III. Appendices

B. Hazard/RPF

2. Dose-Response Curves

Key to Tables in Appendix III.B.2

Toxicology Profile Tables: For each chemical, the studies reported in the toxicology profile tables correspond to the studies listed in the figures. Specifically, oral studies containing whole brain rat cholinesterase data used to determine potency are reported in the tables. In addition, dermal and inhalation toxicity studies are listed only for the chemicals with residential/ nonoccupational exposures and for the index chemical (methamidophos).

Key to Figures in Appendix III.B.2

a. Dose-response Curve (Basic): Dose-response curve(s) from the basic model (low dose linear model). For chemicals with more than one study, the studies are plotted separately. Male data are red and female data are blue.

b. Residuals from Basic Model: Plot of residuals from the basic model. Dotted red line represents 10% brain cholinesterase inhibition.

c. Profile Likelihood for P_B: Profile likelihood plot for P_B (i.e., horizontal asymptote). The x-axis gives the ranges of P_B tried for female rat cholinesterase data (P_{BF}). The y-axis gives the ranges of P_B tried for male rat cholinesterase data (P_{BM}). As color moves from red to orange to yellow to very bright yellow, the likelihood values increase to a peak. The peak is marked by an X. Open circles are points that are not significantly different (P-value > 0.05) from the peak.

d.	**Profile Likelihood for *D* and *S*:**	Profile likelihood plot for *D* (i.e., horizontal displacement along the x-axis of the dose-response curve) and *S* (i.e., shape). As color moves from red to orange to yellow to very bright yellow, the likelihood values increase to a peak The peak is marked with an X. Closed circles are points that are not significantly different (P-value > 0.05) from the peak. Plot is listed only for those OPs where the expanded model fit the cholinesterase data significantly better than the basic.
e.	**Dose-response Curve (Expanded):**	Dose-response curve(s) from the expanded model (low dose flat model). For chemicals with more than one study, the studies are plotted separately. Male data are red and female data are blue. Plot(s) is/are listed only for those OPs where the expanded model fit the cholinesterase data significantly better than the basic.
f.	**Residuals from Model w/Low Dose Curvature:**	Plot of residuals from the expanded model. Dotted red line represents 10% brain cholinesterase inhibition. Plot is listed only for those OPs where the expanded model fit the cholinesterase data significantly better than the basic.

Table III.B.2-1. Acephate: Toxicology Profile Table

Acephate						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
40504819	82-1 (870.3100)	Subchronic Oral Toxicity–Rat (Special ChE inhibition study)	006680 012544 14258	0/0, 0.15/0.12, 0.36/0.28, 0.76/0.58, 11.48/8.90 mg/kg/day (females/males)	Nonguideline	Rat/ Sprague Dawley
00084017	83-5 (870.4300)	Combined Chronic Oral Toxicity/ Carcinogenicity–Rat	004951 012544	0/0, 0.3/0.2,3.1/ 2.4,47.2/38.2 mg/kg/day (females/males)	Guideline	Rat/ Sprague Dawley
45134301	82-2 (870-3200)	21-Day Dermal Toxicity–Rat	14210 41528	0, 20, 30, 40, 50 mg/kg/day	Nonguideline	Rat/ Sprague Dawley
44541101	82-2 (870.3200)	21-Day Dermal Toxicity–Rat	13396	0, 12, 60, 300 mg/kg/day	Guideline	Rat/ Sprague Dawley
45134302	82-4 (870.3465)	Subchronic Inhalation Toxicity–Rat	14223 41528	0, 0.001064, 0.003123, 0.005550 mg/L	Nonguideline	Rat/ Sprague Dawley
40504818	82-4 (870.3465)	4-Week Inhalation Toxicity–Rat	12544	0 (air), 1.05, 10.8, 93.6 mg/m^3	Guideline	Rat/ Fischer
40645903	82-4 (870.3465)	4-Week Inhalation Toxicity–Rat	12544	0 (air), 0.187, 0.507 mg/m^3	Guideline	Rat/ Fischer

Figure III.B.2-1. Acephate: Dose-response Curves Using the Basic Model, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot For P_B

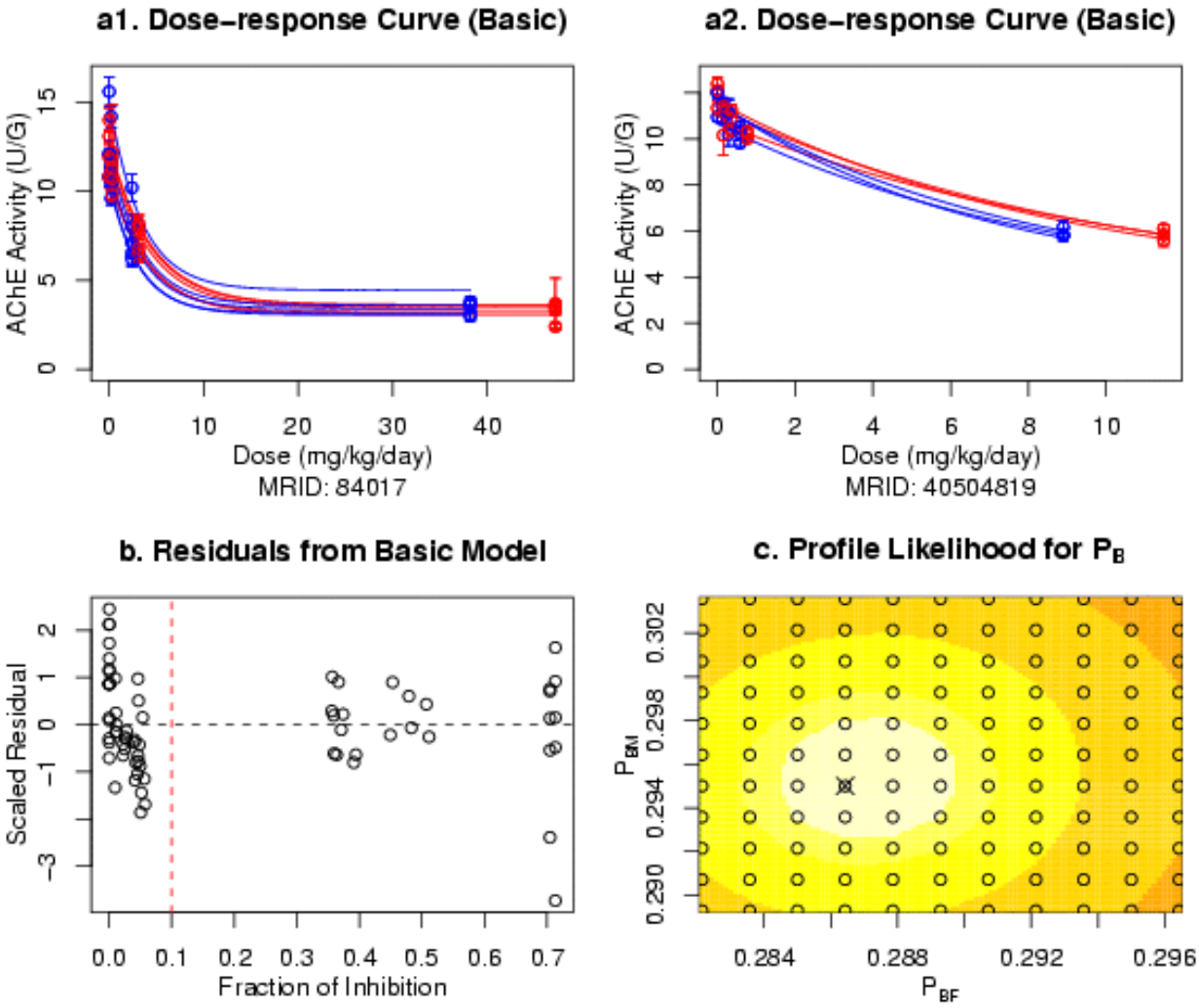


Table III.B.2-2. Azinphos-methyl: Toxicology Profile Table

Azinphos-methyl						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
43826601	82-7 (870.6200)	Subchronic Neurotoxicity–Rat	011898	0/0, 1.05/0.91, 3.23/2.81, 6.99/7.87 mg/kg/day (females/males)	Guideline	Rat/ Fischer
41119901	83-5 (870.4300)	Combined Chronic Oral Toxicity/ Carcinogenicity–Rat	008300	0/0, 0.31/0.25, 0.96/0.75, 3.11/2.33 mg/kg/day (females/males)	Guideline	Rat/ Wistar

Figure III.B.2-2. Azinphos-methyl: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots For P_B, D, and S

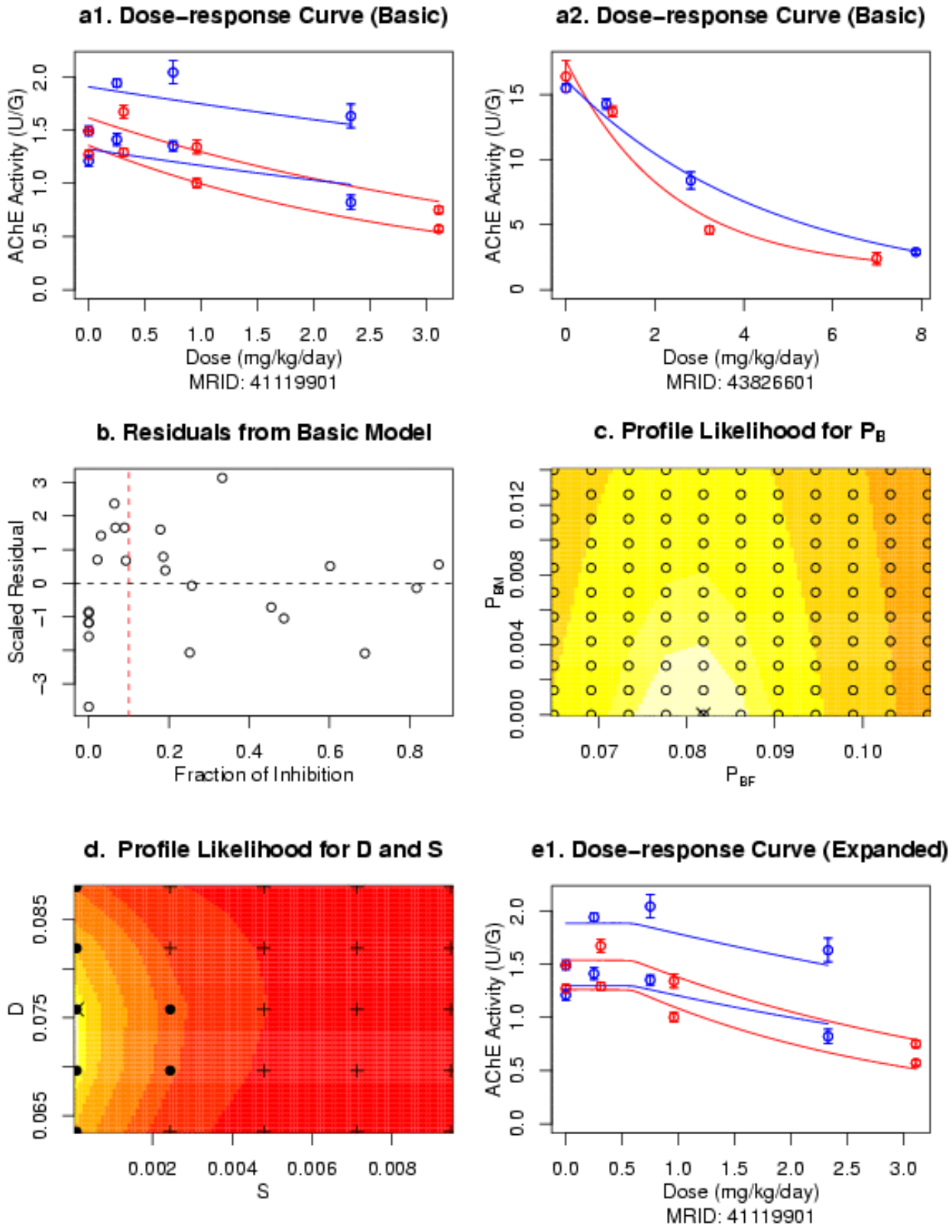


Figure III.B.2-2. Azinphos-methyl con't: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots For P_B, D, and S

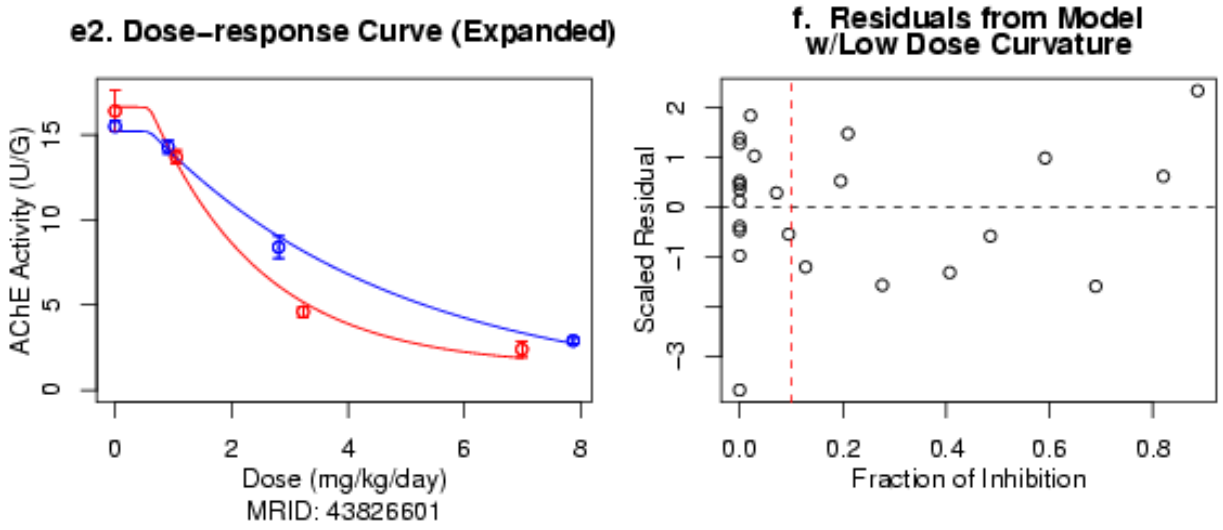


Table III.B.2-3. Bensulide: Toxicology Profile Table

Bensulide						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
43919601	82-1 (870.3100)	Subchronic Oral Toxicity–Rat	12289	0/0, 5/5, 15/15, 45/46, or 100/110 mg/kg/day (females/males)	Guideline	Rat/ Sprague Dawley
44161101	83-5 (870.4300)	Combined Chronic Oral Toxicity/ Carcinogenicity–Rat	12289	0/0, 1/1, 15.30/15.10, 61.30/60.10 mg/kg/day (females/males)	Guideline	Rat/ Sprague Dawley
44801101 44809401	82-2 (870.3200)	21-Day Dermal Toxicity–Rat	013532	0, 30, 50, 500 mg/kg/day	Nonguideline	Rat/CD

Figure III.B.2-3. Bensulide: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

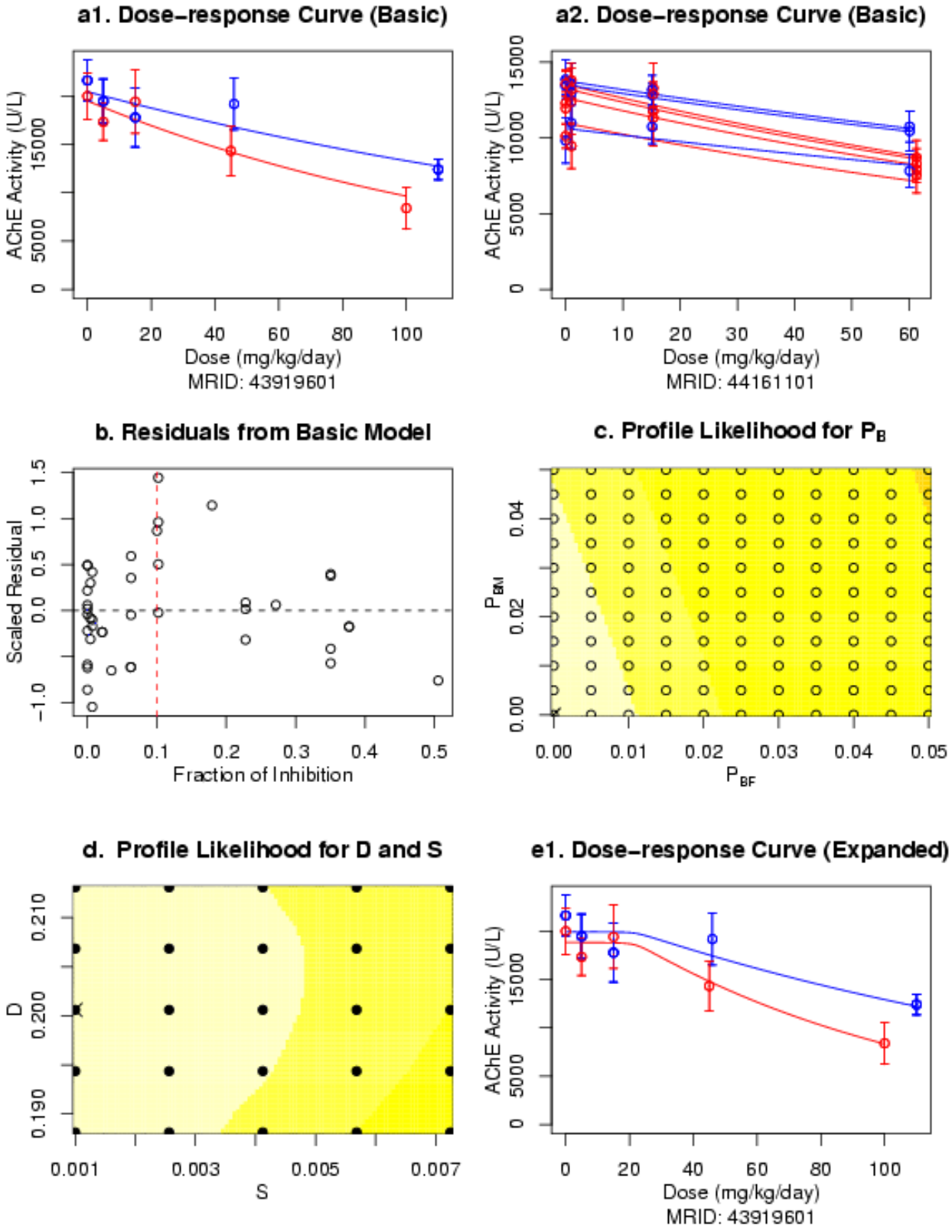


Figure III.B.2-3. Bensulide Con't: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

