Ble gill sunfish	96 hr	LC50	0.410000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDERA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

CERC-GED	72-20-8	Endrin	<i>Lepomis macrochirus</i>	Bleegill sunfish	96 hr	LC50	0.610000	Freshwater	Static
OPP	72-20-8	Endrin	<i>Micropodus saimoides</i>	Largemouth bass	96 hr	LC50	0.310000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Oncorhynchus kisutch</i>	Coho salmon	96 hr	LC50	0.089000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	0.750000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1.110000	Freshwater	Static
OPP	72-20-8	Endrin	<i>Pahem onetes pugib</i>	Grass shrimp	96 hr	LC50	0.350000	Saltwater	Fbw Through
OPP	72-20-8	Endrin	<i>Pahem onetes pugib</i>	Grass shrimp	96 hr	LC50	0.690000	Saltwater	Fbw Through
OPP	72-20-8	Endrin	<i>Penaeus aztecus</i>	Brown shrimp	48 hr	LC50	0.200000	Saltwater	Fbw Through
OPP	72-20-8	Endrin	<i>Penaeus duorarum</i>	Pink shrimp	48 hr	LC50	0.200000	Saltwater	Fbw Through
CERC-GED	72-20-8	Endrin	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	1.800000	Freshwater	Static
OPP	72-20-8	Endrin	<i>Poecilia latipina</i>	Sailfin molly	96 hr	LC50	0.630000	Saltwater	Static
CERC-GED	72-20-8	Endrin	<i>Pseudacris triseriata</i>	Western chorus frog	96 hr	LC50	180.000000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Pteronarcya badia</i>	Stonefly	96 hr	LC50	0.540000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	0.250000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Sinocyprinus semotilus</i>	W. ater flea	48 hr	EC50	26.000000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Sinocyprinus semotilus</i>	W. ater flea	48 hr	EC50	45.000000	Freshwater	Static
CERC-GED	72-20-8	Endrin	<i>Tipula sp.</i>	True crane fly	96 hr	LC50	12.000000	Freshwater	Static
CERC-GED	2104-64-5	EPN	<i>Am ericanus bahia</i>	Mysis	96 hr	LC50	13.000000	Saltwater	Static
OPP	2104-64-5	EPN	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	130.000000	Saltwater	Fbw Through
CERC-GED	2104-64-5	EPN	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	140.000000	Saltwater	Static
CERC-GED	2104-64-5	EPN	<i>Gammarellus fasciatus</i>	Scud	96 hr	LC50	6.800000	Freshwater	Static
OPP	2104-64-5	EPN	<i>Gammarellus lacustris</i>	Scud	96 hr	LC50	15.000000	Freshwater	Static
CERC-GED	2104-64-5	EPN	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	420.000000	Freshwater	Static
CERC-GED	2104-64-5	EPN	<i>Lepomis macrochirus</i>	Bleegill sunfish	96 hr	LC50	110.000000	Freshwater	Static
CERC-GED	2104-64-5	EPN	<i>Oncorhynchus clarkii</i>	Cutthroat trout	96 hr	LC50	160.000000	Freshwater	Static
CERC-GED	2104-64-5	EPN	<i>Penaeus stylospis</i>	White shrimp	96 hr	LC50	4.500000	Saltwater	Static
CERC-GED	2104-64-5	EPN	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	7.400000	Freshwater	Static
OPP	759-94-4	EPTC	<i>Daphnia magna</i>	W. ater flea	48 hr	EC50	6400.000000	Freshwater	Static
OPP	759-94-4	EPTC	<i>Daphnia magna</i>	W. ater flea	48 hr	EC50	7500.000000	Freshwater	Static
OPP	759-94-4	EPTC	<i>Daphnia magna fasciatus</i>	Scud	96 hr	LC50	23000.000000	Freshwater	Static
OPP	759-94-4	EPTC	<i>Lepomis macrochirus</i>	Bleegill sunfish	96 hr	LC50	14000.000000	Freshwater	Static
OPP	759-94-4	EPTC	<i>Lepomis macrochirus</i>	Bleegill sunfish	96 hr	LC50	26700.000000	Freshwater	Static
CERC-GED	759-94-4	EPTC	<i>Oncorhynchus clarkii</i>	Cutthroat trout	96 hr	LC50	14200.000000	Freshwater	Static
CERC-GED	759-94-4	EPTC	<i>Oncorhynchus clarkii</i>	Cutthroat trout	96 hr	LC50	15900.000000	Freshwater	Static
CERC-GED	759-94-4	EPTC	<i>Oncorhynchus clarkii</i>	Cutthroat trout	96 hr	LC50	17200.000000	Freshwater	Static
OPP	759-94-4	EPTC	<i>Oncorhynchus clarkii</i>	Cutthroat trout	96 hr	LC50	23300.000000	Freshwater	Fbw Through
OPP	759-94-4	EPTC	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	19960.000000	Freshwater	Static
OPP	759-94-4	EPTC	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	21000.000000	Freshwater	Static
CERC-GED	759-94-4	EPTC	<i>Salvelinus namaycush</i>	Lake trout	96 hr	LC50	11500.000000	Freshwater	Static
CERC-GED	759-94-4	EPTC	<i>Salvelinus namaycush</i>	Lake trout	96 hr	LC50	16200.000000	Freshwater	Static
OPP	55283-68-6	Ethaflualin	<i>Am ericanus bahia</i>	Mysis	96 hr	LC50	230.000000	Saltwater	Fbw Through
OPP	55283-68-6	Ethaflualin	<i>Cassisaria auratus</i>	Golifish	96 hr	LC50	260.000000	Freshwater	Static
OPP	55283-68-6	Ethaflualin	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	102.000000	Saltwater	Fbw Through
OPP	55283-68-6	Ethaflualin	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	175.000000	Saltwater	Fbw Through
OPP	55283-68-6	Ethaflualin	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	240.000000	Saltwater	Fbw Through
OPP	55283-68-6	Ethaflualin	<i>Daphnia magna</i>	W. ater flea	48 hr	EC50	60.000000	Freshwater	Static
OPP	55283-68-6	Ethaflualin	<i>Lepomis macrochirus</i>	Bleegill sunfish	96 hr	LC50	32.000000	Freshwater	Static
OPP	55283-68-6	Ethaflualin	<i>Lepomis macrochirus</i>	Bleegill sunfish	96 hr	LC50	102.000000	Freshwater	Fbw Through
OPP	55283-68-6	Ethaflualin	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	37.000000	Freshwater	Static
OPP	55283-68-6	Ethaflualin	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	136.000000	Freshwater	Fbw Through
OPP	563-12-2	Ethion	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	40.000000	Saltwater	Fbw Through
CERC-GED	563-12-2	Ethion	<i>Daphnia magna</i>	W. ater flea	48 hr	EC50	0.056000	Freshwater	Static
CERC-GED	563-12-2	Ethion	<i>Daphnia pulex</i>	W. ater flea	48 hr	EC50	2.800000	Freshwater	Static
OPP	563-12-2	Ethion	<i>Gambusia affinis</i>	Mosquitofish	96 hr	LC50	206.000000	Freshwater	Static
CERC-GED	563-12-2	Ethion	<i>Gammarellus fasciatus</i>	Scud	96 hr	LC50	1.800000	Freshwater	Static
OPP	563-12-2	Ethion	<i>Gammarellus fasciatus</i>	Scud	96 hr	LC50	9.400000	Freshwater	Static
CERC-GED	563-12-2	Ethion	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	7600.000000	Freshwater	Static
OPP	563-12-2	Ethion	<i>Lepomis macrochirus</i>	Bleegill sunfish	96 hr	LC50	130.000000	Freshwater	Static
CERC-GED	563-12-2	Ethion	<i>Lepomis macrochirus</i>	Bleegill sunfish	96 hr	LC50	210.000000	Freshwater	Static
CERC-GED	563-12-2	Ethion	<i>Oncorhynchus clarkii</i>	Cutthroat trout	96 hr	LC50	720.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database
 ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database
 CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	563-12-2	Ethion	<i>Penaeus aztecus</i>	Brown shrimp	48 hr	LC50	2400000	Saltwater	Fbw Through
OPP	563-12-2	Ethion	<i>Penaeus duorarum</i>	Pink shrimp	48 hr	LC50	19000000	Saltwater	Fbw Through
CERC-GED	563-12-2	Ethion	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	72000000	Freshwater	Static
CERC-GED	563-12-2	Ethion	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	2800000	Freshwater	Static
CERC-GED	563-12-2	Ethion	<i>Sinocyclocephalus semilatus</i>	Water flea	48 hr	EC50	4700000	Freshwater	Static
OPP	26225-79-6	Ethofum esate	<i>Americamysis bahia</i>	Mysid	96 hr	LC50	53000000	Saltwater	Static
OPP	26225-79-6	Ethofum esate	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	260000000	Saltwater	Fbw Through
OPP	26225-79-6	Ethofum esate	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	2500000000	Saltwater	Static
OPP	26225-79-6	Ethofum esate	<i>Daphnia magna</i>	Water flea	48 hr	EC50	6400000000	Freshwater	Static
CERC-GED	26225-79-6	Ethofum esate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2500000000	Freshwater	Static
OPP	26225-79-6	Ethofum esate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2180000000	Freshwater	Static Renewal
CERC-GED	26225-79-6	Ethofum esate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	75000000	Freshwater	Static
OPP	26225-79-6	Ethofum esate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1750000000	Freshwater	Static Renewal
OPP	13194-48-4	Ethoprop	<i>Americamysis bahia</i>	Mysid	96 hr	LC50	18780000	Saltwater	Fbw Through
CERC-GED	13194-48-4	Ethoprop	<i>Americamysis bahia</i>	Mysid	96 hr	LC50	23000000	Saltwater	Static
OPP	13194-48-4	Ethoprop	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	3700000000	Saltwater	Fbw Through
CERC-GED	13194-48-4	Ethoprop	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	740000000	Saltwater	Static
OPP	13194-48-4	Ethoprop	<i>Daphnia magna</i>	Water flea	48 hr	EC50	43900000	Freshwater	Static
OPP	13194-48-4	Ethoprop	<i>Daphnia magna</i>	Water flea	48 hr	EC50	93000000	Freshwater	Static
OPP	13194-48-4	Ethoprop	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	300000000	Freshwater	Static
OPP	13194-48-4	Ethoprop	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1150000000	Freshwater	Static
OPP	13194-48-4	Ethoprop	<i>Pahem onites pugib</i>	Grass shrimp	96 hr	LC50	5640000	Saltwater	Static
OPP	13194-48-4	Ethoprop	<i>Penaeus stylospinosus</i>	White shrimp	96 hr	LC50	6400000	Saltwater	Static
OPP	13194-48-4	Ethoprop	<i>Uca pugilator</i>	Fiddler crab	96 hr	LC50	160000000	Saltwater	Static
OPP	91-53-2	Ethoxyquin	<i>Daphnia magna</i>	Water flea	48 hr	EC50	2000000000	Freshwater	Fbw Through
OPP	91-53-2	Ethoxyquin	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	18000000000	Freshwater	Fbw Through
CERC-GED	72-56-0	Ethylen	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	4400000	Freshwater	Static
CERC-GED	107-21-1	Ethylen glycol	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	16000000	Freshwater	Static
CERC-GED	107-21-1	Ethylen glycol	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	4100000	Freshwater	Static
OPP	2593-15-9	Etriazole	<i>Americamysis bahia</i>	Mysid	96 hr	LC50	245000000	Saltwater	Fbw Through
OPP	2593-15-9	Etriazole	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	2880000000	Saltwater	Fbw Through
OPP	2593-15-9	Etriazole	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	400000000	Saltwater	Fbw Through
OPP	2593-15-9	Etriazole	<i>Daphnia magna</i>	Water flea	48 hr	EC50	4900000000	Freshwater	Static
OPP	2593-15-9	Etriazole	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	770000000	Freshwater	Fbw Through
OPP	4602-84-0	Famesol	<i>Daphnia magna</i>	Water flea	48 hr	EC50	2200000000	Freshwater	Static
OPP	4602-84-0	Famesol	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	18000000000	Freshwater	Static
OPP	143-18-0	Fatty Acids - Potassium salt of O-bis Acid	<i>Daphnia magna</i>	Water flea	48 hr	EC50	570000000	Freshwater	Static
OPP	143-18-0	Fatty Acids - Potassium salt of O-bis Acid	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	23000000000	Freshwater	Static
OPP	143-18-0	Fatty Acids - Potassium salt of O-bis Acid	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	919000000	Freshwater	Static
OPP	68603-15-6	Fatty alcohol	<i>Daphnia magna</i>	Water flea	48 hr	EC50	6500000000	Freshwater	Static
OPP	68603-15-6	Fatty alcohol	<i>Daphnia magna</i>	Water flea	48 hr	EC50	8200000000	Freshwater	Static
OPP	68603-15-6	Fatty alcohol	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	4300000000	Freshwater	Static
OPP	68603-15-6	Fatty alcohol	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	4310000000	Freshwater	Static
CERC-GED	85-34-7	Fenac	<i>Daphnia pulex</i>	Water flea	48 hr	EC50	4500000000	Freshwater	Static
CERC-GED	85-34-7	Fenac	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	60000000000	Freshwater	Static
CERC-GED	85-34-7	Fenac	<i>Sinocyclocephalus semilatus</i>	Water flea	48 hr	EC50	6600000000	Freshwater	Static
CERC-GED	140-56-7	Fenam insulf	<i>Gammarus fasciatus</i>	Scud	96 hr	LC50	3700000000	Freshwater	Static
CERC-GED	140-56-7	Fenam insulf	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	85000000000	Freshwater	Static
CERC-GED	140-56-7	Fenam insulf	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	24000000000	Freshwater	Static
OPP	22224-92-6	Fenam phosphorus Degr.	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	20000000000	Freshwater	Static
OPP	60168-88-9	Fenarinol	<i>Daphnia magna</i>	Water flea	48 hr	EC50	6800000000	Freshwater	Static
OPP	60168-88-9	Fenarinol	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	9000000000	Freshwater	Static
OPP	60168-88-9	Fenarinol	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	18000000000	Freshwater	Static
OPP	60168-88-9	Fenarinol	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	57000000000	Freshwater	Static
OPP	60168-88-9	Fenarinol	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	21000000000	Freshwater	Static
OPP	60168-88-9	Fenarinol	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	31000000000	Freshwater	Static
OPP	60168-88-9	Fenarinol	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	41000000000	Freshwater	Static
OPP	114369-43-6	Fenbuconazole	<i>Americamysis bahia</i>	Mysid	96 hr	LC50	633000000	Saltwater	Fbw Through
OPP	114369-43-6	Fenbuconazole	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	1200000000	Saltwater	Fbw Through
OPP	114369-43-6	Fenbuconazole	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	1800000000	Saltwater	Fbw Through
OPP	114369-43-6	Fenbuconazole	<i>Daphnia magna</i>	Water flea	48 hr	EC50	2300000000	Freshwater	Fbw Through
OPP	114369-43-6	Fenbuconazole	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	6800000000	Freshwater	Fbw Through

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	114369-43-6	Fenbuconazole	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1500.00000	Freshwater	Fbw Through
OPP	13356-08-6	Fenbutatin Oxide	Am erican ys is bah a	Mysid	96 hr	EC50	2.800000	Saltwater	Static
OPP	13356-08-6	Fenbutatin Oxide	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	20.800000	Saltwater	Fbw Through
OPP	13356-08-6	Fenbutatin Oxide	Daphnia magna	Water flea	48 hr	EC50	31.000000	Freshwater	Static
CERC-GED	13356-08-6	Fenbutatin Oxide	Lepom is macrochirus	Bluegill sunfish	96 hr	LC50	4.800000	Freshwater	Static
OPP	13356-08-6	Fenbutatin Oxide	Lepom is macrochirus	Bluegill sunfish	96 hr	LC50	4.840000	Freshwater	Static
CERC-GED	13356-08-6	Fenbutatin Oxide	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1.700000	Freshwater	Static
OPP	13356-08-6	Fenbutatin Oxide	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6.500000	Freshwater	Static
OPP	126833-17-8	Fenhexam iD	Am erican ys is bah a	Mysid	96 hr	LC50	4600.00000	Saltwater	Fbw Through
OPP	126833-17-8	Fenhexam iD	Lepom is macrochirus	Bluegill sunfish	96 hr	LC50	3420.00000	Freshwater	Fbw Through
OPP	126833-17-8	Fenhexam iD	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1340.00000	Freshwater	Fbw Through
CERC-GED	122-14-5	Fenthion	Carassius auratus	Goldfish	96 hr	LC50	2800.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Chironomus plumosus	Midge	48 hr	EC50	3.000000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Chironomus plumosus	Midge	48 hr	EC50	11.000000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Daphnia magna	Water flea	48 hr	EC50	11.000000	Freshwater	Static
OPP	122-14-5	Fenthion	Gammarus pseudolimnaeus	Scud	96 hr	LC50	4.300000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Gammarus pseudolimnaeus	Scud	96 hr	LC50	6.000000	Freshwater	Static
OPP	122-14-5	Fenthion	Ictalurus punctatus	Channelcatfish	96 hr	LC50	3700.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Ictalurus punctatus	Channelcatfish	96 hr	LC50	7600.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Lepomis cyanellus	Green sunfish	96 hr	LC50	4100.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Lepom is macrochirus	Bluegill sunfish	96 hr	LC50	2500.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Lepom is macrochirus	Bluegill sunfish	96 hr	LC50	2700.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Lepom is macrochirus	Bluegill sunfish	96 hr	LC50	3100.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Lepom is macrochirus	Bluegill sunfish	96 hr	LC50	3400.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Lepom is macrochirus	Bluegill sunfish	96 hr	LC50	3600.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Lepom is macrochirus	Bluegill sunfish	96 hr	LC50	3700.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Lepom is macrochirus	Bluegill sunfish	96 hr	LC50	3800.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Lepom is macrochirus	Bluegill sunfish	96 hr	LC50	4100.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Oncorhynchus clarki	Cutthroat trout	96 hr	LC50	2800.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Oncorhynchus clarki	Cutthroat trout	96 hr	LC50	2880.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	5000.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1900.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2000.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2050.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2400.00000	Freshwater	Static
OPP	122-14-5	Fenthion	Ophionophterus sp.	Dragonfly	96 hr	LC50	3.000000	Freshwater	Static
OPP	122-14-5	Fenthion	Percina flavescens	Yellow perch	96 hr	LC50	5800.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Pimephales promelas	Fathead minnow	96 hr	LC50	3200.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Pimephales promelas	Fathead minnow	96 hr	LC50	4300.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Pteronarcya badia	Stonefly	96 hr	LC50	7.000000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Pteronarcya californica	Stonefly	96 hr	LC50	4.000000	Freshwater	Static
OPP	122-14-5	Fenthion	Pteronarcya californica	Stonefly	96 hr	LC50	5.100000	Freshwater	Static
OPP	122-14-5	Fenthion	Pycnopsyche sp.	Caddisfly	96 hr	LC50	2.800000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Salmo salar	Atlantic salmon	96 hr	LC50	2050.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Salvelinus fontinalis	Brook trout	96 hr	LC50	1720.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Salvelinus fontinalis	Brook trout	96 hr	LC50	2000.00000	Freshwater	Static
CERC-GED	122-14-5	Fenthion	Skwala sp.	Stonefly	96 hr	LC50	4.000000	Freshwater	Static
OPP	66441-23-4	Fenoxyprop-ethyl	Am erican ys is bah a	Mysid	96 hr	LC50	98.000000	Saltwater	Static
OPP	66441-23-4	Fenoxyprop-ethyl	Am erican ys is bah a	Mysid	96 hr	LC50	107.000000	Saltwater	Fbw Through
OPP	66441-23-4	Fenoxyprop-ethyl	Daphnia magna	Water flea	48 hr	EC50	3180.00000	Freshwater	Static
OPP	66441-23-4	Fenoxyprop-ethyl	Lepom is gibbosus	Pumpkinseed	96 hr	LC50	360.000000	Freshwater	Static
OPP	66441-23-4	Fenoxyprop-ethyl	Lepom is macrochirus	Bluegill sunfish	96 hr	LC50	310.000000	Freshwater	Static
OPP	66441-23-4	Fenoxyprop-ethyl	Lepom is macrochirus	Bluegill sunfish	96 hr	LC50	580.000000	Freshwater	Static
OPP	66441-23-4	Fenoxyprop-ethyl	Menidia menidia	Quahog clam	48 hr	EC50	200.000000	Saltwater	Static
OPP	66441-23-4	Fenoxyprop-ethyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	460.000000	Freshwater	Static
OPP	66441-23-4	Fenoxyprop-ethyl	Procambarus clarkii	Crayfish	96 hr	LC50	1100.00000	Freshwater	Static
OPP	66441-23-4	Fenoxyprop-ethyl	Salmo trutta	Brown trout	96 hr	LC50	480.000000	Freshwater	Static
OPP	72490-01-8	Fenoxycarb	Cyprinus carpio	Common carp	96 hr	LC50	2700.00000	Freshwater	Static
OPP	72490-01-8	Fenoxycarb	Daphnia magna	Water flea	48 hr	EC50	400.000000	Freshwater	Static
OPP	72490-01-8	Fenoxycarb	Lepom is macrochirus	Bluegill sunfish	96 hr	LC50	1860.00000	Freshwater	Static
OPP	72490-01-8	Fenoxycarb	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1600.00000	Freshwater	Static
OPP	72490-01-8	Fenoxycarb	Palaemonetes pugio	Crab shrimp	96 hr	LC50	2200.00000	Saltwater	Static Renewal

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	39515-41-8	Fenpropothrin	<i>Americanus bahia</i>	Mysis	96 hr	LC50	0.021000	Saltwater	Static
OPP	39515-41-8	Fenpropothrin	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	3.100000	Saltwater	Static
OPP	39515-41-8	Fenpropothrin	<i>Daphnia magna</i>	Water flea	48 hr	EC50	0.530000	Freshwater	Static
OPP	39515-41-8	Fenpropothrin	<i>Ictalurus punctatus</i>	Channel catfish	96 hr	LC50	5.500000	Freshwater	Static
OPP	39515-41-8	Fenpropothrin	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2.200000	Freshwater	Static
OPP	39515-41-8	Fenpropothrin	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	2.370000	Freshwater	Fbw Through
OPP	83588-43-6	Fenradzone-sodium	<i>Daphnia magna</i>	Water flea	48 hr	EC50	188000.000000	Freshwater	Static
OPP	83588-43-6	Fenradzone-sodium	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	141300.000000	Freshwater	Static
OPP	83588-43-6	Fenradzone-sodium	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	266500.000000	Freshwater	Static
CERC-GED	115-90-2	Fensulfothion	<i>Gammams fasciatus</i>	Scud	96 hr	LC50	10.000000	Freshwater	Static
CERC-GED	115-90-2	Fensulfothion	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	72.000000	Freshwater	Static
OPP	55-38-9	Fenthion	<i>Americanus bahia</i>	Mysis	96 hr	LC50	0.150000	Saltwater	Fbw Through
OPP	55-38-9	Fenthion	<i>Americanus bahia</i>	Mysis	96 hr	LC50	0.222000	Saltwater	Fbw Through
CERC-GED	55-38-9	Fenthion	<i>Asellus brevicaudus</i>	Aquatic sow bug	96 hr	LC50	1800.000000	Freshwater	Static
OPP	55-38-9	Fenthion	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	321.000000	Saltwater	Fbw Through
OPP	55-38-9	Fenthion	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	340.000000	Saltwater	Fbw Through
OPP	55-38-9	Fenthion	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	1200.000000	Saltwater	Fbw Through
OPP	55-38-9	Fenthion	<i>Daphnia magna</i>	Water flea	48 hr	EC50	5.200000	Freshwater	Fbw Through
OPP	55-38-9	Fenthion	<i>Daphnia pulex</i>	Water flea	48 hr	EC50	5.700000	Freshwater	Static
CERC-GED	55-38-9	Fenthion	<i>Gammams fasciatus</i>	Scud	96 hr	LC50	110.000000	Freshwater	Static
CERC-GED	55-38-9	Fenthion	<i>Gammams leucistris</i>	Scud	96 hr	LC50	8.400000	Freshwater	Static
OPP	55-38-9	Fenthion	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	1700.000000	Freshwater	Fbw Through
OPP	55-38-9	Fenthion	<i>Oncorhynchus clarki</i>	Cutthroat trout	96 hr	LC50	1150.000000	Freshwater	Fbw Through
CERC-GED	55-38-9	Fenthion	<i>Oncorhynchus mykiss</i>	Cutthroat trout	96 hr	LC50	1580.000000	Freshwater	Static
CERC-GED	55-38-9	Fenthion	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	550.000000	Freshwater	Static
OPP	55-38-9	Fenthion	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	830.000000	Freshwater	Fbw Through
OPP	55-38-9	Fenthion	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	840.000000	Freshwater	Static
OPP	55-38-9	Fenthion	<i>Penaeus aztecus</i>	Brown shrimp	48 hr	LC50	0.024000	Saltwater	Fbw Through
CERC-GED	55-38-9	Fenthion	<i>Penaeus duorarum</i>	Pink shrimp	48 hr	LC50	0.250000	Saltwater	Static
OPP	55-38-9	Fenthion	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	3200.000000	Freshwater	Static
CERC-GED	55-38-9	Fenthion	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	4.500000	Freshwater	Static
OPP	55-38-9	Fenthion	<i>Salvelinus namaycush</i>	Lake trout	96 hr	LC50	1450.000000	Freshwater	Static
CERC-GED	55-38-9	Fenthion	<i>Sinocyclopus senegalensis</i>	Water flea	48 hr	EC50	0.620000	Freshwater	Static
CERC-GED	62441-54-7	Fenthozanil	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	9.000000	Saltwater	Static
OPP	51630-58-1	Fenvahate	<i>Americanus bahia</i>	Mysis	96 hr	LC50	0.008000	Saltwater	Fbw Through
CERC-GED	51630-58-1	Fenvahate	<i>Americanus bahia</i>	Mysis	96 hr	LC50	0.021000	Saltwater	Static
CERC-GED	51630-58-1	Fenvahate	<i>Chironomus plumosus</i>	Midge	48 hr	EC50	0.430000	Freshwater	Static
OPP	51630-58-1	Fenvahate	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	4.400000	Saltwater	Fbw Through
CERC-GED	51630-58-1	Fenvahate	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	120.000000	Saltwater	Static
OPP	51630-58-1	Fenvahate	<i>Daphnia magna</i>	Water flea	48 hr	EC50	0.900000	Freshwater	Static
CERC-GED	51630-58-1	Fenvahate	<i>Daphnia magna</i>	Water flea	48 hr	EC50	2.100000	Freshwater	Static
CERC-GED	51630-58-1	Fenvahate	<i>Gammams pseudolemaeus</i>	Scud	96 hr	LC50	0.032000	Freshwater	Static
CERC-GED	51630-58-1	Fenvahate	<i>Ictalurus punctatus</i>	Channel catfish	96 hr	LC50	2.350000	Freshwater	Static
OPP	51630-58-1	Fenvahate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	0.260000	Freshwater	Static
CERC-GED	51630-58-1	Fenvahate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	0.420000	Freshwater	Static
CERC-GED	51630-58-1	Fenvahate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	0.760000	Freshwater	Static
CERC-GED	51630-58-1	Fenvahate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	0.890000	Freshwater	Static
CERC-GED	51630-58-1	Fenvahate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	1.330000	Freshwater	Static
CERC-GED	51630-58-1	Fenvahate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	1.350000	Freshwater	Static
OPP	51630-58-1	Fenvahate	<i>Leuresthes tenuis</i>	California gurnard	96 hr	LC50	0.600000	Saltwater	Fbw Through
OPP	51630-58-1	Fenvahate	<i>Menidia beryllina</i>	Inland silverside	96 hr	LC50	1.000000	Saltwater	Fbw Through
OPP	51630-58-1	Fenvahate	<i>Menidia menidia</i>	Atlantic silverside	96 hr	LC50	0.314000	Saltwater	Fbw Through
OPP	51630-58-1	Fenvahate	<i>Mugil cephalus</i>	Striped mullet	96 hr	LC50	0.580000	Saltwater	Fbw Through
CERC-GED	51630-58-1	Fenvahate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	0.470000	Freshwater	Static
CERC-GED	51630-58-1	Fenvahate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	0.620000	Freshwater	Static
CERC-GED	51630-58-1	Fenvahate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1.200000	Freshwater	Static
CERC-GED	51630-58-1	Fenvahate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1.500000	Freshwater	Static
OPP	51630-58-1	Fenvahate	<i>Opsanus beta</i>	Gulf toadfish	96 hr	LC50	2.400000	Saltwater	Fbw Through
OPP	51630-58-1	Fenvahate	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	0.330000	Freshwater	Static Renewal
OPP	51630-58-1	Fenvahate	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	1.130000	Freshwater	Static
CERC-GED	51630-58-1	Fenvahate	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	2.350000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	51630-58-1	Fenvatate	<i>Uca pugilator</i>	Fiddler crab	96 hr	LC50	53.000000	Saltwater	Static
OPP	7782-63-0	Fenous sulfate heptahydrate	<i>Daphnia pulex</i>	Water flea	48 hr	EC50	7100.000000	Freshwater	Static
OPP	7782-63-0	Fenous sulfate heptahydrate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	51200.000000	Freshwater	Static
OPP	7782-63-0	Fenous sulfate heptahydrate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	20800.000000	Freshwater	Static
OPP	17375-41-6	Fenous sulfate monohydrate	<i>Daphnia magna</i>	Water flea	48 hr	EC50	160000.000000	Freshwater	Static
OPP	17375-41-6	Fenous sulfate monohydrate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	51300.000000	Freshwater	Static
OPP	17375-41-6	Fenous sulfate monohydrate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	44000.000000	Freshwater	Static
OPP	120068-37-3	Fipronil	<i>Americamysis bahia</i>	Mysid	96 hr	LC50	0.140000	Saltwater	Static
OPP	120068-37-3	Fipronil	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	770.000000	Saltwater	Fbw Through
OPP	120068-37-3	Fipronil	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	130.000000	Saltwater	Fbw Through
OPP	120068-37-3	Fipronil	<i>Ictalurus punctatus</i>	Channel catfish	96 hr	LC50	560.000000	Freshwater	Fbw Through
OPP	120068-37-3	Fipronil	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	25.000000	Freshwater	Fbw Through
OPP	120068-37-3	Fipronil	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	83.000000	Freshwater	Fbw Through
OPP	120068-37-3	Fipronil	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	246.000000	Freshwater	Fbw Through
CERC-GED	74665-86-4	Fie-Trol931	<i>Micropodus sahyadrensis</i>	Largemouth bass	96 hr	LC50	1160000.000000	Freshwater	Static
CERC-GED	74665-86-4	Fie-Trol931	<i>Oncorhynchus kisutch</i>	Coho salmon	96 hr	LC50	1000000.000000	Freshwater	Static
CERC-GED	74665-86-4	Fie-Trol931	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	940000.000000	Freshwater	Static
CERC-GED	52756-25-9	Fhm prop-methyl	<i>Ictalurus punctatus</i>	Channel catfish	96 hr	LC50	7178.000000	Freshwater	Static
CERC-GED	52756-25-9	Fhm prop-methyl	<i>Ictalurus punctatus</i>	Channel catfish	96 hr	LC50	7400.000000	Freshwater	Static
CERC-GED	52756-25-9	Fhm prop-methyl	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	7500.000000	Freshwater	Static
OPP	69806-50-4	Flazifop-p-butyl	<i>Americamysis bahia</i>	Mysid	96 hr	LC50	510.000000	Saltwater	Fbw Through
OPP	69806-50-4	Flazifop-p-butyl	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	470.000000	Saltwater	Fbw Through
OPP	79622-59-6	Flazinam	<i>Cyprinus carpio</i>	Common carp	96 hr	LC50	145.000000	Freshwater	Static
OPP	79622-59-6	Flazinam	<i>Daphnia magna</i>	Water flea	48 hr	EC50	180.000000	Freshwater	Static
OPP	79622-59-6	Flazinam	<i>Daphnia magna</i>	Water flea	48 hr	EC50	222.000000	Freshwater	Fbw Through
OPP	79622-59-6	Flazinam	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	52.700000	Freshwater	Fbw Through
OPP	79622-59-6	Flazinam	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	36.000000	Freshwater	Fbw Through
OPP	79622-59-6	Flazinam	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	110.000000	Freshwater	Fbw Through
CERC-GED	33245-39-5	Fluchbahn	<i>Daphnia magna</i>	Water flea	48 hr	EC50	560.000000	Freshwater	Static
CERC-GED	33245-39-5	Fluchbahn	<i>Gambusias pseudoleucaeus</i>	Scud	96 hr	LC50	56.000000	Freshwater	Static
CERC-GED	33245-39-5	Fluchbahn	<i>Ictalurus punctatus</i>	Channel catfish	96 hr	LC50	390.000000	Freshwater	Static
OPP	33245-39-5	Fluchbahn	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	16.000000	Freshwater	Static
CERC-GED	33245-39-5	Fluchbahn	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	42.500000	Freshwater	Static
OPP	33245-39-5	Fluchbahn	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	12.000000	Freshwater	Static
CERC-GED	33245-39-5	Fluchbahn	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	62.000000	Freshwater	Static
OPP	70124-77-5	Flicythrinate	<i>Americamysis bahia</i>	Mysid	96 hr	LC50	0.008000	Saltwater	Fbw Through
CERC-GED	70124-77-5	Flicythrinate	<i>Americamysis bahia</i>	Mysid	96 hr	LC50	0.023000	Saltwater	Static
CERC-GED	70124-77-5	Flicythrinate	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	1.800000	Saltwater	Static
CERC-GED	70124-77-5	Flicythrinate	<i>Menticirrhus beryllina</i>	Inland silverside	96 hr	LC50	0.420000	Saltwater	Static
OPP	142459-58-3	Fufenacet	<i>Americamysis bahia</i>	Mysid	96 hr	LC50	2720.000000	Saltwater	Fbw Through
OPP	142459-58-3	Fufenacet	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	12600.000000	Saltwater	Fbw Through
OPP	142459-58-3	Fufenacet	<i>Oncorhynchus mykiss</i>	Bluegill sunfish	96 hr	LC50	5840.000000	Freshwater	Static Renewal
OPP	62924-70-3	Film etaln	<i>Americamysis bahia</i>	Mysid	96 hr	LC50	94.000000	Saltwater	Fbw Through
OPP	62924-70-3	Film etaln	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	17.900000	Freshwater	Static
OPP	62924-70-3	Film etaln	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	23.000000	Freshwater	Fbw Through
OPP	62924-70-3	Film etaln	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	24.000000	Freshwater	Static
OPP	98967-40-9	Film etulam	<i>Daphnia magna</i>	Water flea	48 hr	EC50	254000.000000	Freshwater	Static
OPP	87546-18-7	Flm ribbac pentyl	<i>Americamysis bahia</i>	Mysid	96 hr	LC50	560.000000	Saltwater	Fbw Through
OPP	87546-18-7	Flm ribbac pentyl	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1100.000000	Freshwater	Fbw Through
OPP	2164-17-2	Fliom eturon	<i>Americamysis bahia</i>	Mysid	96 hr	LC50	3800.000000	Saltwater	Fbw Through
OPP	2164-17-2	Fliom eturon	<i>Amesianus plusiosus</i>	Midge	48 hr	EC50	6800.000000	Saltwater	Fbw Through
CERC-GED	2164-17-2	Fliom eturon	<i>Chironomus plumosus</i>	Water flea	48 hr	EC50	220.000000	Freshwater	Static
OPP	2164-17-2	Fliom eturon	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	6530.000000	Saltwater	Fbw Through
OPP	2164-17-2	Fliom eturon	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	8540.000000	Saltwater	Fbw Through
OPP	2164-17-2	Fliom eturon	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	EC50	22000.000000	Saltwater	Fbw Through
OPP	2164-17-2	Fliom eturon	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	48000.000000	Saltwater	Fbw Through
OPP	2164-17-2	Fliom eturon	<i>Daphnia magna</i>	Water flea	48 hr	EC50	9900.000000	Freshwater	Static
CERC-GED	2164-17-2	Fliom eturon	<i>Ictalurus punctatus</i>	Channel catfish	96 hr	LC50	22500.000000	Freshwater	Static
CERC-GED	2164-17-2	Fliom eturon	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	42500.000000	Freshwater	Static
OPP	2164-17-2	Fliom eturon	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	48000.000000	Freshwater	Static
CERC-GED	2164-17-2	Fliom eturon	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	2960.000000	Freshwater	Static