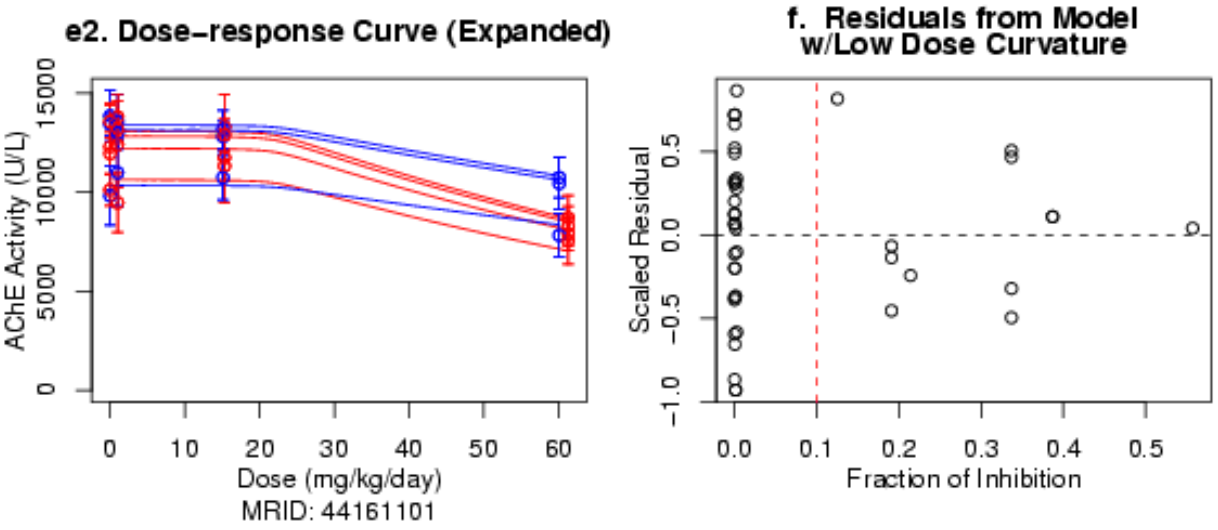


Table III.B.2-4. Chlorethoxyfos: Toxicology Profile Table

Chlorethoxyfos						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
41290632	82-1 (870.3100)	Six Week Oral Toxicity - Rat	008330	0/0, 0.014/0.009, 0.132/0.091, 0.66/0.477, 1.3/0.958 mg/kg/day (females/males)	Supplemental	Rat/Crl:CD®BR
42559215	82-1 (870.3100)	Subchronic Oral Toxicity - Rat	NA	0, 0.008, 0.080, 0.635, 1.23, 1.63 mg/kg/day (females only)	Guideline	Rat/Crl:CD®BR
41736837	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity Study - Rat	NA	0/0, 0.005/0.004, 0.042/ 0.031, 0.208/ 0.154, 0.416/ 0.311 mg/kg/day (females/males)	Guideline	Rat/Crl:CD®BR

NA=Not available

Figure III.B.2-4. Chlorethoxyfos: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

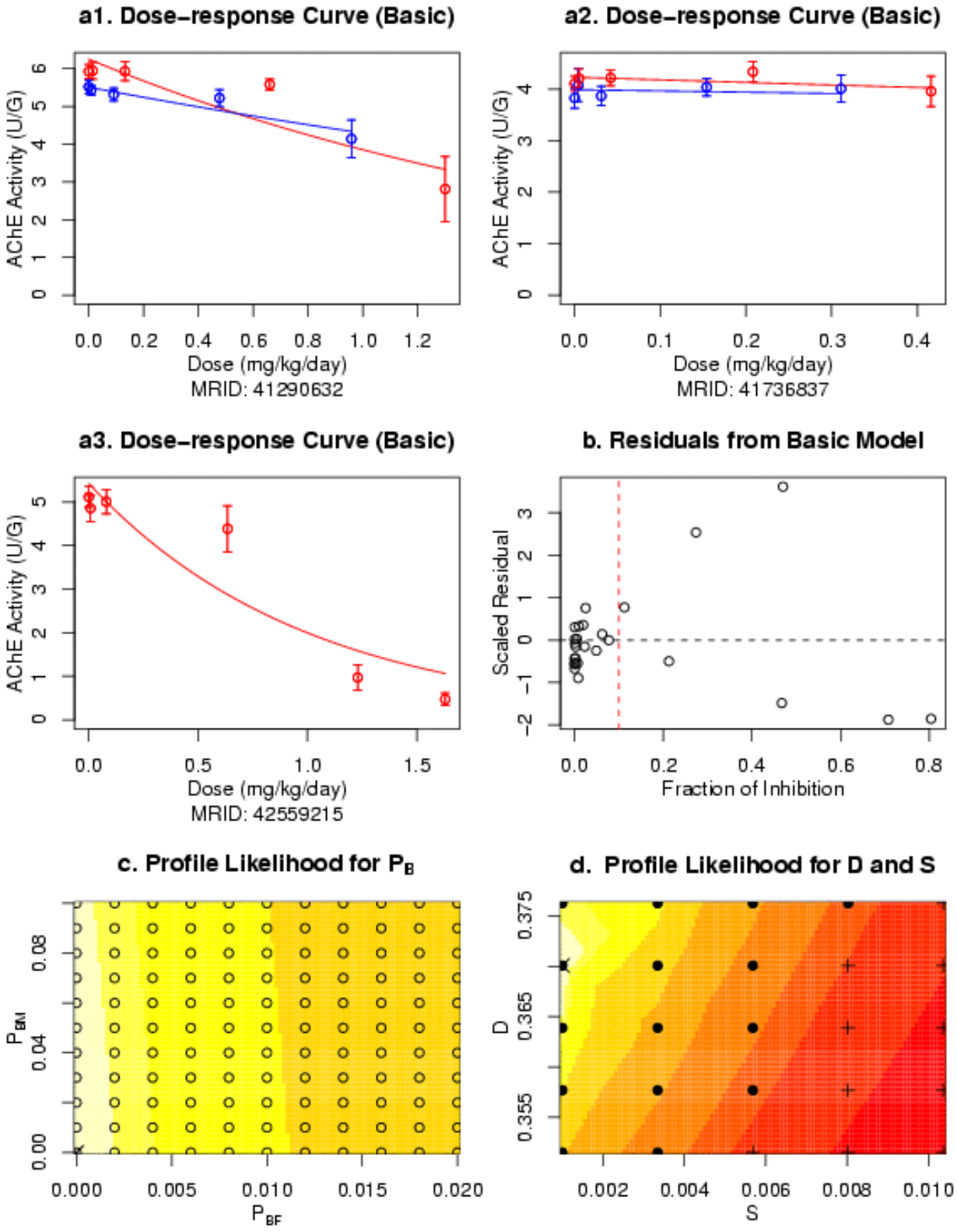


Figure III.B.2-4. Chlorethoxyfos con't: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, *D,* and *S*

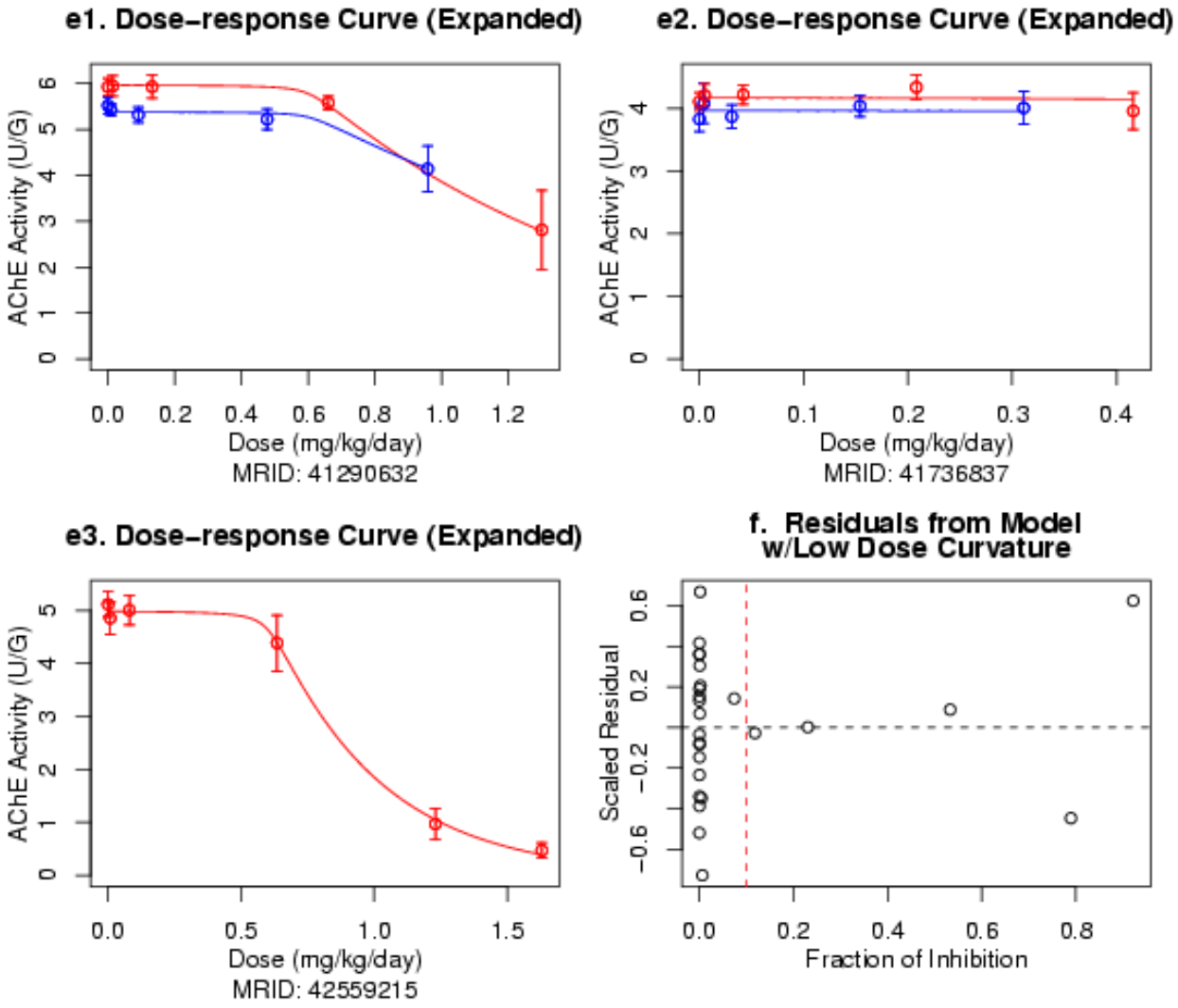


Table III.B.2-5. Chlorpyrifos: Toxicology Profile Table

Chlorpyrifos						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
40952801	82-1 (870.3100)	Subchronic Oral Toxicity–Rat	007102	0, 0.10, 1.00, 5.00, 15.00 mg/kg/day	Guideline	Rat/ Fischer
42172802	83-5 (870.4300)	Combined Chronic Oral Toxicity/ Carcinogenicity– Rat	009733 010605 013240	0/0, 0.01/0.01, 0.37/0.33, 7.61/6.77 mg/kg/day (females/males)	Guideline	Rat/ Fischer
40952802	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity– Rat	007107 013240	0, 0.05, 0.10, 1, 10 mg/kg/day	Guideline	Rat/ Fischer

Figure III.B.2-5 Chlorpyrifos: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots For P_B, D, and S

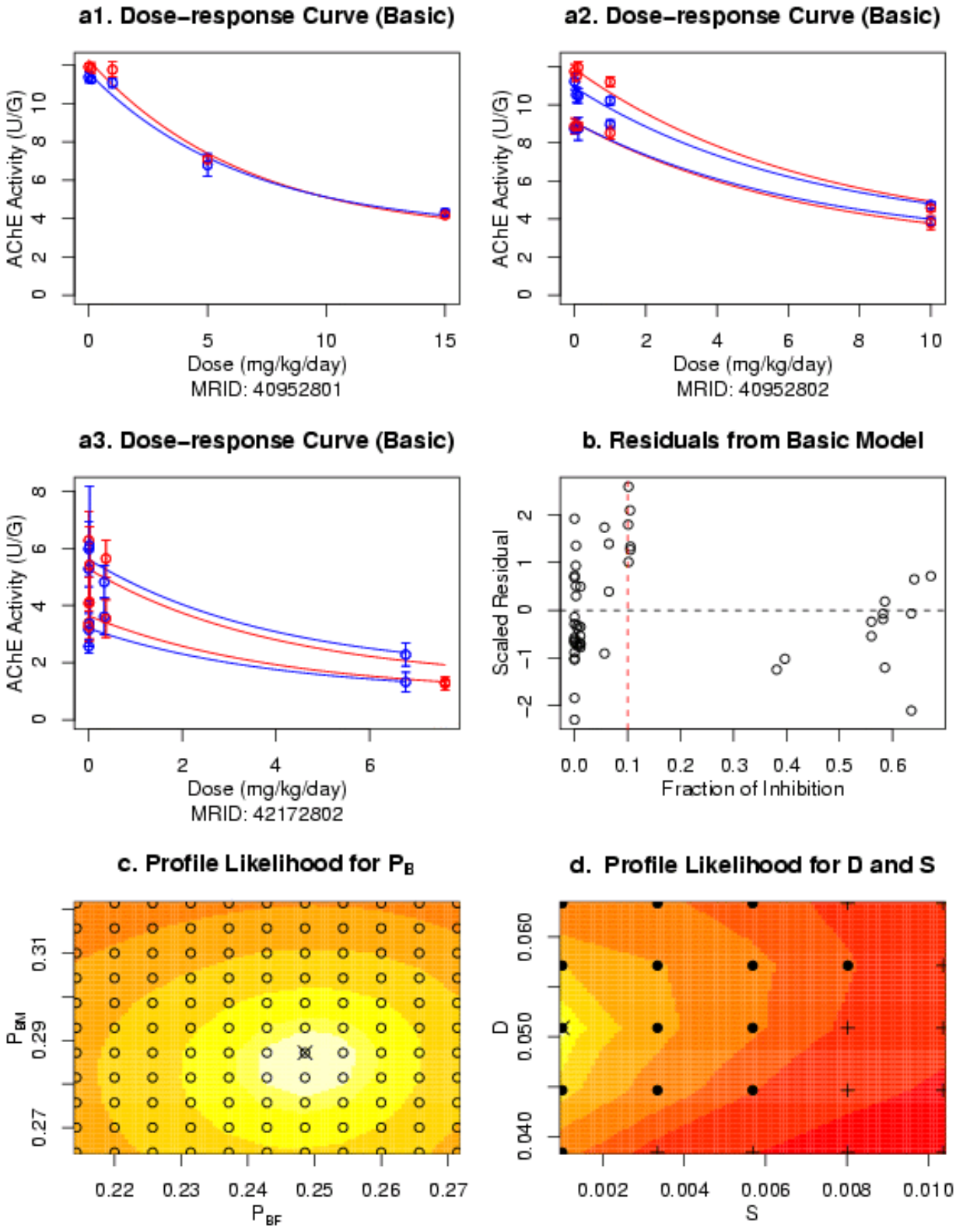


Figure III.B.2-5 Chlorpyrifos con't: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots For P_B, D, and S

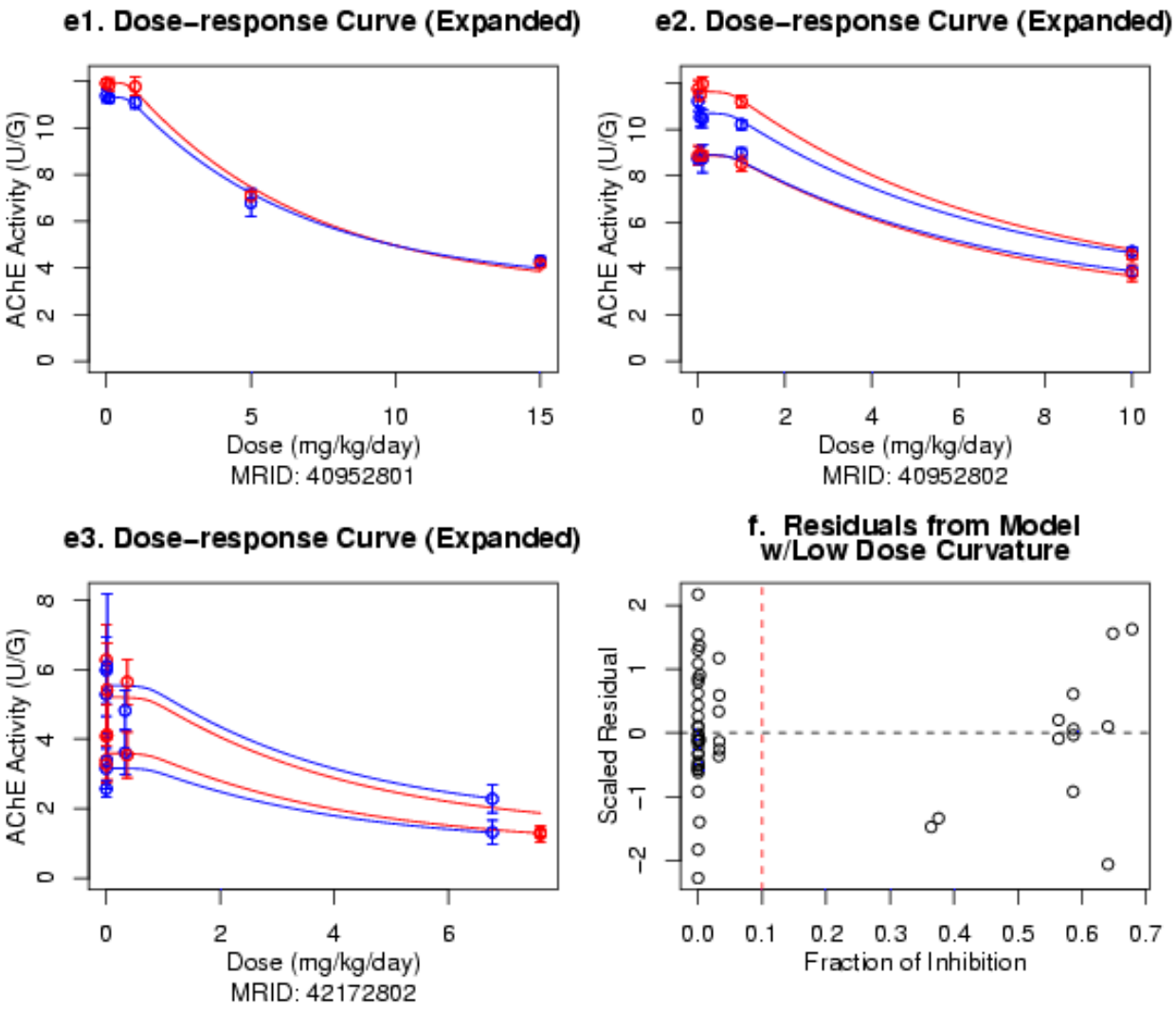


Table III.B.2-6. Chlorpyrifos-methyl: Toxicology Profile Table

Chlorpyrifos-methyl						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
42269001	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	009560	0, 0.05, 0.1, 1, 50 mg/kg/day	Guideline	Rat/Fischer
44906902	82-1 (870.3100)	Subchronic Oral Toxicity–Rat	014122	0, 0.1, 1, 10, 250 mg/kg/day	Guideline	Rat/Fischer

Figure III.B.2-6. Chlorpyrifos-methyl: Dose-response Curves Using the Basic Model, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot For P_B

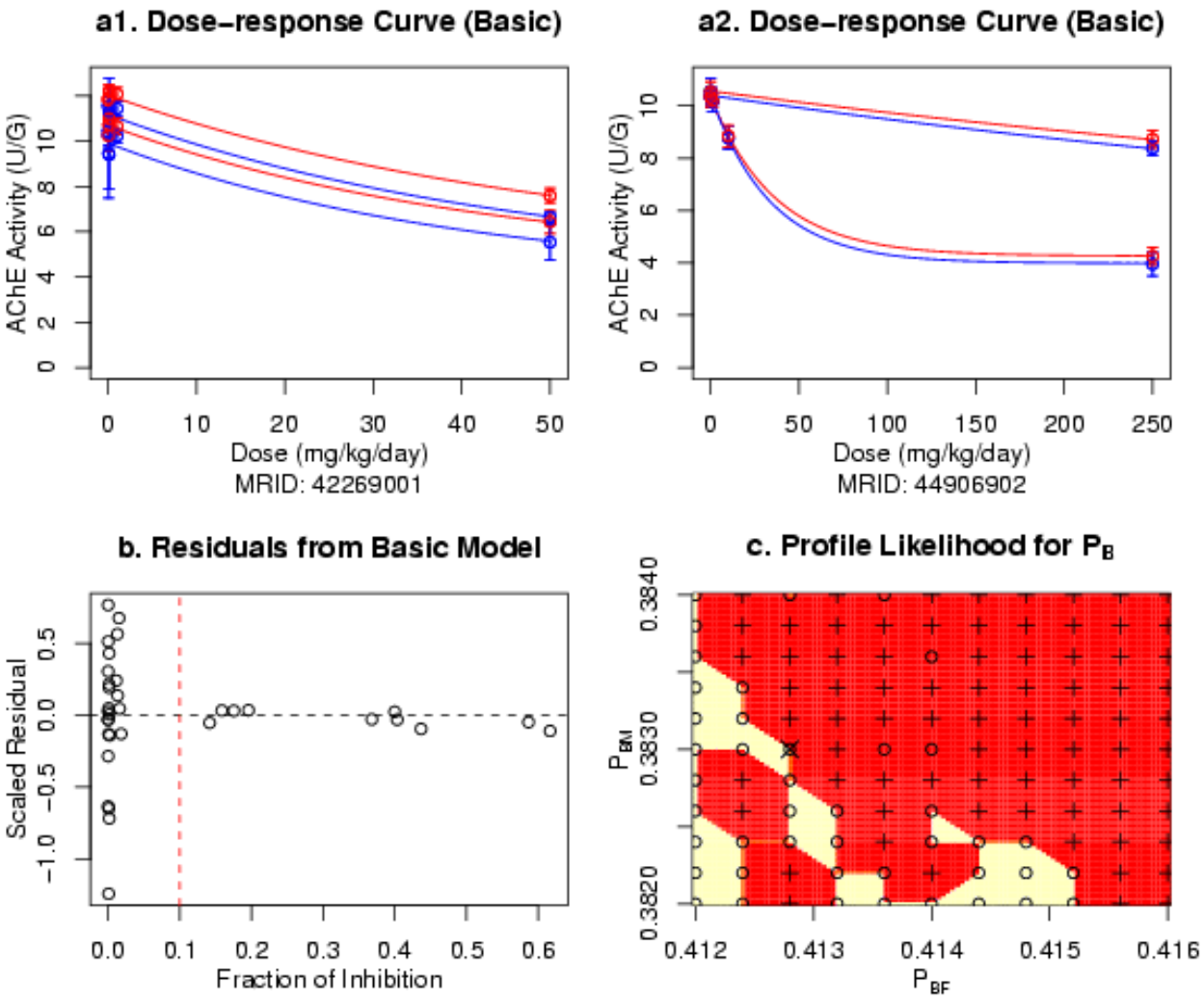


Table III.B.2-7. Diazinon: Toxicology Profile Table

Diazinon						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
40815003	82-1 (870.3100)	Subchronic Oral Toxicity–Rat	007041 007553 012219	0/0, 0.04/0.03, 0.40/0.30, 19/15, 212/168 mg/kg/day (females/males)	Guideline	Rat/ Sprague Dawley
41942002	83-1 (870.4100)	Chronic Oral Toxicity–Rat	010331 012219	0, 0.005/0.004, 0.07/0.06, 6/5, or 12/10 mg/kg/day (males/females)	Guideline	Rat/ Sprague Dawley

Figure III.B.2-7. Diazinon: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

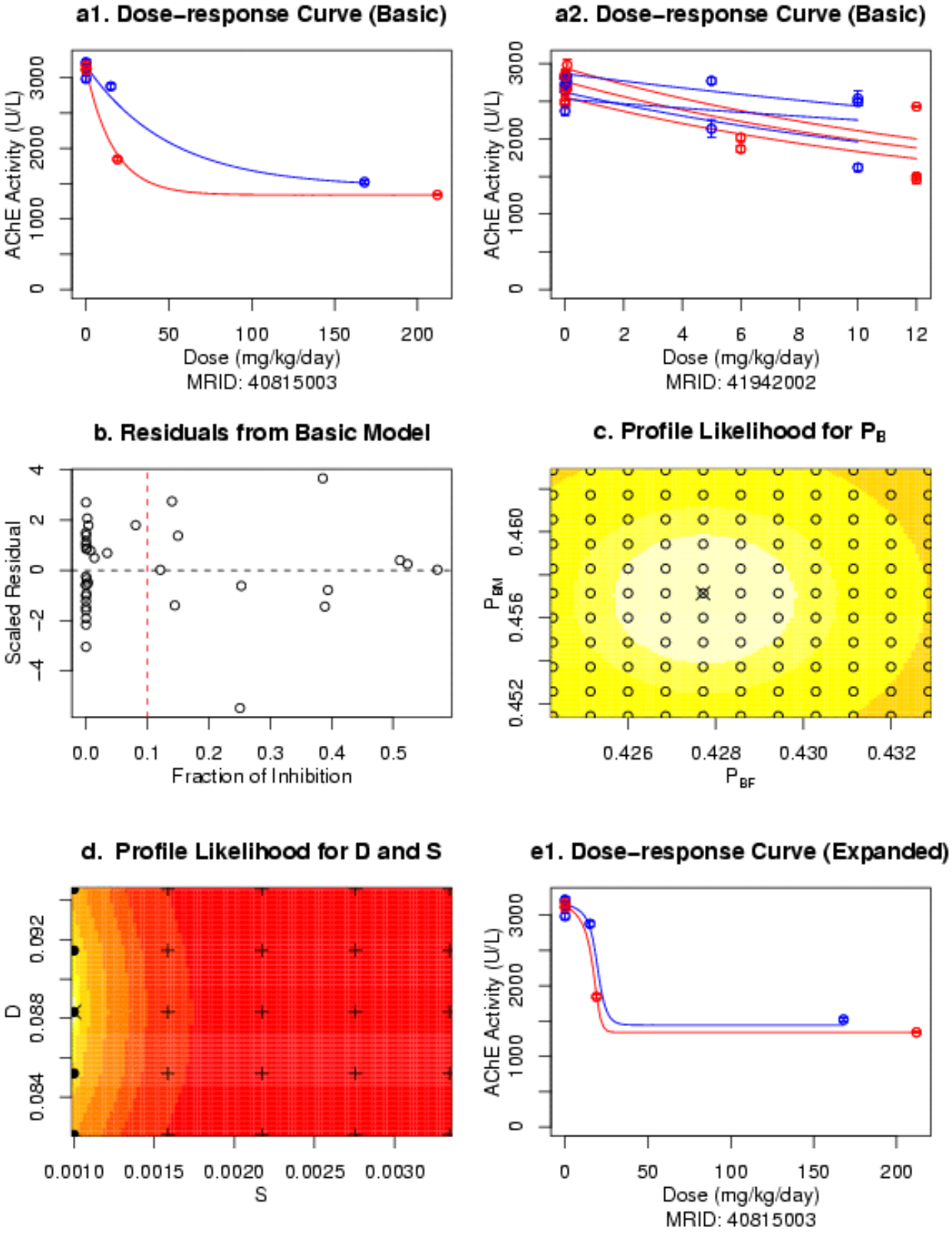


Figure III.B.2-7. Diazinon con't: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

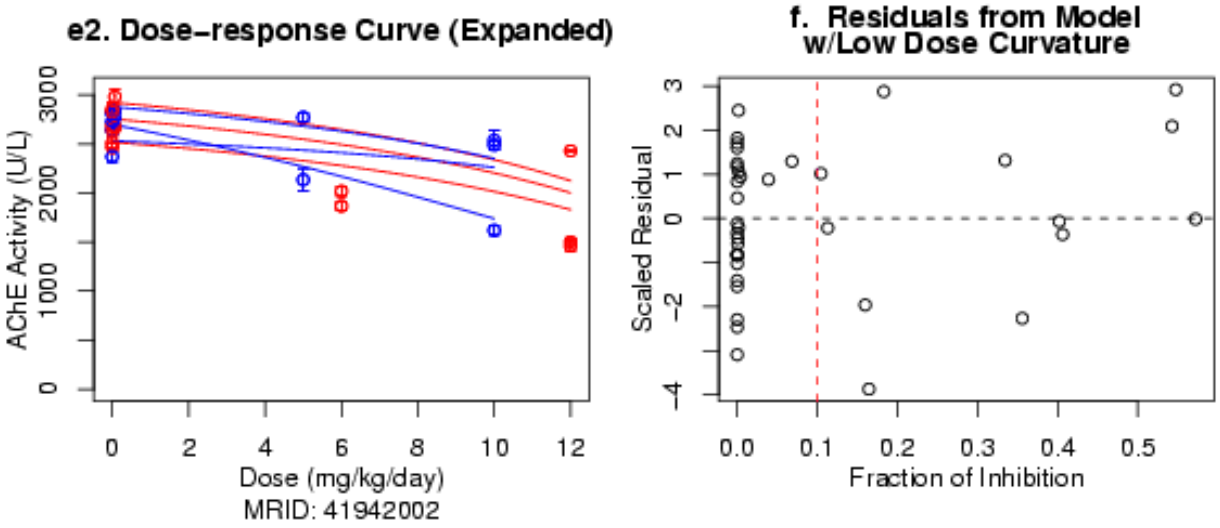


Table III.B.2-8. Dichlorvos: Toxicology Profile Table

Dichlorvos						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
41004701	82-1 (870.3100)	Subchronic Oral (Gavage) Toxicity–Rat	007448	0, 0.1, 1.5, 15 mg/kg/day (gavage)	Guideline	Rat/ Sprague Dawley
00057695 00632569	83-5 (870.4300)	Combined Chronic Inhalation Toxicity/Carcinogenicity–Rat	001466 006860	0, 0.05, 0.5, 5 mg/m^3	Supplemental	Rat/ Carworth Farm E (CFE)

Figure III.B.2-8. Dichlorvos: Dose-response Curve Using the Basic Model, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot for P_B

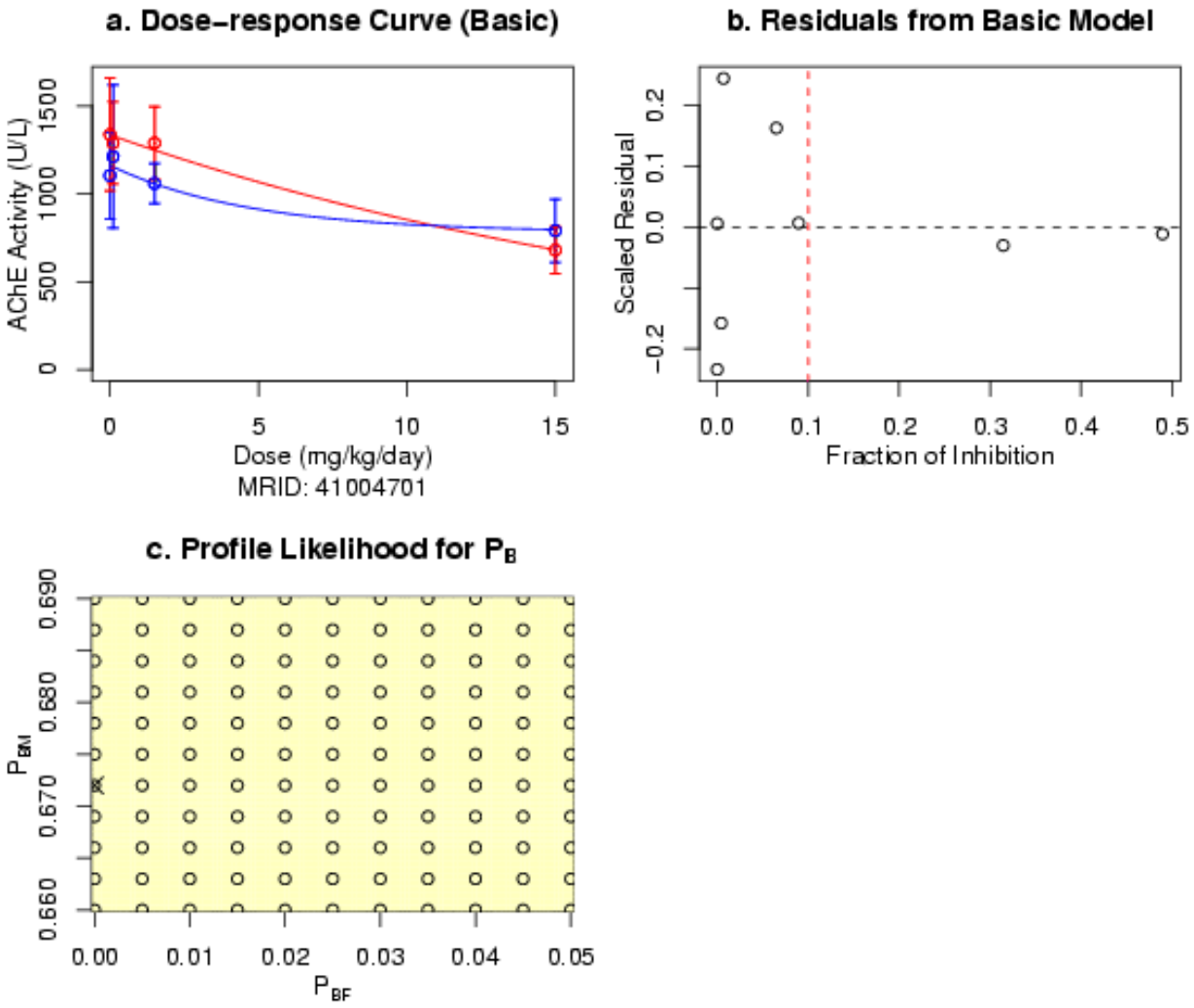


Table III.B.2-9. Dicrotophos: Toxicology Profile Table

Dicrotophos						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
44527802	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	012994	0/, 0.03/0.02, 0.32/0.25,1.74/1.42 mg/kg/day (females/males)	Guideline	Rat/Sprague Dawley
43980201	82-7 (870.6200)	Subchronic Neurotoxicity –Rat	013048	0/0, 0.04/0.04, 0.45/0.39, 2.38/2.03 mg/kg/day (females/males)	Guideline	Rat/Sprague Dawley