Appendix 1
FinalAcute Toxicity Database

CERC-GED	2164-17-2	Fliom eturon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	14500.00000	Freshwater	Static
OPP	2164-17-2	Fliom eturon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	26200.00000	Freshwater	Fbw Through
OPP	2164-17-2	Fliom eturon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	30000.00000	Freshwater	Fbw Through
CERC-GED	15457-05-3	Fluorodifen	Ictalurus punctatus	Channelcatfish	96 hr	LC50	270.00000	Freshwater	Static
CERC-GED	15457-05-3	Fluorodifen	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	554.00000	Freshwater	Static
CERC-GED	59756-60-4	Fluridone	Channomus plusosus	Mriga	48 hr	EC50	1300.00000	Freshwater	Static
CERC-GED	59756-60-4	Fluridone	Daphnia magna	Water flea	48 hr	EC50	4400.00000	Freshwater	Static
CERC-GED	59756-60-4	Fluridone	Gammarus pseudolimnaeus	Scud	96 hr	LC50	2100.00000	Freshwater	Static
CERC-GED	59756-60-4	Fluridone	Ictalurus punctatus	Channelcatfish	96 hr	LC50	10000.00000	Freshwater	Static
CERC-GED	59756-60-4	Fluridone	Ictalurus punctatus	Channelcatfish	96 hr	LC50	13000.00000	Freshwater	Static
CERC-GED	59756-60-4	Fluridone	Ictalurus punctatus	Channelcatfish	96 hr	LC50	13200.00000	Freshwater	Static
CERC-GED	59756-60-4	Fluridone	Ictalurus punctatus	Channelcatfish	96 hr	LC50	13500.00000	Freshwater	Static
OPP	59756-60-4	Fluridone	Lepomis macrochirus	Bluegillsunfish	96 hr	LC50	12000.00000	Freshwater	Static
CERC-GED	59756-60-4	Fluridone	Lepomis macrochirus	Bluegillsunfish	96 hr	LC50	13000.00000	Freshwater	Static
CERC-GED	59756-60-4	Fluridone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4500.00000	Freshwater	Static
CERC-GED	59756-60-4	Fluridone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	5600.00000	Freshwater	Static
CERC-GED	59756-60-4	Fluridone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	7600.00000	Freshwater	Static
OPP	59756-60-4	Fluridone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	11700.00000	Freshwater	Static
CERC-GED	59756-60-4	Fluridone	Pimephales promelas	Fathead minnow	96 hr	LC50	22000.00000	Freshwater	Static
OPP	69377-81-7	Fluoxypyracid	Crassostrea virginica	Eastern oyster	96 hr	EC50	51000.00000	Saltwater	Fbw Through
OPP	69377-81-7	Fluoxypyracid	Lepomis macrochirus	Bluegillsunfish	96 hr	LC50	14300.00000	Freshwater	Static
OPP	69377-81-7	Fluoxypyracid	Menidia beryllina	Inland silverside	96 hr	LC50	40000.00000	Saltwater	Fbw Through
OPP	81406-37-3	Fluoxypyrester	Crassostrea virginica	Eastern oyster	96 hr	EC50	68.00000	Saltwater	Fbw Through
OPP	56425-91-3	Fluprim tol	Daphnia magna	Water flea	48 hr	EC50	11800.00000	Freshwater	Static
OPP	56425-91-3	Fluprim tol	Lepomis macrochirus	Bluegillsunfish	96 hr	LC50	17200.00000	Freshwater	Static
OPP	117337-19-6	Fluthiacetmethyl	Am erican ysis bahia	Mysid	96 hr	LC50	280.00000	Saltwater	Fbw Through
OPP	117337-19-6	Fluthiacetmethyl	Crassostrea virginica	Eastern oyster	96 hr	EC50	700.00000	Saltwater	Fbw Through
OPP	117337-19-6	Fluthiacetmethyl	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	160.00000	Saltwater	Fbw Through
OPP	117337-19-6	Fluthiacetmethyl	Lepomis macrochirus	Bluegillsunfish	96 hr	LC50	140.00000	Freshwater	Fbw Through
OPP	117337-19-6	Fluthiacetmethyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	43.00000	Freshwater	Fbw Through
OPP	66332-96-5	Flutolanil	Am erican ysis bahia	Mysid	96 hr	LC50	130.00000	Saltwater	Static
OPP	66332-96-5	Flutolanil	Cyprinus carpio	Common carp	96 hr	LC50	2500.00000	Freshwater	Static
OPP	66332-96-5	Flutolanil	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	5400.00000	Freshwater	Static
OPP	66332-96-5	Flutolanil	Pimephales promelas	Fathead minnow	96 hr	LC50	4800.00000	Freshwater	Static
OPP	69409-94-5	Flvalinate	Am erican ysis bahia	Mysid	96 hr	LC50	0.018000	Saltwater	Static
OPP	69409-94-5	Flvalinate	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	10.00000	Saltwater	Static
OPP	69409-94-5	Flvalinate	Daphnia magna	Water flea	48 hr	EC50	1.00000	Freshwater	Fbw Through
OPP	69409-94-5	Flvalinate	Daphnia magna	Water flea	48 hr	EC50	74.00000	Freshwater	Static
OPP	69409-94-5	Flvalinate	Lepomis macrochirus	Bluegillsunfish	96 hr	LC50	2.70000	Freshwater	Static
OPP	69409-94-5	Flvalinate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2.90000	Freshwater	Static
OPP	133-07-3	Fopet	Am erican ysis bahia	Mysid	96 hr	LC50	160.00000	Saltwater	Fbw Through
OPP	133-07-3	Fopet	Crassostrea virginica	Eastern oyster	96 hr	EC50	13800.00000	Saltwater	Fbw Through
OPP	133-07-3	Fopet	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	47700.00000	Saltwater	Fbw Through
OPP	133-07-3	Fopet	Daphnia magna	Water flea	48 hr	EC50	20.00000	Freshwater	Fbw Through
CERC-GED	133-07-3	Fopet	Gammamias fasciatus	Scud	96 hr	LC50	2500.00000	Freshwater	Static
CERC-GED	133-07-3	Fopet	Ictalurus punctatus	Channelcatfish	96 hr	LC50	108.00000	Freshwater	Static
OPP	133-07-3	Fopet	Lepomis macrochirus	Bluegillsunfish	96 hr	LC50	38.00000	Freshwater	Static Renewal
OPP	133-07-3	Fopet	Lepomis macrochirus	Bluegillsunfish	96 hr	LC50	47.00000	Freshwater	Fbw Through
CERC-GED	133-07-3	Fopet	Lepomis macrochirus	Bluegillsunfish	96 hr	LC50	71.70000	Freshwater	Static
CERC-GED	133-07-3	Fopet	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	106.00000	Freshwater	Static
OPP	133-07-3	Fopet	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	15.00000	Freshwater	Fbw Through
CERC-GED	133-07-3	Fopet	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	39.00000	Freshwater	Static
CERC-GED	133-07-3	Fopet	Perca flavescens	Yellow perch	96 hr	LC50	177.00000	Freshwater	Static
CERC-GED	133-07-3	Fopet	Salmofutta	Brown trout	96 hr	LC50	66.00000	Freshwater	Static
CERC-GED	133-07-3	Fopet	Salvelinus namaycush	Lake trout	96 hr	LC50	86.50000	Freshwater	Static
OPP	72178-02-0	Fomesafen	Daphnia magna	Water flea	48 hr	EC50	294000.00000	Freshwater	Static
OPP	944-22-9	Fonofos	Am erican ysis bahia	Mysid	96 hr	LC50	0.490000	Saltwater	Fbw Through
OPP	944-22-9	Fonofos	Crassostrea gigas	Pacific oyster	48 hr	EC50	899.00000	Saltwater	Static
OPP	944-22-9	Fonofos	Crassostrea virginica	Eastern oyster	96 hr	EC50	330.00000	Saltwater	Fbw Through
OPP	944-22-9	Fonofos	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	16.00000	Saltwater	Fbw Through
OPP	944-22-9	Fonofos	Daphnia magna	Water flea	48 hr	EC50	2.00000	Freshwater	Static
OPP	944-22-9	Fonofos	Lepomis macrochirus	Bluegillsunfish	96 hr	LC50	28.00000	Freshwater	Fbw Through

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	944-22-9	Fonofos	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	29.000000	Freshwater	Static
OPP	944-22-9	Fonofos	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	20.000000	Freshwater	Static
OPP	944-22-9	Fonofos	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	50.000000	Freshwater	Static
OPP	944-22-9	Fonofos	<i>Penaeus aztecus</i>	Brown shrimp	48 hr	LC50	1.900000	Saltwater	Fbw Through
OPP	23422-53-9	Fom etanate Hydrochloride	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	2300.000000	Saltwater	Fbw Through
OPP	23422-53-9	Fom etanate Hydrochloride	<i>Daphnia magna</i>	Water flea	48 hr	EC50	86.800000	Freshwater	Static
OPP	23422-53-9	Fom etanate Hydrochloride	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2700.000000	Freshwater	Static
OPP	23422-53-9	Fom etanate Hydrochloride	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	4400.000000	Freshwater	Static
OPP	23422-53-9	Fom etanate Hydrochloride	<i>Pachygrapsus crassipes</i>	Shore crab	96 hr	LC50	6800.000000	Saltwater	Static
OPP	23422-53-9	Fom etanate Hydrochloride	<i>Palaemonetes pugio</i>	Grass shrimp	96 hr	LC50	2500.000000	Saltwater	Static
OPP	25954-13-6	Fosamine ammonium	<i>Daphnia magna</i>	Water flea	48 hr	EC50	1524000.000000	Freshwater	Static
OPP	25954-13-6	Fosamine ammonium	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	590000.000000	Freshwater	Static
OPP	25954-13-6	Fosamine ammonium	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	377000.000000	Freshwater	Static
OPP	39148-24-8	Fosetyl Al	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	120000.000000	Saltwater	Static Renewal
OPP	39148-24-8	Fosetyl Al	<i>Daphnia magna</i>	Water flea	48 hr	EC50	304000.000000	Freshwater	Static
OPP	39148-24-8	Fosetyl Al	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	141400.000000	Freshwater	Static
OPP	39148-24-8	Fosetyl Al	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	75800.000000	Freshwater	Static
OPP	39148-24-8	Fosetyl Al	<i>Palaemonetes pugio</i>	Grass shrimp	96 hr	LC50	3600.000000	Saltwater	Static
OPP	39148-24-8	Fosetyl Al	<i>Rasbora heteromorpha</i>	Harequin fish	96 hr	LC50	161300.000000	Saltwater	Static
OPP	39148-24-8	Fosetyl Al	<i>Uca pugilator</i>	Fiddler crab	96 hr	LC50	145000.000000	Saltwater	Static
CERC-GED	5598-52-7	Fosphate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1.700000	Freshwater	Static
CERC-GED	5598-52-7	Fosphate	<i>Pinophales promelas</i>	Fathead minnow	96 hr	LC50	2.100000	Freshwater	Static
CERC-GED	55818-86-5	Fyquel GT	<i>Chironomus plumosus</i>	Midge	48 hr	EC50	1800.000000	Freshwater	Static
CERC-GED	55818-86-5	Fyquel GT	<i>Daphnia magna</i>	Water flea	48 hr	EC50	2900.000000	Freshwater	Static
CERC-GED	55818-86-5	Fyquel GT	<i>Gammarus pseudolimnaeus</i>	Scud	96 hr	LC50	1400.000000	Freshwater	Static
CERC-GED	55818-86-5	Fyquel GT	<i>Ictalurus punctatus</i>	Channel catfish	96 hr	LC50	760.000000	Freshwater	Static
CERC-GED	55818-86-5	Fyquel GT	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	1900.000000	Freshwater	Static
CERC-GED	55818-86-5	Fyquel GT	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2700.000000	Freshwater	Static
CERC-GED	55818-86-5	Fyquel GT	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	3100.000000	Freshwater	Static
CERC-GED	55818-86-5	Fyquel GT	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	4200.000000	Freshwater	Static
CERC-GED	55818-86-5	Fyquel GT	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	640.000000	Freshwater	Static
CERC-GED	55818-86-5	Fyquel GT	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	2000.000000	Freshwater	Static
CERC-GED	55818-86-5	Fyquel GT	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	2400.000000	Freshwater	Static
CERC-GED	55818-86-5	Fyquel GT	<i>Pinophales promelas</i>	Fathead minnow	96 hr	LC50	2300.000000	Freshwater	Static
CERC-GED	106-24-1	Gexanib	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	3700.000000	Freshwater	Static
CERC-GED	106-24-1	Gexanib	<i>Salmo trutta</i>	Brown trout	96 hr	LC50	2600.000000	Freshwater	Static
OPP	77182-82-2	G life slate ammonium	<i>Daphnia magna</i>	Water flea	48 hr	EC50	667560.000000	Freshwater	Static
OPP	111-30-8	G lutaricdehyde	<i>Pinophales promelas</i>	Fathead minnow	96 hr	LC50	11600.000000	Freshwater	Static
CERC-GED	556-22-9	G yodin	<i>Gammarellus fasciatus</i>	Scud	96 hr	LC50	1100.000000	Freshwater	Static
OPP	1071-83-6	G lyphosate	<i>Am ericam ys is bahia</i>	Mysid	96 hr	LC50	40000.000000	Saltwater	Static
OPP	1071-83-6	G lyphosate	<i>Am ericam ys is bahia</i>	Mysid	96 hr	LC50	79000.000000	Saltwater	Static
OPP	1071-83-6	G lyphosate	<i>Chironomus plumosus</i>	Midge	48 hr	LC50	55000.000000	Freshwater	Static
OPP	1071-83-6	G lyphosate	<i>Crinia insipiens</i>	Australian frog	96 hr	LC50	78000.000000	Saltwater	Static
OPP	1071-83-6	G lyphosate	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	240000.000000	Saltwater	Static
OPP	1071-83-6	G lyphosate	<i>Daphnia magna</i>	Water flea	48 hr	EC50	134000.000000	Freshwater	Static
OPP	1071-83-6	G lyphosate	<i>Ictalurus punctatus</i>	Channel catfish	96 hr	LC50	130000.000000	Freshwater	Static
OPP	1071-83-6	G lyphosate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	45000.000000	Freshwater	Static
CERC-GED	1071-83-6	G lyphosate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	135000.000000	Freshwater	Static
OPP	1071-83-6	G lyphosate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	140000.000000	Freshwater	Static
OPP	1071-83-6	G lyphosate	<i>Lottia limosa</i>	Australian frog	96 hr	LC50	110800.000000	Freshwater	Static
CERC-GED	1071-83-6	G lyphosate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	130000.000000	Freshwater	Static
OPP	1071-83-6	G lyphosate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	134000.000000	Freshwater	Static
OPP	1071-83-6	G lyphosate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	140000.000000	Freshwater	Static
OPP	1071-83-6	G lyphosate	<i>Palaemonetes vulgaris</i>	Shore shrimp	96 hr	LC50	281000.000000	Saltwater	Static
CERC-GED	1071-83-6	G lyphosate	<i>Pinophales promelas</i>	Fathead minnow	96 hr	LC50	97000.000000	Freshwater	Static
OPP	1071-83-6	G lyphosate	<i>Uca pugilator</i>	Fiddler crab	96 hr	LC50	934000.000000	Saltwater	Static
OPP	112226-61-6	Habenoxide	<i>Daphnia magna</i>	Water flea	48 hr	EC50	3600.000000	Freshwater	Static
OPP	100784-20-1	Habsulimon	<i>Am ericam ys is bahia</i>	Mysid	96 hr	LC50	109000.000000	Saltwater	Fbw Through
OPP	100784-20-1	Habsulimon	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	94000.000000	Saltwater	Fbw Through
CERC-GED	76-44-8	Heptachlor	<i>Bufo woodhousei weni</i>	Fowler's toad	96 hr	LC50	435.000000	Freshwater	Static
CERC-GED	76-44-8	Heptachlor	<i>Chasseria sabulosa</i>	Stonefly	96 hr	LC50	2.800000	Freshwater	Static
CERC-GED	76-44-8	Heptachlor	<i>Daphnia pulex</i>	Water flea	48 hr	EC50	42.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

CERC-GED	76-44-8	Heptachbr	<i>Gammams fasciatus</i>	Scud	96 hr	LC50	56.000000	Freshwater	Static
CERC-GED	76-44-8	Heptachbr	<i>Gammams lacustris</i>	Scud	96 hr	LC50	29.000000	Freshwater	Static
CERC-GED	76-44-8	Heptachbr	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	25.000000	Freshwater	Static
OPP	76-44-8	Heptachbr	<i>Leiostomus xanthurus</i>	Spot	96 hr	LC50	0.850000	Saltwater	Fbw Through
CERC-GED	76-44-8	Heptachbr	<i>Lepomis macrochirus</i>	Bluegillsunfish	96 hr	LC50	13.000000	Freshwater	Static
CERC-GED	76-44-8	Heptachbr	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	7.400000	Freshwater	Static
CERC-GED	76-44-8	Heptachbr	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	32.000000	Freshwater	Static
OPP	76-44-8	Heptachbr	<i>Palaemonetes vulgaris</i>	Shore shrimp	96 hr	LC50	1.100000	Saltwater	Fbw Through
CERC-GED	76-44-8	Heptachbr	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	23.000000	Freshwater	Static
CERC-GED	76-44-8	Heptachbr	<i>Pteronarcia badia</i>	Stonefly	96 hr	LC50	0.900000	Freshwater	Static
CERC-GED	76-44-8	Heptachbr	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	1.100000	Freshwater	Static
CERC-GED	76-44-8	Heptachbr	<i>Sinocyprinus semilatus</i>	Water flea	48 hr	EC50	47.000000	Freshwater	Static
CERC-GED	76-44-8	Heptachbr	<i>Sinocyprinus semilatus</i>	Water flea	48 hr	EC50	80.000000	Freshwater	Static
CERC-GED	1024-57-3	HeptachbrEpoxide	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	20.000000	Freshwater	Static
CERC-GED	118-74-1	Hexachlorobenzene	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	13500.000000	Freshwater	Static
CERC-GED	87-68-3	Hexachlorobutadiene	<i>American eel</i>	Mysis	96 hr	LC50	59.000000	Saltwater	Static
CERC-GED	87-68-3	Hexachlorobutadiene	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	560.000000	Saltwater	Static
CERC-GED	87-68-3	Hexachlorobutadiene	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	760.000000	Freshwater	Static
CERC-GED	87-68-3	Hexachlorobutadiene	<i>Lagodon rhomboides</i>	Pinfish	96 hr	LC50	400.000000	Saltwater	Static
CERC-GED	87-68-3	Hexachlorobutadiene	<i>Lepomis macrochirus</i>	Bluegillsunfish	96 hr	LC50	760.000000	Freshwater	Static
CERC-GED	608-73-1	Hexachlorocyclohexane (Benzene hexachloride)	<i>Bufo woodhouseiwlani</i>	Fowler toad	96 hr	LC50	4350.000000	Freshwater	Static
CERC-GED	608-73-1	Hexachlorocyclohexane (Benzene hexachloride)	<i>Carassius auratus</i>	Golifish	96 hr	LC50	348.000000	Freshwater	Static
CERC-GED	608-73-1	Hexachlorocyclohexane (Benzene hexachloride)	<i>Daphnia pulex</i>	Water flea	48 hr	EC50	680.000000	Freshwater	Static
CERC-GED	608-73-1	Hexachlorocyclohexane (Benzene hexachloride)	<i>Gammams lacustris</i>	Scud	96 hr	LC50	78.000000	Freshwater	Static
CERC-GED	608-73-1	Hexachlorocyclohexane (Benzene hexachloride)	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	105.000000	Freshwater	Static
CERC-GED	608-73-1	Hexachlorocyclohexane (Benzene hexachloride)	<i>Lepomis macrochirus</i>	Bluegillsunfish	96 hr	LC50	67.000000	Freshwater	Static
CERC-GED	608-73-1	Hexachlorocyclohexane (Benzene hexachloride)	<i>Micropodus salmoides</i>	Largemouth bass	96 hr	LC50	41.000000	Freshwater	Static
CERC-GED	608-73-1	Hexachlorocyclohexane (Benzene hexachloride)	<i>Oncorhynchus clarkii</i>	Cuthroat trout	96 hr	LC50	9.000000	Freshwater	Static
CERC-GED	608-73-1	Hexachlorocyclohexane (Benzene hexachloride)	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	125.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Amelium meles</i>	Black bullhead	96 hr	LC50	64.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Aesalus brevirostris</i>	Aquatic sow bug	96 hr	LC50	10.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Bufo woodhouseiwlani</i>	Fowler toad	96 hr	LC50	3200.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Carassius auratus</i>	Golifish	96 hr	LC50	131.000000	Freshwater	Static
OPP	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	240.000000	Saltwater	Fbw Through
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Cyprinodon rivularis</i>	Ostacod	48 hr	LC50	3.200000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Cyprinus carpio</i>	Common carp	96 hr	LC50	90.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Daphnia pulex</i>	Water flea	48 hr	EC50	460.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Gammams fasciatus</i>	Scud	96 hr	LC50	10.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Gammams lacustris</i>	Scud	96 hr	LC50	88.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC50	44.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Lepomis cyanellus</i>	Green sunfish	96 hr	LC50	83.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Lepomis macrochirus</i>	Bluegillsunfish	96 hr	LC50	56.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Lepomis macrochirus</i>	Bluegillsunfish	96 hr	LC50	68.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Micropodus salmoides</i>	Largemouth bass	96 hr	LC50	32.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Oncorhynchus kisutch</i>	Coho salmon	96 hr	LC50	23.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Oncorhynchus kisutch</i>	Coho salmon	96 hr	LC50	41.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	27.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	31.000000	Freshwater	Static
OPP	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Palaemonetes pugib</i>	Grass shrimp	96 hr	LC50	4.400000	Saltwater	Fbw Through
OPP	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Penaeus aztecus</i>	Brown shrimp	48 hr	LC50	0.220000	Saltwater	Fbw Through
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	87.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Pseudacris triseriata</i>	Western chorus frog	96 hr	LC50	2650.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Pteronarcia californica</i>	Stonefly	96 hr	LC50	1.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC50	4.500000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Salmo trutta</i>	Brown trout	96 hr	LC50	24.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Salmo trutta</i>	Brown trout	96 hr	LC50	25.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Salvelinus namaycush</i>	Lake trout	96 hr	LC50	32.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Sinocyprinus semilatus</i>	Water flea	48 hr	EC50	520.000000	Freshwater	Static
CERC-GED	58-89-9	Hexachlorocyclohexane (Lindane)	<i>Sinocyprinus semilatus</i>	Water flea	48 hr	EC50	880.000000	Freshwater	Static
ECOTOX	67-72-1	Hexachloroethane	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	1530.000000	Freshwater	Fbw Through
OPP	53042-79-8	Hexadecadienolacetate	<i>Daphnia magna</i>	Water flea	48 hr	EC50	280.000000	Freshwater	Fbw Through
OPP	53042-79-8	Hexadecadienolacetate	<i>Daphnia magna</i>	Water flea	48 hr	EC50	700.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	53042-79-8	Hexadecadienol acetate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	94900.000000	Freshwater	Static
OPP	86479-06-3	Hexaflumuron	Daphnia magna	Water flea	48 hr	EC50	0.111000	Freshwater	Static
OPP	51235-04-2	Hexazhone	Daphnia magna	Water flea	48 hr	EC50	151600.000000	Freshwater	Static
OPP	51235-04-2	Hexazhone	Pahem onetes pugil	Grass shrimp	96 hr	LC50	78000.000000	Saltwater	Static
OPP	51235-04-2	Hexazhone	Pimelodus promelas	Fathead minnow	96 hr	LC50	274000.000000	Freshwater	Static
OPP	78587-05-0	Hexythiazox DPX-Y5893)	Daphnia carinata	Water flea	48 hr	EC50	742.000000	Freshwater	Static
OPP	78587-05-0	Hexythiazox DPX-Y5893)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	11600.000000	Freshwater	Static
CERC-GED	12797-87-4	Houghto-Safe 1120	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	12000.000000	Freshwater	Static
CERC-GED	12797-87-4	Houghto-Safe 1120	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1700.000000	Freshwater	Static
CERC-GED	12797-87-4	Houghto-Safe 1120	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3400.000000	Freshwater	Static
CERC-GED	12797-87-4	Houghto-Safe 1120	Pimelodus promelas	Fathead minnow	96 hr	LC50	35000.000000	Freshwater	Static
OPP	420-04-2	Hydrogen cyanamide	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	88000.000000	Freshwater	Static
OPP	10004-44-1	Hymexazol	Daphnia magna	Water flea	48 hr	EC50	30800.000000	Freshwater	Static
OPP	7778-54-3	Hypochlorite -Calcium Hypochlorous acid, Calcium salt)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	400.000000	Freshwater	Fbw Through
OPP	35554-44-0	In azazil	Daphnia magna	Water flea	48 hr	EC50	3160.000000	Freshwater	Static Renewal
OPP	35554-44-0	In azazil	Daphnia magna	Water flea	48 hr	EC50	3540.000000	Freshwater	Static
OPP	35554-44-0	In azazil	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3990.000000	Freshwater	Static Renewal
OPP	35554-44-0	In azazil	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1480.000000	Freshwater	Fbw Through
OPP	35554-44-0	In azazil	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2000.000000	Freshwater	Static Renewal
OPP	81405-85-8	In azethabenz	Daphnia magna	Water flea	48 hr	EC50	220000.000000	Freshwater	Static
OPP	81405-85-8	In azethabenz	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	420000.000000	Freshwater	Static
OPP	81405-85-8	In azethabenz	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	280000.000000	Freshwater	Static
OPP	81335-77-5	In azethapyr Acid	Ictalurus punctatus	Channel catfish	96 hr	LC50	240000.000000	Freshwater	Static
OPP	81335-77-5	In azethapyr Acid	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	423000.000000	Freshwater	Static
OPP	81335-77-5	In azethapyr Acid	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	344000.000000	Freshwater	Static
OPP	105827-78-9	In flacbpri	Am ericanus bahia	Mysid	96 hr	LC50	38.000000	Saltwater	Fbw Through
OPP	105827-78-9	In flacbpri	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	163000.000000	Saltwater	Static
OPP	105827-78-9	In flacbpri	Daphnia magna	Water flea	48 hr	EC50	85200.000000	Freshwater	Static
OPP	105827-78-9	In flacbpri	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	229100.000000	Freshwater	Static
OPP	72963-72-5	In prothrin (Pale)	Daphnia magna	Water flea	48 hr	EC50	50.000000	Freshwater	Fbw Through
OPP	72963-72-5	In prothrin (Pale)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	70.000000	Freshwater	Fbw Through
OPP	72963-72-5	In prothrin (Pale)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	38.000000	Freshwater	Fbw Through
OPP	133-32-4	Indole-3-butyril acyl	Daphnia magna	Water flea	48 hr	EC50	57000.000000	Freshwater	Static
OPP	Unknown	Inert-HOE (Aldicarb)	Daphnia magna	Water flea	48 hr	EC50	52000.000000	Freshwater	Static
OPP	Unknown	Inert-HOE (Aldicarb)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4200.000000	Freshwater	Static
OPP	Unknown	Inert-HOE ButylS (-) lactate)	Daphnia magna	Water flea	48 hr	EC50	423000.000000	Freshwater	Static
OPP	Unknown	Inert-HOE EthylS (-) lactate)	Daphnia magna	Water flea	48 hr	EC50	683000.000000	Freshwater	Static
OPP	7553-56-2	Indine	Daphnia magna	Water flea	48 hr	EC50	330.000000	Freshwater	Fbw Through
OPP	11096-42-7	Indine complex	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	7900.000000	Freshwater	Static
OPP	36734-19-7	Prodione	Crassostrea virginica	Eastern oyster	96 hr	EC50	2300.000000	Saltwater	Fbw Through
OPP	36734-19-7	Prodione	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	7700.000000	Saltwater	Fbw Through
OPP	36734-19-7	Prodione	Daphnia magna	Water flea	48 hr	EC50	430.000000	Freshwater	Static
OPP	36734-19-7	Prodione	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3700.000000	Freshwater	Fbw Through
OPP	36734-19-7	Prodione	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	6300.000000	Freshwater	Static
OPP	36734-19-7	Prodione	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4200.000000	Freshwater	Static
OPP	28159-98-0	Igarol	Am ericanus bahia	Mysid	96 hr	LC50	400.000000	Saltwater	Static
OPP	28159-98-0	Igarol	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	3500.000000	Saltwater	Fbw Through
OPP	28159-98-0	Igarol	Daphnia magna	Water flea	48 hr	EC50	5300.000000	Freshwater	Static
OPP	28159-98-0	Igarol	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2600.000000	Freshwater	Static
OPP	28159-98-0	Igarol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	750.000000	Freshwater	Fbw Through
OPP	28159-98-0	Igarol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	840.000000	Freshwater	Static
OPP	28159-98-0	Igarol1051 GS 26575 Degrad)	Am ericanus bahia	Mysid	96 hr	LC50	1500.000000	Saltwater	Static
OPP	108-80-5	Isocyanuric acid	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	620.000000	Freshwater	Static
OPP	25311-71-1	Isofenphos	Am ericanus bahia	Mysid	96 hr	LC50	1.700000	Saltwater	Fbw Through
OPP	25311-71-1	Isofenphos	Crassostrea virginica	Eastern oyster	96 hr	EC50	152.000000	Saltwater	Fbw Through
OPP	25311-71-1	Isofenphos	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	1700.000000	Saltwater	Static Renewal
OPP	25311-71-1	Isofenphos	Daphnia magna	Water flea	48 hr	EC50	3.900000	Freshwater	Static
OPP	25311-71-1	Isofenphos	Daphnia magna	Water flea	48 hr	EC50	4.600000	Freshwater	Static
OPP	25311-71-1	Isofenphos	Ictalurus punctatus	Channel catfish	96 hr	LC50	2100.000000	Freshwater	Static
OPP	25311-71-1	Isofenphos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1400.000000	Freshwater	Static
OPP	25311-71-1	Isofenphos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2200.000000	Freshwater	Fbw Through
OPP	25311-71-1	Isofenphos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1800.000000	Freshwater	Static

Appendix 1
FinalAcute Toxicity Database

OPP	25311-71-1	Isoenphos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3300.00000	Freshwater	Fbw Through
OPP	33820-53-0	Isopropalin	Daphnia magna	Water flea	48 hr	EC50	270.00000	Freshwater	Static
OPP	33820-53-0	Isopropalin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	24300.00000	Freshwater	Static Renewal
OPP	33820-53-0	Isopropalin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	803.00000	Freshwater	Static
OPP	141112-29-0	Ioxafitole	American shad	Mysid	96 hr	LC50	17.80000	Saltwater	Fbw Through
OPP	141112-29-0	Ioxafitole	Ciassostea virginica	Eastern oyster	96 hr	EC50	3300.00000	Saltwater	Fbw Through
OPP	141112-29-0	Ioxafitole Degrad)	American shad	Mysid	96 hr	LC50	3600.00000	Saltwater	Static Renewal
OPP	141112-29-0	Ioxafitole Degrad)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	160000.00000	Freshwater	Fbw Through
CERC-GED	18181-70-9	Jodenphos	Italicus punctatus	Channelcatfish	96 hr	LC50	388.00000	Freshwater	Static
CERC-GED	18181-70-9	Jodenphos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	16.20000	Freshwater	Static
CERC-GED	52769-67-2	Komen	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	9200.00000	Freshwater	Static
CERC-GED	52769-67-2	Komen	Pomacea paludosa	Apple snail	96 hr	LC50	52.00000	Freshwater	Static
OPP	143390-89-0	Kresoxin methyl	American shad	Mysid	96 hr	LC50	59.00000	Saltwater	Fbw Through
OPP	143390-89-0	Kresoxin methyl	Ciassostea virginica	Eastern oyster	96 hr	LC50	14.70000	Saltwater	Fbw Through
OPP	143390-89-0	Kresoxin methyl	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	1173.00000	Saltwater	Fbw Through
OPP	143390-89-0	Kresoxin methyl	Daphnia magna	Water flea	48 hr	EC50	332.00000	Freshwater	Fbw Through
OPP	143390-89-0	Kresoxin methyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	190.00000	Freshwater	Fbw Through
CERC-GED	1330-78-5	Krontex 200	Gammams pseudonaeus	Scud	96 hr	LC50	5500.00000	Freshwater	Static
CERC-GED	1330-78-5	Krontex 200	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	29000.00000	Freshwater	Static
CERC-GED	1330-78-5	Krontex 200	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4500.00000	Freshwater	Static
CERC-GED	1330-78-5	Krontex 200	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6000.00000	Freshwater	Static
CERC-GED	21609-90-5	Leptophos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	6800.00000	Freshwater	Static
CERC-GED	21609-90-5	Leptophos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	22.30000	Freshwater	Static
CERC-GED	21609-90-5	Leptophos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	10.60000	Freshwater	Static
CERC-GED	21609-90-5	Leptophos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	13.10000	Freshwater	Static
CERC-GED	21609-90-5	Leptophos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	20.00000	Freshwater	Static
CERC-GED	21609-90-5	Leptophos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	33.00000	Freshwater	Static
CERC-GED	21609-90-5	Leptophos	Perca flavescens	Yellow perch	96 hr	LC50	690.00000	Freshwater	Static
CERC-GED	21609-90-5	Leptophos	Perca flavescens	Yellow perch	96 hr	LC50	2000.00000	Freshwater	Static
CERC-GED	21609-90-5	Leptophos	Salmoflutta	Brown trout	96 hr	LC50	7.60000	Freshwater	Static
CERC-GED	112-56-1	Lethane 384	Gammams fasciatus	Scud	96 hr	LC50	4800.00000	Freshwater	Static
CERC-GED	1344-81-6	Lime sulfur (Calcium polysulfide)	Daphnia pulex	Water flea	48 hr	EC50	10000.00000	Freshwater	Static
CERC-GED	1344-81-6	Lime sulfur (Calcium polysulfide)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	48500.00000	Freshwater	Static
CERC-GED	1344-81-6	Lime sulfur (Calcium polysulfide)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	8200.00000	Freshwater	Static
CERC-GED	1344-81-6	Lime sulfur (Calcium polysulfide)	Sinocyclopus semilatus	Water flea	48 hr	EC50	11000.00000	Freshwater	Static
OPP	138-86-3	Limonene	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	80000.00000	Freshwater	Static
OPP	330-55-2	Linuron	American shad	Mysid	96 hr	LC50	3300.00000	Saltwater	Static
CERC-GED	330-55-2	Linuron	Chironomus plumosus	Maggot	48 hr	EC50	2900.00000	Freshwater	Static
OPP	330-55-2	Linuron	Daphnia magna	Water flea	48 hr	EC50	120.00000	Freshwater	Static
CERC-GED	330-55-2	Linuron	Daphnia magna	Water flea	48 hr	EC50	270.00000	Freshwater	Static
OPP	330-55-2	Linuron	Daphnia magna	Water flea	48 hr	EC50	1910.00000	Freshwater	Static
CERC-GED	330-55-2	Linuron	Italicus punctatus	Channelcatfish	96 hr	LC50	2900.00000	Freshwater	Static
OPP	330-55-2	Linuron	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	9600.00000	Freshwater	Static
OPP	330-55-2	Linuron	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3000.00000	Freshwater	Static
OPP	29457-72-5	Lithium perfluorooctane sulfon	Daphnia magna	Water flea	48 hr	EC50	67000.00000	Freshwater	Static
ECOTOX	7786-30-3	Magnesium chloride	Daphnia magna	Water flea	48 hr	EC50	140000.00000	Freshwater	Static
ECOTOX	7786-30-3	Magnesium chloride	Daphnia magna	Water flea	48 hr	EC50	322000.00000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Amelium melas	Black bullhead	96 hr	LC50	12900.00000	Freshwater	Static
OPP	121-75-5	Malathion	American shad	Mysid	96 hr	LC50	2.20000	Saltwater	Fbw Through
CERC-GED	121-75-5	Malathion	Aelles brevirostris	Aquatic sow bug	96 hr	LC50	3000.00000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Atherix variegata	Snipe fly	96 hr	LC50	385.00000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Bufo woodhouseiowleri	Fowler toad	96 hr	LC50	420.00000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Carassius auratus	Goldfish	96 hr	LC50	10700.00000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Chasseriabubulcus	Stonefly	96 hr	LC50	2.80000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Cypridopsis viridis	Ostracod	48 hr	LC50	47.00000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Cyprinus carpio	Common carp	96 hr	LC50	6590.00000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Daphnia magna	Water flea	48 hr	EC50	1.00000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Daphnia pulex	Water flea	48 hr	EC50	1.80000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Gammams fasciatus	Scud	96 hr	LC50	0.76000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Hydropsyche sp.	Caddisfly	96 hr	LC50	5.00000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Italicus punctatus	Channelcatfish	96 hr	LC50	8970.00000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Ioperla sp.	Stonefly	96 hr	LC50	0.69000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

CERC-GED	121-75-5	Malathion	Lepomis cyanellus	Green sunfish	96 hr	LC50	146.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Lepomis cyanellus	Green sunfish	96 hr	LC50	175.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	30.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	55.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	103.000000	Freshwater	Static
OPP	121-75-5	Malathion	Lepomis macrochirus	Redear sunfish	96 hr	LC50	62.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Lestes congener	Damselfly	96 hr	LC50	10.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Micropodus sahyadrensis	Largemouth bass	96 hr	LC50	285.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Oncorhynchus clarkii	Coho trout	96 hr	LC50	280.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	170.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	177.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	66.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	200.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Pahem onotes kadakensis	Grass shrimp	96 hr	LC50	32.000000	Freshwater	Static
OPP	121-75-5	Malathion	Penaeus duorarum	Pink shrimp	48 hr	LC50	280.000000	Saltwater	Fbw Through
CERC-GED	121-75-5	Malathion	Pimephales promelas	Fathead minnow	96 hr	LC50	8650.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Pseudacris triseriata	Western chorus frog	96 hr	LC50	200.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Pteronarcia badia	Stonefly	96 hr	LC50	1.100000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Pteronarcia badia	Stonefly	96 hr	LC50	6.200000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Pteronarcia californica	Stonefly	96 hr	LC50	10.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Salmo trutta	Brown trout	96 hr	LC50	101.000000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Sinocyclopus semilatus	Water flea	48 hr	EC50	3.500000	Freshwater	Static
CERC-GED	121-75-5	Malathion	Sinocyclopus semilatus	Water flea	48 hr	EC50	6.200000	Freshwater	Static
OPP	123-33-1	Maleic Hydrazide	Daphnia magna	Water flea	48 hr	EC50	107500.000000	Freshwater	Static
OPP	8018-01-7	Mancozeb	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	640.000000	Freshwater	Static
CERC-GED	12427-38-2	Maneb	Penaeus duorarum	Pink shrimp	48 hr	EC50	3800.000000	Saltwater	Static
OPP	10605-21-7	MBC - Carbendazim	American shad	Mysid	96 hr	LC50	98.000000	Saltwater	Static
OPP	10605-21-7	MBC - Carbendazim	Daphnia magna	Water flea	48 hr	EC50	110.000000	Freshwater	Static
OPP	10605-21-7	MBC - Carbendazim	Daphnia magna	Water flea	48 hr	EC50	350.000000	Freshwater	Static
CERC-GED	10605-21-7	MBC - Carbendazim	Itanus punctatus	Channel catfish	96 hr	LC50	16.000000	Freshwater	Static
CERC-GED	10605-21-7	MBC - Carbendazim	Itanus punctatus	Channel catfish	96 hr	LC50	19.000000	Freshwater	Static
CERC-GED	10605-21-7	MBC - Carbendazim	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	650.000000	Freshwater	Static
OPP	10605-21-7	MBC - Carbendazim	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1320.000000	Freshwater	Fbw Through
OPP	94-74-6	MCPA Acid	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	97000.000000	Freshwater	Static
OPP	94-74-6	MCPA Acid	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	91000.000000	Freshwater	Static
OPP	2039-46-5	MCPA Diethylamine salt	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	89000.000000	Freshwater	Static
OPP	26544-20-7	MCPA Eooctylester	American shad	Mysid	96 hr	LC50	200.000000	Saltwater	Fbw Through
CERC-GED	94-81-5	MCPB	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3300.000000	Freshwater	Static
CERC-GED	94-81-5	MCPB	Pimephales promelas	Fathead minnow	96 hr	LC50	12500.000000	Freshwater	Static
OPP	7085-19-0	MCPP Acid	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	124800.000000	Freshwater	Static
OPP	70630-17-0	Mefenoxam	Crassostrea virginica	Eastern oyster	96 hr	EC50	9700.000000	Saltwater	Fbw Through
ECOTOX	7487-94-7	Mercuric chloride	Apexia hypnomus	Snail	96 hr	LC50	273.000000	Freshwater	Static
ECOTOX	7487-94-7	Mercuric chloride	Daphnia magna	Water flea	48 hr	EC50	5.000000	Freshwater	Static
ECOTOX	7487-94-7	Mercuric chloride	Gambusia affinis	Mosquitofish	96 hr	LC50	180.000000	Freshwater	Static
ECOTOX	7487-94-7	Mercuric chloride	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	118.000000	Freshwater	Static
CERC-GED	7487-94-7	Mercuric chloride	Menidia peninsulae	Tidewater silverside	96 hr	LC50	71.000000	Saltwater	Static
ECOTOX	7487-94-7	Mercuric chloride	Pimephales promelas	Fathead minnow	96 hr	LC50	168.000000	Freshwater	Fbw Through
CERC-GED	150-50-5	Mephos	Itanus punctatus	Channel catfish	96 hr	LC50	3200.000000	Freshwater	Static
CERC-GED	150-50-5	Mephos	Itanus punctatus	Channel catfish	96 hr	LC50	6500.000000	Freshwater	Static
CERC-GED	150-50-5	Mephos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1300.000000	Freshwater	Static
CERC-GED	150-50-5	Mephos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	5600.000000	Freshwater	Static
CERC-GED	150-50-5	Mephos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	8000.000000	Freshwater	Static
CERC-GED	150-50-5	Mephos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	15000.000000	Freshwater	Static
CERC-GED	150-50-5	Mephos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	14500.000000	Freshwater	Static
CERC-GED	150-50-5	Mephos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	33000.000000	Freshwater	Static
OPP	57837-19-1	Metahxyl	American shad	Mysid	96 hr	LC50	25700.000000	Saltwater	Fbw Through
OPP	57837-19-1	Metahxyl	Crassostrea virginica	Eastern oyster	96 hr	EC50	4600.000000	Saltwater	Fbw Through
OPP	57837-19-1	Metahxyl	Daphnia magna	Water flea	48 hr	EC50	28000.000000	Freshwater	Static
OPP	57837-19-1	Metahxyl	Daphnia magna	Water flea	48 hr	EC50	29300.000000	Freshwater	Static
OPP	57837-19-1	Metahxyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	139000.000000	Freshwater	Static
OPP	57837-19-1	Metahxyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	150000.000000	Freshwater	Static
OPP	57837-19-1	Metahxyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	130000.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	57837-19-1	M etahyxl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	132000.000000	Freshwater	Static
OPP	108-62-3	M etaldehyde	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	149800.000000	Freshwater	Static
CERC-GED	137-42-8	M etam sodium	Cyprinopsis viridis	Ostacod	48 hr	LC50	35.000000	Freshwater	Static
OPP	10265-92-6	M etham iophos	Am erican y si bahia	Mysid	96 hr	LC50	1050.000000	Saltwater	Static
OPP	10265-92-6	M etham iophos	Cyprinus carpio	Common carp	96 hr	LC50	68000.000000	Freshwater	Static Renewal
OPP	10265-92-6	M etham iophos	Daphnia magna	Water flea	48 hr	EC50	27.000000	Freshwater	Static
CERC-GED	67-56-1	M ethanol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	19.000000	Freshwater	Static
OPP	950-37-8	M ethilathion	Am erican y si bahia	Mysid	96 hr	LC50	0.700000	Saltwater	Static
OPP	950-37-8	M ethilathion	Carassius auratus	Goldsfish	96 hr	LC50	6.800000	Freshwater	Static
OPP	950-37-8	M ethilathion	Crassostrea virginica	Eastern oyster	96 hr	EC50	7500.000000	Saltwater	Fbw Through
OPP	950-37-8	M ethilathion	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	7.800000	Saltwater	Static
OPP	950-37-8	M ethilathion	Daphnia magna	Water flea	48 hr	EC50	6.400000	Freshwater	Static
OPP	950-37-8	M ethilathion	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2.200000	Freshwater	Static
OPP	950-37-8	M ethilathion	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	10.000000	Freshwater	Static
CERC-GED	950-37-8	M ethilathion	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	14.000000	Freshwater	Static
OPP	950-37-8	M ethilathion	Penaeus duorarum	Pink shrimp	48 hr	LC50	15.000000	Saltwater	Fbw Through
OPP	2032-65-7	M ethicarb	Daphnia magna	Water flea	48 hr	EC50	19.000000	Freshwater	Static
OPP	2032-65-7	M ethicarb	Fundulus similis	Longnose killifish	96 hr	LC50	320.000000	Saltwater	Fbw Through
OPP	2032-65-7	M ethicarb	Hydropsyche sp.	Caddisfly	96 hr	EC50	14.000000	Freshwater	Static
OPP	2032-65-7	M ethicarb	Isonychia sp.	Mayfly	96 hr	EC50	7.000000	Freshwater	Static
OPP	2032-65-7	M ethicarb	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	754.000000	Freshwater	Static
OPP	2032-65-7	M ethicarb	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	436.000000	Freshwater	Static
CERC-GED	2032-65-7	M ethicarb	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	750.000000	Freshwater	Static
OPP	2032-65-7	M ethicarb	Oxytrem a catenaria	RiverHorn snail	96 hr	LC50	100.000000	NotReported	Static
OPP	2032-65-7	M ethicarb	Palemonetes kadiakensis	Glass shrimp	96 hr	LC50	110.000000	Freshwater	Static
OPP	2032-65-7	M ethicarb	Penaeus duorarum	Pink shrimp	48 hr	LC50	32.000000	Saltwater	Fbw Through
OPP	2032-65-7	M ethicarb	Procambarus acutus acutus	Crayfish	96 hr	LC50	1300.000000	Freshwater	Static
CERC-GED	2032-65-7	M ethicarb	Pteronarcys californica	Stonefly	96 hr	LC50	5.400000	Freshwater	Static
OPP	2032-65-7	M ethicarb	Rana sphenoccephala	Leopard frog	96 hr	LC50	8700.000000	Freshwater	Static
OPP	16752-77-5	M ethom yl	Am erican y si bahia	Mysid	96 hr	LC50	230.000000	Saltwater	Static
CERC-GED	16752-77-5	M ethom yl	Chironomus plumosus	Midge	48 hr	EC50	88.000000	Freshwater	Static
OPP	16752-77-5	M ethom yl	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	1160.000000	Saltwater	Static
OPP	16752-77-5	M ethom yl	Daphnia magna	Water flea	48 hr	EC50	31.700000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Gammarellus pseudoimmaculatus	Scud	96 hr	LC50	920.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Ictalurus punctatus	Channelcatfish	96 hr	LC50	530.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Iogenus sp.	Stonefly	96 hr	LC50	343.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	600.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	860.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1050.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1150.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1200.000000	Freshwater	Static
OPP	16752-77-5	M ethom yl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1750.000000	Freshwater	Static
OPP	16752-77-5	M ethom yl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1880.000000	Freshwater	Static
OPP	16752-77-5	M ethom yl	M icropodus sinensis	Largemouth bass	96 hr	LC50	1250.000000	Freshwater	Static
OPP	16752-77-5	M ethom yl	Neopanope texana	Mud crab	96 hr	LC50	410.000000	NotReported	Static
OPP	16752-77-5	M ethom yl	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	4050.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1050.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1100.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1600.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1700.000000	Freshwater	Static
OPP	16752-77-5	M ethom yl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2400.000000	Freshwater	Static
OPP	16752-77-5	M ethom yl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3400.000000	Freshwater	Static
OPP	16752-77-5	M ethom yl	Palemonetes vulgaris	Shore shrimp	96 hr	LC50	49.000000	Saltwater	Static
CERC-GED	16752-77-5	M ethom yl	Pimephales promelas	Fathead minnow	96 hr	LC50	2800.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Salmo salar	Atlantic salmon	96 hr	LC50	1120.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Salmo salar	Atlantic salmon	96 hr	LC50	1150.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Salmo salar	Atlantic salmon	96 hr	LC50	1220.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Salvelinus fontinalis	Brook trout	96 hr	LC50	1500.000000	Freshwater	Static
CERC-GED	16752-77-5	M ethom yl	Salvelinus fontinalis	Brook trout	96 hr	LC50	2200.000000	Freshwater	Static
OPP	40596-69-8	M ethoprene	Am erican y si bahia	Mysid	96 hr	LC50	106.000000	Saltwater	Fbw Through
OPP	40596-69-8	M ethoprene	Daphnia magna	Water flea	48 hr	EC50	360.000000	Freshwater	Static
OPP	40596-69-8	M ethoprene	Daphnia magna	Water flea	48 hr	EC50	890.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUATIC/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	40596-69-8	M ethoprene	Lepom is macrochirus	B luegill sunfish	96 hr	LC50	1520.000000	Freshwater	Static
CERC-GED	40596-69-8	M ethoprene	Lepom is macrochirus	B luegill sunfish	96 hr	LC50	2910.000000	Freshwater	Static
CERC-GED	40596-69-8	M ethoprene	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1550.000000	Freshwater	Static
CERC-GED	841-06-5	M ethopropene	Lepom is macrochirus	B luegill sunfish	96 hr	LC50	15500.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Asellus brevirostris	Aquatic sow bug	96 hr	LC50	34.000000	Freshwater	Static
OPP	72-43-5	M ethoxychbr	Calanectes sapidus	B lue crab	48 hr	LC50	320.000000	Saltwater	Fbw Through
CERC-GED	72-43-5	M ethoxychbr	Carassius auratus	G odfish	96 hr	LC50	42.000000	Freshwater	Static
OPP	72-43-5	M ethoxychbr	Crassostrea virginica	E astern oyster	96 hr	EC50	90.000000	Saltwater	Fbw Through
CERC-GED	72-43-5	M ethoxychbr	Cyprinodon rivularis	O stacod	48 hr	EC50	32.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Daphnia pulex	W ater flea	48 hr	EC50	0.780000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Gammarellus fasciatus	Scud	96 hr	LC50	1.900000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Gammarellus lacustris	Scud	96 hr	LC50	0.800000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Italicus punctatus	C hannelcatfish	96 hr	LC50	52.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Lepom is macrochirus	B luegill sunfish	96 hr	LC50	32.000000	Freshwater	Static
OPP	72-43-5	M ethoxychbr	Lepom is macrochirus	B luegill sunfish	96 hr	LC50	42.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Lepom is macrochirus	B luegill sunfish	96 hr	LC50	51.000000	Freshwater	Static
OPP	72-43-5	M ethoxychbr	Lepom is macrochirus	B luegill sunfish	96 hr	LC50	75.000000	Freshwater	Static
OPP	72-43-5	M ethoxychbr	M icropodus sahyadrensis	L arge mouth bass	96 hr	LC50	14.000000	Freshwater	Static
OPP	72-43-5	M ethoxychbr	Oncorhynchus clarkii	C utthroat trout	96 hr	LC50	6.200000	Freshwater	Fbw Through
OPP	72-43-5	M ethoxychbr	Oncorhynchus clarkii	C utthroat trout	96 hr	LC50	13.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Oncorhynchus clarkii	C utthroat trout	96 hr	LC50	15.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	11.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	12.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	17.000000	Freshwater	Static
OPP	72-43-5	M ethoxychbr	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	30.000000	Freshwater	Static
OPP	72-43-5	M ethoxychbr	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	61.000000	Freshwater	Fbw Through
CERC-GED	72-43-5	M ethoxychbr	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	62.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Pahem onites kadiakensis	G rass shrimp	96 hr	LC50	1.050000	Freshwater	Static
OPP	72-43-5	M ethoxychbr	Penaeus aztecus	Brown shrimp	48 hr	LC50	3.600000	Saltwater	Fbw Through
OPP	72-43-5	M ethoxychbr	Penaeus duorarum	P ink shrimp	48 hr	LC50	6.800000	Saltwater	Fbw Through
CERC-GED	72-43-5	M ethoxychbr	Perca flavescens	Y ellow perch	96 hr	LC50	30.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Pimephales promelas	F athead minnow	96 hr	LC50	39.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Pseudacris triseriata	W estern chorus frog	96 hr	LC50	333.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Pteronarcys californica	S tonefly	96 hr	LC50	1.400000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	S amo salar	A tlantic salmon	96 hr	LC50	16.400000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	S amo salar	A tlantic salmon	96 hr	LC50	17.200000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	S amo salar	A tlantic salmon	96 hr	LC50	21.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	S avelinus fontinalis	B rook trout	96 hr	LC50	8.200000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	S avelinus fontinalis	B rook trout	96 hr	LC50	10.500000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	S avelinus fontinalis	B rook trout	96 hr	LC50	11.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	S avelinus fontinalis	B rook trout	96 hr	LC50	19.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	S avelinus fontinalis	B rook trout	96 hr	LC50	19.200000	Freshwater	Static
OPP	72-43-5	M ethoxychbr	S avelinus nam ayucush	L ake trout	96 hr	LC50	16.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	S inocephalus semilatus	W ater flea	48 hr	EC50	5.000000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	S inocephalus semilatus	W ater flea	48 hr	EC50	5.600000	Freshwater	Static
CERC-GED	72-43-5	M ethoxychbr	Tilapia mossambica	M ozambique tilapia	96 hr	LC50	76.000000	Freshwater	Static
OPP	161050-58-4	M ethoxyfenozide	Am erican y esha báhá	M ytilid	96 hr	LC50	1300.000000	Saltwater	Fbw Through
OPP	161050-58-4	M ethoxyfenozide	Crassostrea virginica	E astern oyster	96 hr	EC50	1200.000000	Saltwater	Fbw Through
OPP	161050-58-4	M ethoxyfenozide	Daphnia magna	W ater flea	48 hr	EC50	3700.000000	Freshwater	Fbw Through
OPP	134-20-3	M ethylantranilate	Lepom is macrochirus	B luegill sunfish	96 hr	LC50	9120.000000	Freshwater	Static
OPP	134-20-3	M ethylantranilate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	25400.000000	Freshwater	Fbw Through
OPP	134-20-3	M ethylantranilate	S amo salar	A tlantic salmon	96 hr	LC50	32350.000000	Freshwater	Static
OPP	74-83-9	M ethylbromide	Daphnia magna	W ater flea	48 hr	EC50	2600.000000	Freshwater	Static
ECOTOX	74-83-9	M ethylbromide	Lepom is macrochirus	B luegill sunfish	96 hr	LC50	11000.000000	Freshwater	Static
ECOTOX	74-83-9	M ethylbromide	M entha b erylinna	I land silverside	96 hr	LC50	12000.000000	Saltwater	Static
CERC-GED	8022-00-2	M ethylDemeton	Gammarellus lacustris	Scud	96 hr	LC50	190.000000	Freshwater	Static
CERC-GED	8022-00-2	M ethylDemeton	Pteronarcys californica	S tonefly	96 hr	LC50	35.000000	Freshwater	Static
OPP	556-61-6	M ethylisothiocyanate	Daphnia magna	W ater flea	48 hr	EC50	55.000000	Freshwater	Fbw Through
OPP	556-61-6	M ethylisothiocyanate	Lepom is macrochirus	B luegill sunfish	96 hr	LC50	142.000000	Freshwater	Fbw Through
OPP	556-61-6	M ethylisothiocyanate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	94.000000	Freshwater	Fbw Through
OPP	112-12-9	M ethylnonylketone	Daphnia magna	W ater flea	48 hr	EC50	540.000000	Freshwater	Fbw Through
OPP	112-12-9	M ethylnonylketone	Lepom is macrochirus	B luegill sunfish	96 hr	LC50	2100.000000	Freshwater	Fbw Through

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDERA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	112-12-9	M ethynonylketone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3000.00000	Freshwater	Fbw Through
OPP	298-00-0	M ethylParathion	Acartia tonsa	Copepod	96 hr	LC50	28.000000	Salwater	Static
CERC-GED	298-00-0	M ethylParathion	Am elius melas	Black bulhead	96 hr	LC50	6640.00000	Freshwater	Static
OPP	298-00-0	M ethylParathion	Am ericanus bahia	Mysid	96 hr	LC50	0.780000	Salwater	Fbw Through
CERC-GED	298-00-0	M ethylParathion	Am ericanus bahia	Mysid	96 hr	LC50	0.980000	Salwater	Static
CERC-GED	298-00-0	M ethylParathion	Carassius auratus	G odfish	96 hr	LC50	9000.00000	Freshwater	Static
CERC-GED	298-00-0	M ethylParathion	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	12000.00000	Salwater	Static
CERC-GED	298-00-0	M ethylParathion	Cyprinus carpio	Common carp	96 hr	LC50	7130.00000	Freshwater	Static
CERC-GED	298-00-0	M ethylParathion	Daphnia magna	Water flea	48 hr	EC50	0.140000	Freshwater	Static
CERC-GED	298-00-0	M ethylParathion	Gammarellus fasciatus	Scud	96 hr	LC50	3.800000	Freshwater	Static
OPP	298-00-0	M ethylParathion	Hexagenia sp.	Mayfly	96 hr	LC50	17.000000	Freshwater	Fbw Through
CERC-GED	298-00-0	M ethylParathion	Ictalurus punctatus	Channelcatfish	96 hr	LC50	5240.00000	Freshwater	Static
CERC-GED	298-00-0	M ethylParathion	Lepomis cyanellus	Green sunfish	96 hr	LC50	6860.00000	Freshwater	Static
CERC-GED	298-00-0	M ethylParathion	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	4380.00000	Freshwater	Static
CERC-GED	298-00-0	M ethylParathion	Micropodus sahyadrensis	Largemouth bass	96 hr	LC50	5220.00000	Freshwater	Static
CERC-GED	298-00-0	M ethylParathion	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	5300.00000	Freshwater	Static
CERC-GED	298-00-0	M ethylParathion	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3700.00000	Freshwater	Static
OPP	298-00-0	M ethylParathion	Penaeus aztecus	Brown shrimp	48 hr	LC50	2.600000	Salwater	Fbw Through
OPP	298-00-0	M ethylParathion	Penaeus stylospinosus	White shrimp	96 hr	LC50	1.400000	Salwater	Static
CERC-GED	298-00-0	M ethylParathion	Pimephales promelas	Fathead minnow	96 hr	LC50	8900.00000	Freshwater	Static
CERC-GED	298-00-0	M ethylParathion	Pseudacris triseriata	Western chorus frog	96 hr	LC50	3700.00000	Freshwater	Static
CERC-GED	298-00-0	M ethylParathion	Salmo trutta	Brown trout	96 hr	LC50	4700.00000	Freshwater	Static
CERC-GED	298-00-0	M ethylParathion	Sinocyclopus semilatus	Water flea	48 hr	EC50	0.370000	Freshwater	Static
CERC-GED	953-17-3	M ethylTribut	Gammarellus fasciatus	Scud	96 hr	LC50	11.000000	Freshwater	Static
CERC-GED	953-17-3	M ethylTribut	Ictalurus punctatus	Channelcatfish	96 hr	LC50	2800.00000	Freshwater	Static
CERC-GED	953-17-3	M ethylTribut	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	960.000000	Freshwater	Static
CERC-GED	953-17-3	M ethylTribut	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	1200.00000	Freshwater	Static
CERC-GED	953-17-3	M ethylTribut	Pteronarcys californica	Stonefly	96 hr	LC50	6.200000	Freshwater	Static
OPP	51218-45-2	M etolachlor	Am ericanus bahia	Mysid	96 hr	LC50	4900.00000	Salwater	Fbw Through
OPP	51218-45-2	M etolachlor	Carassius carassius	Crucian carp	96 hr	LC50	4900.00000	Freshwater	Static
CERC-GED	51218-45-2	M etolachlor	Chironomus plumosus	Midge	48 hr	EC50	3800.00000	Freshwater	Static
OPP	51218-45-2	M etolachlor	Crassostrea virginica	Eastern oyster	96 hr	EC50	1600.00000	Salwater	Fbw Through
OPP	51218-45-2	M etolachlor	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	7900.00000	Salwater	Static
CERC-GED	51218-45-2	M etolachlor	Daphnia magna	Water flea	48 hr	EC50	23500.00000	Freshwater	Static
OPP	51218-45-2	M etolachlor	Daphnia magna	Water flea	48 hr	EC50	25100.00000	Freshwater	Static
OPP	51218-45-2	M etolachlor	Ictalurus punctatus	Channelcatfish	96 hr	LC50	4900.00000	Freshwater	Static
OPP	51218-45-2	M etolachlor	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	10000.00000	Freshwater	Static
OPP	51218-45-2	M etolachlor	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3900.00000	Freshwater	Static
CERC-GED	51218-45-2	M etolachlor	Pimephales promelas	Fathead minnow	96 hr	LC50	8000.00000	Freshwater	Static
OPP	51218-45-2	M etolachlor	Poecilia reticulata	Guppy	96 hr	LC50	8600.00000	Freshwater	Static
OPP	87392-12-9	M etolachlor-brom	Daphnia magna	Water flea	48 hr	EC50	26000.00000	Freshwater	Static
OPP	87392-12-9	M etolachlor-brom	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	11900.00000	Freshwater	Static
OPP	21087-64-9	M etobuzin	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	85000.00000	Salwater	Static
OPP	21087-64-9	M etobuzin	Daphnia magna	Water flea	48 hr	EC50	4180.00000	Freshwater	Static
OPP	21087-64-9	M etobuzin	Daphnia magna	Water flea	48 hr	EC50	4200.00000	Freshwater	Static
OPP	21087-64-9	M etobuzin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	75960.00000	Freshwater	Static
CERC-GED	21087-64-9	M etobuzin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	92000.00000	Freshwater	Static
CERC-GED	21087-64-9	M etobuzin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	42000.00000	Freshwater	Static
OPP	21087-64-9	M etobuzin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	64000.00000	Freshwater	Static
OPP	21087-64-9	M etobuzin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	76770.00000	Freshwater	Static
OPP	443-48-1	M etonidazole	Am ericanus bahia	Mysid	96 hr	LC50	182000.00000	Salwater	Static
OPP	443-48-1	M etonidazole	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	1060000.00000	Salwater	Static
CERC-GED	7786-34-7	M eviphos	Aesalus brevitaodus	Aquatic sow bug	96 hr	LC50	61.000000	Freshwater	Static
CERC-GED	7786-34-7	M eviphos	Daphnia pulex	Water flea	48 hr	EC50	0.180000	Freshwater	Static
CERC-GED	7786-34-7	M eviphos	Gammarellus fasciatus	Scud	96 hr	LC50	3.500000	Freshwater	Static
CERC-GED	7786-34-7	M eviphos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	59.000000	Freshwater	Static
CERC-GED	7786-34-7	M eviphos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	11.900000	Freshwater	Static
OPP	7786-34-7	M eviphos	Penaeus aztecus	Brown shrimp	48 hr	LC50	150.000000	Salwater	Fbw Through
CERC-GED	7786-34-7	M eviphos	Pteronarcys californica	Stonefly	96 hr	LC50	5.000000	Freshwater	Static
CERC-GED	7786-34-7	M eviphos	Sinocyclopus semilatus	Water flea	48 hr	EC50	0.420000	Freshwater	Static
CERC-GED	7786-34-7	M eviphos	Sinocyclopus semilatus	Water flea	48 hr	EC50	0.490000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