Figure III.B.2-9. Dicrotophos: Dose-response Curves Using the Basic Model, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot for P_B

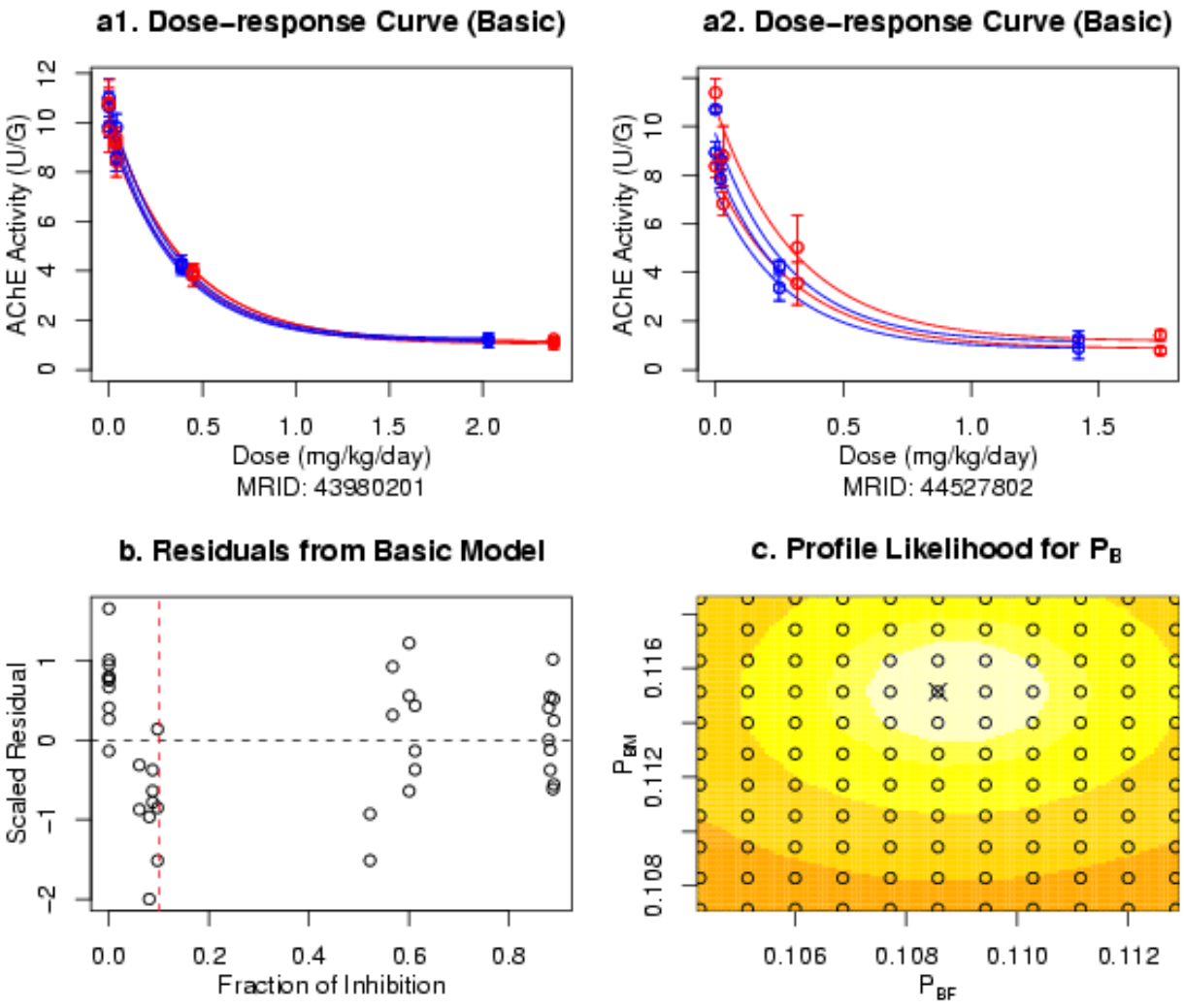


Table III.B.2-10. Dimethoate: Toxicology Profile Table

Dimethoate						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
164177	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	006398 008457	0/0, 0.06/0.04, 0.30/0.23, 1.48/1.16, 6.29/4.82 mg/kg/day (females/males)	Guideline	Rat/ Wistar

Figure III.B.2-10. Dimethoate: Dose-response Curve Using the Basic Model, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot for P_B

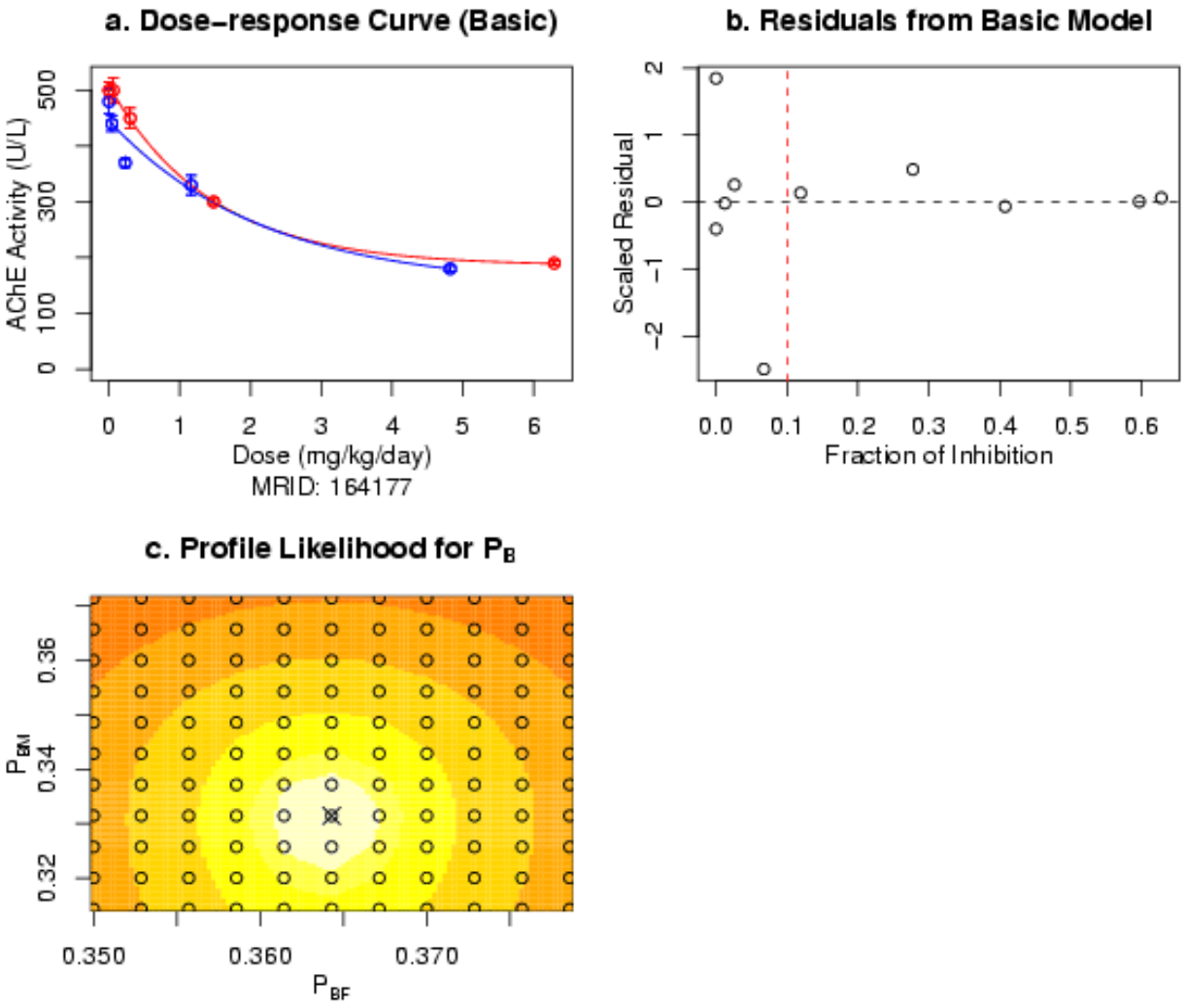


Table III.B.2-11. Disulfoton: Toxicology Profile Table

Disulfoton						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
42977401	82-7 (870.6200)	Subchronic Neurotoxicity–Rat	011456	0/0, 0.07/0.06, 0.31/0.27, 1.30/1.08 mg/kg/day (females/males)	Guideline	Rat/ Fischer
43058401	Non-guideline study	Special 6-month Cholinesterase–Rat	011249	0/0, 0.02/0.02, 0.03/0.03, 0.07/0.06 mg/kg/day (females/males)	Nonguideline	Rat/ Fischer
146873/ 41850002	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	005029	0/0, 0.08/0.06, 0.26/0.22, 1.25/0.92 mg/kg/day (females/males)	Guideline	Rat/ Fischer
44758404	82-1 (870.3100)	28-Day Dietary Study - Rat	NA	Prep 1: 0/0, 0.18/0.17, 1.11/1.04 mg/kg/day Prep 2: 0/0, 0.16/0.14, 1.29/1.16 mg/kg/day	NA	Rat/Fischer
00162338	82-2 (870.3200)	21-Day Dermal Toxicity–Rabbit	005556	0, 0.4, 1.6, 6.5 mg/kg/day	Guideline	Rabbit/ New Zealand
45239601	82-2 (870.3200)	21-Day Dermal Toxicity–Rabbit	014448	0, 0.8, 1, 3 mg/kg/day	Guideline	Rabbit/ New Zealand
41224301	82-4 (870.3465)	Subchronic Inhalation Toxicity–Rat	011242	Air and PEG-400:50% ethanol vehicle controls, 0.016/0.018, 0.16/0.16, 1.4/1.4 mg/m^3 (females/males)	Guideline	Rat/ Fischer

Figure III.B.2-11. Disulfoton: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

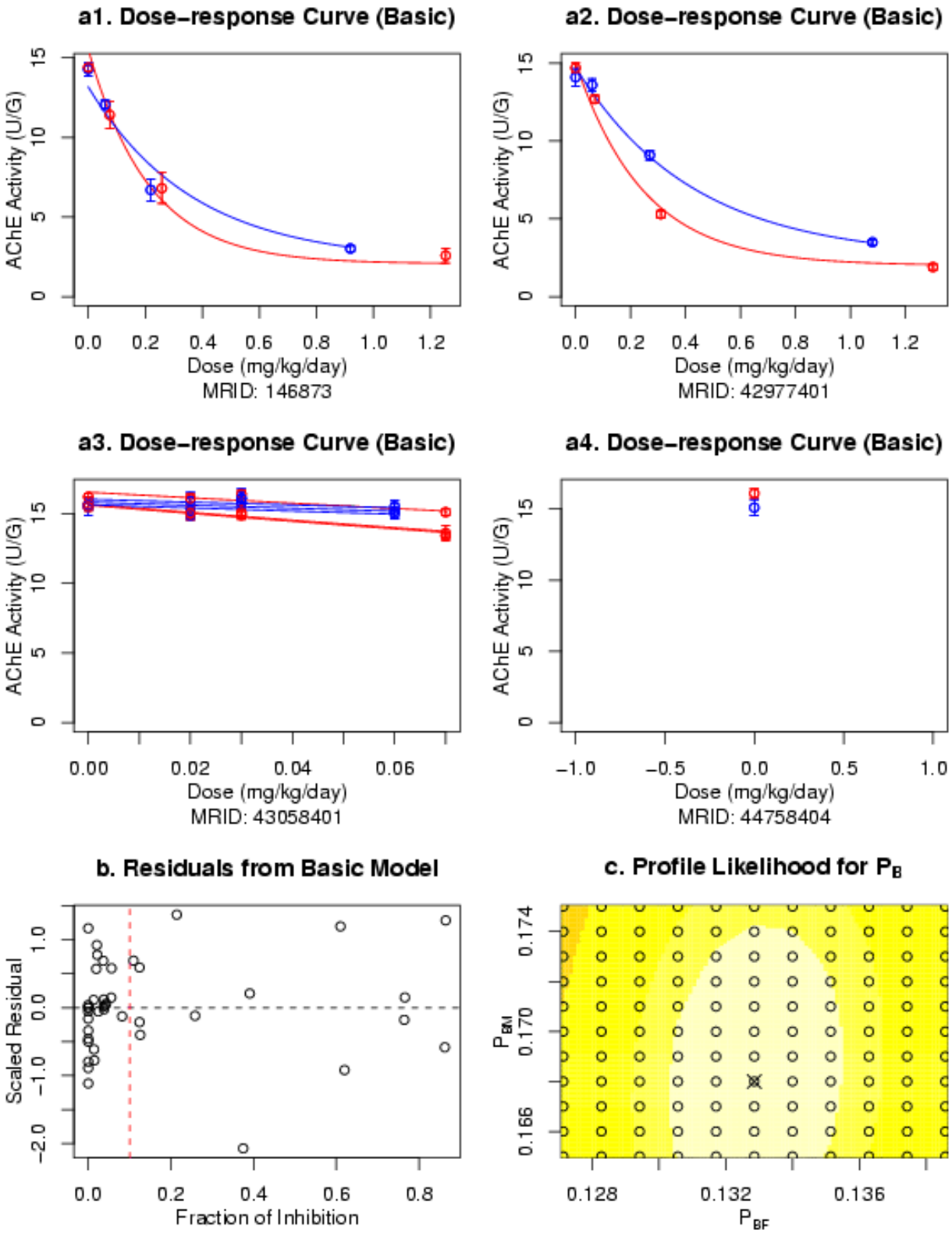


Figure III.1.1-11. Disulfoton con't: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, *D,* and *S*

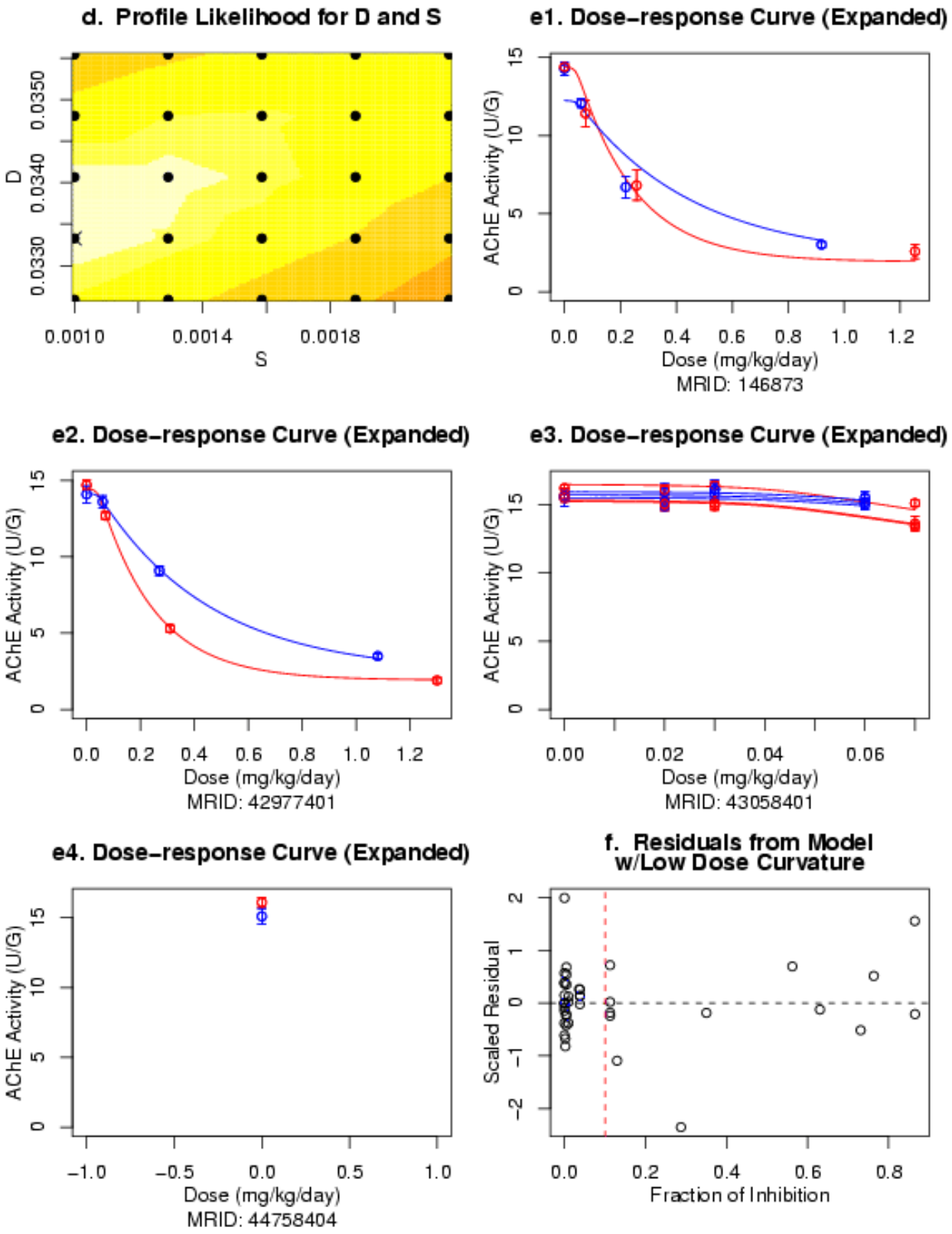


Table III.B.2-12. Ethoprop: Toxicology Profile Table

Ethoprop						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
75239	82-1 (870.3100)	Subchronic Oral Toxicity–Rat	001789 001795 002775	0, 0.015, 0.05, 5 mg/kg/day	Supplementary	Rat/Charles River
40291801	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	012589	0/0, 0.052/0.041, 0.51/0.4, 5.12/4.19 mg/kg/day (females/males)	Supplementary	Rat/Fischer
138636	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	006006 005741 012589	0/0, 13.1/10,28/ 21,59.3/44.8 mg/kg/day (females/males)	Supplementary	Rat/Fischer
42530201	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	012589 010775	0/0, 0.06/0.04, 3.27/2.62, 23.98/18.55 mg/kg/day (females/males)	Guideline	Rat/Crl:CD