CERC-GED	315-18-4	M exacarbate	<i>Ameiurus meekii</i>	Black bullhead	96 hr	LC 50	16700.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Carassius auratus</i>	Golifish	96 hr	LC 50	14000.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Cyprinus carpio</i>	Common carp	96 hr	LC 50	13400.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Daphnia pulex</i>	Water flea	48 hr	EC 50	10.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Gammarus fasciatus</i>	Scud	96 hr	LC 50	40.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Gammarus lacustris</i>	Scud	96 hr	LC 50	46.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC 50	11400.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Lepomis cyanellus</i>	Green sunfish	96 hr	LC 50	16700.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC 50	11200.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Micropodus salmoides</i>	Largemouth bass	96 hr	LC 50	14700.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Oncorhynchus clarkii</i>	Coho trout	96 hr	LC 50	15800.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Oncorhynchus kisutch</i>	Coho salmon	96 hr	LC 50	23000.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC 50	8100.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC 50	12000.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC 50	15000.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Oncorhynchus tshawytscha</i>	Chinook salmon	96 hr	LC 50	22700.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Perca flavescens</i>	Yellow perch	96 hr	LC 50	16200.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC 50	17000.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC 50	1230.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC 50	10.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Salmo salar</i>	Atlantic salmon	96 hr	LC 50	22300.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Salmo trutta</i>	Brown trout	96 hr	LC 50	20000.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Salvelinus fontinalis</i>	Brook trout	96 hr	LC 50	21200.000000	Freshwater	Static
CERC-GED	315-18-4	M exacarbate	<i>Sinocyclopus semilatus</i>	Water flea	48 hr	EC 50	13.000000	Freshwater	Static
OPP	8012-95-1	M hexanol incl parafn oil	<i>Daphnia magna</i>	Water flea	48 hr	EC 50	21.000000	Freshwater	Fbw Through
OPP	2385-85-5	M hex	<i>Penaeus duorarum</i>	Pink shrimp	48 hr	LC 50	720.000000	Saltwater	Fbw Through
CERC-GED	3567-25-7	M in FF	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC 50	4800.000000	Freshwater	Static
CERC-GED	3567-25-7	M in FF	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC 50	6100.000000	Freshwater	Static
OPP	2212-67-1	Molinate	<i>Am ericanus bahia</i>	Mysis	96 hr	LC 50	760.000000	Saltwater	Static
OPP	2212-67-1	Molinate	<i>Am ericanus bahia</i>	Mysis	96 hr	LC 50	2500.000000	Saltwater	Static
OPP	2212-67-1	Molinate	<i>Am ericanus bahia</i>	Mysis	96 hr	LC 50	3400.000000	Saltwater	Static
CERC-GED	2212-67-1	Molinate	<i>Bufo woodhouseiowleri</i>	Fowler's toad	96 hr	LC 50	26000.000000	Freshwater	Static
OPP	2212-67-1	Molinate	<i>Carassius auratus</i>	Golifish	96 hr	LC 50	30300.000000	Freshwater	Static
OPP	2212-67-1	Molinate	<i>Crassostrea gigas</i>	Pacific oyster	48 hr	EC 50	27100.000000	Saltwater	Static
OPP	2212-67-1	Molinate	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC 50	5300.000000	Saltwater	Fbw Through
CERC-GED	2212-67-1	Molinate	<i>Cypridopsis thysanophrys</i>	O staccod	48 hr	EC 50	180.000000	Freshwater	Static
OPP	2212-67-1	Molinate	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC 50	12000.000000	Saltwater	Static
OPP	2212-67-1	Molinate	<i>Cyprinus carpio</i>	Common carp	96 hr	LC 50	42800.000000	Freshwater	Static
OPP	2212-67-1	Molinate	<i>Daphnia magna</i>	Water flea	48 hr	EC 50	19400.000000	Freshwater	Static
CERC-GED	2212-67-1	Molinate	<i>Gammarus fasciatus</i>	Scud	96 hr	LC 50	4500.000000	Freshwater	Static
OPP	2212-67-1	Molinate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC 50	19670.000000	Freshwater	Static
OPP	2212-67-1	Molinate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC 50	23100.000000	Freshwater	Fbw Through
OPP	2212-67-1	Molinate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC 50	24000.000000	Freshwater	Static
OPP	2212-67-1	Molinate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC 50	29000.000000	Freshwater	Static
OPP	2212-67-1	Molinate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC 50	990.000000	Freshwater	Static
OPP	2212-67-1	Molinate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC 50	7620.000000	Freshwater	Static
OPP	2212-67-1	Molinate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC 50	14000.000000	Freshwater	Fbw Through
OPP	2212-67-1	Molinate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC 50	20000.000000	Freshwater	Fbw Through
OPP	2212-67-1	Molinate	<i>Oncorhynchus tshawytscha</i>	Chinook salmon	96 hr	LC 50	13000.000000	Freshwater	Fbw Through
OPP	2212-67-1	Molinate	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC 50	27000.000000	Freshwater	Static
CERC-GED	2212-67-1	Molinate	<i>Pteronarcys californica</i>	Stonefly	96 hr	LC 50	340.000000	Freshwater	Static
CERC-GED	61791-26-2	MON 0818	<i>Chironomus plumosus</i>	Midge	48 hr	EC 50	13000.000000	Freshwater	Static
CERC-GED	61791-26-2	MON 0818	<i>Ictalurus punctatus</i>	Channelcatfish	96 hr	LC 50	13000.000000	Freshwater	Static
CERC-GED	61791-26-2	MON 0818	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC 50	3000.000000	Freshwater	Static
CERC-GED	61791-26-2	MON 0818	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC 50	3900.000000	Freshwater	Static
CERC-GED	61791-26-2	MON 0818	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC 50	2000.000000	Freshwater	Static
CERC-GED	61791-26-2	MON 0818	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC 50	1400.000000	Freshwater	Static
OPP	21351-39-3	Monocrotophos dihydrogen sulfate	<i>Gasterosteus aculeatus</i>	Threespine stickleback	96 hr	LC 50	80000.000000	Not Reported	Static
CERC-GED	6923-22-4	Monocrotophos	<i>Gammarus fasciatus</i>	Scud	96 hr	LC 50	260.000000	Freshwater	Static
CERC-GED	6923-22-4	Monocrotophos	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC 50	12100.000000	Freshwater	Static
OPP	150-68-5	Monuron	<i>Lepomis gibbosus</i>	Pumpkinseed	96 hr	LC 50	3300.000000	Freshwater	Static
OPP	140-41-0	Monuron TCA	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC 50	4500.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	82633-79-2	MTI	Daphnia magna	Water flea	48 hr	EC50	1300.000000	Freshwater	Fbw Through
OPP	82633-79-2	MTI	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2100.000000	Freshwater	Static
OPP	82633-79-2	MTI	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	890.000000	Freshwater	Static
OPP	88671-89-0	Mycobutanol	Am erican yel low belly	Mysid	96 hr	LC50	240.000000	Saltwater	Fbw Through
OPP	88671-89-0	Mycobutanol	Crassostrea virginica	Eastern oyster	96 hr	EC50	680.000000	Saltwater	Fbw Through
OPP	88671-89-0	Mycobutanol	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	4700.000000	Saltwater	Fbw Through
OPP	134-62-3	N,N-Diethylmethyltolamide (DEET)	Daphnia magna	Water flea	48 hr	EC50	75000.000000	Freshwater	Static
OPP	134-62-3	N,N-Diethylmethyltolamide (DEET)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	71250.000000	Freshwater	Static
CERC-GED	300-76-5	Naled	Asellus levicaudus	Aquatic sow bug	96 hr	LC50	41.000000	Freshwater	Static
OPP	300-76-5	Naled	Crassostrea virginica	Eastern oyster	96 hr	EC50	190.000000	Saltwater	Fbw Through
OPP	300-76-5	Naled	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	1200.000000	Saltwater	Fbw Through
OPP	300-76-5	Naled	Daphnia magna	Water flea	48 hr	EC50	0.300000	Freshwater	Static
CERC-GED	300-76-5	Naled	Daphnia pulex	Water flea	48 hr	EC50	0.400000	Freshwater	Static
OPP	300-76-5	Naled	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	600.000000	Freshwater	Fbw Through
OPP	300-76-5	Naled	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	160.000000	Freshwater	Static
CERC-GED	300-76-5	Naled	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	175.000000	Freshwater	Static
CERC-GED	300-76-5	Naled	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	195.000000	Freshwater	Static
OPP	300-76-5	Naled	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	210.000000	Freshwater	Fbw Through
OPP	300-76-5	Naled	Palaemonetes vulgaris	Shore shrimp	96 hr	LC50	9.300000	Saltwater	Fbw Through
CERC-GED	300-76-5	Naled	Pimephales promelas	Fathead minnow	96 hr	LC50	3300.000000	Freshwater	Static
CERC-GED	300-76-5	Naled	Pteronarcys californica	Stonefly	96 hr	LC50	8.000000	Freshwater	Static
CERC-GED	300-76-5	Naled	Sinocyclophorus semulatus	Water flea	48 hr	EC50	1.100000	Freshwater	Static
CERC-GED	2122-70-5	Naphthalene acetate - potassium	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	76000.000000	Freshwater	Static
OPP	15299-99-7	Napropamide	Am erican yellow belly	Mysid	96 hr	LC50	4200.000000	Saltwater	Static
OPP	15299-99-7	Napropamide	Crassostrea virginica	Eastern oyster	96 hr	EC50	1400.000000	Saltwater	Fbw Through
OPP	15299-99-7	Napropamide	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	14000.000000	Saltwater	Static
OPP	15299-99-7	Napropamide	Daphnia magna	Water flea	48 hr	EC50	14300.000000	Freshwater	Static
OPP	15299-99-7	Napropamide	Daphnia magna	Water flea	48 hr	EC50	24700.000000	Freshwater	Static
OPP	15299-99-7	Napropamide	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	12000.000000	Freshwater	Static
OPP	15299-99-7	Napropamide	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	9400.000000	Freshwater	Static
OPP	15299-99-7	Napropamide	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	13400.000000	Freshwater	Static
OPP	132-66-1	Naptalm, Sodium	Daphnia magna	Water flea	48 hr	EC50	118500.000000	Freshwater	Static
OPP	132-66-1	Naptalm, Sodium	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	354400.000000	Freshwater	Static
OPP	132-66-1	Naptalm, Sodium	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	76100.000000	Freshwater	Static
OPP	86-87-3	Naphthaleneacetic acid	Daphnia magna	Water flea	48 hr	EC50	180000.000000	Freshwater	Static
OPP	86-87-3	Naphthaleneacetic acid	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	41000.000000	Freshwater	Static
OPP	86-87-3	Naphthaleneacetic acid	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	28000.000000	Freshwater	Static
CERC-GED	68131-39-5	Neodol12-12	Pimephales promelas	Fathead minnow	96 hr	LC50	2940.000000	Freshwater	Static
CERC-GED	68131-39-5	Neodol12-12	Pimephales promelas	Fathead minnow	96 hr	LC50	3620.000000	Freshwater	Static
CERC-GED	68131-39-5	Neodol12-9	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1030.000000	Freshwater	Static
OPP	7212-44-4	Neurotoxin	Daphnia magna	Water flea	48 hr	EC50	2200.000000	Freshwater	Static
OPP	7212-44-4	Neurotoxin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1800.000000	Freshwater	Static
ECOTOX	7718-54-9	Nitrobus chlорide	Daphnia magna	Water flea	48 hr	EC50	510.000000	Freshwater	Static
ECOTOX	7718-54-9	Nitrobus chlорide	Daphnia magna	Water flea	48 hr	LC50	1800.000000	Freshwater	Static
CERC-GED	7718-54-9	Nitrobus chlорide	Menidia peninsulae	Tidewater silverside	96 hr	LC50	38000.000000	Saltwater	Static
ECOTOX	7718-54-9	Nitrobus chlорide	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	10000.000000	Freshwater	Fbw Through
ECOTOX	7718-54-9	Nitrobus chlорide	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	10900.000000	Freshwater	Fbw Through
OPP	1929-82-4	Nitrophen	Crassostrea virginica	Eastern oyster	96 hr	EC50	280.000000	Saltwater	Fbw Through
OPP	1929-82-4	Nitrophen	Crassostrea virginica	Eastern oyster	96 hr	EC50	410.000000	Saltwater	Fbw Through
OPP	1929-82-4	Nitrophen	Daphnia magna	Water flea	48 hr	EC50	2200.000000	Freshwater	Fbw Through
OPP	1929-82-4	Nitrophen	Daphnia magna	Water flea	48 hr	EC50	5800.000000	Freshwater	Static
CERC-GED	1929-82-4	Nitrophen	Italicus punctatus	Channelcatfish	96 hr	LC50	5800.000000	Freshwater	Static
OPP	1929-82-4	Nitrophen	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3400.000000	Freshwater	Fbw Through
OPP	1929-82-4	Nitrophen	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	7880.000000	Freshwater	Static
OPP	1929-82-4	Nitrophen	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4000.000000	Freshwater	Static
CERC-GED	1929-82-4	Nitrophen	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	7500.000000	Freshwater	Static
OPP	1929-82-4	Nitrophen	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	9190.000000	Freshwater	Static
OPP	1929-82-4	Nitrophen	Palaemonetes pugnax	Shore shrimp	96 hr	LC50	3100.000000	Saltwater	Fbw Through
CERC-GED	1929-82-4	Nitrophen	Pimephales promelas	Fathead minnow	96 hr	LC50	10200.000000	Freshwater	Static
ECOTOX	10099-74-8	Nitric acid, Lead (2+) salt	Daphnia magna	Water flea	48 hr	LC50	517.000000	Freshwater	Static
ECOTOX	10099-74-8	Nitric acid, Lead (2+) salt	Gammarellus pseudoleimaeus	Scud	96 hr	LC50	124.000000	Freshwater	Fbw Through
CERC-GED	1836-75-5	Nitrofen	Gammarellus fasciatus	Scud	96 hr	LC50	3100.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	105726-67-8	N-m ethyheodecanam iie	Daphnia magna	Water flea	48 hr	EC50	130000.00000	Freshwater	Static
OPP	105726-67-8	N-m ethyheodecanam iie	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	90000.00000	Freshwater	Static
OPP	105726-67-8	N-m ethyheodecanam iie	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	72000.00000	Freshwater	Static
OPP	113-48-4	n-octylbryc heptene dicaboxin iie MGK-264)	Daphnia magna	Water flea	48 hr	EC50	2300.00000	Freshwater	Fbw Through
OPP	113-48-4	n-octylbryc heptene dicaboxin iie MGK-264)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2400.00000	Freshwater	Fbw Through
OPP	113-48-4	n-octylbryc heptene dicaboxin iie MGK-264)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1400.00000	Freshwater	Fbw Through
OPP	112-05-0	Nonanoic acid	Daphnia magna	Water flea	48 hr	EC50	96000.00000	Freshwater	Static
OPP	112-05-0	Nonanoic acid	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	91000.00000	Freshwater	Static
CERC-GED	2163-79-3	Noxa	Carassius auratus	Golifish	96 hr	LC50	37000.00000	Freshwater	Static
CERC-GED	2163-79-3	Noxa	Gasterosteus aculeatus	Scud	96 hr	LC50	1370.00000	Freshwater	Static
CERC-GED	2163-79-3	Noxa	Pimephales promelas	Fathead minnow	96 hr	LC50	32000.00000	Freshwater	Static
OPP	27314-13-2	Norfluazon	American shad	Mysid	96 hr	LC50	5530.00000	Saltwater	Fbw Through
OPP	27314-13-2	Norfluazon	Crassostrea virginica	Eastern oyster	96 hr	EC50	3800.00000	Saltwater	Fbw Through
OPP	27314-13-2	Norfluazon	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	9580.00000	Saltwater	Fbw Through
OPP	27314-13-2	Norfluazon	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	16300.00000	Freshwater	Static
OPP	27314-13-2	Norfluazon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	8100.00000	Freshwater	Static
OPP	58-36-6	OBPA	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	8.00000	Saltwater	Static
OPP	58-36-6	OBPA	Daphnia magna	Water flea	48 hr	EC50	4.80000	Freshwater	Static
OPP	58-36-6	OBPA	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	8.00000	Freshwater	Static
OPP	58-36-6	OBPA	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3.50000	Freshwater	Static
OPP	58-36-6	OBPA	Palaemonetes pugio	Grass shrimp	96 hr	LC50	50.00000	Saltwater	Static
OPP	26530-20-1	O cthilnone	American shad	Mysid	96 hr	LC50	71.00000	Saltwater	Fbw Through
OPP	26530-20-1	O cthilnone	Crassostrea virginica	Eastern oyster	96 hr	EC50	13.00000	Saltwater	Fbw Through
OPP	26530-20-1	O cthilnone	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	160.00000	Saltwater	Fbw Through
OPP	26530-20-1	O cthilnone	Daphnia magna	Water flea	48 hr	EC50	180.00000	Freshwater	Static
OPP	26530-20-1	O cthilnone	Daphnia magna	Water flea	48 hr	EC50	320.00000	Freshwater	Fbw Through
OPP	26530-20-1	O cthilnone	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	180.00000	Freshwater	Fbw Through
OPP	26530-20-1	O cthilnone	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	196.00000	Freshwater	Static
OPP	26530-20-1	O cthilnone	Lepomis macrobifurcus	Redear sunfish	96 hr	LC50	154.00000	Freshwater	Static
OPP	26530-20-1	O cthilnone	Notemigonus crysoleucas	Golden shiner	96 hr	LC50	154.00000	Freshwater	Static
OPP	26530-20-1	O cthilnone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	47.00000	Freshwater	Fbw Through
OPP	26530-20-1	O cthilnone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	65.50000	Freshwater	Static
OPP	26530-20-1	O cthilnone	Pimephales promelas	Fathead minnow	96 hr	LC50	140.00000	Freshwater	Static
OPP	90-43-7	O-Phenylophenol	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2740.00000	Freshwater	Not Reported
OPP	90-43-7	O-Phenylophenol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2750.00000	Freshwater	Not Reported
CERC-GED	25474-41-3	O rho 11775	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	16.00000	Freshwater	Static
CERC-GED	25474-41-3	O rho 11775	Pimephales promelas	Fathead minnow	96 hr	LC50	61.00000	Freshwater	Static
OPP	19044-88-3	O ryalin	Daphnia magna	Water flea	48 hr	EC50	1500.00000	Freshwater	Static
OPP	19044-88-3	O ryalin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2880.00000	Freshwater	Static
OPP	19044-88-3	O ryalin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3260.00000	Freshwater	Static
OPP	19044-88-3	O ryalin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3450.00000	Freshwater	Static
CERC-GED	80-33-1	O vex	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	620.00000	Freshwater	Static
CERC-GED	80-33-1	O vex	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	623.00000	Freshwater	Static
CERC-GED	80-33-1	O vex	Pteronarcys californica	Stonefly	96 hr	LC50	310.00000	Freshwater	Static
OPP	19666-30-9	O xadiazon	American shad	Mysid	96 hr	LC50	270.00000	Saltwater	Fbw Through
OPP	19666-30-9	O xadiazon	Crassostrea virginica	Eastern oyster	96 hr	EC50	700.00000	Saltwater	Fbw Through
OPP	19666-30-9	O xadiazon	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	1500.00000	Saltwater	Fbw Through
OPP	19666-30-9	O xadiazon	Daphnia magna	Water flea	48 hr	EC50	530.00000	Freshwater	Static
OPP	19666-30-9	O xadiazon	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	880.00000	Freshwater	Static
OPP	19666-30-9	O xadiazon	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1200.00000	Freshwater	Fbw Through
OPP	19666-30-9	O xadiazon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1050.00000	Freshwater	Static
OPP	19666-30-9	O xadiazon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1200.00000	Freshwater	Fbw Through
OPP	77732-09-3	O xadiyl	Daphnia magna	Water flea	48 hr	EC50	53000.00000	Freshwater	Static
OPP	23135-22-0	O xamyl	Carassius auratus	Golifish	96 hr	LC50	27500.00000	Freshwater	Static
CERC-GED	23135-22-0	O xamyl	Chironomus plumosus	Midge	48 hr	EC50	180.00000	Freshwater	Static
OPP	23135-22-0	O xamyl	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	2600.00000	Saltwater	Static
CERC-GED	23135-22-0	O xamyl	Daphnia magna	Water flea	48 hr	EC50	420.00000	Freshwater	Static
OPP	23135-22-0	O xamyl	Daphnia magna	Water flea	48 hr	EC50	5700.00000	Freshwater	Static
CERC-GED	23135-22-0	O xamyl	Ictalurus punctatus	Channelcatfish	96 hr	LC50	17500.00000	Freshwater	Static
OPP	23135-22-0	O xamyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	5600.00000	Freshwater	Static
CERC-GED	23135-22-0	O xamyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	10000.00000	Freshwater	Static
CERC-GED	23135-22-0	O xamyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4200.00000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	23135-22-0	Oxamyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4700.000000	Freshwater	Static
OPP	7747-35-5	Oxazoline E	Claosstea virginica	Eastern oyster	96 hr	EC50	35000.000000	Saltwater	Fbw Through
OPP	7747-35-5	Oxazoline E	Daphnia magna	Water flea	48 hr	EC50	42000.000000	Freshwater	Static
OPP	7747-35-5	Oxazoline E	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	130000.000000	Freshwater	Static
OPP	7747-35-5	Oxazoline E	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	221000.000000	Freshwater	Static
OPP	10380-28-6	Oxine-copper	Americamysis bahia	Mysid	96 hr	LC50	49.700000	Saltwater	Fbw Through
OPP	10380-28-6	Oxine-copper	Daphnia magna	Water flea	48 hr	EC50	162.000000	Freshwater	Fbw Through
OPP	10380-28-6	Oxine-copper	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	21.600000	Freshwater	Fbw Through
OPP	10380-28-6	Oxine-copper	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	13.900000	Freshwater	Fbw Through
OPP	10380-28-6	Oxine-copper	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	8.900000	Freshwater	Fbw Through
OPP	301-12-2	Oxydemeton-methyl	Daphnia magna	Water flea	48 hr	EC50	240.000000	Freshwater	Fbw Through
OPP	301-12-2	Oxydemeton-methyl	Gammams lacustris	Scud	96 hr	LC50	190.000000	Freshwater	Static
OPP	301-12-2	Oxydemeton-methyl	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	1220.000000	Freshwater	Static
OPP	301-12-2	Oxydemeton-methyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	730.000000	Freshwater	Static
OPP	42874-03-3	Oxyfluorfen	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	200.000000	Freshwater	Static
OPP	42874-03-3	Oxyfluorfen	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	410.000000	Freshwater	Fbw Through
OPP	2439-01-2	Oxythioquinox	Americamysis bahia	Mysid	96 hr	LC50	8.500000	Saltwater	Fbw Through
OPP	2439-01-2	Oxythioquinox	Claosstea virginica	Eastern oyster	96 hr	EC50	25.300000	Saltwater	Fbw Through
OPP	2439-01-2	Oxythioquinox	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	129.000000	Saltwater	Fbw Through
OPP	2439-01-2	Oxythioquinox	Daphnia magna	Water flea	48 hr	EC50	120.000000	Freshwater	Static
OPP	2439-01-2	Oxythioquinox	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	33.400000	Freshwater	Fbw Through
CERC-GED	2439-01-2	Oxythioquinox	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	74.000000	Freshwater	Static
OPP	2439-01-2	Oxythioquinox	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	128.000000	Freshwater	Fbw Through
CERC-GED	2439-01-2	Oxythioquinox	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	260.000000	Saltwater	Static
CERC-GED	10028-15-6	Ozone	Brevoortia tyrannus	Atlantic menhaden	96 hr	LC50	360.000000	Saltwater	Static
CERC-GED	10028-15-6	Ozone	Calanectes sapidus	Blue crab	96 hr	LC50	260.000000	Saltwater	Static
OPP	76738-62-0	Pacbutrazol	Daphnia magna	Water flea	48 hr	EC50	33200.000000	Freshwater	Static
OPP	76738-62-0	Pacbutrazol	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	23600.000000	Freshwater	Static
OPP	76738-62-0	Pacbutrazol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	27800.000000	Freshwater	Static
OPP	59-50-7	Parachloronitrobenzene	Daphnia magna	Water flea	48 hr	EC50	2300.000000	Freshwater	Static
OPP	59-50-7	Parachloronitrobenzene	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	917.000000	Freshwater	Static Renewal
CERC-GED	1910-42-5	Paraquat	Bufo woodhousei	Fowler's toad	96 hr	LC50	15000.000000	Freshwater	Static
CERC-GED	1910-42-5	Paraquat	Daphnia pulex	Water flea	48 hr	EC50	4000.000000	Freshwater	Static
OPP	1910-42-5	Paraquat	Daphnia sp.	Water flea	48 hr	EC50	1200.000000	Freshwater	Static
CERC-GED	1910-42-5	Paraquat	Gammams fasciatus	Scud	96 hr	LC50	11000.000000	Freshwater	Static
CERC-GED	1910-42-5	Paraquat	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	15000.000000	Freshwater	Static
CERC-GED	1910-42-5	Paraquat	Pseudacris triseriata	Western chorus frog	96 hr	LC50	28000.000000	Freshwater	Static
CERC-GED	1910-42-5	Paraquat	Sinocyclophorus semilatus	Water flea	48 hr	EC50	3700.000000	Freshwater	Static
OPP	56-38-2	Parathion	Americamysis bahia	Mysid	96 hr	LC50	0.120000	Saltwater	Fbw Through
CERC-GED	56-38-2	Parathion	Asellus brevicaudus	Aquatic sow bug	96 hr	LC50	213.000000	Freshwater	Static
CERC-GED	56-38-2	Parathion	Asellus brevicaudus	Aquatic sow bug	96 hr	LC50	600.000000	Freshwater	Static
CERC-GED	56-38-2	Parathion	Carassius auratus	Goldfish	96 hr	LC50	1830.000000	Freshwater	Static
CERC-GED	56-38-2	Parathion	Chlaenius sabulosa	Stonefly	96 hr	LC50	1.500000	Freshwater	Static
CERC-GED	56-38-2	Parathion	Daphnia pulex	Water flea	48 hr	EC50	0.600000	Freshwater	Static
CERC-GED	56-38-2	Parathion	Gambusia affinis	Mosquitofish	96 hr	LC50	320.000000	Freshwater	Static
CERC-GED	56-38-2	Parathion	Gammams fasciatus	Scud	96 hr	LC50	1300000	Freshwater	Static
CERC-GED	56-38-2	Parathion	Gammams lacustris	Scud	96 hr	LC50	3500000	Freshwater	Static
CERC-GED	56-38-2	Parathion	Ictalurus punctatus	Channel catfish	96 hr	LC50	2650.000000	Freshwater	Static
CERC-GED	56-38-2	Parathion	Lepomis cyanellus	Green sunfish	96 hr	LC50	930.000000	Freshwater	Static
OPP	56-38-2	Parathion	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	95.000000	Freshwater	Static
OPP	56-38-2	Parathion	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	161.000000	Freshwater	Fbw Through
CERC-GED	56-38-2	Parathion	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	400.000000	Freshwater	Static
OPP	56-38-2	Parathion	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	710.000000	Freshwater	Static
OPP	56-38-2	Parathion	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	780.000000	Freshwater	Fbw Through
CERC-GED	56-38-2	Parathion	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	864.000000	Freshwater	Static
CERC-GED	56-38-2	Parathion	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1430.000000	Saltwater	Static
OPP	56-38-2	Parathion	Penaeus aztecus	Brown shrimp	48 hr	LC50	1.000000	Saltwater	Fbw Through
OPP	56-38-2	Parathion	Penaeus duorarum	Pink shrimp	48 hr	LC50	0.240000	Saltwater	Fbw Through
OPP	56-38-2	Parathion	Penaeus japonicus	Fathead minnow	96 hr	LC50	330.000000	Freshwater	Static
OPP	56-38-2	Parathion	Penaeus japonicus	Fathead minnow	96 hr	LC50	1300.000000	Freshwater	Static
OPP	56-38-2	Parathion	Penaeus japonicus	Fathead minnow	96 hr	LC50	1400.000000	Freshwater	Static
CERC-GED	56-38-2	Parathion	Penaeus japonicus	Fathead minnow	96 hr	LC50	2350.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

CERC-GED	56-38-2	Parathion	Pseudacris triseriata	Western chorus frog	96 hr	LC50	1080.000000	Freshwater	Static
CERC-GED	56-38-2	Parathion	Pteronarcia badia	Stonefly	96 hr	LC50	4200000	Freshwater	Static
CERC-GED	56-38-2	Parathion	Pteronarcia californica	Stonefly	96 hr	LC50	5400000	Freshwater	Static
CERC-GED	56-38-2	Parathion	Sinocelphalus semilatus	Water flea	48 hr	EC50	0.370000	Freshwater	Static
CERC-GED	56-38-2	Parathion	Sinocelphalus semilatus	Water flea	48 hr	EC50	0.470000	Freshwater	Static
OPP	56-38-2	Parathion - Parathoxon (Parathion Degrad)	Pimelopeltis procellos	Fathead minnow	96 hr	LC50	250.000000	Freshwater	Static
OPP	56-38-2	Parathion - Parathoxon (Parathion Degrad)	Pimelopeltis procellos	Fathead minnow	96 hr	LC50	330.000000	Freshwater	Static
CERC-GED	Unknown	Parathion D thibate Anabque	Italurus punctatus	Channelcatfish	96 hr	LC50	3300.000000	Freshwater	Static
CERC-GED	Unknown	Parathion D thibate Anabque	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	24.000000	Freshwater	Static
CERC-GED	Unknown	Parathion D thibate Anabque	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	750.000000	Freshwater	Static
CERC-GED	63449-39-8	Parollo1032	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	140000.000000	Freshwater	Static
CERC-GED	63449-39-8	Parollo1048	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	160000.000000	Freshwater	Static
CERC-GED	Unknown	PCB 2,2',4,4',5,5' Hexachlorobiphenyl	Gammams pseudolemaeaeus	Scud	96 hr	LC50	150.000000	Freshwater	Static
CERC-GED	37680-73-2	PCB 2,2',4,5,5' Pentachlorobiphenyl	Gammams pseudolemaeaeus	Scud	96 hr	LC50	210.000000	Freshwater	Static
CERC-GED	38444-85-8	PCB 2,3,4' Trichlorobiphenyl	Gammams pseudolemaeaeus	Scud	96 hr	LC50	70.000000	Freshwater	Static
CERC-GED	33284-50-3	PCB 2,4-D chlorobiphenyl	Gammams pseudolemaeaeus	Scud	96 hr	LC50	120.000000	Freshwater	Static
CERC-GED	2051-60-7	PCB 2-Chlorobiphenyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	794.000000	Freshwater	Static
CERC-GED	2051-61-8	PCB 3-Chlorobiphenyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	883.000000	Freshwater	Static
CERC-GED	2050-68-2	PCB 4,4'Dichlorobiphenyl	Gammams pseudolemaeaeus	Scud	96 hr	LC50	100.000000	Freshwater	Static
CERC-GED	2051-62-9	PCB 4-Chlorobiphenyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	720.000000	Freshwater	Static
CERC-GED	12674-11-2	PCB Aroclor1016	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	135.000000	Freshwater	Static
CERC-GED	12674-11-2	PCB Aroclor1016	Perca flavescens	Yellow perch	96 hr	LC50	240.000000	Freshwater	Static
CERC-GED	53469-21-9	PCB Aroclor1242	Macromia sp.	Dragonfly	96 hr	LC50	800.000000	Freshwater	Static
CERC-GED	12672-29-6	PCB Aroclor1248	Gammams fasciatus	Scud	96 hr	LC50	52.000000	Freshwater	Static
CERC-GED	11097-69-1	PCB Aroclor1254	Gammams fasciatus	Scud	96 hr	LC50	2400.000000	Freshwater	Static
CERC-GED	11097-69-1	PCB Aroclor1254	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2740.000000	Freshwater	Static
CERC-GED	11097-69-1	PCB Aroclor1254	Macromia sp.	Dragonfly	96 hr	LC50	800.000000	Freshwater	Static
OPP	1114-71-2	Pebulate	Daphnia magna	Water flea	48 hr	EC50	6830.000000	Freshwater	Static
OPP	1114-71-2	Pebulate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	7400.000000	Freshwater	Static
OPP	40487-42-1	Pendimethalin	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	710.000000	Saltwater	Static
OPP	40487-42-1	Pendimethalin	Daphnia magna	Water flea	48 hr	EC50	280.000000	Freshwater	Static
OPP	40487-42-1	Pendimethalin	Italurus punctatus	Channelcatfish	96 hr	LC50	418.000000	Freshwater	Static
OPP	40487-42-1	Pendimethalin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	199.000000	Freshwater	Static
OPP	40487-42-1	Pendimethalin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	138.000000	Freshwater	Static
OPP	82-68-8	Pentachlorobiphenyl (PCNB)	American yabbie	Mysid	96 hr	LC50	12.000000	Saltwater	Fbw Through
OPP	82-68-8	Pentachlorobiphenyl (PCNB)	American yabbie	Mysid	96 hr	LC50	23.000000	Saltwater	Fbw Through
OPP	82-68-8	Pentachlorobiphenyl (PCNB)	Crassostrea virginica	Eastern oyster	96 hr	EC50	25.000000	Saltwater	Fbw Through
OPP	82-68-8	Pentachlorobiphenyl (PCNB)	Crassostrea virginica	Eastern oyster	96 hr	EC50	29.000000	Saltwater	Fbw Through
OPP	82-68-8	Pentachlorobiphenyl (PCNB)	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	1500.000000	Saltwater	Fbw Through
OPP	82-68-8	Pentachlorobiphenyl (PCNB)	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	7900.000000	Saltwater	Fbw Through
OPP	82-68-8	Pentachlorobiphenyl (PCNB)	Daphnia magna	Water flea	48 hr	EC50	770.000000	Freshwater	Static
OPP	82-68-8	Pentachlorobiphenyl (PCNB)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	100.000000	Freshwater	Fbw Through
OPP	82-68-8	Pentachlorobiphenyl (PCNB)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	320.000000	Freshwater	Fbw Through
CERC-GED	87-86-5	Pentachlorophenol	American yabbie	Mysid	96 hr	LC50	320.000000	Saltwater	Static
OPP	87-86-5	Pentachlorophenol	Catostomus commersoni	White sucker	96 hr	LC50	85.000000	Freshwater	Static
CERC-GED	87-86-5	Pentachlorophenol	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	220.000000	Saltwater	Static
CERC-GED	87-86-5	Pentachlorophenol	Daphnia magna	Water flea	48 hr	EC50	240.000000	Freshwater	Static
CERC-GED	87-86-5	Pentachlorophenol	Daphnia magna	Water flea	48 hr	EC50	410.000000	Freshwater	Static
OPP	87-86-5	Pentachlorophenol	Daphnia magna	Water flea	48 hr	EC50	680.000000	Freshwater	Static
ECOTOX	87-86-5	Pentachlorophenol	Gammams pseudolemaeaeus	Scud	96 hr	LC50	280.000000	Freshwater	Fbw Through
CERC-GED	87-86-5	Pentachlorophenol	Italurus punctatus	Channelcatfish	96 hr	LC50	66.000000	Freshwater	Static
CERC-GED	87-86-5	Pentachlorophenol	Italurus punctatus	Channelcatfish	96 hr	LC50	68.000000	Freshwater	Static
OPP	87-86-5	Pentachlorophenol	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	60.000000	Freshwater	Static
OPP	87-86-5	Pentachlorophenol	Micropodus schrenkii	Largemouth bass	96 hr	LC50	136.000000	Freshwater	Static
OPP	87-86-5	Pentachlorophenol	Mugil cephalus	Striped mullet	96 hr	LC50	112.000000	Saltwater	Static
CERC-GED	87-86-5	Pentachlorophenol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	52.000000	Freshwater	Static
ECOTOX	87-86-5	Pentachlorophenol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	66.000000	Freshwater	Fbw Through
OPP	87-86-5	Pentachlorophenol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	75.000000	Freshwater	Static
OPP	87-86-5	Pentachlorophenol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	115.000000	Freshwater	Static
CERC-GED	87-86-5	Pentachlorophenol	Oncorhynchus tshawytscha	Chinook salmon	96 hr	LC50	31.000000	Freshwater	Static
CERC-GED	87-86-5	Pentachlorophenol	Oncorhynchus tshawytscha	Chinook salmon	96 hr	LC50	68.000000	Freshwater	Static
CERC-GED	87-86-5	Pentachlorophenol	Palaeomonetes pugil	Grass shrimp	96 hr	LC50	2500.000000	Saltwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	87-86-5	Pentachlorophenol	Pimephales promelas	Fathead minnow	96 hr	LC50	194.000000	Freshwater	Fbw Through
OPP	87-86-5	Pentachlorophenol	Salmofalear	Atlantic salmon	96 hr	LC50	500.000000	Freshwater	Static
ECOTOX	87-86-5	Pentachlorophenol	Tanytarsus dissimilis	Midge	48 hr	LC50	46000.000000	Freshwater	Static
CERC-GED	87-86-5	Pentachlorophenol, Dowfile EC-7)	Daphnia magna	Water flea	48 hr	EC50	320.000000	Freshwater	Static
CERC-GED	15773-35-0	Pentachlorophenol,CopperSal	Chironomus plumosus	Midge	48 hr	EC50	720.000000	Freshwater	Static
CERC-GED	15773-35-0	Pentachlorophenol,CopperSal	Daphnia magna	Water flea	48 hr	EC50	920.000000	Freshwater	Static
CERC-GED	15773-35-0	Pentachlorophenol,CopperSal	Ictalurus punctatus	Channelcatfish	96 hr	LC50	26.000000	Freshwater	Static
CERC-GED	131-52-2	Pentachlorophenol,Sodium salt	Ictalurus punctatus	Channelcatfish	96 hr	LC50	77.000000	Freshwater	Static
CERC-GED	131-52-2	Pentachlorophenol,Sodium salt	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	55.000000	Freshwater	Static
CERC-GED	131-52-2	Pentachlorophenol,Sodium salt	Oncorhynchus tshawytscha	Chinook salmon	96 hr	LC50	67.500000	Freshwater	Static
OPP	52645-53-1	Pemethrin	American yew baha	Mysid	96 hr	LC50	0.020000	Salwater	Fbw Through
CERC-GED	52645-53-1	Pemethrin	American yew baha	Mysid	96 hr	LC50	0.046000	Salwater	Static
OPP	52645-53-1	Pemethrin	American yew baha	Mysid	96 hr	LC50	0.075000	Salwater	Static
CERC-GED	52645-53-1	Pemethrin	Chironomus plumosus	Midge	48 hr	EC50	0.560000	Freshwater	Static
CERC-GED	52645-53-1	Pemethrin	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	88.000000	Salwater	Static
OPP	52645-53-1	Pemethrin	Cyprinus carpio	Common carp	96 hr	LC50	15.000000	Freshwater	Fbw Through
OPP	52645-53-1	Pemethrin	Daphnia magna	Water flea	48 hr	EC50	0.380000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Daphnia magna	Water flea	48 hr	EC50	0.600000	Freshwater	Static
CERC-GED	52645-53-1	Pemethrin	Daphnia magna	Water flea	48 hr	EC50	1.260000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Daphnia magna	Water flea	48 hr	EC50	7.200000	Freshwater	Static
CERC-GED	52645-53-1	Pemethrin	Gammarus pseudolimnaeus	Scud	96 hr	LC50	0.170000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Hexagenia bilineata	Mayfly	96 hr	LC50	0.100000	Freshwater	Fbw Through
OPP	52645-53-1	Pemethrin	Ictalurus punctatus	Channelcatfish	96 hr	LC50	5.400000	Freshwater	Static
CERC-GED	52645-53-1	Pemethrin	Ictalurus punctatus	Channelcatfish	96 hr	LC50	7.200000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	0.790000	Freshwater	Fbw Through
OPP	52645-53-1	Pemethrin	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	2.520000	Freshwater	Static
CERC-GED	52645-53-1	Pemethrin	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	5.000000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	6.100000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	6.800000	Freshwater	Static
CERC-GED	52645-53-1	Pemethrin	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	7.100000	Freshwater	Static
CERC-GED	52645-53-1	Pemethrin	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	7.600000	Freshwater	Static
CERC-GED	52645-53-1	Pemethrin	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	8.000000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	13.300000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	13.500000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Menidia menidia	Atlantic silverside	96 hr	LC50	2.200000	Salwater	Fbw Through
CERC-GED	52645-53-1	Pemethrin	Menippe mercenaria	Stone crab	96 hr	LC50	0.018000	Salwater	Static
OPP	52645-53-1	Pemethrin	Oncorhynchus keta	Coho salmon	96 hr	LC50	17.000000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2.100000	Freshwater	Fbw Through
CERC-GED	52645-53-1	Pemethrin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4.100000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	5.300000	Freshwater	Static
CERC-GED	52645-53-1	Pemethrin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	7.000000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	9.800000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Pimephales promelas	Fathead minnow	96 hr	LC50	3.000000	Freshwater	Static
CERC-GED	52645-53-1	Pemethrin	Pimephales promelas	Fathead minnow	96 hr	LC50	5.700000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Salmofalear	Atlantic salmon	96 hr	LC50	1.500000	Freshwater	Static
CERC-GED	52645-53-1	Pemethrin	Salvelinus fontinalis	Brook trout	96 hr	LC50	3.200000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Salvelinus fontinalis	Brook trout	96 hr	LC50	3.900000	Freshwater	Static
OPP	52645-53-1	Pemethrin	Uca pugilator	Fiddler crab	96 hr	LC50	2.390000	Salwater	Static
OPP	13684-63-4	Phenol edipham	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	3980.000000	Freshwater	Static
OPP	13684-63-4	Phenol edipham	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1410.000000	Freshwater	Static
ECOTOX	108-95-2	Phenol	Daphnia magna	Water flea	48 hr	LC50	8800.000000	Freshwater	Static
ECOTOX	108-95-2	Phenol	Daphnia magna	Water flea	48 hr	LC50	91000.000000	Freshwater	Static
ECOTOX	108-95-2	Phenol	Daphnia magna	Water flea	48 hr	LC50	91200.000000	Freshwater	Static
ECOTOX	108-95-2	Phenol	Daphnia magna	Water flea	48 hr	LC50	92000.000000	Freshwater	Static
ECOTOX	108-95-2	Phenol	Daphnia pulex	Water flea	48 hr	LC50	100000.000000	Freshwater	Static
ECOTOX	108-95-2	Phenol	Daphnia pulex	Water flea	48 hr	LC50	79000.000000	Freshwater	Static
ECOTOX	108-95-2	Phenol	Daphnia pulex	Water flea	48 hr	LC50	81000.000000	Freshwater	Static
ECOTOX	108-95-2	Phenol	Daphnia pulex	Water flea	48 hr	LC50	85000.000000	Freshwater	Static
ECOTOX	108-95-2	Phenol	Daphnia pulex	Water flea	48 hr	LC50	87800.000000	Freshwater	Static
ECOTOX	108-95-2	Phenol	Daphnia pulex	Water flea	48 hr	LC50	93000.000000	Freshwater	Static
OPP	32289-58-0	PHMB	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	110.000000	Freshwater	Static
OPP	298-02-2	Phorate	American yew baha	Mysid	96 hr	LC50	0.330000	Salwater	Fbw Through

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

CERC-GED	298-02-2	Phorate	<i>Americanysiabahia</i>	Mysid	96 hr	LC50	1 900000	Saltwater	Static
OPP	298-02-2	Phorate	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	640 000000	Saltwater	Fbw Through
CERC-GED	298-02-2	Phorate	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	4 000000	Saltwater	Static
OPP	298-02-2	Phorate	<i>Gammams fasciatus</i>	Scud	96 hr	LC50	0 600000	Freshwater	Static
OPP	298-02-2	Phorate	<i>Gammams fasciatus</i>	Scud	96 hr	LC50	0 680000	Freshwater	Static
CERC-GED	298-02-2	Phorate	<i>Gammams fasciatus</i>	Scud	96 hr	LC50	4 000000	Freshwater	Static
OPP	298-02-2	Phorate	<i>Gammams lucubris</i>	Scud	96 hr	LC50	9 000000	Freshwater	Static
CERC-GED	298-02-2	Phorate	<i>Oncorhynchus clarkii</i>	Coho trout	96 hr	LC50	44 000000	Freshwater	Static
CERC-GED	298-02-2	Phorate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	13 000000	Freshwater	Static
OPP	298-02-2	Phorate	<i>Penaeus aztecus</i>	Brown shrimp	48 hr	LC50	0 460000	Saltwater	Fbw Through
CERC-GED	298-02-2	Phorate	<i>Penaeus stylospis</i>	White shrimp	96 hr	LC50	0 270000	Saltwater	Static
CERC-GED	4104-14-7	Phoxazetin	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	440 000000	Freshwater	Static
CERC-GED	56646-05-0	Phos-Check 202	<i>Gammams pseudolemaeus</i>	Scud	96 hr	LC50	52000 000000	Freshwater	Static
CERC-GED	56646-05-0	Phos-Check 202	<i>Lepomismacrochirus</i>	Bluegill sunfish	96 hr	LC50	840000 000000	Freshwater	Static
CERC-GED	56646-05-0	Phos-Check 202	<i>Micropodussalvelinus</i>	Largemouth bass	96 hr	LC50	840000 000000	Freshwater	Static
CERC-GED	56646-05-0	Phos-Check 202	<i>Oncorhynchuskiusutch</i>	Coho salmon	96 hr	LC50	320000 000000	Freshwater	Static
CERC-GED	56646-05-0	Phos-Check 202	<i>Oncorhynchusmykiss</i>	Rainbow trout	96 hr	LC50	230000 000000	Freshwater	Static
CERC-GED	56646-05-0	Phos-Check 202	<i>Pimephalespromelas</i>	Fathead minnow	96 hr	LC50	6500000 000000	Freshwater	Static
CERC-GED	39341-15-6	Phos-Check 259	<i>Lepomismacrochirus</i>	Bluegill sunfish	96 hr	LC50	350000 000000	Freshwater	Static
CERC-GED	39341-15-6	Phos-Check 259	<i>Micropodussalvelinus</i>	Largemouth bass	96 hr	LC50	450000 000000	Freshwater	Static
CERC-GED	39341-15-6	Phos-Check 259	<i>Oncorhynchuskiusutch</i>	Coho salmon	96 hr	LC50	250000 000000	Freshwater	Static
CERC-GED	39341-15-6	Phos-Check 259	<i>Oncorhynchusmykiss</i>	Rainbow trout	96 hr	LC50	160000 000000	Freshwater	Static
CERC-GED	39341-15-6	Phos-Check 259	<i>Pimephalespromelas</i>	Fathead minnow	96 hr	LC50	300000 000000	Freshwater	Static
CERC-GED	96300-97-9	Phosflex 31P	<i>Chionomusplumosus</i>	Midge	48 hr	EC50	1800 000000	Freshwater	Static
CERC-GED	96300-97-9	Phosflex 31P	<i>Daphniamagna</i>	Water flea	48 hr	EC50	6800 000000	Freshwater	Static
CERC-GED	96300-97-9	Phosflex 31P	<i>Gammams pseudolemaeus</i>	Scud	96 hr	LC50	2200 000000	Freshwater	Static
CERC-GED	96300-97-9	Phosflex 31P	<i>Lepomismacrochirus</i>	Bluegill sunfish	96 hr	LC50	2000 000000	Freshwater	Static
CERC-GED	96300-97-9	Phosflex 31P	<i>Lepomismacrochirus</i>	Bluegill sunfish	96 hr	LC50	2500 000000	Freshwater	Static
CERC-GED	96300-97-9	Phosflex 31P	<i>Lepomismacrochirus</i>	Bluegill sunfish	96 hr	LC50	2600 000000	Freshwater	Static
CERC-GED	96300-97-9	Phosflex 31P	<i>Lepomismacrochirus</i>	Bluegill sunfish	96 hr	LC50	3500 000000	Freshwater	Static
CERC-GED	96300-97-9	Phosflex 31P	<i>Oncorhynchusmykiss</i>	Rainbow trout	96 hr	LC50	880 000000	Freshwater	Static
CERC-GED	96300-97-9	Phosflex 31P	<i>Oncorhynchusmykiss</i>	Rainbow trout	96 hr	LC50	1500 000000	Freshwater	Static
CERC-GED	96300-97-9	Phosflex 31P	<i>Oncorhynchusmykiss</i>	Rainbow trout	96 hr	LC50	1900 000000	Freshwater	Static
CERC-GED	96300-97-9	Phosflex 31P	<i>Pimephalespromelas</i>	Fathead minnow	96 hr	LC50	1700 000000	Freshwater	Static
OPP	732-11-6	Phosmet	<i>Americanysiabahia</i>	Mysid	96 hr	LC50	16 000000	Saltwater	Static
CERC-GED	732-11-6	Phosmet	<i>Aesulusbezuidendboschii</i>	Aquatic sow bug	96 hr	LC50	90 000000	Freshwater	Static
CERC-GED	732-11-6	Phosmet	<i>Chironomusplumosus</i>	Midge	48 hr	LC50	3150 000000	Freshwater	Static
CERC-GED	732-11-6	Phosmet	<i>Gammamsfasciatus</i>	Scud	96 hr	LC50	2 000000	Freshwater	Static
CERC-GED	732-11-6	Phosmet	<i>Ictaluruspunctatus</i>	Channel catfish	96 hr	LC50	10600 000000	Freshwater	Static
CERC-GED	732-11-6	Phosmet	<i>Lepomismacrochirus</i>	Bluegill sunfish	96 hr	LC50	70 000000	Freshwater	Static
OPP	732-11-6	Phosmet	<i>Lepomismacrochirus</i>	Bluegill sunfish	96 hr	LC50	122 000000	Freshwater	Static
CERC-GED	732-11-6	Phosmet	<i>Lepomismacrochirus</i>	Bluegill sunfish	96 hr	LC50	200 000000	Freshwater	Static
OPP	732-11-6	Phosmet	<i>Menenaria menenaria</i>	Quahog clam	48 hr	EC50	94000 000000	Saltwater	Static
CERC-GED	732-11-6	Phosmet	<i>Micropodusdolmeli</i>	Small mouth bass	96 hr	LC50	150 000000	Freshwater	Static
CERC-GED	732-11-6	Phosmet	<i>Micropodussalvelinus</i>	Largemouth bass	96 hr	LC50	160 000000	Freshwater	Static
OPP	732-11-6	Phosmet	<i>Oncorhynchusmykiss</i>	Rainbow trout	96 hr	LC50	230 000000	Freshwater	Static
CERC-GED	732-11-6	Phosmet	<i>Oncorhynchusmykiss</i>	Rainbow trout	96 hr	LC50	300 000000	Freshwater	Static
CERC-GED	732-11-6	Phosmet	<i>Oncorhynchusmykiss</i>	Rainbow trout	96 hr	LC50	480 000000	Freshwater	Static
CERC-GED	732-11-6	Phosmet	<i>Oncorhynchusmykiss</i>	Rainbow trout	96 hr	LC50	560 000000	Freshwater	Static
CERC-GED	732-11-6	Phosmet	<i>Oncorhynchusshawi</i>	Chinook salmon	96 hr	LC50	150 000000	Freshwater	Static
OPP	732-11-6	Phosmet	<i>Penaeusaztecus</i>	Brown shrimp	48 hr	LC50	2 500000	Saltwater	Fbw Through
CERC-GED	732-11-6	Phosmet	<i>Streptocephalussp.</i>	Fairy shrimp	48 hr	LC50	170 000000	Freshwater	Static
OPP	13171-21-6	Phosphamidon	<i>Americanysiabahia</i>	Mysid	96 hr	LC50	119 000000	Saltwater	Fbw Through
OPP	13171-21-6	Phosphamidon	<i>Crassostreavirginica</i>	Eastern oyster	96 hr	EC50	79000 000000	Saltwater	Fbw Through
OPP	13171-21-6	Phosphamidon	<i>Cyprinodonvariegatus</i>	Sheepshead minnow	96 hr	LC50	74000 000000	Saltwater	Fbw Through
OPP	13171-21-6	Phosphamidon	<i>Daphniamagna</i>	Water flea	48 hr	EC50	12 700000	Freshwater	Static
CERC-GED	13171-21-6	Phosphamidon	<i>Daphniapulex</i>	Water flea	48 hr	EC50	10 000000	Freshwater	Static
CERC-GED	13171-21-6	Phosphamidon	<i>Gammamsfasciatus</i>	Scud	96 hr	LC50	3 000000	Freshwater	Static
CERC-GED	13171-21-6	Phosphamidon	<i>Gammamsfasciatus</i>	Scud	96 hr	LC50	13 000000	Freshwater	Static
OPP	13171-21-6	Phosphamidon	<i>Gammamsfasciatus</i>	Scud	96 hr	LC50	16 000000	Freshwater	Static
OPP	13171-21-6	Phosphamidon	<i>Gammamsfasciatus</i>	Scud	96 hr	LC50	2 800000	Freshwater	Static
CERC-GED	13171-21-6	Phosphamidon	<i>Ictaluruspunctatus</i>	Channel catfish	96 hr	LC50	70000 000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

CERC-GED	13171-21-6	Phosphamidon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	7800.000000	Freshwater	Static
OPP	13171-21-6	Phosphamidon	Oxonectes nae	Crayfish	96 hr	LC50	7500.000000	Freshwater	Static
OPP	13171-21-6	Phosphamidon	Penaeus duorarum	Pink shrimp	48 hr	LC50	240.000000	Saltwater	Fbw Through
CERC-GED	13171-21-6	Phosphamidon	Pimephales promelas	Fathead minnow	96 hr	LC50	100000.000000	Freshwater	Static
CERC-GED	13171-21-6	Phosphamidon	Pteronarcys californica	Stonefly	96 hr	LC50	150.000000	Freshwater	Static
CERC-GED	13171-21-6	Phosphamidon	Sinocyclopus semilatus	Water flea	48 hr	EC50	6.600000	Freshwater	Static
CERC-GED	13171-21-6	Phosphamidon	Sinocyclopus semilatus	Water flea	48 hr	EC50	12.000000	Freshwater	Static
OPP	96182-53-5	Phostebupirim	American eel	Mysis	96 hr	LC50	6.630000	Saltwater	Fbw Through
OPP	96182-53-5	Phostebupirim	Daphnia magna	Water flea	48 hr	EC50	0.078000	Freshwater	Fbw Through
OPP	96182-53-5	Phostebupirim	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	89.000000	Freshwater	Fbw Through
OPP	96182-53-5	Phostebupirim	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2220.000000	Freshwater	Static
CERC-GED	14816-18-3	Phoxin	Ictalurus punctatus	Channelcatfish	96 hr	LC50	1210.000000	Freshwater	Static
CERC-GED	14816-18-3	Phoxin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	82.000000	Freshwater	Static
CERC-GED	14816-18-3	Phoxin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	196.000000	Freshwater	Static
CERC-GED	14816-18-3	Phoxin	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	407.000000	Freshwater	Static
CERC-GED	14816-18-3	Phoxin	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	550.000000	Freshwater	Static
CERC-GED	14816-18-3	Phoxin	Perca flavescens	Yellow perch	96 hr	LC50	563.000000	Freshwater	Static
CERC-GED	14816-18-3	Phoxin	Pogonichthys sp.	Crayfish	96 hr	LC50	6.600000	Freshwater	Static
CERC-GED	14816-18-3	Phoxin	Salmo salar	Atlantic salmon	96 hr	LC50	380.000000	Freshwater	Static
CERC-GED	14816-18-3	Phoxin	Salmo trutta	Brown trout	96 hr	LC50	210.000000	Freshwater	Static
CERC-GED	14816-18-3	Phoxin	Salvelinus fontinalis	Brook trout	96 hr	LC50	432.000000	Freshwater	Static
OPP	1918-02-1	Pibram	Daphnia magna	Water flea	48 hr	EC50	68300.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Daphnia magna	Water flea	48 hr	EC50	76000.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Gammarellus fasciatus	Scud	96 hr	LC50	27000.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Gammarellus pseudoinaeus	Scud	96 hr	LC50	16500.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Ictalurus punctatus	Channelcatfish	96 hr	LC50	1400.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Ictalurus punctatus	Channelcatfish	96 hr	LC50	6300.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Ictalurus punctatus	Channelcatfish	96 hr	LC50	13000.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Ictalurus punctatus	Channelcatfish	96 hr	LC50	15500.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Ictalurus punctatus	Channelcatfish	96 hr	LC50	22000.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	18000.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	23000.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	26000.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	31000.000000	Freshwater	Static
OPP	1918-02-1	Pibram	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	1500.000000	Freshwater	Fbw Through
CERC-GED	1918-02-1	Pibram	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	3700.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	4700.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	4800.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	5000.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	5400.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	5800.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	6400.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4000.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6000.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	11000.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	12500.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	14000.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Pteronarcys californica	Stonefly	96 hr	LC50	48000.000000	Freshwater	Static
OPP	1918-02-1	Pibram	Salvelinus namaycush	Lake trout	96 hr	LC50	1900.000000	Freshwater	Fbw Through
CERC-GED	1918-02-1	Pibram	Salvelinus namaycush	Lake trout	96 hr	LC50	2200.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Salvelinus namaycush	Lake trout	96 hr	LC50	2700.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Salvelinus namaycush	Lake trout	96 hr	LC50	3500.000000	Freshwater	Static
CERC-GED	1918-02-1	Pibram	Salvelinus namaycush	Lake trout	96 hr	LC50	4300.000000	Freshwater	Static
OPP	6753-47-5	Pibram TPA	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	375000.000000	Freshwater	Static
OPP	2545-60-0	Pibram, potassium salt	Ictalurus punctatus	Channelcatfish	96 hr	LC50	14000.000000	Freshwater	Static
OPP	2545-60-0	Pibram, potassium salt	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	13000.000000	Freshwater	Static
OPP	8002-09-3	Pine oil	Daphnia magna	Water flea	48 hr	EC50	24500.000000	Freshwater	Fbw Through
OPP	8002-09-3	Pine oil	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	54820.000000	Freshwater	Fbw Through
OPP	8002-09-3	Pine oil	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	18350.000000	Freshwater	Fbw Through
OPP	3478-94-2	Piperin	Daphnia magna	Water flea	48 hr	EC50	1890.000000	Freshwater	Static Renewal
OPP	3478-94-2	Piperin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	770.000000	Freshwater	Fbw Through
OPP	51-03-6	Piperonylbutoxide	Amelium meles	Black bullhead	96 hr	LC50	5650.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDERA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	51-03-6	P peronylbutoxide	<i>Carassius auratus</i>	Golfish	96 hr	LC50	5320.000000	Freshwater	Static
OPP	51-03-6	P peronylbutoxide	<i>Catostomus commersoni</i>	White sucker	96 hr	LC50	6950.000000	Freshwater	Static
OPP	51-03-6	P peronylbutoxide	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	230.000000	Saltwater	Fbw Through
OPP	51-03-6	P peronylbutoxide	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	1800.000000	Saltwater	Static
OPP	51-03-6	P peronylbutoxide	<i>Cyprinodon variegatus</i>	Sheepshead minnow	96 hr	LC50	3940.000000	Saltwater	Fbw Through
OPP	51-03-6	P peronylbutoxide	<i>Cyprinus carpio</i>	Common carp	96 hr	LC50	4220.000000	Freshwater	Static
OPP	51-03-6	P peronylbutoxide	<i>Daphnia magna</i>	Water flea	48 hr	EC50	510.000000	Freshwater	Fbw Through
OPP	51-03-6	P peronylbutoxide	<i>Etaletis punctatus</i>	Channelcatfish	96 hr	LC50	6400.000000	Freshwater	Static
OPP	51-03-6	P peronylbutoxide	<i>Lepomis cyanellus</i>	Green sunfish	96 hr	LC50	12200.000000	Freshwater	Static
OPP	51-03-6	P peronylbutoxide	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	4000.000000	Freshwater	Static
CERC-GED	51-03-6	P peronylbutoxide	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	4200.000000	Freshwater	Static
OPP	51-03-6	P peronylbutoxide	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	5370.000000	Freshwater	Fbw Through
CERC-GED	51-03-6	P peronylbutoxide	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	1900.000000	Freshwater	Static
OPP	51-03-6	P peronylbutoxide	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	2820.000000	Freshwater	Static
CERC-GED	51-03-6	P peronylbutoxide	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	3400.000000	Freshwater	Static
OPP	51-03-6	P peronylbutoxide	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	6100.000000	Freshwater	Fbw Through
OPP	51-03-6	P peronylbutoxide	<i>Perca flavescens</i>	Yellow perch	96 hr	LC50	6900.000000	Freshwater	Static
OPP	51-03-6	P peronylbutoxide	<i>Pimephales promelas</i>	Fathead minnow	96 hr	LC50	6200.000000	Freshwater	Static
OPP	23103-98-2	Pim rab	<i>Daphnia magna</i>	Water flea	48 hr	EC50	6.500000	Freshwater	Static
OPP	23103-98-2	Pim rab	<i>Daphnia magna</i>	Water flea	48 hr	EC50	19.000000	Freshwater	Static
OPP	23103-98-2	Pim rab	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	55000.000000	Freshwater	Fbw Through
OPP	23103-98-2	Pim rab	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	29000.000000	Freshwater	Fbw Through
OPP	29232-93-7	Pim phosphm ethyl	<i>Daphnia magna</i>	Water flea	48 hr	EC50	0.210000	Freshwater	Static
OPP	83-26-1	Pival	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	1600.000000	Freshwater	Static
OPP	83-26-1	Pival	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	210.000000	Freshwater	Static
OPP	52292-17-8	POE Isooctadecanol	<i>Americamys bahia</i>	Mysid	96 hr	LC50	9000.000000	Saltwater	Static
OPP	52292-17-8	POE Isooctadecanol	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	1500.000000	Saltwater	Fbw Through
OPP	52292-17-8	POE Isooctadecanol	<i>Daphnia magna</i>	Water flea	48 hr	EC50	1900.000000	Freshwater	Static
OPP	52292-17-8	POE Isooctadecanol	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	29000.000000	Freshwater	Static
OPP	52292-17-8	POE Isooctadecanol	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	98000.000000	Freshwater	Static
ECOTOX	7447-40-7	Potassium chbride	<i>Daphnia magna</i>	Water flea	48 hr	EC50	83000.000000	Freshwater	Static
ECOTOX	7447-40-7	Potassium chbride	<i>Daphnia magna</i>	Water flea	48 hr	EC50	93000.000000	Freshwater	Static
ECOTOX	7447-40-7	Potassium chbride	<i>Daphnia magna</i>	Water flea	48 hr	EC50	149000.000000	Freshwater	Static
ECOTOX	7447-40-7	Potassium chbride	<i>Daphnia magna</i>	Water flea	48 hr	EC50	166000.000000	Freshwater	Static
OPP	2244-21-5	Potassium dichloro isocyanurate	<i>Daphnia magna</i>	Water flea	48 hr	EC50	170.000000	Freshwater	Static
OPP	2244-21-5	Potassium dichloro isocyanurate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	490.000000	Freshwater	Static
OPP	2244-21-5	Potassium dichloro isocyanurate	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	316.000000	Freshwater	Static
OPP	2244-21-5	Potassium dichloro isocyanurate	<i>Salvelinus fontinalis</i>	Brook trout	96 hr	LC50	278.000000	Freshwater	Static
CERC-GED	7778-50-9	Potassium dichromate	<i>Lebistinus xanthurus</i>	Spot	96 hr	LC50	27000.000000	Saltwater	Static
CERC-GED	7778-50-9	Potassium dichromate	<i>Menidia peninsulae</i>	Tidewater silverside	96 hr	LC50	22000.000000	Saltwater	Static
OPP	7722-64-7	Potassium permanganate	<i>Daphnia magna</i>	Water flea	48 hr	EC50	84.000000	Freshwater	Static
OPP	7722-64-7	Potassium permanganate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2300.000000	Freshwater	Fbw Through
OPP	7722-64-7	Potassium permanganate	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	2700.000000	Freshwater	Static
OPP	23031-36-9	Pralethrin	<i>Daphnia magna</i>	Water flea	48 hr	EC50	6.200000	Freshwater	Fbw Through
OPP	23031-36-9	Pralethrin	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	22.000000	Freshwater	Fbw Through
OPP	23031-36-9	Pralethrin	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	12.000000	Freshwater	Fbw Through
OPP	86209-51-0	Prin sulphon-m ethyl	<i>Americamys bahia</i>	Mysid	96 hr	LC50	16000.000000	Saltwater	Static
OPP	86209-51-0	Prin sulphon-m ethyl	<i>Americamys bahia</i>	Mysid	96 hr	LC50	62000.000000	Saltwater	Static
OPP	86209-51-0	Prin sulphon-m ethyl	<i>Menidia peninsulae</i>	Quahog clam	48 hr	EC50	55000.000000	Saltwater	Static
OPP	86209-51-0	Prin sulphon-m ethyl	<i>Oncorhynchus mykiss</i>	Rainbow trout	96 hr	LC50	210000.000000	Freshwater	Static
OPP	29091-21-2	Prodamine	<i>Americamys bahia</i>	Mysid	96 hr	LC50	2100.000000	Saltwater	Static
OPP	29091-21-2	Prodamine	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	370.000000	Saltwater	Fbw Through
OPP	29091-21-2	Prodamine	<i>Lepomis macrochirus</i>	Bluegill sunfish	96 hr	LC50	3180.000000	Freshwater	Static
OPP	41198-08-7	Profenofos	<i>Americamys bahia</i>	Mysid	96 hr	LC50	2400000	Saltwater	Fbw Through
CERC-GED	41198-08-7	Profenofos	<i>Chironomus plumosus</i>	Midge	48 hr	EC50	1.000000	Freshwater	Static
OPP	41198-08-7	Profenofos	<i>Crassostrea virginica</i>	Eastern oyster	96 hr	EC50	263.000000	Saltwater	Fbw Through
OPP	41198-08-7	Profenofos	<i>Daphnia magna</i>	Water flea	48 hr	EC50	0.930000	Freshwater	Static
CERC-GED	41198-08-7	Profenofos	<i>Daphnia magna</i>	Water flea	48 hr	EC50	1.400000	Freshwater	Static
OPP	41198-08-7	Profenofos	<i>Daphnia magna</i>	Water flea	48 hr	EC50	2.800000	Freshwater	Static
CERC-GED	41198-08-7	Profenofos	<i>Gammans pseudolemaeus</i>	Scud	96 hr	LC50	0.800000	Freshwater	Static
CERC-GED	41198-08-7	Profenofos	<i>Etaletis punctatus</i>	Channelcatfish	96 hr	LC50	18.000000	Freshwater	Static
OPP	41198-08-7	Profenofos	<i>Etaletis punctatus</i>	Channelcatfish	96 hr	LC50	21.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDERA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	41198-08-7	Profenofos	Lagodon rhomboides	Pinfish	96 hr	LC50	7.700000	Salwater	Static
CERC-GED	41198-08-7	Profenofos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	13.500000	Freshwater	Static
OPP	41198-08-7	Profenofos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	19.000000	Freshwater	Static
OPP	41198-08-7	Profenofos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	41.000000	Freshwater	Static
OPP	41198-08-7	Profenofos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	21.000000	Freshwater	Static
CERC-GED	41198-08-7	Profenofos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	23.500000	Freshwater	Static
OPP	41198-08-7	Profenofos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	25.000000	Freshwater	Static
OPP	1610-18-0	Prom eton	Am erican yel l bahia	Mysid	96 hr	LC50	17700.000000	Salwater	Static
OPP	1610-18-0	Prom eton	Crassostrea virginica	Eastern oyster	96 hr	EC50	27500.000000	Salwater	Fbw Through
OPP	1610-18-0	Prom eton	Cyprinodon variegatus	Sheepshead m innow	96 hr	LC50	47300.000000	Salwater	Static
OPP	1610-18-0	Prom eton	Daphnia magna	W ater flea	48 hr	EC50	25700.000000	Freshwater	Static
OPP	1610-18-0	Prom eton	Daphnia magna	W ater flea	48 hr	EC50	59800.000000	Freshwater	Static
OPP	1610-18-0	Prom eton	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	41500.000000	Freshwater	Static
OPP	1610-18-0	Prom eton	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	19600.000000	Freshwater	Static
OPP	1610-18-0	Prom eton	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	20000.000000	Freshwater	Static
OPP	7287-19-6	Prom ethyn	Am erican yel l bahia	Mysid	96 hr	LC50	1700.000000	Salwater	Static
OPP	7287-19-6	Prom ethyn	Carassius auratus	G odfish	96 hr	LC50	4000.000000	Freshwater	Static
OPP	7287-19-6	Prom ethyn	Cyprinodon variegatus	Sheepshead m innow	96 hr	LC50	5100.000000	Salwater	Static
OPP	7287-19-6	Prom ethyn	Daphnia magna	W ater flea	48 hr	EC50	18590.000000	Freshwater	Static
OPP	7287-19-6	Prom ethyn	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	10000.000000	Freshwater	Static
OPP	7287-19-6	Prom ethyn	Menidia menidia	Quahog clam	48 hr	EC50	21000.000000	Salwater	Static
OPP	7287-19-6	Prom ethyn	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2900.000000	Freshwater	Static
CERC-GED	1918-16-7	Propachibr	Chironomus plumosus	M ridge	48 hr	EC50	790.000000	Freshwater	Static
CERC-GED	1918-16-7	Propachibr	Daphnia magna	W ater flea	48 hr	EC50	6900.000000	Freshwater	Static
OPP	1918-16-7	Propachibr	Daphnia magna	W ater flea	48 hr	EC50	7800.000000	Freshwater	Static
CERC-GED	1918-16-7	Propachibr	Ictalurus punctatus	Channelcatfish	96 hr	LC50	230.000000	Freshwater	Static
OPP	1918-16-7	Propachibr	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	170.000000	Freshwater	Static
OPP	709-98-8	Propanil	Am erican yel l bahia	Mysid	96 hr	LC50	400.000000	Salwater	Fbw Through
OPP	709-98-8	Propanil	Crassostrea virginica	Eastern oyster	96 hr	EC50	4960.000000	Salwater	Fbw Through
OPP	709-98-8	Propanil	Cyprinodon variegatus	Sheepshead m innow	96 hr	LC50	4600.000000	Salwater	Fbw Through
OPP	2312-35-8	Propargite	Daphnia magna	W ater flea	48 hr	EC50	91.000000	Freshwater	Static
OPP	2312-35-8	Propargite	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	167.000000	Freshwater	Static
OPP	2312-35-8	Propargite	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	118.000000	Freshwater	Static
OPP	2312-35-8	Propargite	Palaeomonetes pugio	Grass shrimp	96 hr	LC50	101.000000	Salwater	Static
OPP	31218-83-4	Propetam phos	Daphnia magna	W ater flea	48 hr	EC50	3.300000	Freshwater	Fbw Through
OPP	31218-83-4	Propetam phos	Daphnia magna	W ater flea	48 hr	EC50	14.000000	Freshwater	Static
OPP	31218-83-4	Propetam phos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	190.000000	Freshwater	Static
OPP	31218-83-4	Propetam phos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1100.000000	Freshwater	Fbw Through
OPP	31218-83-4	Propetam phos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	940.000000	Freshwater	Static
OPP	31218-83-4	Propetam phos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2600.000000	Freshwater	Fbw Through
CERC-GED	122-42-9	Propham	Daphnia pulex	W ater flea	48 hr	EC50	8100.000000	Freshwater	Static
CERC-GED	122-42-9	Propham	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	38000.000000	Freshwater	Static
CERC-GED	122-42-9	Propham	Sinocyclopus semilatus	W ater flea	48 hr	EC50	10000.000000	Freshwater	Static
OPP	60207-90-1	Propiconazole	Am erican yel l bahia	Mysid	96 hr	LC50	510.000000	Salwater	Static
OPP	60207-90-1	Propiconazole	Cyprinus carpio	Common carp	96 hr	LC50	5700.000000	Freshwater	Static
OPP	60207-90-1	Propiconazole	Daphnia magna	W ater flea	48 hr	EC50	4800.000000	Freshwater	Static
OPP	60207-90-1	Propiconazole	Daphnia magna	W ater flea	48 hr	EC50	11300.000000	Freshwater	Static
OPP	60207-90-1	Propiconazole	Ictalurus punctatus	Channelcatfish	96 hr	LC50	4870.000000	Freshwater	Static
OPP	60207-90-1	Propiconazole	Ictalurus punctatus	Channelcatfish	96 hr	LC50	12000.000000	Freshwater	Static
OPP	60207-90-1	Propiconazole	Leiostomus xanthurus	Spot	96 hr	LC50	2200.000000	Salwater	Static
OPP	60207-90-1	Propiconazole	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1300.000000	Freshwater	Static
OPP	60207-90-1	Propiconazole	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	5500.000000	Freshwater	Static
OPP	60207-90-1	Propiconazole	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	830.000000	Freshwater	Static
OPP	60207-90-1	Propiconazole	Priacanthus sp.	Crayfish	96 hr	LC50	49000.000000	Freshwater	Static
OPP	114-26-1	Propoxur	Carassius auratus	G odfish	96 hr	LC50	50000.000000	Freshwater	Static
OPP	114-26-1	Propoxur	Daphnia magna	W ater flea	48 hr	EC50	11.000000	Freshwater	Static
CERC-GED	114-26-1	Propoxur	G ammarus lacustris	Scud	96 hr	LC50	34.000000	Freshwater	Static
OPP	114-26-1	Propoxur	Ictalurus punctatus	Channelcatfish	96 hr	LC50	1300.000000	Freshwater	Static
OPP	114-26-1	Propoxur	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	6100.000000	Freshwater	Static
OPP	114-26-1	Propoxur	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	6200.000000	Freshwater	Static
OPP	114-26-1	Propoxur	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6600.000000	Freshwater	Static
OPP	114-26-1	Propoxur	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3700.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database
 ECOTOX = EVIDESTRA Component of U.S. EPA AQUATIC/ECOTOX Database
 CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	114-26-1	Propoxur	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4000.00000	Freshwater	Static
CERC-GED	114-26-1	Propoxur	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	8200.00000	Freshwater	Static
OPP	114-26-1	Propoxur	Penaeus duorarum	Pink shrimp	48 hr	LC50	41.000000	Saltwater	Fbw Through
CERC-GED	114-26-1	Propoxur	Pimephales promelas	Fathead minnow	96 hr	LC50	25000.00000	Freshwater	Static
CERC-GED	114-26-1	Propoxur	Pteronarcys californica	Stonefly	96 hr	LC50	18.000000	Freshwater	Static
OPP	79-09-4	Propionic acid	Daphnia magna	Water flea	48 hr	EC50	22700.00000	Freshwater	Static
OPP	79-09-4	Propionic acid	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	85300.00000	Freshwater	Static
OPP	79-09-4	Propionic acid	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	115000.00000	Freshwater	Static
OPP	79-09-4	Propionic acid	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	51000.00000	Freshwater	Static
OPP	79-09-4	Propionic acid	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	67100.00000	Freshwater	Static
CERC-GED	83-59-0	Propylisome	Italicus punctatus	Channelcatfish	96 hr	LC50	13.000000	Freshwater	Static
CERC-GED	57-55-6	Propylene Glycol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	44.000000	Freshwater	Static
OPP	23950-58-5	Propyzamide	Crassostrea virginica	Eastern oyster	96 hr	EC50	3500.00000	Saltwater	Fbw Through
CERC-GED	39429-71-5	Purifloc C-3	Italicus punctatus	Channelcatfish	96 hr	LC50	680.00000	Freshwater	Static
CERC-GED	39429-71-5	Purifloc C-3	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1470.00000	Freshwater	Static
CERC-GED	39429-71-5	Purifloc C-3	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	446.00000	Freshwater	Static
CERC-GED	39429-71-5	Purifloc C-3	Pimephales promelas	Fathead minnow	96 hr	LC50	490.00000	Freshwater	Static
CERC-GED	66594-32-9	Pydaul115E	Italicus punctatus	Channelcatfish	96 hr	LC50	14000.00000	Freshwater	Static
CERC-GED	66594-32-9	Pydaul115E	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	22000.00000	Freshwater	Static
CERC-GED	66594-32-9	Pydaul115E	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	10000.00000	Freshwater	Static
CERC-GED	66594-32-9	Pydaul115E	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	45000.00000	Freshwater	Static
CERC-GED	66594-32-9	Pydaul115E	Pimephales promelas	Fathead minnow	96 hr	LC50	46000.00000	Freshwater	Static
CERC-GED	66594-31-8	Pydaul50E	Chironomus plumosus	Midge	48 hr	EC50	3500.00000	Freshwater	Static
CERC-GED	66594-31-8	Pydaul50E	Daphnia magna	Water flea	48 hr	EC50	1600.00000	Freshwater	Static
CERC-GED	66594-31-8	Pydaul50E	Gammarus pseudohaeus	Scud	96 hr	LC50	3800.00000	Freshwater	Static
CERC-GED	66594-31-8	Pydaul50E	Italicus punctatus	Channelcatfish	96 hr	LC50	2700.00000	Freshwater	Static
CERC-GED	66594-31-8	Pydaul50E	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2200.00000	Freshwater	Static
CERC-GED	66594-31-8	Pydaul50E	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	100.00000	Freshwater	Static
CERC-GED	66594-31-8	Pydaul50E	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	720.00000	Freshwater	Static
CERC-GED	66594-31-8	Pydaul50E	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2000.00000	Freshwater	Static
CERC-GED	66594-31-8	Pydaul50E	Pimephales promelas	Fathead minnow	96 hr	LC50	1300.00000	Freshwater	Static
CERC-GED	66594-31-8	Pydaul50E	Pimephales promelas	Fathead minnow	96 hr	LC50	2000.00000	Freshwater	Static
OPP	123312-89-0	Pymetrozine	American yarrow	Mysid	96 hr	LC50	66900.00000	Saltwater	Fbw Through
OPP	123312-89-0	Pymetrozine	Crassostrea virginica	Eastern oyster	96 hr	EC50	3050.00000	Saltwater	Fbw Through
OPP	123312-89-0	Pymetrozine	Daphnia magna	Water flea	48 hr	EC50	87000.00000	Freshwater	Fbw Through
OPP	85264-33-1	Pyrazole	Daphnia magna	Water flea	48 hr	EC50	31700.00000	Freshwater	Static
OPP	85264-33-1	Pyrazole	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	123000.00000	Freshwater	Static
CERC-GED	8003-34-7	Pyrethrum (Pyrethrin)	Gammarus fasciatus	Scud	96 hr	LC50	1400000	Freshwater	Static
CERC-GED	8003-34-7	Pyrethrum (Pyrethrin)	Gammarus fasciatus	Scud	96 hr	LC50	12.00000	Freshwater	Static
CERC-GED	8003-34-7	Pyrethrum (Pyrethrin)	Italicus punctatus	Channelcatfish	96 hr	LC50	8.960000	Freshwater	Static
CERC-GED	8003-34-7	Pyrethrum (Pyrethrin)	Italicus punctatus	Channelcatfish	96 hr	LC50	132.000000	Freshwater	Fbw Through
CERC-GED	8003-34-7	Pyrethrum (Pyrethrin)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	53.000000	Freshwater	Static
CERC-GED	8003-34-7	Pyrethrum (Pyrethrin)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	58.000000	Freshwater	Static
CERC-GED	8003-34-7	Pyrethrum (Pyrethrin)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	59.000000	Freshwater	Static
CERC-GED	8003-34-7	Pyrethrum (Pyrethrin)	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	39.000000	Freshwater	Static
CERC-GED	8003-34-7	Pyrethrum (Pyrethrin)	Oncorhynchus tshawytscha	Chinook salmon	96 hr	LC50	44.500000	Freshwater	Static
CERC-GED	8003-34-7	Pyrethrum (Pyrethrin)	Salmo trutta	Brown trout	96 hr	LC50	50.000000	Freshwater	Static
CERC-GED	8003-34-7	Pyrethrum (Pyrethrin)	Salvelinus namaycush	Lake trout	96 hr	LC50	37.000000	Freshwater	Static
OPP	96489-71-3	Pyridaben	American yarrow	Mysid	96 hr	LC50	0.670000	Saltwater	Fbw Through
OPP	96489-71-3	Pyridaben	Crassostrea virginica	Eastern oyster	96 hr	EC50	5.700000	Saltwater	Fbw Through
OPP	96489-71-3	Pyridaben	Daphnia magna	Water flea	48 hr	EC50	0.530000	Freshwater	Static
OPP	96489-71-3	Pyridaben	Daphnia magna	Water flea	48 hr	EC50	1.020000	Freshwater	Fbw Through
OPP	96489-71-3	Pyridaben	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2.520000	Freshwater	Static Renewal
OPP	96489-71-3	Pyridaben	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3.430000	Freshwater	Fbw Through
OPP	96489-71-3	Pyridaben	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	0.720000	Freshwater	Fbw Through
OPP	96489-71-3	Pyridaben	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2.300000	Freshwater	Static Renewal
OPP	35512-33-5	Pyridate	Am erican yarrow	Mysid	96 hr	LC50	4000.00000	Saltwater	Static
OPP	35512-33-5	Pyridate	Daphnia magna	Water flea	48 hr	EC50	1080.00000	Freshwater	Static
OPP	35512-33-5	Pyridate	Merluccius merluccius	Quahog clam	48 hr	EC50	145.00000	Saltwater	Static
OPP	95737-68-1	Pyriproxyfen	Daphnia magna	Water flea	48 hr	EC50	400.000000	Freshwater	Fbw Through
OPP	84087-01-4	Quinclorac	American yarrow	Mysid	96 hr	LC50	69400.00000	Saltwater	Static
OPP	84087-01-4	Quinclorac	Daphnia magna	Water flea	48 hr	EC50	29800.00000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	84087-01-4	Quinclorac	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	31600.00000	Freshwater	Static
OPP	76578-14-8	Quizabfp, Ethyl	American yisi baha	Mysis	96 hr	LC50	150.00000	Saltwater	Static
OPP	76578-14-8	Quizabfp, Ethyl	American yisi baha	Mysis	96 hr	LC50	250.00000	Saltwater	Static
OPP	76578-14-8	Quizabfp, Ethyl	Ciassostea virginica	Eastern oyster	96 hr	EC50	187.00000	Saltwater	Fbw Through
OPP	76578-14-8	Quizabfp, Ethyl	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	1400.00000	Saltwater	Static
OPP	76578-14-8	Quizabfp, Ethyl	Daphnia magna	Water flea	48 hr	EC50	3700.00000	Freshwater	Static
OPP	76578-14-8	Quizabfp, Ethyl	Daphnia magna	Water flea	48 hr	EC50	6400.00000	Freshwater	Static
OPP	76578-14-8	Quizabfp, Ethyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	460.00000	Freshwater	Static
OPP	76578-14-8	Quizabfp, Ethyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	870.00000	Freshwater	Static
OPP	10453-86-8	Resmethrin	Daphnia magna	Water flea	48 hr	EC50	3100000	Freshwater	Static
CERC-GED	10453-86-8	Resmethrin	Ictalurus punctatus	Channel catfish	96 hr	LC50	1660000	Freshwater	Static
CERC-GED	10453-86-8	Resmethrin	Ictalurus punctatus	Channel catfish	96 hr	LC50	2700000	Freshwater	Static
CERC-GED	10453-86-8	Resmethrin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1700000	Freshwater	Static
CERC-GED	10453-86-8	Resmethrin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2620000	Freshwater	Static
OPP	10453-86-8	Resmethrin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	8200000	Freshwater	Fbw Through
CERC-GED	10453-86-8	Resmethrin	Pimephales promelas	Fathead minnow	96 hr	LC50	2960000	Freshwater	Static
CERC-GED	10453-86-8	Resmethrin	Salvelinus namaycush	Lake trout	96 hr	LC50	1680000	Freshwater	Static
OPP	122931-48-0	R in sulfuron	Daphnia magna	Water flea	48 hr	EC50	10000000.00000	Freshwater	Static
CERC-GED	299-84-3	Ronnel	Ictalurus punctatus	Channel catfish	96 hr	LC50	1600.00000	Freshwater	Static
CERC-GED	299-84-3	Ronnel	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1300.00000	Freshwater	Static
CERC-GED	299-84-3	Ronnel	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1350.00000	Freshwater	Static
CERC-GED	299-84-3	Ronnel	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	550.00000	Freshwater	Static
CERC-GED	83-79-4	Rotenone	Daphnia pulex	Water flea	48 hr	EC50	100.00000	Freshwater	Static
CERC-GED	83-79-4	Rotenone	Gammams fasciatus	Scud	96 hr	LC50	2600.00000	Freshwater	Static
CERC-GED	83-79-4	Rotenone	Ictalurus punctatus	Channel catfish	96 hr	LC50	2800000	Freshwater	Static
OPP	83-79-4	Rotenone	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	4900000	Freshwater	Fbw Through
OPP	83-79-4	Rotenone	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	5500000	Freshwater	Fbw Through
OPP	83-79-4	Rotenone	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	6090000	Freshwater	Static
OPP	83-79-4	Rotenone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1900000	Freshwater	Fbw Through
OPP	83-79-4	Rotenone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2800000	Freshwater	Fbw Through
OPP	83-79-4	Rotenone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2820000	Freshwater	Static
CERC-GED	83-79-4	Rotenone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2600000	Freshwater	Static
CERC-GED	83-79-4	Rotenone	Sinocyclopus semilatus	Water flea	48 hr	EC50	310.00000	Freshwater	Static
CERC-GED	1966-58-1	Rownate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4900.00000	Freshwater	Static
CERC-GED	22431-62-5	RU-11679	Catostomus commersoni	White sucker	96 hr	LC50	1000000	Freshwater	Static
CERC-GED	22431-62-5	RU-11679	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	0.300000	Freshwater	Static
CERC-GED	22431-62-5	RU-11679	Oncorhynchus ketautch	Coho salmon	96 hr	LC50	0.630000	Freshwater	Static
CERC-GED	22431-62-5	RU-11679	Salmosalar	Atlantic salmon	96 hr	LC50	0.410000	Freshwater	Static
CERC-GED	22431-62-5	RU-11679	Salvelinus namaycush	Lake trout	96 hr	LC50	0.170000	Freshwater	Static
CERC-GED	96300-95-7	Santizer148	Chironomus plumosus	Midge	48 hr	EC50	1250.00000	Freshwater	Static
CERC-GED	96300-95-7	Santizer148	Daphnia magna	Water flea	48 hr	EC50	18000.00000	Freshwater	Static
CERC-GED	96300-95-7	Santizer148	Gammarus pseudolimnaeus	Scud	96 hr	LC50	4400.00000	Freshwater	Static
CERC-GED	96300-95-7	Santizer148	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	7200000.00000	Freshwater	Static
CERC-GED	96300-95-7	Santizer148	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	13000.00000	Freshwater	Static
CERC-GED	96300-95-7	Santizer148	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	26000.00000	Freshwater	Static
CERC-GED	96300-96-8	Santizer154	Chironomus plumosus	Midge	48 hr	EC50	2800.00000	Freshwater	Static
CERC-GED	96300-96-8	Santizer154	Daphnia magna	Water flea	48 hr	EC50	5000.00000	Freshwater	Static
CERC-GED	96300-96-8	Santizer154	Gammarus pseudolimnaeus	Scud	96 hr	LC50	1900.00000	Freshwater	Static
CERC-GED	96300-96-8	Santizer154	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	960.00000	Freshwater	Static
CERC-GED	96300-96-8	Santizer154	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1950.00000	Freshwater	Static
CERC-GED	96300-96-8	Santizer154	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2300.00000	Freshwater	Static
CERC-GED	96300-96-8	Santizer154	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2400.00000	Freshwater	Static
CERC-GED	96300-96-8	Santizer154	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1100.00000	Freshwater	Static
CERC-GED	96300-96-8	Santizer154	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1200.00000	Freshwater	Static
CERC-GED	96300-96-8	Santizer154	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1300.00000	Freshwater	Static
CERC-GED	96300-96-8	Santizer154	Pimephales promelas	Fathead minnow	96 hr	LC50	1400.00000	Freshwater	Static
CERC-GED	28434-00-6	s-Bialethrin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	27.600000	Freshwater	Static
CERC-GED	28434-00-6	s-Bialethrin	Perca flavescens	Yellow perch	96 hr	LC50	7.800000	Freshwater	Static
CERC-GED	Unknown	SD 16898	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3900.00000	Freshwater	Static
CERC-GED	Unknown	SD 16898	Oncorhynchus ketautch	Coho salmon	96 hr	LC50	380.000000	Freshwater	Static
CERC-GED	Unknown	SD 16898	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3400.00000	Freshwater	Static
CERC-GED	29118-87-4	SD 17250	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	5660.00000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