Figure III.B.2-12. Ethoprop: Dose-response Curves Using the Basic Model, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot for P_B

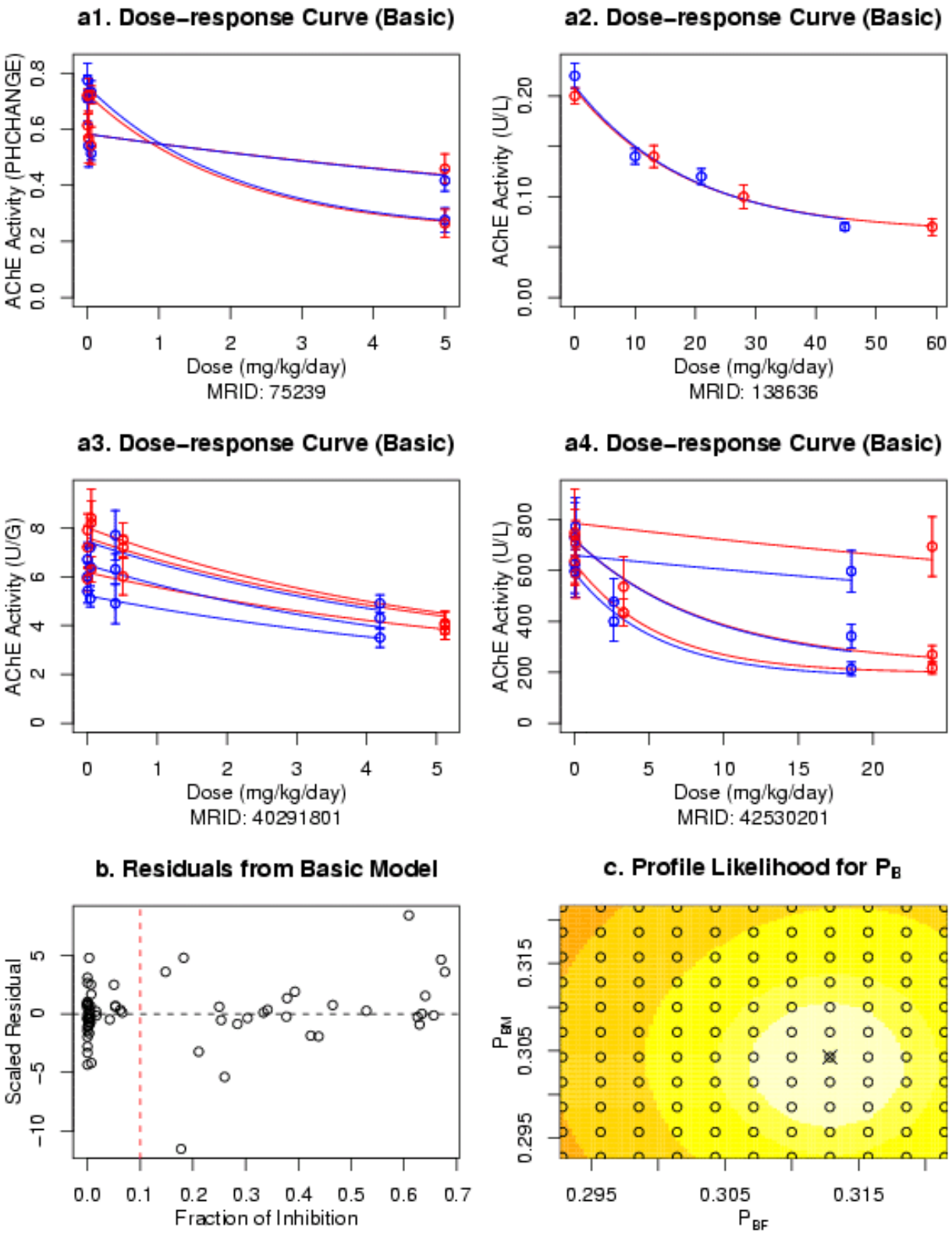


Table III.B.2-13. Fenamiphos: Toxicology Profile Table

Fenamiphos						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
00161361	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	003331 003606 005722	0/0, 0.12/0.10, 0.60/0.46, 3.36/2.45 mg/kg/day (females/males)	Guideline	Rat/ Fischer
44051401	82-7 (870.6200)	Subchronic Neurotoxicity–Rat	012019	0/0, 0.08/0.06, 0.80/0.61, 3.98/3.13 mg/kg/day (females/males)	Guideline	Rat/ Wistar
00161360	82-1 (870.3100)	90-Day Cholinesterase Study–Rat	003606	0, 0.018, 0.03, or 0.05 mg/kg/day	Minimum	Rat/Fischer
00154497	82-2 (870.3200)	21-Day Dermal Toxicity–Rabbit	004531 005722	0, 0.5, 2.5, 10 mg/kg/day	Guideline	Rabbit/ New Zealand White
40774809	82-4 (870.3465)	21-Day Inhalation Toxicity–Rat (nose only)	004531 010301 011035	0, 0.03, 0.25, 3.5 µg/L	Guideline	Rat/ Wistar

Figure III.B.2-13. Fenamiphos: Dose-response Curves Using the Basic Model, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot for P_B

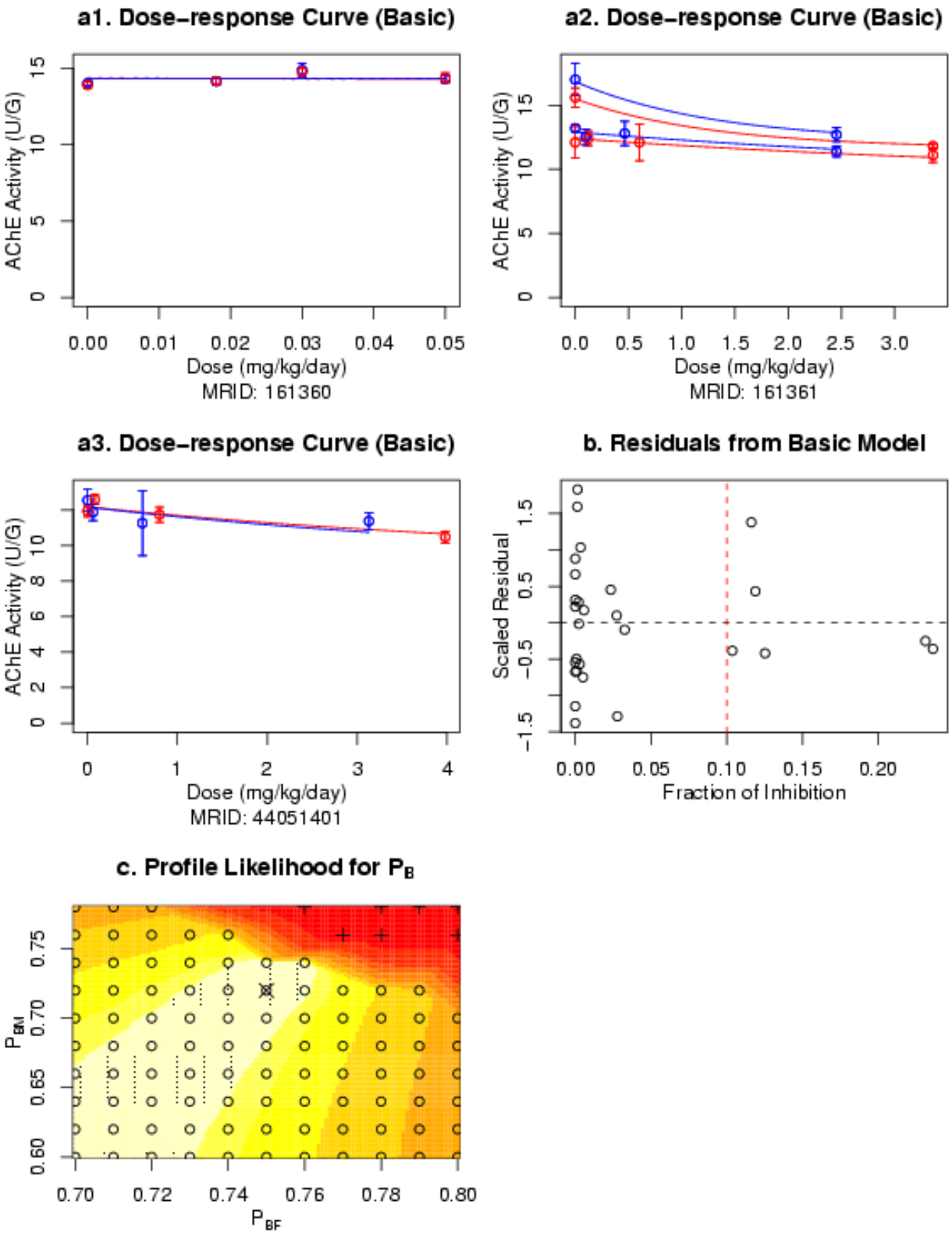


Table III.B.2-14. Fenthion: Toxicology Profile Table

Fenthion						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
41743101	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	011804 009870	0/0, 0.3/0.2, 1.3/0.8, 7.3/5.2 mg/kg/day	Guideline	Rat/ Fischer
44339401	82-7 (870.6200)	Subchronic Neurotoxicity–Rat	012511	0, 0.17/0.13, 2.19/1.63,12.62/8.5 mg/kg/day (females/males)	Guideline	Rat/ Wistar
40329501	82-2 (870.3200)	21-Day Dermal Toxicity– Rabbit	011765	0, 5, 50, 100, 200, 400 mg/kg/day	Guideline	Rabbit/ New Zealand

Figure III.B.2-14. Fenthion: Dose-response Curves Using the Basic Model, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot for P_B

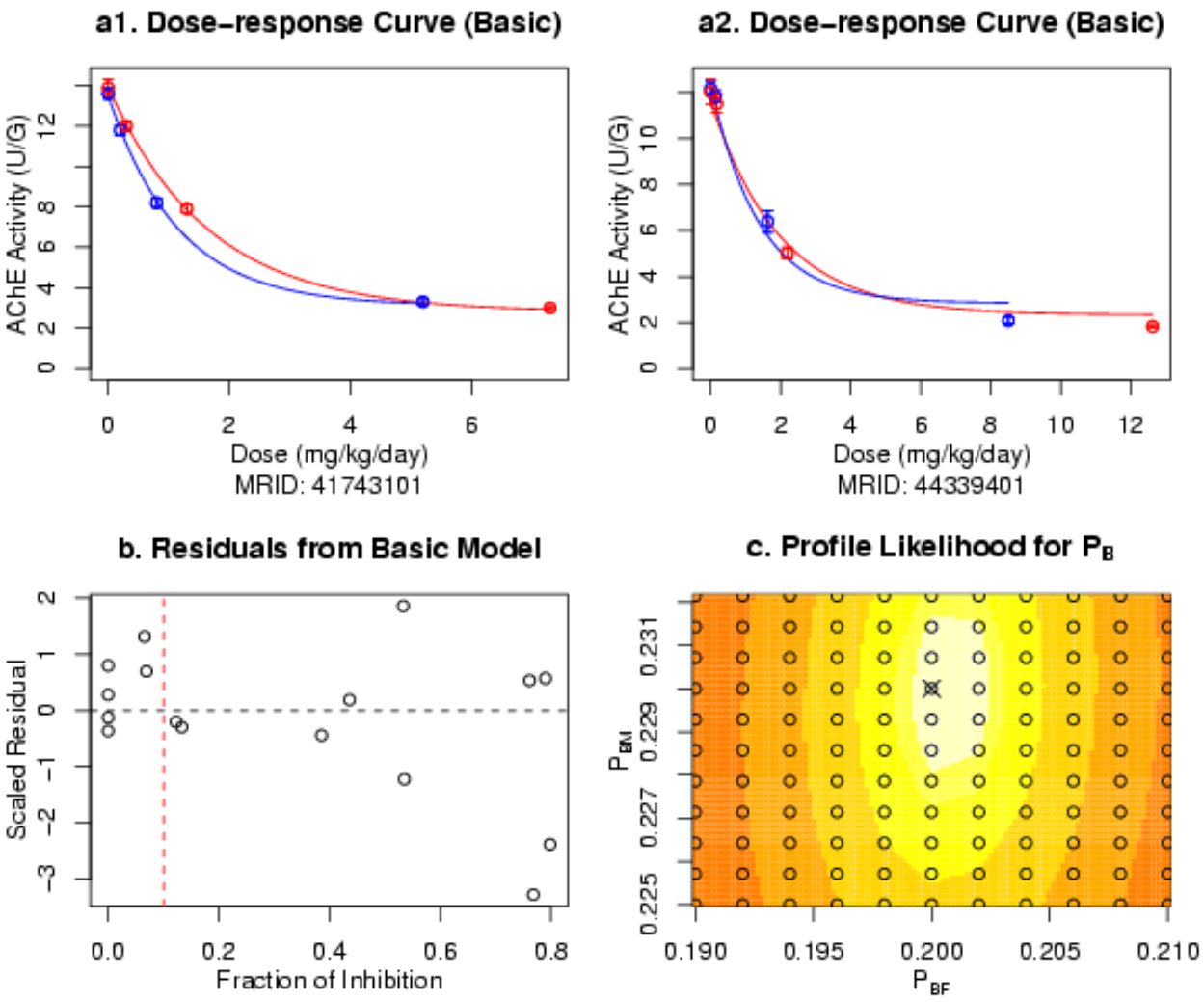


Table III.B.2-15. Fosthiazate: Toxicology Profile Table

Fosthiazate*						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
44269905	82-1 (870.3100)	Subchronic Oral Toxicity–Rat	In review	0/0, 0.05/0.05, 0.1/0.1, 0.5/0.48, 1/0.97, 10.67/9.69, 43.52/40.87 mg/kg/day (females/males)	In review	Rat/ Charles River CD (remote SD origin)
41347632	82-1 (870.3100)	Subchronic Oral Toxicity–Rat	008039	0/0, 0.09/0.08, 0.89/0.77, 4.74/4.12, 41.03/36.37 mg/kg/day (females/males)	Guideline	Rat/ CD
43559703	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	008039	0/0, 0.055/0.042, 0.54/0.41, 2.63/2.08, 12.53/8.94 mg/kg/day (females/males)	Guideline	Rat/ Charles River CD

*Not yet registered

Figure III.B.2-15. Fosthiazate: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