CERC-GED	29118-87-4	SD 17250	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	3100.000000	Freshwater	Static
CERC-GED	29118-87-4	SD 17250	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1500.000000	Freshwater	Static
CERC-GED	2782-70-9	SD 7438	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	34.000000	Freshwater	Static
CERC-GED	2312-73-4	SD 8339	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2400.000000	Freshwater	Static
ECOTOX	7446-08-4	Selenim dioxide	Tanytarsus dissimilis	Miller	48 hr	LC50	42500.000000	Freshwater	Static
OPP	74051-80-2	Sethoxydin	Daphnia magna	Water flea	48 hr	EC50	78100.000000	Freshwater	Static
OPP	74051-80-2	Sethoxydin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	265000.000000	Freshwater	Static
OPP	74051-80-2	Sethoxydin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	170000.000000	Freshwater	Static
OPP	1982-49-6	Siluron	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	15000.000000	Freshwater	Static
OPP	1982-49-6	Siluron	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	13000.000000	Freshwater	Static
ECOTOX	7761-88-8	Silernitate	Daphnia magna	Water flea	48 hr	LC50	0.390000	Freshwater	Static
ECOTOX	7761-88-8	Silernitate	Daphnia magna	Water flea	48 hr	LC50	0.660000	Freshwater	Static
ECOTOX	7761-88-8	Silernitate	Daphnia magna	Water flea	48 hr	LC50	0.900000	Freshwater	Static
ECOTOX	7761-88-8	Silernitate	Daphnia magna	Water flea	48 hr	LC50	1.030000	Freshwater	Static
ECOTOX	7761-88-8	Silernitate	Daphnia magna	Water flea	48 hr	LC50	2.200000	Freshwater	Static
ECOTOX	7761-88-8	Silernitate	Daphnia magna	Water flea	48 hr	LC50	2.900000	Freshwater	Static
ECOTOX	7761-88-8	Silernitate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6.900000	Freshwater	Fbw Through
ECOTOX	7761-88-8	Silernitate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	8.400000	Freshwater	Fbw Through
ECOTOX	7761-88-8	Silernitate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	16.380000	Freshwater	Fbw Through
ECOTOX	7761-88-8	Silernitate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	17.870000	Freshwater	Fbw Through
ECOTOX	7761-88-8	Silernitate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	19.920000	Freshwater	Static
ECOTOX	7761-88-8	Silernitate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	31.800000	Freshwater	Static
ECOTOX	7761-88-8	Silernitate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	108.900000	Freshwater	Static
ECOTOX	7761-88-8	Silernitate	Pimephales promelas	Fathead minnow	96 hr	LC50	3.900000	Freshwater	Fbw Through
ECOTOX	7761-88-8	Silernitate	Pimephales promelas	Fathead minnow	96 hr	LC50	5.300000	Freshwater	Fbw Through
ECOTOX	7761-88-8	Silernitate	Pimephales promelas	Fathead minnow	96 hr	LC50	6.700000	Freshwater	Static
ECOTOX	7761-88-8	Silernitate	Pimephales promelas	Fathead minnow	96 hr	LC50	10.980000	Freshwater	Fbw Through
ECOTOX	7761-88-8	Silernitate	Pimephales promelas	Fathead minnow	96 hr	LC50	11.750000	Freshwater	Fbw Through
ECOTOX	7761-88-8	Silernitate	Pimephales promelas	Fathead minnow	96 hr	LC50	12.300000	Freshwater	Static
ECOTOX	7761-88-8	Silernitate	Pimephales promelas	Fathead minnow	96 hr	LC50	22.660000	Freshwater	Static
ECOTOX	7761-88-8	Silernitate	Pimephales promelas	Fathead minnow	96 hr	LC50	30.430000	Freshwater	Static
ECOTOX	7761-88-8	Silernitate	Tanytarsus dissimilis	Miller	48 hr	EC50	3160.000000	Freshwater	Static
OPP	130328-18-6	SilverZinc Zeolite	Daphnia magna	Water flea	48 hr	EC50	35.000000	Freshwater	Fbw Through
CERC-GED	93-72-1	Silrex	Elatinus punctatus	Channelcatfish	96 hr	LC50	29400.000000	Freshwater	Static
CERC-GED	93-72-1	Silrex	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	10100.000000	Freshwater	Static
CERC-GED	93-72-1	Silrex	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	10400.000000	Freshwater	Static
CERC-GED	93-72-1	Silrex	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	600.000000	Freshwater	Static
CERC-GED	93-72-1	Silrex	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	17200.000000	Freshwater	Static
CERC-GED	93-72-1	Silrex	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	18500.000000	Freshwater	Static
CERC-GED	93-72-1	Silrex	Pimephales promelas	Fathead minnow	96 hr	LC50	15800.000000	Freshwater	Static
CERC-GED	93-72-1	Silrex	Pimephales promelas	Fathead minnow	96 hr	LC50	18500.000000	Freshwater	Static
CERC-GED	19398-13-1	Silrex ButoxyethanolEster	Aesulus brevirostris	Aquatic sow bug	96 hr	LC50	88000.000000	Freshwater	Static
CERC-GED	19398-13-1	Silrex ButoxyethanolEster	Carassius auratus	Goldsfish	96 hr	LC50	61500.000000	Freshwater	Static
CERC-GED	19398-13-1	Silrex ButoxyethanolEster	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	44500.000000	Freshwater	Static
CERC-GED	6047-17-2	Silrex Propylene GlycolButylEtherEster	Cypridopsis vittua	Ostacod	48 hr	EC50	100.000000	Freshwater	Static
CERC-GED	6047-17-2	Silrex Propylene GlycolButylEtherEster	Daphnia pulex	Water flea	48 hr	EC50	2000.000000	Freshwater	Static
CERC-GED	6047-17-2	Silrex Propylene GlycolButylEtherEster	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	640.000000	Freshwater	Static
CERC-GED	6047-17-2	Silrex Propylene GlycolButylEtherEster	Pimephales promelas	Fathead minnow	96 hr	LC50	3000.000000	Freshwater	Static
CERC-GED	6047-17-2	Silrex Propylene GlycolButylEtherEster	Pteronarcys californica	Stonefly	96 hr	LC50	340.000000	Freshwater	Static
CERC-GED	6047-17-2	Silrex Propylene GlycolButylEtherEster	Sinocyclospira semilobus	Water flea	48 hr	EC50	2400.000000	Freshwater	Static
CERC-GED	122-34-9	Sin azine	Gammamuls fasciatus	Scud	96 hr	LC50	130000.000000	Freshwater	Static
OPP	122-34-9	Sin azine	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	16000.000000	Freshwater	Static
OPP	122-34-9	Sin azine	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	70500.000000	Freshwater	Static
OPP	122-34-9	Sin azine	Pimephales promelas	Fathead minnow	96 hr	LC50	6400.000000	Freshwater	Static
CERC-GED	122-34-9	Sin azine	Pteronarcys californica	Stonefly	96 hr	LC50	1900.000000	Freshwater	Static
OPP	2492-26-4	Sodium 2-mercaptobenzothiobate	Daphnia magna	Water flea	48 hr	EC50	2900.000000	Freshwater	Static
OPP	2492-26-4	Sodium 2-mercaptobenzothiobate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	730.000000	Freshwater	Static
OPP	2492-26-4	Sodium 2-mercaptobenzothiobate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	730.000000	Freshwater	Static
OPP	132-27-4	Sodium 2-phenylphenate	Daphnia magna	Water flea	48 hr	EC50	3800.000000	Freshwater	Static
OPP	132-27-4	Sodium 2-phenylphenate	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	6100.000000	Freshwater	Static
ECOTOX	7647-14-5	Sodium chbrile	Anguilla rostata	American eel	96 hr	LC50	1788000.000000	Freshwater	Static
ECOTOX	7647-14-5	Sodium chbrile	Anguilla rostata	American eel	96 hr	LC50	2145000.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDERA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	143-33-9	Sodium cyanide	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	148.000000	Freshwater	Static
ECOTOX	143-33-9	Sodium cyanide	Tanytarsus dissimilis	Midge	48 hr	LC50	2490.000000	Freshwater	Static
OPP	51580-86-0	Sodium dichloroisocyanuratedihydrate	Daphnia magna	Water flea	48 hr	EC50	280.000000	Freshwater	Static
OPP	51580-86-0	Sodium dichloroisocyanuratedihydrate	Lepomis macrochirus	Blegsunfish	96 hr	LC50	460.000000	Freshwater	Static
OPP	51580-86-0	Sodium dichloroisocyanuratedihydrate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	250.000000	Freshwater	Static
OPP	2893-78-9	Sodium dichloro-triazinetone	Daphnia magna	Water flea	48 hr	EC50	110.000000	Freshwater	Static
OPP	2893-78-9	Sodium dichloro-triazinetone	Daphnia magna	Water flea	48 hr	EC50	280.000000	Freshwater	Static
OPP	2893-78-9	Sodium dichloro-triazinetone	Lepomis macrochirus	Blegsunfish	96 hr	LC50	460.000000	Freshwater	Static
OPP	2893-78-9	Sodium dichloro-triazinetone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	250.000000	Freshwater	Static
OPP	2893-78-9	Sodium dichloro-triazinetone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	358.000000	Freshwater	Static
OPP	7681-49-4	Sodium fluoride	Lepomis macrochirus	Blegsunfish	96 hr	LC50	830000.000000	Freshwater	Static Renewal
OPP	7681-49-4	Sodium fluoride	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	317000.000000	Freshwater	Static
OPP	62-74-8	Sodium fluacetate	Daphnia magna	Water flea	48 hr	EC50	350000.000000	Freshwater	Static
OPP	62-74-8	Sodium fluacetate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	54000.000000	Freshwater	Static
CERC-GED	151-21-3	Sodium laurylsulfate	Am erican ysis bahia	Mysid	96 hr	LC50	4200.000000	Salwater	Static
CERC-GED	151-21-3	Sodium laurylsulfate	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	1700.000000	Salwater	Static
CERC-GED	151-21-3	Sodium laurylsulfate	Metamysidopsis setifera	Mysid	96 hr	LC50	3200.000000	Salwater	Static
CERC-GED	10102-18-8	Sodium selrite	Chasmus plimousus	Midge	48 hr	EC50	36500.000000	Freshwater	Static
CERC-GED	10102-18-8	Sodium selrite	Daphnia magna	Water flea	48 hr	EC50	1000.000000	Freshwater	Static
CERC-GED	10102-18-8	Sodium selrite	Italicus punctatus	Channelcatfish	96 hr	LC50	6100.000000	Freshwater	Static
CERC-GED	10102-18-8	Sodium selrite	Pimephales promelas	Fathead minnow	96 hr	LC50	10000.000000	Freshwater	Static
OPP	7345-69-9	Sodium tetabutcarbamate	Lepomis macrochirus	Blegsunfish	96 hr	LC50	21000.000000	Freshwater	Fbw Through
CERC-GED	Unknown	SRCSynfuel	Chasmus plimousus	Midge	48 hr	EC50	870.000000	Freshwater	Static
CERC-GED	Unknown	SRCSynfuel	Daphnia magna	Water flea	48 hr	EC50	430.000000	Freshwater	Static
OPP	3810-74-0	Streptonacin	Daphnia magna	Water flea	48 hr	EC50	650000.000000	Freshwater	Static
OPP	57-24-9	Stychnine	Daphnia magna	Water flea	48 hr	EC50	10000.000000	Freshwater	Not Reported
OPP	57-24-9	Stychnine	Lepomis macrochirus	Blegsunfish	96 hr	LC50	760.000000	Freshwater	Not Reported
OPP	57-24-9	Stychnine	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2300.000000	Freshwater	Not Reported
OPP	122836-35-5	Sulfentazone	Am erican ysis bahia	Mysid	96 hr	LC50	1000.000000	Salwater	Fbw Through
OPP	122836-35-5	Sulfentazone	Daphnia magna	Water flea	48 hr	EC50	604000.000000	Freshwater	Fbw Through
OPP	122836-35-5	Sulfentazone	Lepomis macrochirus	Blegsunfish	96 hr	LC50	93800.000000	Freshwater	Fbw Through
OPP	122836-35-5	Sulfentazone	Menidia beryllina	Inland silverside	96 hr	LC50	114000.000000	Salwater	Fbw Through
OPP	4151-50-2	Sulfiram	Daphnia magna	Water flea	48 hr	EC50	370.000000	Freshwater	Static
OPP	3689-24-5	Sulfitepp	Daphnia magna	Water flea	48 hr	EC50	2.500000	Freshwater	Static
OPP	3689-24-5	Sulfitepp	Lepomis macrochirus	Blegsunfish	96 hr	LC50	360.000000	Freshwater	Static
OPP	3689-24-5	Sulfitepp	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1000.000000	Freshwater	Static
CERC-GED	7704-34-9	Sulfur	Am erican ysis bahia	Mysid	96 hr	LC50	730000.000000	Salwater	Static
OPP	7704-34-9	Sulfur	Am erican ysis bahia	Mysid	96 hr	LC50	736000.000000	Salwater	Static
ECOTOX	7758-98-7	Sulfuric acid, Copper(2+) salt (1)	Gambusia affinis	Mosquitofish	96 hr	LC50	200.000000	Freshwater	Static
OPP	35400-43-2	Suprofos sulfoxide	Daphnia magna	Water flea	48 hr	EC50	5.100000	Freshwater	Static
OPP	26002-80-2	Sumithrin	Am erican ysis bahia	Mysid	96 hr	LC50	0.025000	Salwater	Fbw Through
OPP	26002-80-2	Sumithrin	Lepomis macrochirus	Blegsunfish	96 hr	LC50	15.800000	Freshwater	Fbw Through
OPP	26002-80-2	Sumithrin	Lepomis macrochirus	Blegsunfish	96 hr	LC50	18.000000	Freshwater	Static
OPP	26002-80-2	Sumithrin	Menidia beryllina	Inland silverside	96 hr	LC50	94.200000	Salwater	Fbw Through
OPP	26002-80-2	Sumithrin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1.400000	Freshwater	Fbw Through
OPP	26002-80-2	Sumithrin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	16.700000	Freshwater	Static
OPP	21564-17-0	TCM TB	Daphnia magna	Water flea	48 hr	EC50	23.000000	Freshwater	Static
OPP	21564-17-0	TCM TB	Lepomis macrochirus	Blegsunfish	96 hr	LC50	32.000000	Freshwater	Static
OPP	107534-96-3	Tebuconazole	Am erican ysis bahia	Mysid	96 hr	LC50	490.000000	Salwater	Fbw Through
OPP	107534-96-3	Tebuconazole	Crassostrea virginica	Eastern oyster	96 hr	EC50	2700.000000	Salwater	Fbw Through
OPP	107534-96-3	Tebuconazole	Daphnia magna	Water flea	48 hr	EC50	4000.000000	Freshwater	Fbw Through
OPP	107534-96-3	Tebuconazole	Lepomis macrochirus	Blegsunfish	96 hr	LC50	5700.000000	Freshwater	Fbw Through
OPP	107534-96-3	Tebuconazole	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4400.000000	Freshwater	Fbw Through
OPP	112410-23-8	Tebufenozide	Am erican ysis bahia	Mysid	96 hr	LC50	1400.000000	Salwater	Static
OPP	112410-23-8	Tebufenozide	Crassostrea virginica	Eastern oyster	96 hr	EC50	500.000000	Salwater	Fbw Through
OPP	112410-23-8	Tebufenozide	Daphnia magna	Water flea	48 hr	EC50	3800.000000	Freshwater	Static
OPP	112410-23-8	Tebufenozide	Lepomis macrochirus	Blegsunfish	96 hr	LC50	3000.000000	Freshwater	Static
OPP	112410-23-8	Tebufenozide	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	5380.000000	Freshwater	Static
OPP	34014-18-1	Tebuthuron	Daphnia magna	Water flea	48 hr	EC50	297000.000000	Freshwater	Static
OPP	34014-18-1	Tebuthuron	Lepomis macrochirus	Blegsunfish	96 hr	LC50	106000.000000	Freshwater	Static
OPP	34014-18-1	Tebuthuron	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	143000.000000	Freshwater	Static
OPP	79538-32-2	Tefluthrin	Am erican ysis bahia	Mysid	96 hr	LC50	0.053000	Salwater	Fbw Through

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDERA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	79538-32-2	Tefluthrin	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	0.130000	Salwater	Fbw Through
OPP	79538-32-2	Tefluthrin	Daphnia magna	Water flea	48 hr	EC50	0.070000	Freshwater	Static
OPP	79538-32-2	Tefluthrin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	0.130000	Freshwater	Fbw Through
OPP	79538-32-2	Tefluthrin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	0.060000	Freshwater	Fbw Through
OPP	3383-96-8	Temephos	Daphnia magna	Water flea	48 hr	EC50	0.011000	Freshwater	Static
CERC-GED	3383-96-8	Temephos	Gammams lacustris	Scud	96 hr	LC50	80.000000	Freshwater	Static
OPP	3383-96-8	Temephos	Gammams lacustris	Scud	96 hr	LC50	640.000000	Freshwater	Static
CERC-GED	3383-96-8	Temephos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	21800.000000	Freshwater	Static
CERC-GED	3383-96-8	Temephos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3490.000000	Freshwater	Static
CERC-GED	3383-96-8	Temephos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6800.000000	Freshwater	Static
OPP	3383-96-8	Temephos	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	9580.000000	Freshwater	Static
CERC-GED	3383-96-8	Temephos	Pimephales promelas	Fathead minnow	96 hr	LC50	34100.000000	Freshwater	Static
CERC-GED	3383-96-8	Temephos	Pteronarcys californica	Stonefly	96 hr	LC50	10.000000	Freshwater	Static
CERC-GED	3383-96-8	Temephos	Salmo salar	Atlantic salmon	96 hr	LC50	4000.000000	Freshwater	Static
CERC-GED	3383-96-8	Temephos	Salmo salar	Atlantic salmon	96 hr	LC50	20000.000000	Freshwater	Static
CERC-GED	3383-96-8	Temephos	Salmo salar	Atlantic salmon	96 hr	LC50	21000.000000	Freshwater	Static
CERC-GED	3383-96-8	Temephos	Salvelinus fontinalis	Brook trout	96 hr	LC50	10000.000000	Freshwater	Static
CERC-GED	3383-96-8	Temephos	Salvelinus fontinalis	Brook trout	96 hr	LC50	12800.000000	Freshwater	Static
CERC-GED	3383-96-8	Temephos	Salvelinus fontinalis	Brook trout	96 hr	LC50	17000.000000	Freshwater	Static
CERC-GED	3383-96-8	Temephos	Salvelinus fontinalis	Brook trout	96 hr	LC50	27000.000000	Freshwater	Static
CERC-GED	107-49-3	TEPP	Gammams fasciatus	Scud	96 hr	LC50	39.000000	Freshwater	Static
CERC-GED	107-49-3	TEPP	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3000.000000	Freshwater	Static
CERC-GED	107-49-3	TEPP	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	700.000000	Freshwater	Static
CERC-GED	107-49-3	TEPP	Pimephales promelas	Fathead minnow	96 hr	LC50	240.000000	Freshwater	Static
OPP	5902-51-2	Tebacil	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	108000.000000	Salwater	Static
OPP	5902-51-2	Tebacil	Daphnia magna	Water flea	48 hr	EC50	65000.000000	Freshwater	Static
OPP	5902-51-2	Tebacil	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	102900.000000	Freshwater	Static
OPP	5902-51-2	Tebacil	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	46200.000000	Freshwater	Static
OPP	13071-79-9	Tebufubs	Am erican ys is bahia	Mysid	96 hr	LC50	0.220000	Salwater	Static
OPP	13071-79-9	Tebufubs	Am erican ys is bahia	Mysid	96 hr	LC50	0.400000	Salwater	Fbw Through
CERC-GED	13071-79-9	Tebufubs	Chironomus plumosus	Midge	48 hr	EC50	1400000	Freshwater	Static
OPP	13071-79-9	Tebufubs	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	1.500000	Salwater	Static
OPP	13071-79-9	Tebufubs	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	3.200000	Salwater	Static
CERC-GED	13071-79-9	Tebufubs	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	4.500000	Salwater	Static
CERC-GED	13071-79-9	Tebufubs	Daphnia magna	Water flea	48 hr	EC50	0.400000	Freshwater	Static
CERC-GED	13071-79-9	Tebufubs	Gammams pseudolemaeaeus	Scud	96 hr	LC50	0.200000	Freshwater	Static
CERC-GED	13071-79-9	Tebufubs	Gammams pseudolemaeaeus	Scud	96 hr	LC50	0.280000	Freshwater	Static
CERC-GED	13071-79-9	Tebufubs	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1.500000	Freshwater	Static
CERC-GED	13071-79-9	Tebufubs	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1.600000	Freshwater	Static
CERC-GED	13071-79-9	Tebufubs	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1.700000	Freshwater	Static
CERC-GED	13071-79-9	Tebufubs	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1.800000	Freshwater	Static
CERC-GED	13071-79-9	Tebufubs	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2.000000	Freshwater	Static
CERC-GED	13071-79-9	Tebufubs	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	7600000	Freshwater	Static
CERC-GED	13071-79-9	Tebufubs	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	10.000000	Freshwater	Static
CERC-GED	13071-79-9	Tebufubs	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	13.200000	Freshwater	Static
CERC-GED	13071-79-9	Tebufubs	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	16.000000	Freshwater	Static
CERC-GED	13071-79-9	Tebufubs	Pahem onetes pugn	Grass shrimp	96 hr	LC50	5.700000	Salwater	Static
CERC-GED	13071-79-9	Tebufubs	Pimephales promelas	Fathead minnow	96 hr	LC50	390.000000	Freshwater	Static
OPP	5915-41-3	Tebutylazine	Am erican ys is bahia	Mysid	96 hr	LC50	109.000000	Salwater	Static
OPP	5915-41-3	Tebutylazine	Daphnia magna	Water flea	48 hr	EC50	21200.000000	Freshwater	Static
OPP	5915-41-3	Tebutylazine	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	7500.000000	Freshwater	Static
OPP	5915-41-3	Tebutylazine	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3400.000000	Freshwater	Static
CERC-GED	886-50-0	Tebutylyn	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2720.000000	Freshwater	Static
CERC-GED	886-50-0	Tebutylyn	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	820.000000	Freshwater	Static
CERC-GED	8001-50-1	Terpene polychlorate	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	12.000000	Freshwater	Static
CERC-GED	8001-50-1	Terpene polychlorate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	12.000000	Freshwater	Static
CERC-GED	8001-50-1	Terpene polychlorate	Pteronarcys californica	Stonefly	96 hr	LC50	0.500000	Freshwater	Static
ECOTOX	127-18-4	Tetachloroethene	Pimephales promelas	Fathead minnow	96 hr	LC50	13400.000000	Freshwater	Fbw Through
ECOTOX	127-18-4	Tetachloroethene	Tanytarsus dissimilis	Midge	48 hr	LC50	30800.000000	Freshwater	Static
ECOTOX	56-23-5	Tetrachloro ethane	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	125000.000000	Freshwater	Static
ECOTOX	56-23-5	Tetrachloro ethane	Menidia beryllina	Inland silverside	96 hr	LC50	150000.000000	Salwater	Static
OPP	22248-79-9	Tetrachlorophos	Daphnia magna	Water flea	48 hr	EC50	1900000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