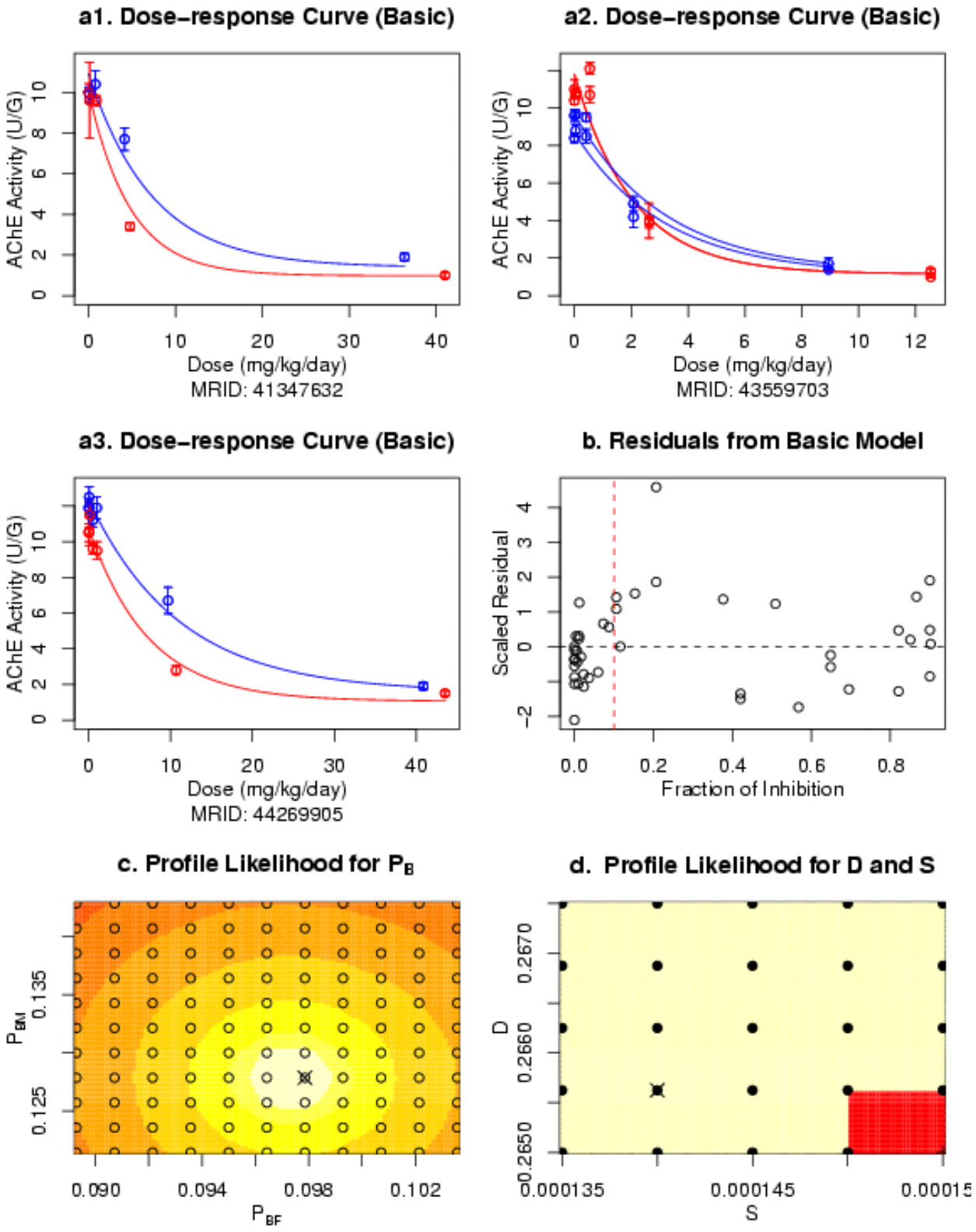


Figure III.B.2-15. Fosthiazate con't: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

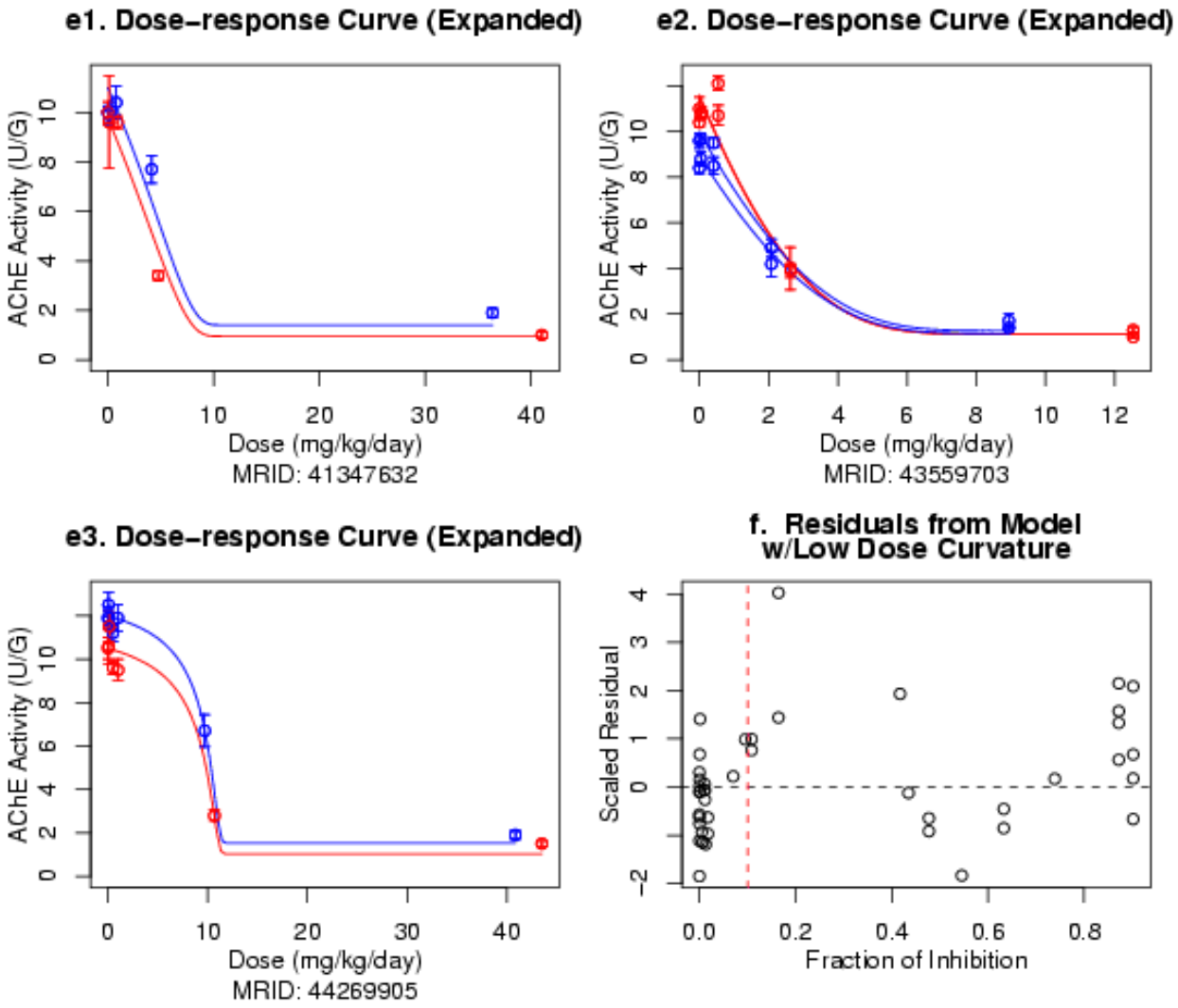


Table III.B.2-16. Malathion: Toxicology Profile Table

Malathion						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
43942901	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	013822 014120 014121	0/0, 5/4 , 35/29, 415/359, 868/739 mg/kg/day (females/males)	Guideline	Rat/ Fischer
41054201	82-2 (870.3200)	21-Day Dermal Toxicity–Rabbit	008714 009385 012433	0, 50, 300, 1000 mg/kg/day	Guideline	Rabbit/ New Zealand Albino
43266601	82-4 (870.3465)	13-Week Inhalation Toxicity–Rat	012433 011516	0 (air), 0.1, 0.45, 2.01 mg/L	Nonguideline	Rat/ Sprague Dawley

Figure III.B.2-16. Malathion: Dose-Response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

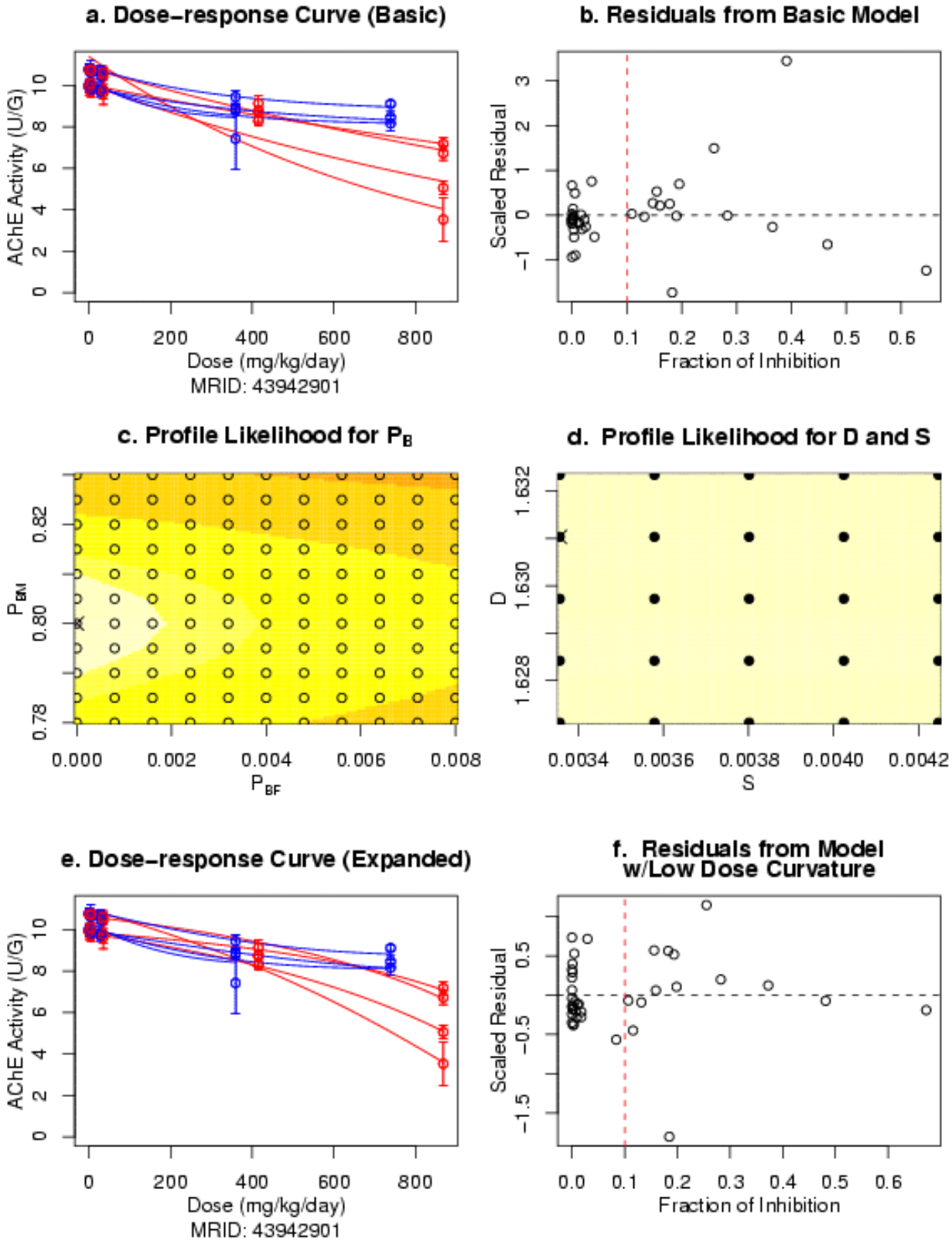


Table III.B.2-17. Methamidophos: Toxicology Profile Table

Methamidophos						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
41867201	82-1 (870.3100)	Subchronic Oral Toxicity–Rat (Special ChE study)	008846 012826	0/0, 0.06/0.03, 0.06/0.07, 0.17/0.13, 0.28/0.24 mg/kg/day (females/males)	Guideline	Rat/ Fischer
43197901	82-7 (870-6200)	Subchronic Neurotoxicity–Rat	011530 012826	0/0, 0.07/0.07, 0.90/0.79, 4.94/4.26 mg/kg/day (females/males)	Guideline	Rat/ Fischer
00148452	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	005313 007124 012514	0/0, 0.116/0.095, 0.351/0.288, 1.056/0.848, 3.49/2.847 mg/kg/day (females/males)	Guideline	Rat/ Fischer
44525301	82-2 (870.3200)	21-Day Dermal Toxicity–Rat	13394	0, 0.75, 11.2, 36.5 mg/kg/day	Guideline	Rat/ Sprague Dawley
00147935	82-2 (870.3200)	21-Day Dermal Toxicity–Rabbit	11779	0, 0.5, 5 mg/kg/day	Nonguideline	Rabbit/ NZW
41402401	82-3 (870.3465)	Subchronic Inhalation Toxicity–Rat	011550 012826	Air and vehicle [PEG E400:ethanol] controls, 0.0011, 0.0054, 0.0231 mg/L	Guideline	Rat/ Wistar

Figure III.B.2-17A. Methamidophos: Dose-response Curves Using the Basic Model for the Oral Route, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot for P_B

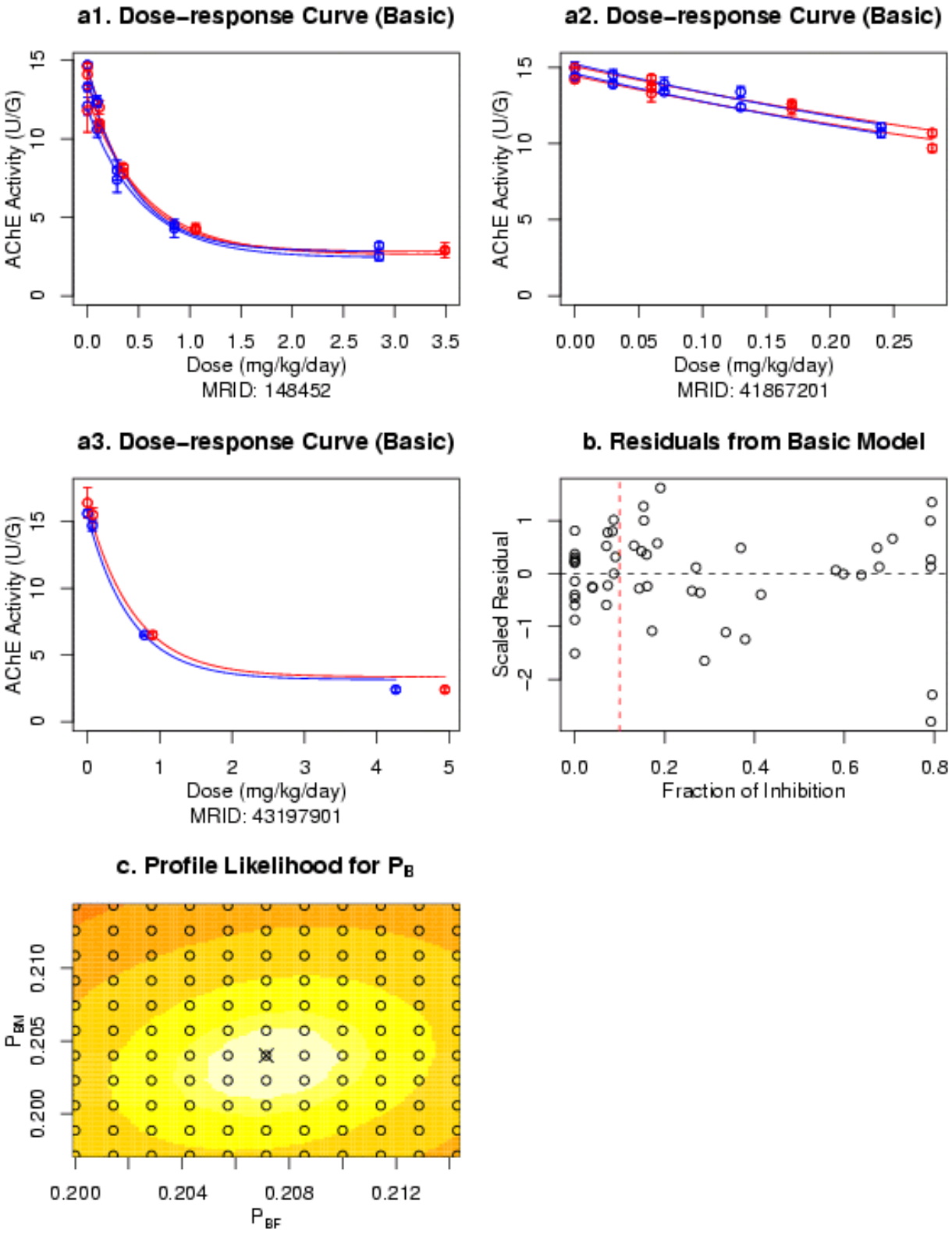
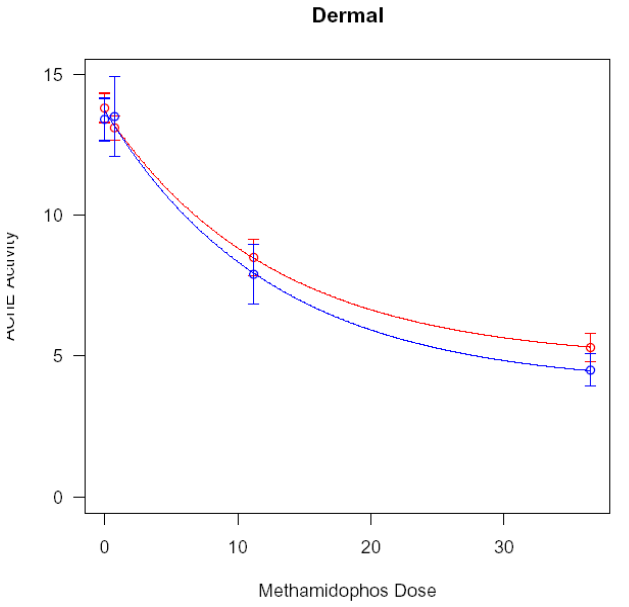


Figure III.B.2-17B. Methamidophos: Dose-response Curves Using the Basic Model for the Dermal and Inhalation Routes.