CERC-GED	22248-79-9	Tetrachlorvinphos	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	529.000000	Freshwater	Static
OPP	22248-79-9	Tetrachlorvinphos	Penaeus duorarum	Pink shrimp	48 hr	LC50	280.000000	Saltwater	Fbw Through
CERC-GED	116-29-0	Tetradifon	Gammarus fasciatus	Scud	96 hr	LC50	111.000000	Freshwater	Static
CERC-GED	116-29-0	Tetradifon	Ictalurus punctatus	Channelcatfish	96 hr	LC50	2100.000000	Freshwater	Static
CERC-GED	116-29-0	Tetradifon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1200.000000	Freshwater	Static
OPP	7696-12-0	Tetram ethrin	Daphnia magna	Water flea	48 hr	EC50	45.000000	Freshwater	Fbw Through
OPP	7696-12-0	Tetram ethrin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	15.900000	Freshwater	Fbw Through
OPP	7696-12-0	Tetram ethrin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	19.000000	Freshwater	Static
OPP	7696-12-0	Tetram ethrin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3.700000	Freshwater	Fbw Through
OPP	7696-12-0	Tetram ethrin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	21.000000	Freshwater	Static
CERC-GED	80-12-6	Tetram ine	Gammarus fasciatus	Scud	96 hr	LC50	18.000000	Freshwater	Static
CERC-GED	80-12-6	Tetram ine	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	89.000000	Freshwater	Static
CERC-GED	2227-13-6	Tetrasul	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	11000.000000	Freshwater	Static
CERC-GED	654-66-0	TFM	Odonectes nais	Crayfish	96 hr	LC50	17800.000000	Freshwater	Static
OPP	88-30-2	TFM/Bayer73	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	7300.000000	Freshwater	Fbw Through
OPP	88-30-2	TFM/Bayer73	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1600.000000	Freshwater	Fbw Through
CERC-GED	115-31-1	Thanite	Daphnia magna	Water flea	48 hr	EC50	115.000000	Freshwater	Static
CERC-GED	115-31-1	Thanite	Gammarus fasciatus	Scud	96 hr	LC50	740.000000	Freshwater	Static
OPP	148-79-8	Thabendazole	Am ericanus bahia	Mysid	96 hr	LC50	340.000000	Saltwater	Fbw Through
OPP	148-79-8	Thabendazole	Daphnia magna	Water flea	48 hr	EC50	310.000000	Freshwater	Static
OPP	148-79-8	Thabendazole	Daphnia magna	Water flea	48 hr	EC50	850.000000	Freshwater	Fbw Through
OPP	148-79-8	Thabendazole	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	14000.000000	Freshwater	Static
OPP	148-79-8	Thabendazole	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	19000.000000	Freshwater	Static
OPP	148-79-8	Thabendazole	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	22000.000000	Freshwater	Static
OPP	148-79-8	Thabendazole	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	560.000000	Freshwater	Fbw Through
OPP	148-79-8	Thabendazole	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1800.000000	Freshwater	Static
OPP	148-79-8	Thabendazole	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3500.000000	Freshwater	Static
OPP	117718-60-2	Thiazopyr	Am ericanus bahia	Mysid	96 hr	LC50	2000.000000	Saltwater	Fbw Through
OPP	117718-60-2	Thiazopyr	Crassostrea virginica	Eastern oyster	96 hr	EC50	820.000000	Saltwater	Fbw Through
OPP	117718-60-2	Thiazopyr	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	2900.000000	Saltwater	Fbw Through
OPP	117718-60-2	Thiazopyr	Daphnia magna	Water flea	48 hr	EC50	6100.000000	Freshwater	Static
OPP	117718-60-2	Thiazopyr	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3500.000000	Freshwater	Static
OPP	117718-60-2	Thiazopyr	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3400.000000	Freshwater	Static
OPP	51707-55-2	Thidiazuron	Am ericanus bahia	Mysid	96 hr	LC50	3200.000000	Saltwater	Static
OPP	51707-55-2	Thidiazuron	Crassostrea virginica	Eastern oyster	96 hr	EC50	4300.000000	Saltwater	Fbw Through
OPP	51707-55-2	Thidiazuron	Daphnia magna	Water flea	48 hr	EC50	10000.000000	Freshwater	Static
OPP	28249-77-6	Thibbencaib/Benthiccaib	Am ericanus bahia	Mysid	96 hr	LC50	150.000000	Saltwater	Static
OPP	28249-77-6	Thibbencaib/Benthiccaib	Am ericanus bahia	Mysid	96 hr	LC50	330.000000	Saltwater	Fbw Through
CERC-GED	28249-77-6	Thibbencaib/Benthiccaib	Am ericanus bahia	Mysid	96 hr	LC50	370.000000	Saltwater	Static
OPP	28249-77-6	Thibbencaib/Benthiccaib	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	658.000000	Saltwater	Fbw Through
OPP	28249-77-6	Thibbencaib/Benthiccaib	Daphnia magna	Water flea	48 hr	EC50	101.000000	Freshwater	Static
OPP	28249-77-6	Thibbencaib/Benthiccaib	Gammarus pseudolinnaeus	Scud	96 hr	LC50	720.000000	Freshwater	Static
CERC-GED	28249-77-6	Thibbencaib/Benthiccaib	Ictalurus punctatus	Channelcatfish	96 hr	LC50	2280.000000	Freshwater	Static
CERC-GED	28249-77-6	Thibbencaib/Benthiccaib	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2480.000000	Freshwater	Static
OPP	28249-77-6	Thibbencaib/Benthiccaib	Leuresthes tenuis	Californian gunnel	96 hr	LC50	330.000000	Saltwater	Fbw Through
CERC-GED	28249-77-6	Thibbencaib/Benthiccaib	Leuresthes tenuis	Californian gunnel	96 hr	LC50	500.000000	Saltwater	Static
OPP	28249-77-6	Thibbencaib/Benthiccaib	Menidia menidia	Atlantic silverside	96 hr	LC50	680.000000	Saltwater	Fbw Through
CERC-GED	28249-77-6	Thibbencaib/Benthiccaib	Menidia menidia	Atlantic silverside	96 hr	LC50	748.000000	Saltwater	Static
OPP	28249-77-6	Thibbencaib/Benthiccaib	Menidia peninsulae	Tidewater silverside	96 hr	LC50	820.000000	Saltwater	Fbw Through
CERC-GED	28249-77-6	Thibbencaib/Benthiccaib	Menidia peninsulae	Tidewater silverside	96 hr	LC50	1200.000000	Saltwater	Static
CERC-GED	28249-77-6	Thibbencaib/Benthiccaib	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1150.000000	Freshwater	Static
OPP	6317-18-6	Thiocyanate - M ethylenebis	Am ericanus bahia	Mysid	96 hr	LC50	36.000000	Saltwater	Fbw Through
OPP	6317-18-6	Thiocyanate - M ethylenebis	Crassostrea virginica	Eastern oyster	96 hr	EC50	3400000.000000	Saltwater	Fbw Through
OPP	6317-18-6	Thiocyanate - M ethylenebis	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	606.000000	Saltwater	Fbw Through
OPP	6317-18-6	Thiocyanate - M ethylenebis	Daphnia magna	Water flea	48 hr	EC50	39.000000	Freshwater	Static
OPP	6317-18-6	Thiocyanate - M ethylenebis	Daphnia magna	Water flea	48 hr	EC50	60.000000	Freshwater	Static
OPP	6317-18-6	Thiocyanate - M ethylenebis	Daphnia magna	Water flea	48 hr	EC50	70.000000	Freshwater	Static
OPP	6317-18-6	Thiocyanate - M ethylenebis	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	210.000000	Freshwater	Static
OPP	6317-18-6	Thiocyanate - M ethylenebis	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	250.000000	Freshwater	Static
OPP	6317-18-6	Thiocyanate - M ethylenebis	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	240.000000	Freshwater	Static
OPP	59669-26-0	Thidraib	Am ericanus bahia	Mysid	96 hr	LC50	29.300000	Saltwater	Static Renewal
CERC-GED	59669-26-0	Thidraib	Am ericanus bahia	Mysid	96 hr	LC50	260.000000	Saltwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDERA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	59669-26-0	Thidiazab	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	530.000000	Saltwater	Static
OPP	59669-26-0	Thidiazab	Daphnia magna	Water flea	48 hr	EC50	27.000000	Freshwater	Fbw Through
OPP	59669-26-0	Thidiazab	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1470.000000	Freshwater	Fbw Through
OPP	59669-26-0	Thidiazab	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	3300.000000	Freshwater	Static
OPP	59669-26-0	Thidiazab	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2650.000000	Freshwater	Fbw Through
OPP	59669-26-0	Thidiazab	Palaemonetes sp.	Grass shrimp	96 hr	LC50	59.600000	Saltwater	Static
OPP	59669-26-0	Thidiazab	Salvelinus fontinalis	Brook trout	96 hr	LC50	4450.000000	Freshwater	Static
OPP	59669-26-0	Thidiazab	Uca pugilator	Fiddler crab	96 hr	LC50	2500000	Saltwater	Static
OPP	23564-05-8	Thiophanate-methyl	Am erican yé bahá	Mysid	96 hr	LC50	1100.000000	Saltwater	Fbw Through
OPP	23564-05-8	Thiophanate-methyl	Crassostrea virginica	Eastern oyster	96 hr	EC50	2200.000000	Saltwater	Fbw Through
OPP	23564-05-8	Thiophanate-methyl	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	17000.000000	Saltwater	Fbw Through
OPP	23564-05-8	Thiophanate-methyl	Daphnia carinata	Water flea	48 hr	EC50	20300.000000	Freshwater	Static
OPP	23564-05-8	Thiophanate-methyl	Daphnia magna	Water flea	48 hr	EC50	5400.000000	Freshwater	Fbw Through
OPP	23564-05-8	Thiophanate-methyl	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	58000.000000	Freshwater	Static
OPP	23564-05-8	Thiophanate-methyl	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	8300.000000	Freshwater	Static
OPP	137-26-8	Thiam	Am erican yé bahá	Mysid	96 hr	LC50	3.360000	Saltwater	Fbw Through
OPP	137-26-8	Thiam	Crassostrea gigas	Pacific oyster	48 hr	EC50	4.700000	Saltwater	Fbw Through
OPP	137-26-8	Thiam	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	540.000000	Saltwater	Fbw Through
OPP	137-26-8	Thiam	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	42.000000	Freshwater	Static
OPP	137-26-8	Thiam	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	130.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Am elmus m é las	Black bulthead	96 hr	LC50	5.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Atherix variegata	Snipe fly	96 hr	LC50	40.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Bufo woodhousei weni	Fowler's toad	96 hr	LC50	150.000000	Freshwater	Static
OPP	8001-35-2	Toxaphene	Callianectes sapidus	Blue crab	48 hr	LC50	180.000000	Saltwater	Fbw Through
CERC-GED	8001-35-2	Toxaphene	Carassius auratus	Golifish	96 hr	LC50	14.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Chassena sabubsa	Stonefly	96 hr	LC50	1.300000	Freshwater	Static
OPP	8001-35-2	Toxaphene	Crassostrea virginica	Eastern oyster	96 hr	EC50	34.000000	Saltwater	Fbw Through
CERC-GED	8001-35-2	Toxaphene	Cyprinus carpio	Common carp	96 hr	LC50	3.700000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Daphnia magna	Water flea	48 hr	EC50	10.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Daphnia pulex	Water flea	48 hr	EC50	14.200000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Gammarellus fasciatus	Scud	96 hr	LC50	26.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Italimus punctatus	Channelcatfish	96 hr	LC50	2.800000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Italimus punctatus	Channelcatfish	96 hr	LC50	3.200000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Italimus punctatus	Channelcatfish	96 hr	LC50	3.400000	Freshwater	Static
OPP	8001-35-2	Toxaphene	Italimus punctatus	Channelcatfish	96 hr	LC50	4.750000	Freshwater	Fbw Through
OPP	8001-35-2	Toxaphene	Italimus punctatus	Channelcatfish	96 hr	LC50	5.500000	Freshwater	Fbw Through
CERC-GED	8001-35-2	Toxaphene	Italimus punctatus	Channelcatfish	96 hr	LC50	13.100000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Lepomis cyanellus	Green sunfish	96 hr	LC50	13.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2.600000	Freshwater	Static
OPP	8001-35-2	Toxaphene	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3.370000	Freshwater	Fbw Through
CERC-GED	8001-35-2	Toxaphene	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	7.300000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	18.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Micropodus salmoides	Largemouth bass	96 hr	LC50	2.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	8.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2.700000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	6.700000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	9.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	10.600000	Freshwater	Static
OPP	8001-35-2	Toxaphene	Palaemonetes pugnax	Grass shrimp	96 hr	LC50	4.400000	Saltwater	Fbw Through
OPP	8001-35-2	Toxaphene	Penaeus aztecus	Brown shrimp	48 hr	LC50	2.700000	Saltwater	Fbw Through
OPP	8001-35-2	Toxaphene	Penaeus duorarum	Pink shrimp	48 hr	LC50	4.200000	Saltwater	Fbw Through
CERC-GED	8001-35-2	Toxaphene	Pimephales promelas	Fathead minnow	96 hr	LC50	14.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Pimephales promelas	Fathead minnow	96 hr	LC50	18.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Pimephales promelas	Fathead minnow	96 hr	LC50	20.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Pseudacris triseriata	Western chorus frog	96 hr	LC50	390.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Pteronarcia badia	Stonefly	96 hr	LC50	1.800000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Pteronarcia californica	Stonefly	96 hr	LC50	2.300000	Freshwater	Static
OPP	8001-35-2	Toxaphene	Salmofutta	Brown trout	96 hr	LC50	3.100000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Sinocyclopus semilatus	Water flea	48 hr	EC50	10.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Sinocyclopus semilatus	Water flea	48 hr	EC50	19.000000	Freshwater	Static
CERC-GED	8001-35-2	Toxaphene	Tipula sp.	Tree crane fly	96 hr	LC50	18.000000	Freshwater	Static
OPP	66841-25-6	Tributethrin	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	2.480000	Saltwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	66841-25-6	Tralomethrin	Daphnia magna	Water flea	48 hr	EC50	0.039000	Freshwater	Static
OPP	66841-25-6	Tralomethrin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	2.800000	Freshwater	Static
OPP	66841-25-6	Tralomethrin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	4.300000	Freshwater	Static
OPP	66841-25-6	Tralomethrin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1.600000	Freshwater	Static
CERC-GED	15271-41-7	Triadil	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	13000.000000	Freshwater	Static
CERC-GED	Unknown	Tetralite J-146	Oncorhynchus clarki	Cutthroat trout	96 hr	LC50	1400.000000	Freshwater	Static
CERC-GED	Unknown	Tetralite J-146	Pteronarcella badia	Stonefly	96 hr	LC50	61000.000000	Freshwater	Static
CERC-GED	Unknown	Tetralite JN-9045	Oncorhynchus clarki	Cutthroat trout	96 hr	LC50	357.000000	Freshwater	Static
CERC-GED	Unknown	Tetralite JW-8226	Oncorhynchus clarki	Cutthroat trout	96 hr	LC50	358.000000	Freshwater	Static
OPP	43121-43-3	Triadimenfon	Daphnia magna	Water flea	48 hr	EC50	1600.000000	Freshwater	Static
OPP	43121-43-3	Triadimenfon	Daphnia magna	Water flea	48 hr	EC50	7160.000000	Freshwater	Static
OPP	43121-43-3	Triadimenfon	Ictalurus punctatus	Channel catfish	96 hr	LC50	15000.000000	Freshwater	Static
OPP	43121-43-3	Triadimenfon	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	10000.000000	Freshwater	Static Renewal
OPP	43121-43-3	Triadimenfon	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	11000.000000	Freshwater	Static
OPP	43121-43-3	Triadimenfon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4100.000000	Freshwater	Static Renewal
OPP	43121-43-3	Triadimenfon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	14000.000000	Freshwater	Static
OPP	55219-65-3	Triadimenol	Carassius auratus	Golifish	96 hr	LC50	50000.000000	Freshwater	Static
OPP	55219-65-3	Triadimenol	Daphnia magna	Water flea	48 hr	EC50	2500.000000	Freshwater	Static
OPP	55219-65-3	Triadimenol	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	15000.000000	Freshwater	Static
OPP	55219-65-3	Triadimenol	Leuciscus idus melanotus	Gobien orfe	96 hr	LC50	17400.000000	Not Reported	Static
OPP	55219-65-3	Triadimenol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	14000.000000	Freshwater	Static
OPP	55219-65-3	Triadimenol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	23500.000000	Freshwater	Static
CERC-GED	2303-17-5	Triilate	Daphnia magna	Water flea	48 hr	EC50	80.000000	Freshwater	Static
OPP	2303-17-5	Triilate	Daphnia magna	Water flea	48 hr	EC50	91.000000	Freshwater	Static
OPP	2303-17-5	Triilate	Daphnia magna	Water flea	48 hr	EC50	430.000000	Freshwater	Static
CERC-GED	2303-17-5	Triilate	Ictalurus punctatus	Channel catfish	96 hr	LC50	1700.000000	Freshwater	Static
OPP	2303-17-5	Triilate	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1300.000000	Freshwater	Static
OPP	2303-17-5	Triilate	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1330.000000	Freshwater	Fbw Through
CERC-GED	2303-17-5	Triilate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	620.000000	Freshwater	Static
OPP	2303-17-5	Triilate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1200.000000	Freshwater	Static
OPP	82097-50-5	Trisulfuron	Am erican yel baha	Mysid	96 hr	LC50	21500.000000	Saltwater	Static
OPP	1983-10-4	Tributyltin fluoride (TBTF)	Daphnia magna	Water flea	48 hr	EC50	0.250000	Freshwater	Static
OPP	1983-10-4	Tributyltin fluoride (TBTF)	Fundulus heteroclitus	Mummichog	96 hr	LC50	7.600000	Saltwater	Static
OPP	1983-10-4	Tributyltin fluoride (TBTF)	Ictalurus punctatus	Channel catfish	96 hr	LC50	4.300000	Freshwater	Static
OPP	1983-10-4	Tributyltin fluoride (TBTF)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3.700000	Freshwater	Static
OPP	1983-10-4	Tributyltin fluoride (TBTF)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3.400000	Freshwater	Static
OPP	22801-69-6	Tributyltin neodecapate	Daphnia magna	Water flea	48 hr	EC50	5.500000	Freshwater	Static
OPP	22801-69-6	Tributyltin neodecapate	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	21.000000	Freshwater	Static
OPP	22801-69-6	Tributyltin neodecapate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	10.500000	Freshwater	Static
OPP	56-35-9	Tributyltin oxide	Amanida agilis	Polychaete	96 hr	LC50	1.300000	Saltwater	Fbw Through
OPP	56-35-9	Tributyltin oxide	Crassostrea gigas	Pacific oyster	48 hr	EC50	0.280000	Saltwater	Static
OPP	56-35-9	Tributyltin oxide	Crassostrea virginica	Eastern oyster	96 hr	EC50	0.126000	Saltwater	Fbw Through
OPP	56-35-9	Tributyltin oxide	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	16.000000	Saltwater	Static
OPP	56-35-9	Tributyltin oxide	Daphnia magna	Water flea	48 hr	EC50	11.500000	Freshwater	Static
OPP	56-35-9	Tributyltin oxide	Fundulus heteroclitus	Mummichog	96 hr	LC50	24.000000	Saltwater	Static
OPP	56-35-9	Tributyltin oxide	Ictalurus punctatus	Channel catfish	96 hr	LC50	12.000000	Freshwater	Static
OPP	56-35-9	Tributyltin oxide	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	8.700000	Freshwater	Fbw Through
OPP	56-35-9	Tributyltin oxide	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	13.200000	Freshwater	Static
OPP	56-35-9	Tributyltin oxide	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	5.600000	Freshwater	Static
OPP	56-35-9	Tributyltin oxide	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	7.400000	Freshwater	Fbw Through
OPP	56-35-9	Tributyltin oxide	Pachem onetes pubis	Grass shrimp	96 hr	LC50	19.000000	Saltwater	Fbw Through
OPP	52-68-6	Trichlorfon	Acroneuria pacifica	Stonefly	96 hr	LC50	16.500000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Chlaenius sabulosa	Stonefly	96 hr	LC50	22.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	14300.000000	Saltwater	Static
CERC-GED	52-68-6	Trichlorfon	Daphnia pulex	Water flea	48 hr	EC50	0.180000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Gammarellus lacustris	Scud	96 hr	LC50	40.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Gammarellus pseudolimnaeus	Scud	96 hr	LC50	43.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Gammarellus pseudolimnaeus	Scud	96 hr	LC50	350.000000	Freshwater	Static
OPP	52-68-6	Trichlorfon	Ictalurus punctatus	Channel catfish	96 hr	LC50	880.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Ictalurus punctatus	Channel catfish	96 hr	LC50	7600.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Isopterus sp.	Stonefly	96 hr	LC50	24.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	600.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

CERC-GED	52-68-6	Trichlorfon	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	1050.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	1300.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	1880.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	2200.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	2350.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	2820.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	3170.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	3300.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	3360.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	3500.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	4500.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	7200.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus clarki	Cutthroat trout	96 hr	LC50	570.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus clarki	Cutthroat trout	96 hr	LC50	1080.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus clarki	Cutthroat trout	96 hr	LC50	1680.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus clarki	Cutthroat trout	96 hr	LC50	1730.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus clarki	Cutthroat trout	96 hr	LC50	2700.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus clarki	Cutthroat trout	96 hr	LC50	4400.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus clarki	Cutthroat trout	96 hr	LC50	5220.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus clarki	Cutthroat trout	96 hr	LC50	6170.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	780.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	820.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	860.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1020.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1120.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1750.000000	Freshwater	Static
OPP	52-68-6	Trichlorfon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1800.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1900.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2460.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2500.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2600.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Paham onetes pugn	Grass shrimp	96 hr	LC50	7.000000	Saltwater	Static
CERC-GED	52-68-6	Trichlorfon	Pimephales promelas	Fathead minnow	96 hr	LC50	7900.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Procambarus sp.	Crayfish	96 hr	LC50	7800.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Procambarus sp.	Crayfish	96 hr	LC50	13300.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Pteronarcyla badia	Stonefly	96 hr	LC50	9.800000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Pteronarcyla badia	Stonefly	96 hr	LC50	11.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Pteronarcys californica	Stonefly	96 hr	LC50	35.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Salmofa rahr	Atlantic salmon	96 hr	LC50	1400.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Salmofa rahr	Atlantic salmon	96 hr	LC50	2000.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Salmofa rahr	Atlantic salmon	96 hr	LC50	2970.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Salvelinus fontinalis	Brook trout	96 hr	LC50	650.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Salvelinus fontinalis	Brook trout	96 hr	LC50	2500.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Salvelinus fontinalis	Brook trout	96 hr	LC50	3400.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Salvelinus fontinalis	Brook trout	96 hr	LC50	6000.000000	Freshwater	Static
OPP	52-68-6	Trichlorfon	Salvelinus namaycush	Lake trout	96 hr	LC50	550.000000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Sinocyclopus semilatus	Water flea	48 hr	EC50	0.320000	Freshwater	Static
CERC-GED	52-68-6	Trichlorfon	Sinocyclopus semilatus	Water flea	48 hr	EC50	0.700000	Freshwater	Static
OPP	7673-09-8	Trichloroethylene	Daphnia magna	Water flea	48 hr	EC50	1200.000000	Freshwater	Static
OPP	7673-09-8	Trichloroethylene	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	4500.000000	Freshwater	Static
OPP	7673-09-8	Trichloroethylene	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	5200.000000	Freshwater	Static
OPP	7673-09-8	Trichloroethylene	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2000.000000	Freshwater	Static
OPP	7673-09-8	Trichloroethylene	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4000.000000	Freshwater	Static
ECOTOX	67-66-3	Trichloroethane	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	115000.000000	Freshwater	Static
ECOTOX	67-66-3	Trichloroethane	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	66800.000000	Freshwater	Static
CERC-GED	327-98-0	Trichloronate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	140.000000	Freshwater	Static
CERC-GED	327-98-0	Trichloronate	Pteronarcys californica	Stonefly	96 hr	LC50	0.100000	Freshwater	Static
OPP	87-90-1	Trichloro-s-triazinetrione	Daphnia magna	Water flea	48 hr	EC50	170.000000	Freshwater	Static
OPP	87-90-1	Trichloro-s-triazinetrione	Daphnia magna	Water flea	48 hr	EC50	640.000000	Freshwater	Static
OPP	87-90-1	Trichloro-s-triazinetrione	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	200.000000	Freshwater	Static
OPP	87-90-1	Trichloro-s-triazinetrione	Lepomis macrochirus	Bleegill sunfish	96 hr	LC50	230.000000	Freshwater	Static
OPP	87-90-1	Trichloro-s-triazinetrione	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	80.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

OPP	87-90-1	Trichloro-s-triazinetone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	330.000000	Freshwater	Static
OPP	87-90-1	Trichloro-s-triazinetone	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	370.000000	Freshwater	Static
OPP	64700-56-7	Trichloro-BEE	Crassostrea virginica	Eastern oyster	96 hr	EC50	460.000000	Saltwater	Fbw Through
OPP	64700-56-7	Trichloro-BEE	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	360.000000	Freshwater	Fbw Through
OPP	64700-56-7	Trichloro-BEE	Menidia beryllina	Inland silverside	96 hr	LC50	450.000000	Saltwater	Fbw Through
OPP	64700-56-7	Trichloro-BEE	Oncorhynchus kisutch	Coho salmon	96 hr	LC50	1400.000000	Freshwater	Static
OPP	64700-56-7	Trichloro-BEE	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	650.000000	Freshwater	Fbw Through
OPP	64700-56-7	Trichloro-BEE	Pahem onites pugn	Grass shrimp	96 hr	LC50	2480.000000	Saltwater	Fbw Through
OPP	55335-06-3	Trichloro, acid	Daphnia magna	Water flea	48 hr	EC50	132900.000000	Freshwater	Static
OPP	55335-06-3	Trichloro, acid	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	148000.000000	Freshwater	Static
OPP	55335-06-3	Trichloro, acid	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	117000.000000	Freshwater	Static
OPP	57213-69-1	Trichloro, triethylam ine salt	Daphnia magna	Water flea	48 hr	EC50	132900.000000	Freshwater	Static
OPP	3380-34-5	Trichsan	Daphnia magna	Water flea	48 hr	EC50	390.000000	Freshwater	Static
OPP	3380-34-5	Trichsan	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	288.000000	Freshwater	Static
OPP	27519-02-4	Tricosene	Daphnia magna	Water flea	48 hr	EC50	1080.000000	Freshwater	Static
OPP	65954-19-0	Tridecen-1-ylacetate	Daphnia magna	Water flea	48 hr	EC50	540.000000	Freshwater	Static
OPP	65954-19-0	Tridecen-1-ylacetate	Daphnia magna	Water flea	48 hr	EC50	1600.000000	Freshwater	Static
OPP	65954-19-0	Tridecen-1-ylacetate	Daphnia magna	Water flea	48 hr	EC50	4800.000000	Freshwater	Static
CERC-GED	112-27-6	Triethylene Glycol	Am erican ysis bahia	Mysid	96 hr	LC50	1100000.000000	Saltwater	Static
OPP	7779-27-3	Triethylhexahydro-s-triazine (Vancile TH)	Daphnia magna	Water flea	48 hr	EC50	15300.000000	Freshwater	Static
OPP	7779-27-3	Triethylhexahydro-s-triazine (Vancile TH)	Daphnia magna	Water flea	48 hr	EC50	26000.000000	Freshwater	Fbw Through
OPP	7779-27-3	Triethylhexahydro-s-triazine (Vancile TH)	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	30800.000000	Freshwater	Static
OPP	7779-27-3	Triethylhexahydro-s-triazine (Vancile TH)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	23300.000000	Freshwater	Static
OPP	7779-27-3	Triethylhexahydro-s-triazine (Vancile TH)	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	35000.000000	Freshwater	Fbw Through
OPP	141517-21-7	Trifoxystobin	Am erican ysis bahia	Mysid	96 hr	EC50	8.520000	Saltwater	Fbw Through
OPP	141517-21-7	Trifoxystobin	Crassostrea virginica	Eastern oyster	96 hr	EC50	29.290000	Saltwater	Fbw Through
OPP	141517-21-7	Trifoxystobin	Daphnia magna	Water flea	48 hr	EC50	25.300000	Freshwater	Fbw Through
OPP	141517-21-7	Trifoxystobin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	54.000000	Freshwater	Fbw Through
OPP	141517-21-7	Trifoxystobin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	14.000000	Freshwater	Fbw Through
OPP	68694-11-1	Triflumizole	Cyprinus carpio	Common carp	96 hr	LC50	900.000000	Freshwater	Static
OPP	68694-11-1	Triflumizole	Daphnia carinata	Water flea	48 hr	EC50	1400.000000	Freshwater	Static
OPP	68694-11-1	Triflumizole	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1200.000000	Freshwater	Static
OPP	68694-11-1	Triflumizole	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	580.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Bufo woodhousei/w levi	Fowler toad	96 hr	LC50	110.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Bufo woodhousei/w levi	Fowler toad	96 hr	LC50	115.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	160.000000	Saltwater	Static
CERC-GED	1582-09-8	Trifluvalin	Daphnia pulex	Water flea	48 hr	EC50	625.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Gammarus fasciatus	Scud	96 hr	LC50	2200.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Etalimus punctatus	Channelcatfish	96 hr	LC50	2200.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	58.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	60.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	135.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	140.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	190.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	240.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	260.000000	Freshwater	Static
OPP	1582-09-8	Trifluvalin	Mytilus edulis	Mussel	48 hr	EC50	96.000000	Saltwater	Static
CERC-GED	1582-09-8	Trifluvalin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	41.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	42.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	60.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	86.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	92.000000	Freshwater	Static
OPP	1582-09-8	Trifluvalin	Pahem onites pugn	Grass shrimp	96 hr	LC50	638.500000	Saltwater	Fbw Through
CERC-GED	1582-09-8	Trifluvalin	Pimephales promelas	Fathead minnow	96 hr	LC50	105.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Pimephales promelas	Fathead minnow	96 hr	LC50	124.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Pimephales promelas	Fathead minnow	96 hr	LC50	160.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Pteronarcys californica	Stonefly	96 hr	LC50	2800.000000	Freshwater	Static
CERC-GED	1582-09-8	Trifluvalin	Sinocyclopus semilatus	Water flea	48 hr	EC50	900.000000	Freshwater	Static
CERC-GED	Unknown	Trifluvalin II	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	870.000000	Saltwater	Static
CERC-GED	Unknown	Trifluvalin III	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	990.000000	Saltwater	Static
CERC-GED	Unknown	Trifluvalin IV	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	8300.000000	Saltwater	Static
OPP	2686-99-9	Trifluthacarb	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	3000.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDESTRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
Final Acute Toxicity Database

OPP	2686-99-9	Trim ethacarb	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4700.000000	Freshwater	Static
OPP	2686-99-9	Trim ethacarb	Penaeus aztecus	Brown shrimp	48 hr	LC50	42000000	Saltwater	Fbw Through
CERC-GED	115-86-6	Triphenylphosphate	Ictalurus punctatus	Channelcatfish	96 hr	LC50	420.000000	Freshwater	Static
CERC-GED	115-86-6	Triphenylphosphate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	370.000000	Freshwater	Static
CERC-GED	115-86-6	Triphenylphosphate	Pimephales promelas	Fathead minnow	96 hr	LC50	1000.000000	Freshwater	Static
OPP	76-87-9	Triphenyl hydroxide	Am erican ysis bahia	Mysid	96 hr	LC50	3700000	Saltwater	Static
OPP	76-87-9	Triphenyl hydroxide	Am erican ysis bahia	Mysid	96 hr	LC50	4300000	Saltwater	Fbw Through
CERC-GED	76-87-9	Triphenyl hydroxide	Carassius auratus	Golifsh	96 hr	LC50	62000000	Freshwater	Static
OPP	76-87-9	Triphenyl hydroxide	Crassostrea virginica	Eastern oyster	96 hr	EC50	0.320000	Saltwater	Fbw Through
OPP	76-87-9	Triphenyl hydroxide	Crassostrea virginica	Eastern oyster	96 hr	EC50	0.360000	Saltwater	Fbw Through
OPP	76-87-9	Triphenyl hydroxide	Crassostrea virginica	Eastern oyster	96 hr	EC50	0.570000	Saltwater	Fbw Through
OPP	76-87-9	Triphenyl hydroxide	Crassostrea virginica	Eastern oyster	96 hr	EC50	1.500000	Saltwater	Fbw Through
OPP	76-87-9	Triphenyl hydroxide	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	2550000	Saltwater	Fbw Through
OPP	76-87-9	Triphenyl hydroxide	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	34000000	Saltwater	Static
OPP	76-87-9	Triphenyl hydroxide	Daphnia magna	Water flea	48 hr	EC50	10000000	Freshwater	Static
OPP	76-87-9	Triphenyl hydroxide	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	22000000	Freshwater	Static
OPP	76-87-9	Triphenyl hydroxide	Penaeus duorarum	Pink shrimp	48 hr	LC50	6400000	Saltwater	Fbw Through
CERC-GED	76-87-9	Triphenyl hydroxide	Pimephales promelas	Fathead minnow	96 hr	LC50	20000000	Freshwater	Static
OPP	126-11-4	Tris hydroxymethyl trimethane	Crassostrea virginica	Eastern oyster	96 hr	EC50	22800.000000	Saltwater	Fbw Through
OPP	126-11-4	Tris hydroxymethyl trimethane	Daphnia magna	Water flea	48 hr	EC50	80000.000000	Freshwater	Static
OPP	126-11-4	Tris hydroxymethyl trimethane	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	410000.000000	Freshwater	Static
OPP	126-11-4	Tris hydroxymethyl trimethane	Pimephales promelas	Fathead minnow	96 hr	LC50	280000.000000	Freshwater	Static
CERC-GED	64-00-6	UC 10854	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	14000000	Freshwater	Static
OPP	83657-17-4	Unionazole	Cyprinus carpio	Common carp	96 hr	LC50	7500.000000	Freshwater	Fbw Through
OPP	83657-17-4	Unionazole	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	68000.000000	Freshwater	Static
OPP	83657-17-4	Unionazole	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	14800.000000	Freshwater	Static
CERC-GED	8027-85-8	Ureabor	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	640000.000000	Freshwater	Static
CERC-GED	8027-85-8	Ureabor	Oncorhynchus tshawytscha	Chinook salmon	96 hr	LC50	352000.000000	Freshwater	Static
OPP	1929-77-7	Venolate	Am erican ysis bahia	Mysid	96 hr	LC50	4400.000000	Saltwater	Fbw Through
OPP	1929-77-7	Venolate	Crassostrea virginica	Eastern oyster	96 hr	EC50	1700.000000	Saltwater	Fbw Through
OPP	1929-77-7	Venolate	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	7400.000000	Saltwater	Fbw Through
OPP	1929-77-7	Venolate	Daphnia magna	Water flea	48 hr	EC50	1800.000000	Freshwater	Static
OPP	1929-77-7	Venolate	Daphnia magna	Water flea	48 hr	EC50	7600.000000	Freshwater	Static
CERC-GED	1929-77-7	Venolate	Gammarus fasciatus	Scud	96 hr	LC50	14000.000000	Freshwater	Static
OPP	1929-77-7	Venolate	Gammarus lacustris	Scud	96 hr	LC50	18000.000000	Freshwater	Static
OPP	1929-77-7	Venolate	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	4800.000000	Freshwater	Static
OPP	1929-77-7	Venolate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	3500.000000	Freshwater	Static
CERC-GED	1929-77-7	Venolate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	4300.000000	Freshwater	Static
OPP	50471-44-8	Vinibzolin	Am erican ysis bahia	Mysid	96 hr	LC50	1800.000000	Saltwater	Fbw Through
OPP	50471-44-8	Vinibzolin	Crassostrea virginica	Eastern oyster	96 hr	EC50	3200.000000	Saltwater	Fbw Through
OPP	50471-44-8	Vinibzolin	Daphnia magna	Water flea	48 hr	EC50	3650.000000	Freshwater	Static
OPP	50471-44-8	Vinibzolin	Lepomis gibbosus	Pumpkinseed	96 hr	LC50	49800.000000	Freshwater	Static
OPP	50471-44-8	Vinibzolin	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	47500.000000	Freshwater	Static
OPP	50471-44-8	Vinibzolin	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2840.000000	Freshwater	Static
OPP	81-81-2	W arfarin	Daphnia magna	Water flea	48 hr	EC50	130000.000000	Freshwater	Static
CERC-GED	81-81-2	W arfarin	Ictalurus punctatus	Channelcatfish	96 hr	LC50	3430000	Freshwater	Static
CERC-GED	1330-20-7	Xylene	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	13500.000000	Freshwater	Static
CERC-GED	3096-70-6	Xylene D in ethylm no	Perca flavescens	Yellow perch	96 hr	LC50	3400.000000	Freshwater	Static
OPP	53939-28-9	Z-11-Hexadecanol	Daphnia magna	Water flea	48 hr	EC50	10000.000000	Freshwater	Static
OPP	53939-28-9	Z-11-Hexadecanol	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	320000.000000	Freshwater	Static
OPP	12447-61-9	Zinc borate	Daphnia magna	Water flea	48 hr	EC50	75000.000000	Freshwater	Static
OPP	12447-61-9	Zinc borate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	2700.000000	Freshwater	Static
ECOTOX	7646-85-7	Zinc chlride	Daphnia magna	Water flea	48 hr	EC50	100000000	Freshwater	Static
ECOTOX	7646-85-7	Zinc chlride	Daphnia magna	Water flea	48 hr	LC50	334000000	Freshwater	Static
OPP	12001-85-3	Zinc naphthenate	Daphnia magna	Water flea	48 hr	EC50	46000.000000	Freshwater	Static
OPP	12001-85-3	Zinc naphthenate	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	1530.000000	Freshwater	Static Renewal
OPP	13463-41-7	Zinc O adine	Am erican ysis bahia	Mysid	96 hr	LC50	4700000	Saltwater	Fbw Through
OPP	13463-41-7	Zinc O adine	Crassostrea virginica	Eastern oyster	96 hr	EC50	22000000	Saltwater	Fbw Through
OPP	13463-41-7	Zinc O adine	Cyprinodon variegatus	Sheepshead minnow	96 hr	LC50	40000000	Saltwater	Static Renewal
OPP	13463-41-7	Zinc O adine	Daphnia magna	Water flea	48 hr	EC50	8250000	Freshwater	Fbw Through
OPP	13463-41-7	Zinc O adine	Pimephales promelas	Fathead minnow	96 hr	LC50	2580000	Freshwater	Fbw Through
OPP	1314-13-2	Zinc oxyde	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	1100.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database
 ECOTOX = EVIDERA Component of U.S. EPA AQUIRE/ECOTOX Database
 CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix 1
FinalAcute Toxicity Database

ECOTOX	7733-02-0	Zinc sulfate	Daphnia magna	Water flea	48 hr	LC50	280.000000	Freshwater	Static
ECOTOX	7733-02-0	Zinc sulfate	Daphnis pulex	Water flea	48 hr	LC50	500.000000	Freshwater	Static
CERC-GED	7733-02-0	Zinc sulfate	Menidia peninsulae	Tidewater silverside	96 hr	LC50	5600.000000	Saltwater	Static
CERC-GED	7733-02-0	Zinc sulfate	Oncorhynchus clarkii	Coho salmon	96 hr	LC50	130.000000	Freshwater	Static
CERC-GED	7733-02-0	Zinc sulfate	Oncorhynchus clarkii	Cutthroat trout	96 hr	LC50	152.000000	Freshwater	Static
ECOTOX	7733-02-0	Zinc sulfate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	370.000000	Freshwater	Fbw Through
ECOTOX	7733-02-0	Zinc sulfate	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	517.000000	Freshwater	Fbw Through
ECOTOX	7733-02-0	Zinc sulfate	Pimephales promelas	Fathead minnow	96 hr	LC50	5100.000000	Freshwater	Fbw Through
ECOTOX	7733-02-0	Zinc sulfate	Pimephales promelas	Fathead minnow	96 hr	LC50	13700.000000	Freshwater	Fbw Through
ECOTOX	7733-02-0	Zinc sulfate	Salvelinus fontinalis	Brook trout	96 hr	LC50	1550.000000	Freshwater	Fbw Through
OPP ¹	137-30-4	Ziam	Crassostrea virginica	Eastern oyster	96 hr	EC50	1000.000000	Saltwater	Fbw Through
OPP	137-30-4	Ziam	Cyprinus carpio	Common carp	96 hr	LC50	2280.000000	Freshwater	Static Renewal
OPP	137-30-4	Ziam	Daphnia magna	Water flea	48 hr	EC50	48.000000	Freshwater	Static
OPP	137-30-4	Ziam	Lepomis macrochirus	Bluegill sunfish	96 hr	LC50	9.700000	Freshwater	Fbw Through
OPP	137-30-4	Ziam	Oncorhynchus mykiss	Rainbow trout	96 hr	LC50	270.000000	Freshwater	Static Renewal
OPP	137-30-4	Ziam	Pimephales promelas	Fathead minnow	96 hr	LC50	8.000000	Freshwater	Static

¹ OPP = Office of Pesticide Programs Database

ECOTOX = EVIDRA Component of U.S. EPA AQUIRE/ECOTOX Database

CERC-GED = Combined Columbia Environmental Research Center and GED Database

Appendix II - A

Summary of Number of Species Tested Per Chemical

Freshwater Fishes

Appendix 2
Summary of Number of Species Tested per Chemical

FRESHWATER FISHES	
Chemical	# Spp
DDT	18
Carbaryl	17
Mexacarbate	16
Azinphos-methyl	15
Cyanuric Nitralside (ethanolamine salt)	15
Malathion	13
Antimycin A	12
Hexachlorocyclohexane (Lindane)	12
Methoxychlor	12
Fenthion	11
MethylParathion	11
Toxaphene	11
Piperonylbutoxide	10
Amiocarb	9
Captan	8
Chlordane	8
Methomyl	8
Pentachlorophenol	8
Permethrin	8
Trichlorfon	8
Carbofuran	7
Demeton	7
Endrin	7
Folpet	7
Parathion	7
Phoxim	7
2,4-D Dodecy/Tetradodecylamine Salt	6
Chlorpyrifos	6
Coumarin	6
Dieldrin	6
Disulfoton	6
Hexachlorocyclohexane (Benzene hexachloride)	6
Methachlor	6
Molinate	6
Phosmet	6
Pyrethrum (Pyrethrin)	6
2,4-D Acid	5
Cadmium chloride	5
Coppersulfate	5
Crotoxyphos	5
DDD	5
Diazinon	5
Dichlorbenzil	5
Dichlorvos	5
Dinitramine	5
Dioxon	5
Ethion	5
Fenthion	5
Ocithilhone	5

Appendix 2
Summary of Number of Species Tested per Chemical

Phos-Check 202	5
Phos-Check 259	5
Piram	5
Propoxur	5
Pydraul50E	5
Resmethrin	5
RU-11679	5
Silvex	5
Temephos	5
1,2-Benzenedicarboxylic acid, Diisobutylester (Phthalate Diisobutyl)	4
2,3,4,6-Tetrachlorophenoxy	4
2,4-D Butoxyethanoester	4
2,4-D Butylester	4
Alethrin (D-Trans Alethrin)	4
Amido (Pyrimidinone)	4
Ametryn	4
Atrazine	4
Benzomyces	4
Bipacryl	4
Chlordcone (Kepone)	4
Chlrendate dimethyl	4
Chlpirifos-methyl	4
Dichlobenfon	4
Dicofol	4
EPTC	4
Fenoxaprop-ethyl	4
Fenvalerate	4
Flurofone	4
Fyral G T	4
Glyphosate	4
Heptachlor	4
Leptophos	4
MON 0818	4
Nitapyrin	4
Oxamyl	4
Propiconazole	4
Purifloc C-3	4
Thidicarb	4
Trifluralin	4
Zinc sulfate	4
Ziram	4
1,3-Dichloropropene	3
1,4-Dichlorobenzene (Paradichlorobenzene)	3
2,4-D Dimethylamine Salt	3
2,4-D Propylene glycolbutyletherester	3
2,4-DB Acid	3
3-Iodo-2-propynylbutylcarbamate	3
Aldrin	3
Anilazine	3
Aqua Cop	3
Aqua-Vator	3
Avemectin	3
Benefin - Benfluralin	3
Benzothiazole 2-mercapto	3
Benzothiazole 2-methylmercapto	3