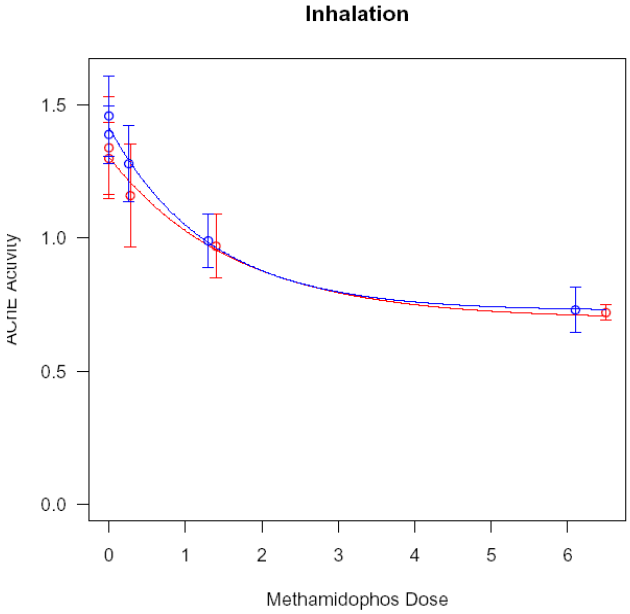


Table III.B.2-18. Methidathion: Toxicology Profile Table

Methidathion						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
00160260	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	005743 006587	0/0, 0.22/0.16, 2.2/1.72, 6.93/4.91 mg/kg/day (females/males)	Guideline	Rat/ Sprague Dawley

Figure III.B.2-18. Methidathion: Dose-response Curve Using the Basic Model, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot for P_B

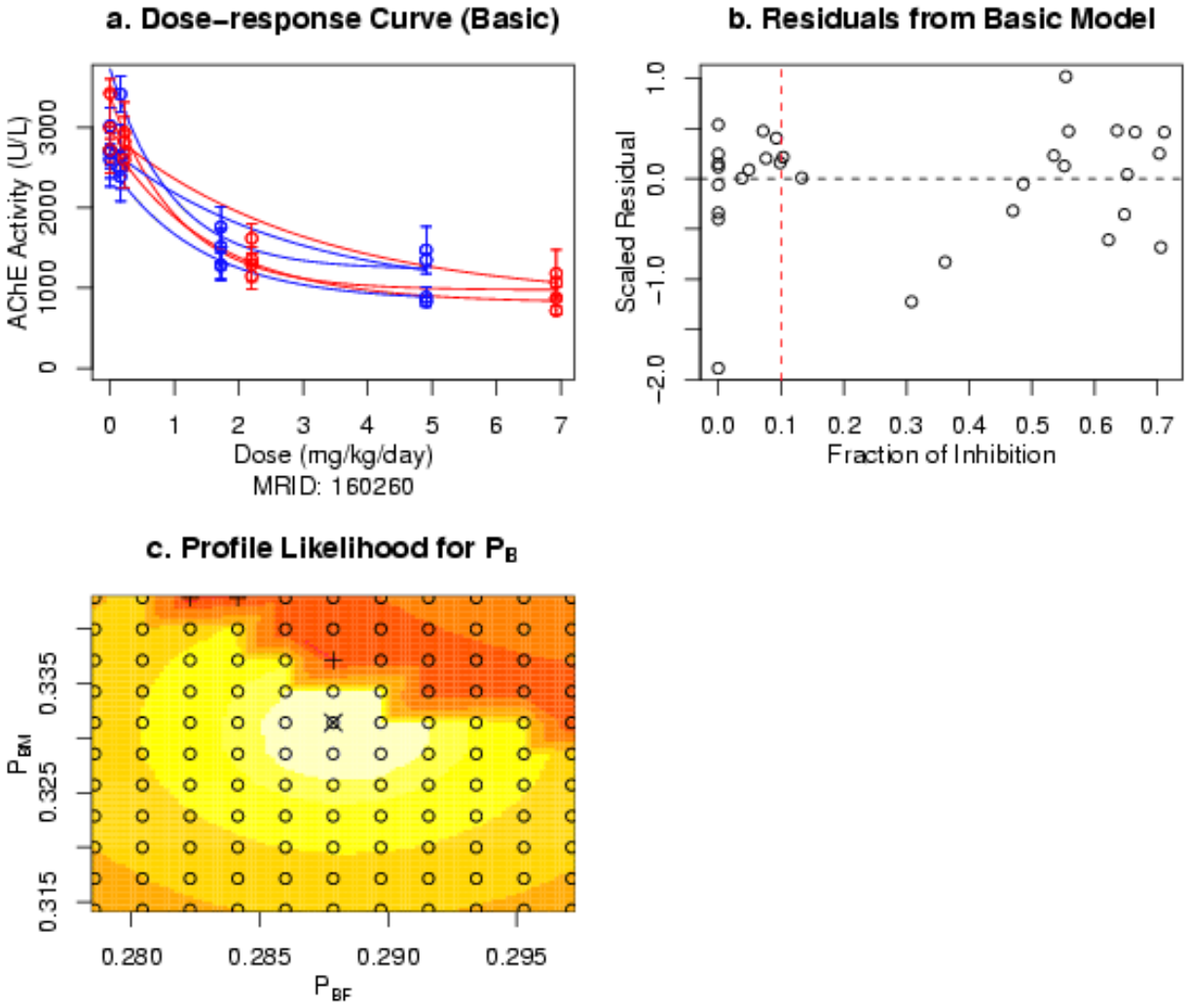


Table III.B.2-19. Methyl Parathion: Toxicology Profile Table

Methyl Parathion						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
00074299	82-1 (870.3100)	Subchronic Oral Toxicity–Rat	001882	0/0, 0.20/0.16, 2.10/1.64, 6.90/5.90 mg/kg/day (females/males)	Guideline	Rat/ Sprague Dawley
41853801	83-1 (870.4100)	Chronic Oral Toxicity with Special Focus on Sciatic Nerve Effects	010333	0, 0.03/0.02, 0.14/0.11, 0.70/0.53, 3.09/2.21 mg/kg/day (females/males)	Nonguideline	Rat/ Sprague Dawley

Figure III.B.2-19. Methyl-parathion: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, *D,* and *S*

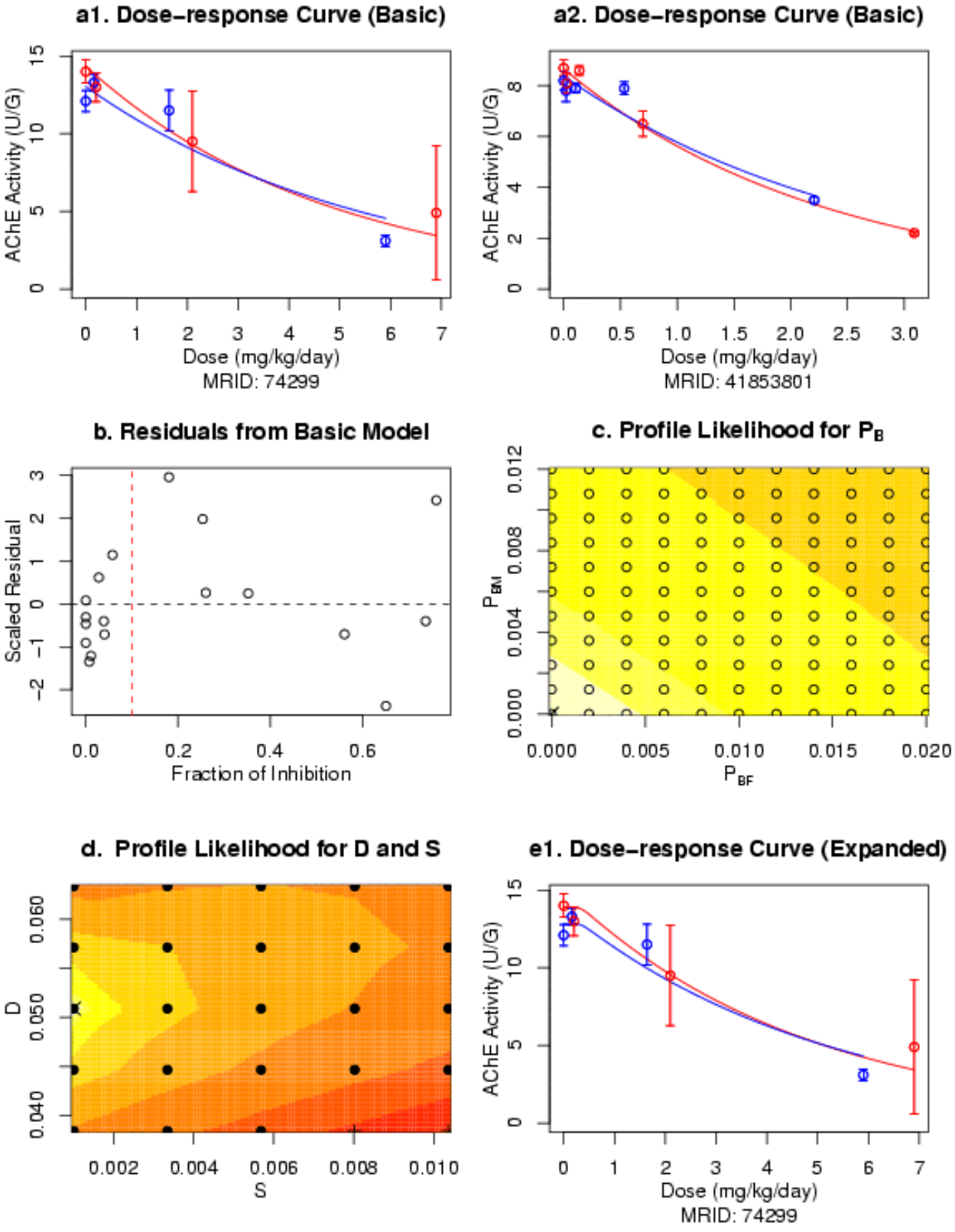


Figure III.B.2-19. Methyl-parathion con't: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

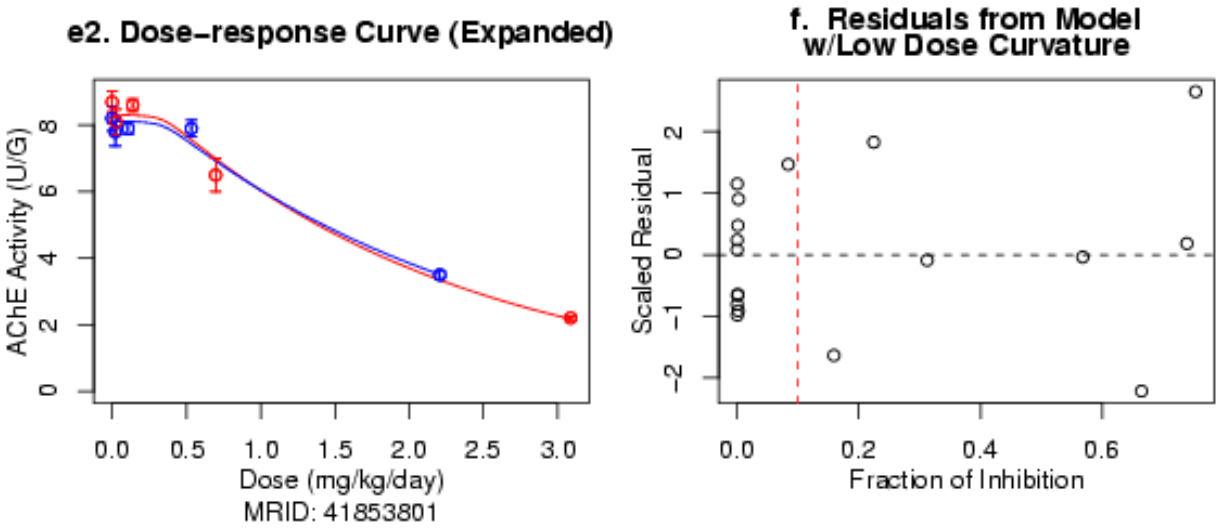


Table III.B.2-20. Mevinphos: Toxicology Profile Table

Mevinphos						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
42588501	82-1 (870.3100)	Subchronic Oral Toxicity–Rat	015801	0/0, 0.011/0.056, 0.056/0.56, 0.56/1.12, 0.84/1.67 mg/kg/day (females/males)	Guideline	Rat/ Sprague Dawley

Figure III.B.2-20. Mevinphos: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

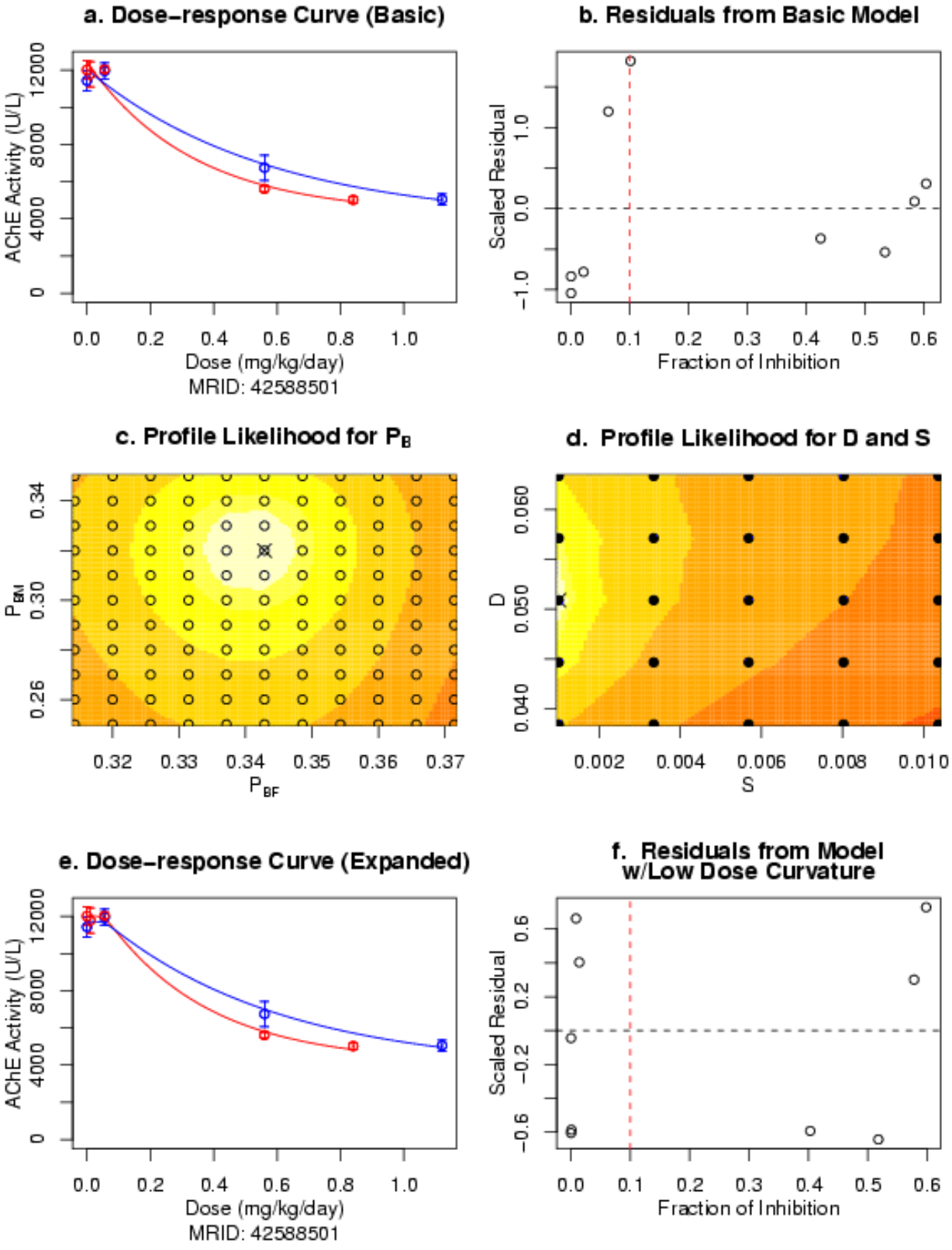


Table III.B.2-21. Naled: Toxicology Profile Table

Naled						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
00088871	82-1 (870.3100)	Four-Week Subchronic Oral (Gavage) Toxicity–Rat	1460	0, 0.25, 1, 10, 100 mg/kg/day (gavage)	Supplementary	Rat/Sprague Dawley
00141784	83-5 (870.4300)	Combined Chronic Oral (Gavage) Toxicity/Carcinogenicity–Rat	002997 004128 004521	0, 0.2, 2, 10 mg/kg/day (gavage)	Guideline	Rat/Sprague Dawley
45222001	82-2 (870.3200)	28-Day Dermal Toxicity–Rat	0144336	0, 5, 10, 40 mg/kg/day	Guideline	Rat/Sprague Dawley
00160750	82-2 (870.3200)	28-Day Dermal Toxicity–Rat	5774	0, 1, 20, 80 mg/kg/day	Guideline	Rat/Sprague Dawley
00164224	82-4 (870.3465)	Subchronic Inhalation Toxicity–Rat	5784	0, 0.2, 1.2, or 6 µg/L	Guideline	Rat/ Fischer
40087201	82-4 (870.3465)	21-Day Inhalation Toxicity–Rat	004580 006709	0 (air), 4, 8, 16 µg/L (nominal) actual chamber concentration: 0, 3.4, 7.2, 12.1 µg/L	Supplementary	Rat/ Fischer

Figure III.B.2-21. Naled: Dose-response Curves Using the Basic Model, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot for P_B