Appendix 2
Summary of Number of Species Tested per Chemical

Carbofenothon	3
Chlordane-HCS-3260	3
Chlothalnil	3
Cimecticarb	3
Conex (Lignasan BLP)	3
Dazomet	3
DBNPA	3
DDE	3
DEF (Trubuphos)	3
Dictran (DCNA)	3
Dimethocephos	3
Dinethyl	3
Dinocap	3
Diphacinone	3
Emamectin benzoate	3
Endosulfan	3
EPN	3
Ethalfluralin	3
Fenoxycarb	3
Fenpropothrin	3
Fipronil	3
Fire-Trol931	3
Fluzinam	3
Fluchbralin	3
Fluometuron	3
Flutolanil	3
Houghto-Safe 1120	3
Inazethapyr (Acid)	3
Isofenphos	3
Linuron	3
Mercuric chloride	3
Merphos	3
Methidation	3
Methylanthranilate	3
MethylTriboron	3
Naled	3
Oxine-copper	3
Parathion Disulfate Analogue	3
Pendimethalin	3
Pentachlorophenol, Sodium salt	3
Phosflex 31P	3
Phosphamidon	3
Potassium dichloroisocyanurate	3
Profenofos	3
Prometryn	3
Pydrault115E	3
Ronnel	3
Rotenone	3
Santizer154	3
SD 16898	3
SD 17250	3
Sinalazine	3
TEPP	3
Terbufos	3
Thibencarb/Benthicarb	3

Appendix 2
Summary of Number of Species Tested per Chemical

Triadimenol	3
Triadimenol	3
Triolate	3
Trityl fluoride (TBF)	3
Trityl oxide	3
Triclopyr-BEE	3
Triflumizole	3
Triphenylphosphate	3
Triphenyltin hydroxide	3
Uconazole	3
Vinclozolin	3
1,1,1-Trichloroethane (Methylchloroform)	2
1,2-Dichlorobenzene	2
2,4-D Isooctyl Ester	2
2,4-D Isopropyl Ester	2
2,4-DP, 2-EH Ester	2
2-Benzyl-4-chloropheno	2
2-Hydroxyethyl octyl sulfide	2
4-Amidopyrdine	2
4-Chloro-3,5-xylene	2
4-Nitrophenol	2
6-Chloro-2-picolinic acid	2
Acetaldehyde	2
Akton	2
Alachlor	2
Aldicarb	2
AlkyLamine Hydrochloride	2
Amidrazine	2
Amidrazine (Degrad)	2
Ammomonium chloride - ADBAC	2
Ammomonium chloride - DDAC	2
Azide, potassium	2
Azide, sodium	2
Azoxystrobin	2
Barium metaborate	2
Bendiocarb	2
Bensulfide	2
Bentazon	2
Benzoylprop ethyl	2
Bifenazate	2
Bis(2-ethylhexyl) ether	2
Brodifacoum	2
Bromacil	2
Bromine chloride	2
Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)	2
Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH) - BCDMH dehydrate	2
Bromonitrostyrene	2
Bromoxynil (Butyrate)	2
Bromoxynil (Phenol)	2
Bronconazole	2
Bronopol	2
Butalin	2
Butylate	2
Captan	2
Carboxin	2

Appendix 2
Summary of Number of Species Tested per Chemical

Carfentrazone-ethyl (F8246)	2
CCA Type II	2
Chlorbromuron	2
Chloridin eform	2
Chlorfenethol	2
Chlorhexidine diacetate	2
Chlorbenzilate	2
Chlormeb	2
Chlorophacinone	2
Chloropicrin	2
Chloroxuron	2
Chlorpropham	2
Clobdinafol-propargyl	2
Clopyralid, m- <u>monoethanolamine salt</u>	2
Coal Tar	2
Coppersulfate, pentahydrate	2
Cupric chloride	2
Cuprous thiocyanate	2
Cycbate	2
Cyhalothrin	2
Cyhexatin (Pictran)	2
Cymoxanil	2
Cypermethrin	2
Cyprazine	2
Cyproconazole	2
Cyprodinil	2
Daminozide	2
DCDMH (GlychbrFormulation)	2
D-D SoilFum agent	2
Deltamethrin	2
Desmedipham	2
Dimethylcyanoobutane	2
Dithiobis-2-n-octyl-3 (2H)-isothiazolone	2
Dibenz-p-ethy.	2
Diethochbr	2
Diffenoconazole	2
Diffenzoquat	2
Diffethalane	2
Diflubenzuron	2
Diodomethylpolysulfone	2
Dilan	2
Dimethenam id	2
Dimethenam id - (S)-Dimethenam id	2
Dimeethepin	2
Dinoseb	2
Diphenam id	2
Dipropylisocinchromuronate	2
Dithianon	2
Dithio-3-one 4,5-dihbro	2
Dithiopyr	2
DNO C	2
Dodine	2
Dowicil	2
DTEA	2
Ecolyst	2

Appendix 2
Summary of Number of Species Tested per Chemical

Ethofumesate	2
Ethoprop	2
Fatty Acids - Potassium salt of Oleic Acid	2
Fenarimol	2
Fenbuconazole	2
Fenbutatin Oxide	2
Fenhexamid	2
Fenridazone sodium	2
Femous sulfate heptahydrate	2
Femous sulfate monohydrate	2
Flamprop-m ethyl	2
Flumetralin	2
Fluorodifen	2
Fluthiacet-m ethyl	2
Flvalinate	2
Fonofos	2
Form etanate Hydrochloride	2
Fosamine ammonium	2
Fosetyl-Al	2
Fospirate	2
Genanil	2
Hexachlorobutadiene	2
Inazalil	2
Inazethabenz	2
Inprothrin (Pralle)	2
Prodione	2
Irgarol	2
Isopropalin	2
Jodenphos	2
Kronitex 200	2
Lime sulfur (Calcium polysulfide)	2
MBC - Carbendazim	2
MCPA Acid	2
MCPB	2
Metalaxy	2
Methylcarb	2
Methoprene	2
Methylisothiocyanate	2
Methylnonylketone	2
Metrabuzin	2
Mevinphos	2
Mtin FF	2
MTJ	2
Napropamide	2
Naptalam, Sodium	2
Naphthaleneacetic acid	2
N-methylheodecanamide	2
n-octylbicyclicheptene dicarboximide (MGK-264)	2
Noreia	2
Norfuralazon	2
OBPA	2
O-Phenylphenol	2
Ortho 11775	2
Oryzalin	2
Oxadiazon	2

Appendix 2
Summary of Number of Species Tested per Chemical

Oxazolidine E	2
Oxydemeton- <i>m</i> ethyl	2
Oxyfluorfen	2
Oxythiazox	2
Pacbutrazo	2
PCB Arocbr1016	2
Pentachlorobenzene (PCNB)	2
Phenmedipham	2
Phorate	2
Phostebupirim	2
Picram, potassium salt	2
Pine oil	2
Pirimicarb	2
Pival	2
POE Isooctadecano	2
Prallethrin	2
Prometon	2
Propachlor	2
Propargite	2
Propetam phos	2
Propionic acid	2
Pyridaben	2
Quazabfop, Ethyl	2
Santicizer148	2
s-Ballethrin	2
Sethoxydin	2
Siduron	2
Silvernitrate	2
Silvex ButoxyethanolEster	2
Silvex Propylene GlycolButylEtherEster	2
Sodium dichloroisocyanuratedhydrate	2
Sodium dichloro-s-triazinetrione	2
Sodium fluoride	2
Sodium selenite	2
Strychnine	2
Sulfotep	2
Sumithrin	2
Tebuconazole	2
Tebufenozide	2
Tebuthiuron	2
Tefluthrin	2
Terbacil	2
Terbutylazine	2
Terbutryn	2
Terpene polychlorinate	2
Tetradifon	2
Tetramethrin	2
TFM/Bayer73	2
Thiabendazole	2
Thiazopyr	2
Thiocyanate -M ethylenebis	2
Thiophanate- <i>m</i> ethyl	2
Thiam	2
Tralomethrin	2
Tritylth neodecaroate	2

Appendix 2
Summary of Number of Species Tested per Chemical

Trichbrom ethane	2
Trichbrom ethane	2
Trichbromo-s-triazine	2
Trichpyr, acid	2
Triethylhexahydro-s-triazine (Vancide TH)	2
Trifluxystrobin	2
Trimethacarb	2
Tris(hydroxymethyl)nitromethane	2
Ureabor	2
Vernolate	2
1,1,2,2-Tetrachloroethane	1
1,2,4-Trichlorobenzene	1
1,2-Benzenedicarboxaldehyde	1
1,2-Benzenedicarboxylic acid, D in ethylester	1
1,2-Dichloroethane	1
1,2-Dichloropropane	1
1,3-Dichloropropane	1
2,3,6-Trichlorobenzoic acid	1
2,4-Dicyanopropylendiamine salt	1
2,4-Dinitrophenol	1
2,4-DP, Dichloroprop	1
3-Chloro-p-tolidine hydrochloride	1
4,4-Dimethylbenzoxazoline	1
Acephate	1
Acetochlor	1
Acetone	1
Acrolein (2-Propenal)	1
Alloxycarb	1
Aluminin nitate	1
Aluminin sulfate	1
Ammonium chloride	1
Aramite	1
Arsenite - Sodium	1
Aspron	1
Azinphos-ethyl	1
Bacillus thuringiensis	1
Benzisothiazolin-3-one	1
Bibban P-1487	1
Bis(trichloromethyl)Sulfone	1
Brom ethalin	1
Brom oxynilheptanoate	1
Bufenacarb	1
Cacodylic Acid/Sodium Cacodylate	1
Chlordane cis	1
Chlordane trans	1
Chlormephos	1
Chlormuron Ethyl	1
Chlormethane	1
Chlorsulfuron	1
Chromic acid, D potassium salt	1
Citronella oil	1
Clarifite	1
Coppernaphthenate	1
Creosote-Coal Tar Distillate	1
Cruiforme	1

Appendix 2
Summary of Number of Species Tested per Chemical

Cupric nitrate	1
Cutrine-Plus	1
Cyanazine	1
Cyphenothrin	1
D C P A (Dacthal)	1
Decanoic	1
Dicamba (Acid)	1
Diflufenzoxypr-sodium	1
Dimeethoate	1
Dimeethomorph	1
Dinobuton	1
Dioxathion	1
Em colAD -410	1
Ethoxyquin	1
Ethylan	1
Ethylene glycol	1
Etdiazole	1
Farnesol	1
Fatty alcohols	1
Fenam insulf	1
Fenam phosphosulfoxide Degr.	1
Fensulfothion	1
Flufenacet	1
Flum ibrac penty	1
Fluoxypyrid	1
Fluprim ido	1
Glutaraldehyde	1
Heptachlor Epoxide	1
Hexachlorobenzene	1
Hexachloroethane	1
Hexadecadienol,acetate	1
Hexazinone	1
Hexythiazox (DPX-Y5893)	1
Hydrogen cyanamide	1
Hypochlorite - Calcium (Hypochlorous acid, Calcium salt)	1
Imidacloprid	1
Inert-HOE (Aldrinol)	1
Iodine complex	1
Isocyanuric acid	1
Isoxafuthol (Degrad)	1
Komenen	1
Kresoxim methyl	1
Limonene	1
Mancozeb	1
MCPA D in ethylamine salt	1
M CPP Acid	1
Metaldehyde	1
Methylidophos	1
Methanol	1
Methoprotynine	1
Methylbromide	1
Methylchloro-s-isomer	1
Monocrotophos	1
Monuron	1
Monuron TCA	1

Appendix 2
Summary of Number of Species Tested per Chemical

N,N-Diethyl-methylbenzylammonium iodide (DEET)	1
Naphthalene acetate -potassium	1
Neodol125-12	1
Neodol125-9	1
Neuroldo:	1
Nickebus chloride	1
Nonanoic acid	1
Ovex	1
Parachlorobrom etacresol	1
Paraquat	1
Parathion - Paraoxon (Parathion Degrad)	1
Paroil1032	1
Paroil1048	1
PCB 2-Chlorophenyl	1
PCB 3-Chlorophenyl	1
PCB 4-Chlorophenyl	1
PCB Aroclor 1254	1
Pebulate	1
Pentachlorophenol, Copper Salt	1
PHMB	1
Phorazetin	1
Picram TPA	1
Pipereth	1
Potassium permanganate	1
Prinsulfuron-methyl	1
Prodiame	1
Propham	1
PropylIsom e	1
Propylene Glyco	1
Pyrazole	1
Quincbrae	1
Rownate	1
SD 7438	1
SD 8339	1
Sodium 2-mercaptobenzothiolate	1
Sodium 2-phenylphenate	1
Sodium chloride	1
Sodium cyanide	1
Sodium fluoroacetate	1
Sodium tetraethylcarbamate	1
Sulfentrazone	1
Sulfuric acid, Copper(2+) salt(1:1)	1
TCM TB	1
Tetrachloroethene	1
Tetrachloromethane	1
Tetrachlorvinphos	1
Tetramine	1
Tetasul	1
Tranid	1
Tretolite J-146	1
Tretolite JN-9045	1
Tretolite JW-8226	1
Trichloronate	1
Trichsan	1
UC 10854	1

Appendix 2
Summary of Number of Species Tested per Chemical

Warfarin	1
Xylene	1
Xylene D in ethylamine	1
Z-11-Hexadecanoic acid	1
Zinc borate	1
Zinc naphthenate	1
Zinc O-madine	1
Zinc oxide	1

Appendix 2
Summary of Number of Species Tested per Chemical

FRESHWATER INVERTEBRATES	
Chemical	# Spp
DDT	17
Endrin	15
Malathion	14
Carbaryl	11
Trichlorfon	10
Toxaphene	9
DDD	8
Dieldrin	8
Fenothion	8
Methoxychlor	8
Parathion	8
Cadmium chloride	7
Fenthion	7
Heptachlor	7
Hexachlorocyclohexane (Lindane)	7
Phosphamidon	7
Aldrin	6
Methiocarb	6
Metacarbamate	6
2,4-D Propylene glycolbutyl ether ester	5
Amiocarb	5
Arsenite - Sodium	5
Azinphos-methyl	5
Coppersulfate	5
DEF (Trubophos)	5
Diazinon	5
Dichlorvos	5
Duron	5
Ethion	5
Mevinphos	5
Naled	5
Allethrin (D-Trans Allethrin)	4
Azide, potassium	4
Azide, sodium	4
Azinphos-ethyl	4
Chlordane	4
Chlpyrifos	4
Dead-X	4
Dirotrophos	4
Endosulfan	4
Methomyl	4
MethylParathion	4
Molinate	4
Paraquat	4
Permethrin	4
Phosmet	4
Pirimicarb	4
Silvex Propylene Glycol Butyl Ether Ester	4
Trifluralin	4

Appendix 2
Summary of Number of Species Tested per Chemical

2,4-D Butoxyethanoester	3
4-Nitrophenol	3
Alumium chloride	3
Benzoyl	3
Chlordecone (Kepone)	3
Cypermethrin	3
Dichlofenthion	3
Disulfoton	3
DNO-C	3
EPN	3
Fenac	3
Fenvatate	3
Fluridone	3
Fyral G T	3
Pentachloropheno	3
Phosflex 31P	3
Profenofos	3
Propoxur	3
Pydrail 50E	3
Rotenone	3
Santicizer 148	3
Santicizer 154	3
Temephos	3
Terbufos	3
Vernolate	3
1,1,1-Trichloroethane (Methylchloroform)	2
2,4-D Isooctyl Ester	2
2,4-DB Acid	2
Acephate	2
Alachlor	2
Amidro (Pyrimidinone)	2
Anilazine	2
Arsenic oxide (As2O3)	2
Atazrine	2
Bensulfide	2
Benzothiazole 2-methylmercapto	2
Butylate	2
CCA Type II	2
Chlormephos	2
Chlorbenzilate	2
Chlorinalide (Nicksamide (ethanolamine salt))	2
Coumaphos	2
Cryolite	2
Cycbate	2
Cyhexatin (Pictan)	2
Dalapon	2
Demeton	2
Dioxathion	2
Dodine	2
EPTC	2
Fenaminoxulf	2
Fenoxaprop-ethyl	2
Flichbrial	2
Flometuron	2
Folpet	2

Appendix 2
Summary of Number of Species Tested per Chemical

Glyphosate	2
Hexachlorocyclohexane (Benzene hexachloride)	2
Lime sulfur (Calcium polysulfide)	2
Linuron	2
Mercuric chloride	2
Methylmercury	2
MethylTriton	2
Methachlor	2
Nitrile acid, Lead (2+) salt	2
Oxamyl	2
Oxydemeton-methyl	2
PCB Aroclor 1254	2
Pentachlorophenol, Copper Salt	2
Phenol	2
Phorate	2
Propachlor	2
Propham	2
Propiconazole	2
Silver nitrate	2
Simazine	2
Sodium selenite	2
SRCSynfuel	2
Thanate	2
Thibencarb/Benthicarb	2
Thiophanate-methyl	2
Zinc sulfate	2
1,2-Benzenediacarboxaldehyde	1
1,2-Benzenediacrylic acid, Dibutylester (Phthalate Dibutyl)	1
1,2-Dichlorobenzene	1
1,3-Dichloropropene	1
1,4-Dichlorobenzene (Paradichlorobenzene)	1
2-(Hydroxymethyl)aminomethanol	1
2,3,4,6-Tetrachlorophenoxy	1
2,4-D Acid	1
2,4-D Butylester	1
2,4-D Isopropylester	1
2,4-Dinitrophenol	1
2-Benzyl-4-chlorophenoxy	1
2-Ethyhexanoate	1
2-Hydroxyethyloctylsulfide	1
3-Chloro-p-tolidine hydrochloride	1
3-Iodo-2-propynylbutylcarbamate	1
3-phenoxybenzoic acid (cypermethrin degradation product)	1
4-Chloro-3,5-xylene	1
Acetaldehyde	1
Acetochlor	1
Aldicarb	1
Aldoxycarb	1
Alkylamine Hydrochloride	1
Ametryn	1
Amiflaz	1
Amitrole	1
Ammonium chloride -ADBAC	1
Ammonium chloride -Chloroethyltrimethyl	1
Ammonium chloride -DDAC	1

Appendix 2
Summary of Number of Species Tested per Chemical

Aramite	1
Asulam	1
Avermectin	1
Azoxystrobin	1
Bacillus thuringiensis	1
Barium metaborate	1
Bendiocarb	1
Benefin - Benfluralin	1
Bifenazate	1
Bipresmethrin	1
Bis(trichloromethyl)Sulfone	1
Boric acid	1
Brodifacoum	1
Brom acil	1
Brom adibbane	1
Brom ethalim	1
Bromine chloride	1
Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)	1
Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH) - BCDMH dehydrate	1
Bromonitrostyrene	1
Bromoxynil (Butyrate)	1
Bromoxynil (Phenoxy)	1
Bromoxynilheptanoate	1
Bronopol	1
Bufencarb	1
Butoxypropylene glycol	1
Butalin	1
Cacodylic Acid/Sodium Cacodylate	1
Calcium chloride	1
Captan	1
Captan	1
Carbofuran	1
Carbophenothion	1
Carboxin	1
Chlafenethol	1
Chlhexidine diacetate	1
Chloneb	1
Chloraphacinone	1
Chloropicrin	1
Chlothalonil	1
Chlorthiophos	1
Chloryrifos-methyl	1
Chlorsulfuron	1
Chromella oil	1
Chrysanthemum monooethanolamine salt	1
Copper sulfate, pentahydrate	1
Corex (Lignasan BLP)	1
Crotroxiphos	1
Cupric chloride	1
Cutrine-Plus	1
Cyanazine	1
Cyclanilide	1
Cyhalothrin	1
Cymoxanil	1
Cyproconazole	1

Appendix 2
Summary of Number of Species Tested per Chemical

Cyprodinil	1
Daminozide	1
Dazomet	1
DBNPA	1
DCDMH (GlychbrFormulation)	1
Decanoic	1
Deltamethrin	1
Desmedipham	1
Dibromodicyanobutane	1
Dichbbenil	1
Dichbro-2-n-octyl-3(2H)-isothiazolone	1
Diclobop-m ethyl	1
Dicban (DCNA)	1
Dicbuslam (XR-564, XDE-564)	1
Dicofo	1
Dienochbr	1
Difenoconazole	1
Difenzquat	1
Difethabne	1
Diflubenzuron	1
Diflufenzopyr-sodium	1
Diodomethylpolysulfone	1
Dilan	1
Dimethenam id	1
Dimethenam id - (S)-Dimethenam id	1
Dimethepin	1
Dimethoate	1
Dinocap	1
Diphacinone	1
Dipropylisocinchomeronate	1
Dithio-3-one 4,5-dichbro	1
Dithiopyr	1
Dowicil	1
DTEA	1
Ecolyst	1
Emamectin benzoate	1
Ethalfluralin	1
Ethofumatesate	1
Ethoprop	1
Ethoxyquin	1
Etridiazole	1
Famesole	1
Fatty Acids - Potassium salt of Oleic Acid	1
Fatty alcohols	1
Fenarimol	1
Fenbuconazole	1
Fenbutatin Oxide	1
Fenoxy carb	1
Fenpropothrin	1
Fenrdiazone-sodium	1
Fensulfothion	1
Fenosulfate heptahydrate	1
Fenosulfate monohydrate	1
Fluazinam	1
Flumeetsulam	1

Appendix 2
Summary of Number of Species Tested per Chemical

Fluprim ido	1
Flvalinate	1
Fomesafen	1
Fonofos	1
Form etanate Hydrochloride	1
Fosamine ammonium	1
FosetylA	1
Gulfosate-ammonium	1
Glydon	1
Halogenoxide	1
Hexadecadienol,acetate	1
Hexaflumuron	1
Hexazinone	1
Hexythiazox (DPX-Y5893)	1
Hymexazo	1
Imazalil	1
Imazethabenz	1
Imidacloprid	1
Imiprothrin (Pralle)	1
Indole-3-butyric acid	1
InertHOE (Alitarb)	1
InertHOE (Butyls (-) lactate)	1
InertHOE (Ethyls (-) lactate)	1
Iodine	1
Prodione	1
Igaro	1
Isofenphos	1
Isopropalin	1
Kom-een	1
Kresoxin methyl	1
Kronitex 200	1
Lethane 384	1
Lithium perfluorooctane sulfon	1
Magnesium chloride	1
Maleic Hydrazide	1
MBC - Carbendazim	1
Metahxy	1
Metam sodium	1
Metham idophos	1
Methidathion	1
Methoprene	1
Methoxyfenozide	1
Methylbromide	1
Methylisothiocyanate	1
Methylnonylketone	1
Metolachlor-isomer	1
Metrabuzin	1
Minaloil (incl paraffin oil)	1
MON 0818	1
Monocrotophos	1
MTJ	1
N,N-Diethyl-meta-toluamide (DEET)	1
Napropamide	1
Naptalam, Sodium	1
Naphthaleneacetic acid	1

Appendix 2
Summary of Number of Species Tested per Chemical

Neurotoxic	1
Nickelbus chlide	1
Nitrapyrin	1
Nitrofen	1
N-methylheodecanamide	1
n-octylbicycloheptene dicaboximide (MGK-264)	1
Nonanoic acid	1
Noreia	1
OBPA	1
Octhilone	1
Oryzalin	1
Ovex	1
Oxadiazon	1
Oxadixylyl	1
Oxazoline E	1
Oxine-copper	1
Oxythiobinox	1
Pacbutrazo	1
Parachlorometacresol	1
PCB 2,2',4,4',6,6'Hexachlorobiphenyl	1
PCB 2,2',4,5,5'Pentachlorobiphenyl	1
PCB 2,3,4,4'Trichlorobiphenyl	1
PCB 2,4-Dichlorobiphenyl	1
PCB 4,4'Dichlorobiphenyl	1
PCB Arocbr1242	1
PCB Arocbr1248	1
Pebulate	1
Pendimethalin	1
Pentachlorobenzene (PCNB)	1
Pentachlorophenol, Dowicide EC-7)	1
Phos-Check 202	1
Phostebupirim	1
Phoxim	1
Pine oil	1
Piperalin	1
Piperonylbutoxide	1
Pirimicarb	1
Pirimiphos-methyl	1
POE Isooctadecanoate	1
Potassium chloride	1
Potassium dichloroisocyanurate	1
Potassium permanganate	1
Prallethrin	1
Prometon	1
Prometryn	1
Propargite	1
Propetamphos	1
Propionic acid	1
Pymetrozine	1
Pyrazole	1
Pyrethrum (Pyrethrin)	1
Pyridaben	1
Pyridate	1
Pyriproxyfen	1
Quinolac	1

Appendix 2
Summary of Number of Species Tested per Chemical

Quizabfop, Ethyl	1
Resmethrin	1
Rin sulfuron	1
Selenium dioxide	1
Sethoxydin	1
Silver-Zinc Zeolite	1
Silvex Butoxyethanol Ester	1
Sodium 2-mercaptobenzothiolate	1
Sodium 2-phenyphenate	1
Sodium cyanide	1
Sodium dichloroisocyanuratedihydrate	1
Sodium dichloro-s-triazine trione	1
Sodium fluoroacetate	1
Streptomycin	1
Strychnine	1
Sulfentrazone	1
Sulfuram id	1
Sulfotep	1
Subfos sulfoxide	1
TCM TB	1
Tebuconazole	1
Tebufenozide	1
Tebuthiuron	1
Tefluthrin	1
TEPP	1
Terbacil	1
Terbutylazine	1
Terpene polychlorinate	1
Tetrachloroethene	1
Tetrachlorophos	1
Tetradifon	1
Tetram ethrin	1
Tetram ine	1
TFM	1
Thibendazole	1
Thiazopyr	1
Thidiazuron	1
Thiocyanate - M ethylenebis	1
Thidicarb	1
Triabm ethrin	1
Tretolite J-146	1
Triadimenfon	1
Triadimenol	1
Triallate	1
Trichlorofluoride (TBF)	1
Trichloro neodecanoate	1
Trichloro oxide	1
Trichloromethyl ine	1
Trichloronate	1
Trichloro-s-triazine trione	1
Tricbpyr, acid	1
Tricbpyr, triethylamine salt	1
Tricbsan	1
Tricosene	1
Tridecen-1-yacetate	1

Appendix 2
Summary of Number of Species Tested per Chemical

Triethylhexahydro-s-triazine (Vancide TH)	1
Trifoxystrobin	1
Triflumizole	1
Triphenyltin hydroxide	1
Tris(hydroxymethyl)nitromethane	1
Vinclozolin	1
Warfarin	1
Z-11-Hexadecanoic acid	1
Zinc borate	1
Zinc chloride	1
Zinc naphthenate	1
Zinc Oxadine	1
Ziram	1

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

SALTWATER FISHES	
Chemical	# Spp
Chlpyrifos	9
Fenvalerate	6
Dihydro	4
Thibencarb/Benthicarb	4
Carbofenothon	2
Coppernitrate	2
Endrin	2
Flicythrinate	2
FosetylA	2
Hexachlorobutadiene	2
Pentachloropheno	2
Permethrin	2
Potassium dichromate	2
Tributyltin oxide	2
1,1-Dichloroethene	1
1,2-Dichlorobenzene	1
1,2-Dichloropropane	1
2,4-D Acid	1
2,4-D nitropheno	1
3-Iodo-2-propynylbutylcarbam ate	1
4-Nitrophenol	1
Acetochlor	1
Acetone	1
Aldicarb	1
Amidro (Pyrimidinone)	1
Ametyn	1
Amraz (Degrad)	1
Avermectin	1
Azoxystrobin	1
Bensulide	1
Bromacil	1
Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH) - BCDMH dehydrate	1
Bromonitrostyrene	1
Bromoxyniloctanoate	1
Bronopol	1
Bufencarb	1
Butylate	1
Cadmium chlride	1
Carbaryl	1
Carfentrazone-ethyl (F8246)	1
Chlorbenzilate	1
Chloromethane	1
Chlorothalnil	1
Cimetecarb	1
Clomazone	1
Coppersulfate, pentahydrate	1
Creosote-CoalTard distillate	1
Cyhexatin (Pictan)	1
Cypermethrin	1

Appendix 2
Summary of Number of Species Tested per Chemical

Cyproconazole	1
Cyprodinil	1
Dazomet	1
DBNPA	1
DEF (Tribuphos)	1
Delamethrin	1
Diazinon	1
Dibromodicyanobutane	1
Dichlobenil	1
Dichloro-2-n-octyl-3-(2H)-isothiazolone	1
Difenoconazole	1
Dinemethenamid	1
Dinemethenamid-(S)-Dinemethenamid	1
Dinemethopen	1
Disulfoton	1
Disulfoton sulfoxide	1
Diuron	1
Emanectin benzoate	1
Endosulfan	1
EPN	1
Ethalfluralin	1
Ethofumatese	1
Ethoprop	1
Etridiazole	1
Fenbuconazole	1
Fenbutatin Oxide	1
Fenpropatrin	1
Fenthion	1
Fentrifanil	1
Fipronil	1
Fluometuron	1
Fluoxypyracil	1
Fluthiacetemethy	1
Flvalinate	1
Folpet	1
Fonofos	1
Glyphosate	1
Heptachlor	1
In diazoprid	1
Iprodione	1
Igaro	1
Isofenphos	1
Kresoxim methy	1
Mercuric chloride	1
Methidathion	1
Methiocarb	1
Methomyl	1
Methylbromide	1
MethylParathion	1
Metolachlor	1
Metrabuzin	1
Metronidazole	1
Molinate	1
Myclobutanil	1
Naled	1

Appendix 2
Summary of Number of Species Tested per Chemical

Napropamide	1
Nickelbus chbride	1
Norflurazon	1
OBPA	1
Ocithilone	1
Oxadiazon	1
Oxamyl	1
Oxythiobinox	1
Ozone	1
Pendimethalin	1
Pentachlorobenzene (PCNB)	1
Phorate	1
Phosphamidon	1
Piperonylbutoxide	1
Profenofos	1
Prometon	1
Prometryn	1
Propanil	1
Propiconazole	1
Quizabfop, Ethyl	1
Sodium laurylsulfate	1
Sulfentrazone	1
Sumithrin	1
Tefluthrin	1
Terbacil	1
Terbufos	1
Tetachloromethane	1
Thiazopyr	1
Thiocyanate - Methylenebis	1
Thidicarb	1
Thiophanate-methyl	1
Thiam	1
Triadm ethrin	1
Trichlorfon	1
Triclopyr-BEE	1
Trifluralin	1
Trifluralin I	1
Trifluralin II	1
Trifluralin IV	1
Triphenyltin hydroxide	1
Vernolate	1
Zinc Omandine	1
Zinc sulfate	1

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

SALTWATER INVERTEBRATES	
Chemical	# Spp
Chlorynfos	5
Endrin	5
Ethoprop	5
Toxaphene	5
Carbaryl	4
Chlordcone (Kepone)	4
Cypermethrin	4
DEF (Trichlorfon)	4
Fenthion	4
Fonofos	4
Methoxychlor	4
MethylParathion	4
Phorate	4
Acrolein (2-Propenal)	3
Dichlorvos	3
Dicroto	3
Dieldrin	3
Disulfoton	3
Endosulfan	3
EPN	3
Ethion	3
Formetanate Hydrochloride	3
Glyphosate	3
Hexachlorocyclohexane (Lindane)	3
Methidathion	3
Molinate	3
Parathion	3
Permethrin	3
Phosmet	3
Phosphamidon	3
Thidicarb	3
Tributyltin oxide	3
Triphenyltin hydroxide	3
3-Iodo-2-propynylbutylcarbamate	2
Acetochlor	2
Aldicarb	2
Amraz (Degrad)	2
Antimycin A	2
Atazine	2
Azinphos-methyl	2
Azoxystrobin	2
Bendicarb	2
Benefen - Benfluralin	2
Benzoyl	2
Bensulfide	2
Bromacil	2
Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH) - BCDMH dehydrate	2
Bromoxyniloctanoate	2
Bronopol	2

Appendix 2
Summary of Number of Species Tested per Chemical

Butalin	2
Captan	2
Captan	2
Carbophenothion	2
Carfentiazine ethyl (F8246)	2
Chloryrifos-methyl	2
Chlormazone	2
Coumaphos	2
Cyclanilide	2
Cyfluthrin	2
Cyproconazole	2
Cyprodinil	2
Dazomet	2
DBNPA	2
DDD	2
DDT	2
Deltaethrin	2
Diclofenil	2
Difenoconazole	2
Diflubenzuron	2
Dinemethenamid	2
Dinemethopin	2
Dinemethoate	2
Dithiopyr	2
Diuron	2
Ecolyst	2
Emamectin benzoate	2
Endothal	2
Ethalfluralin	2
Ethofumatese	2
Etridiazole	2
Fenbuconazole	2
Fenoxyprop-ethyl	2
Fenvacrete	2
Fipronil	2
Fluazifop-p-butyl	2
Flufenacet	2
Fluometuron	2
Fluthiacet-methyl	2
Folpet	2
Fosetyl-A	2
Habsulfuron	2
Isofenphos	2
Isoxaflutole	2
Kresoxim-methyl	2
Malathion	2
Metalaxylyl	2
Methomyl	2
Methoxyfenozide	2
Metolachlor	2
Myclobutanil	2
Naled	2
Napropamide	2
Nitapyrin	2
Norflurazon	2

Appendix 2
Summary of Number of Species Tested per Chemical

Ocithilnone	2
Oxadiazon	2
Oxythiobinox	2
Pentachlorobenzene (PCNB)	2
Pentachloropheno:	2
POE Isooctadecano:	2
Prinsulfuron-m ethy:	2
Prodiame	2
Profenos	2
Prometon	2
Prometryn	2
Propanil	2
Pymetrozine	2
Pyridaben	2
Pyridate	2
Quiazabop, Ethy:	2
Sodium laurylsulfate	2
Tebuconazole	2
Tebufenozide	2
Terbufos	2
Thiazopyr	2
Thidiazuron	2
Thiocyanate - M ethylenebis	2
Thiophanate-m ethy:	2
Thiam	2
TriclopyrBEE	2
Trifoxystrobin	2
Trifluralin	2
Vernolate	2
Vinclozolin	2
ZincO m adine	2
2,4-D Acid	1
2,4-D Butoxyethanolester	1
2,4-D Propylene glycolbutyletherester	1
2,4-D intopheno:	1
4-N intophenol	1
Acetone	1
Ametryn	1
Am itaz	1
Am itole	1
Anilazine	1
Aspon	1
Avermectin	1
Bentazon	1
Bis(trichloroethyl)Sulfone	1
Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH)	1
Bromonitrostyrene	1
Bufencarb	1
Carbofuran	1
Chlorthalonal	1
Chlorthalonal(Degrad)	1
Chlorsulfuron	1
Coppersulfate, pentahydrate	1
Creosote-Coal Tar Distillate	1
Cuprous oxide	1

Appendix 2
Summary of Number of Species Tested per Chemical

Cyhalothrin	1
Cyhexatin (Pictran)	1
DCPA (Dacthal)	1
Demeton	1
Diazinon	1
Dibromodicyanobutane	1
Dichloro-2-n-octyl-3(2H)-isothiazolone	1
Diflufenzoxyro-sodium	1
Dimethenamid - (S)-Dimethenamid	1
Dimethylmorph	1
Fenbutatin Oxide	1
Fenhexamid	1
Fenoxy carb	1
Fenpropidin	1
Flicythrinate	1
Flumetralin	1
Flumetraconazole	1
Fluoxypyracil	1
Fluoxypyrester	1
Flutolanil	1
Flvalinate	1
Heptachlor	1
Hexachlorobutadiene	1
Hexazinone	1
Imidacloprid	1
Prodione	1
Igaro	1
Igaro 1051 (GS 26575 Degrad)	1
Isoxaflutole (Degrad)	1
Linuron	1
Mameb	1
MBC - Carbendazim	1
MC PA isoctylester	1
Mefenoxam	1
Methamidophos	1
Methiocarb	1
Methoprene	1
Metronidazole	1
Mevinphos	1
Mirex	1
OBPA	1
Oxazolidine E	1
Oxine-copper	1
Ozone	1
Phostebuprim	1
Piperonylbutoxide	1
Propargite	1
Propiconazole	1
Propoxur	1
Propyzamide	1
Quinclorac	1
Sulfentrazone	1
Sulfur	1
Sumithrin	1
Tefluthrin	1

Appendix 2
Summary of Number of Species Tested per Chemical

Terbuthylazine	1
Tetrachlorvinphos	1
Thibendazole	1
Thibencarb/Benthiocarb	1
Trasulfuron	1
Trichlorfon	1
Triethylene Glycol	1
Trimethacarb	1
Tris(hydroxymethyl)nitromethane	1
Ziram	1

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

Appendix 2
Summary of Number of Species Tested per Chemical

AMPHIBIA AND OTHERS	
Chemical	# Spp
Azinphos-m ethyl	2
DDT	2
Dieldrin	2
Endrin	2
Glyphosate	2
Hexachlorocyclohexane (Lindane)	2
Malathion	2
Methiocarb	2
Paraquat	2
Toxaphene	2
Bacillus thuringiensis	1
DDD	1
Endosulfan	1
Heptachlor	1
Hexachlorocyclohexane (Benzene hexachloride)	1
Methomyl	1
Methoxychlor	1
MethylParathion	1
Molinate	1
Monocarbam ide dihydrogen sulfate	1
Parathion	1
Triadimenol	1
Tributyltin oxide	1
Trifluralin	1