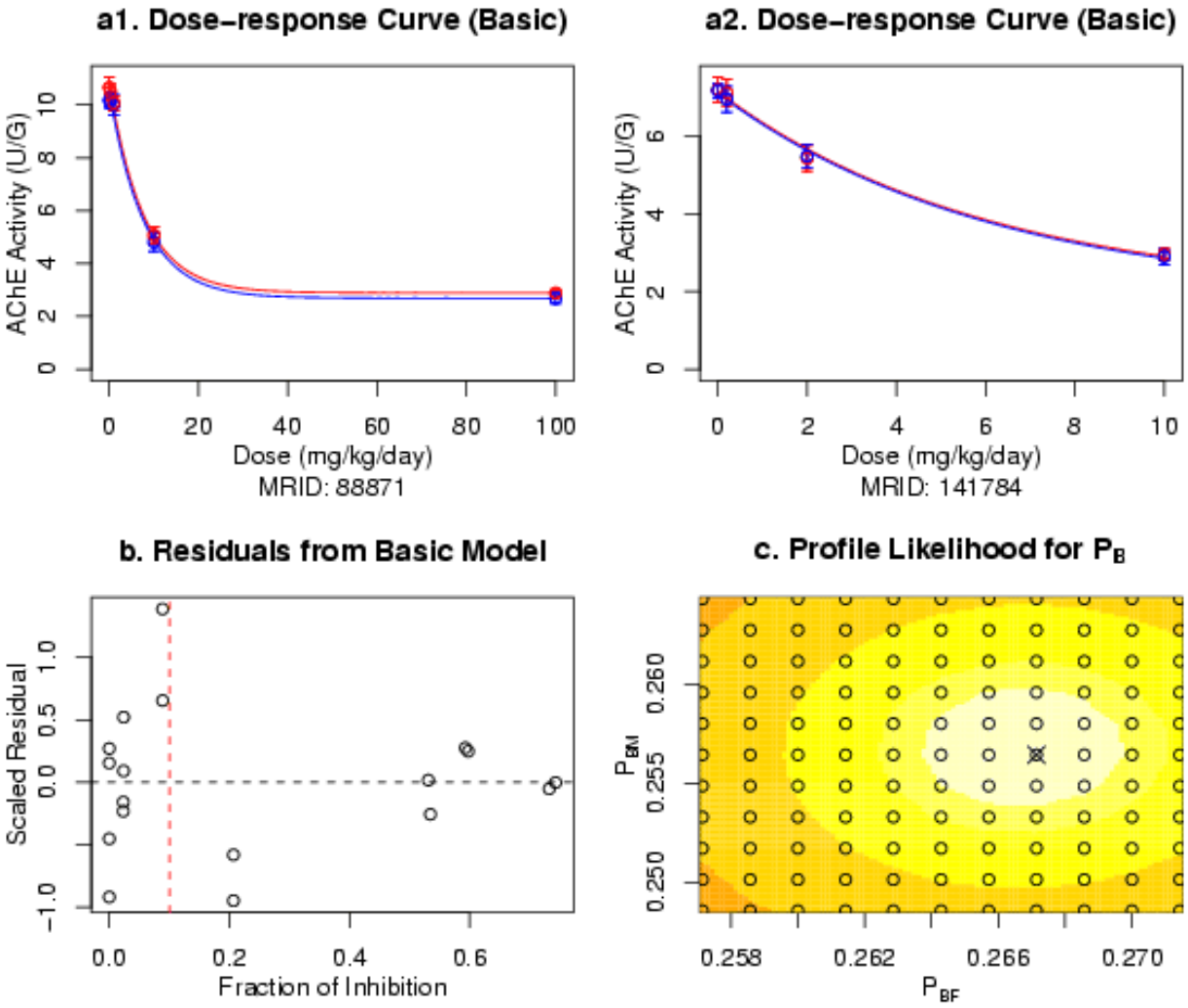


Table III.B.2-22. Omethoate: Toxicity Profile Table

Omethoate						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
ACP28Day (MRID Not assigned)*	NA	28-Day Feeding Study - Rat	NA	0, 0.01, 0.02, 0.04, 0.08, 0.4 mg/kg/day	NA	Rat/Nelson

*Fax and email communications from D. Allemang, Cheminova, Inc. to A. Lowit, EPA, 3/18/02, 3/20/02, 3/27/02
NA=Not applicable

Figure III.B.2-22. Omethoate: Dose-response Curve Using the Basic Model, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot for P_B

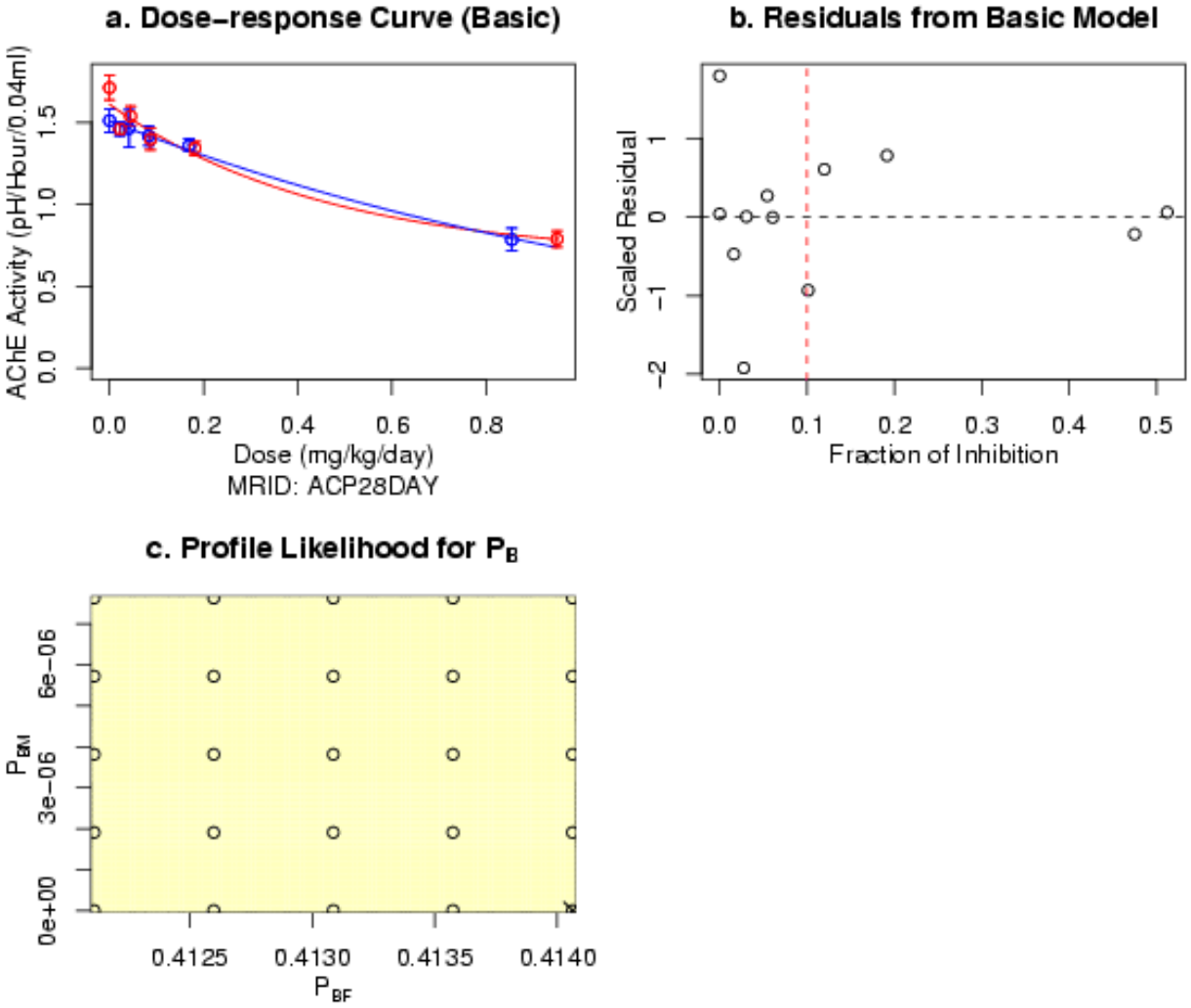


Table III.B.2-23. Oxydemeton-methyl: Toxicology Profile Table

Oxydemeton-methyl						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
00151806	83-5 870.4300	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	005174 005752 009544	0/0, 0.06/0.05, 0.62/0.49, 6.92/5.84 mg/kg/day (females/males)	Guideline	Rat/ Fischer
00143351	82-1 870.3100	Subchronic Oral Toxicity–Rat	005752	0/0, 0.09/0.08, 0.93/0.75, 13.22/8.25 mg/kg/day (females/males)	Supplementary	Rat/ SPF
41834002	Non-guideline	Special NTP Study	012221	0, 0.15, 0.45 or 2.5 mg/kg/day (males only)	Nonguideline	Rat/ Sprague Dawley
44141301	82-1 870.3100	Subchronic Oral Toxicity (13-week Cholinesterase Study)–Rat	012216	0/0, 0.0073/0.006,0.0224/0.0184, 0.074/0.0616, 0.7475/0.6201, 6.5697/5.3925 mg/kg/day (females/males)	Nonguideline	Rat/ Sprague Dawley

Figure III.B.2-23. Oxydemeton-methyl: Dose-response Curves Using the Basic Model, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot For P_B

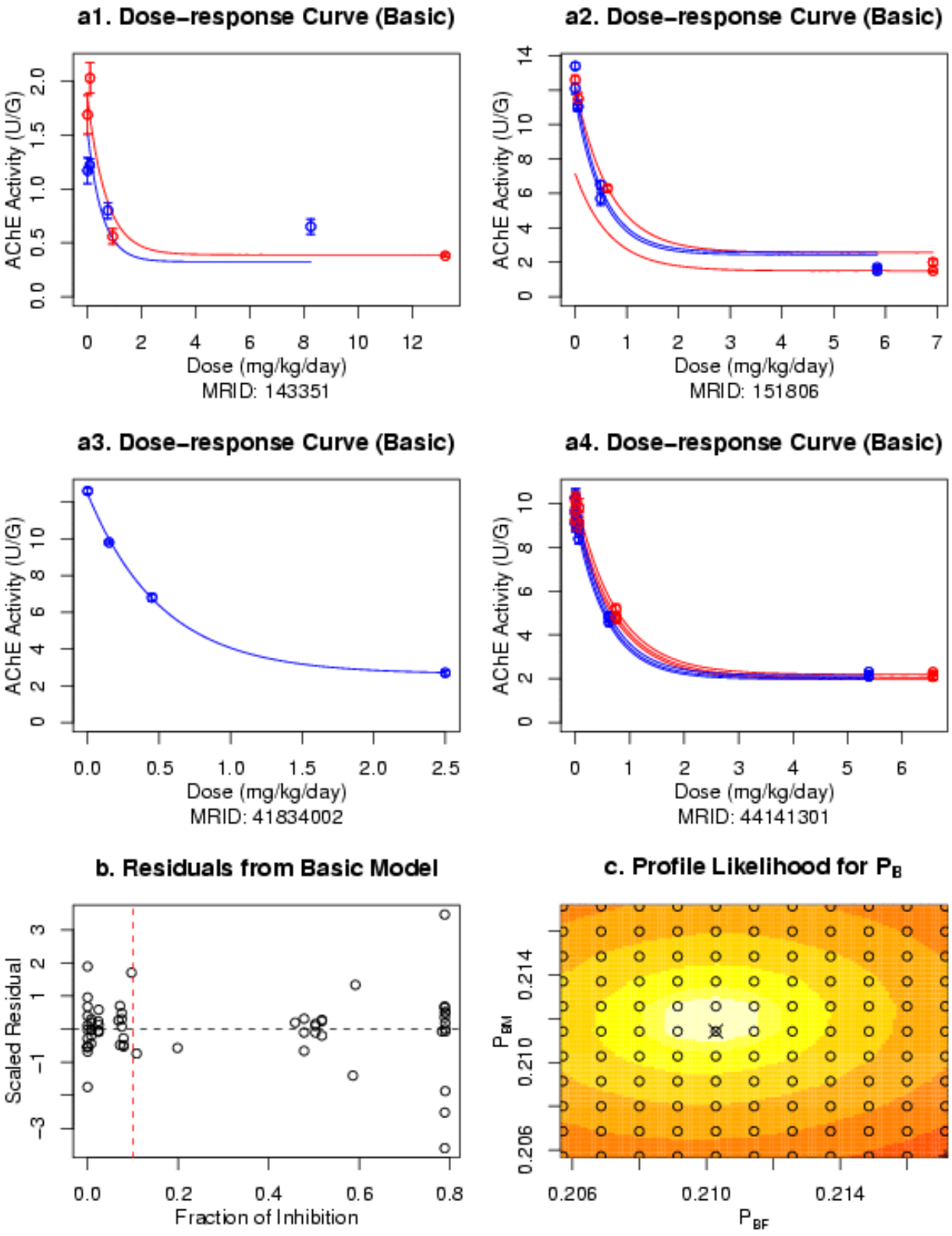


Table III.B.2-24. Phorate: Toxicology Profile Table

Phorate						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
44895301	82-1 (870.3100)	21-Day Rangefinding–Rat	137767	0/0, 0.10/0.09, 0.20/0.19, 0.52/0.69 mg/kg/day (females/males)	Supplementary	Rat/ Sprague Dawley
44895302	82-7 (870.6200)	Subchronic Neurotoxicity–Rat	13767	0/0, 0.04/0.04, 0.08/0.07, 0.33/0.54 mg/kg/day (females/males)	Guideline	Rat/ Sprague Dawley

Figure III.B.2-24. Phorate: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, *D,* and *S*

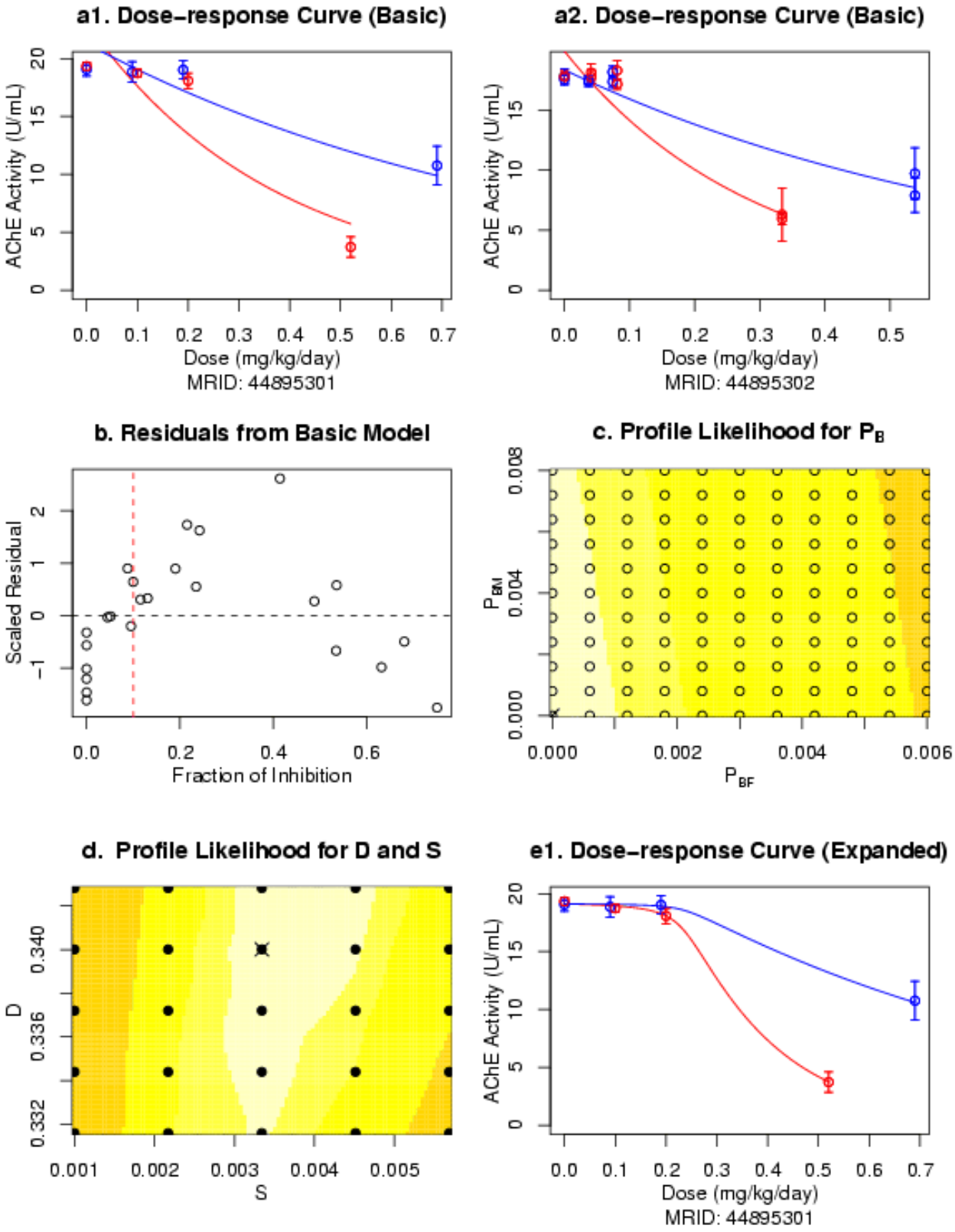


Figure III.B.2-24. Phorate con't: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

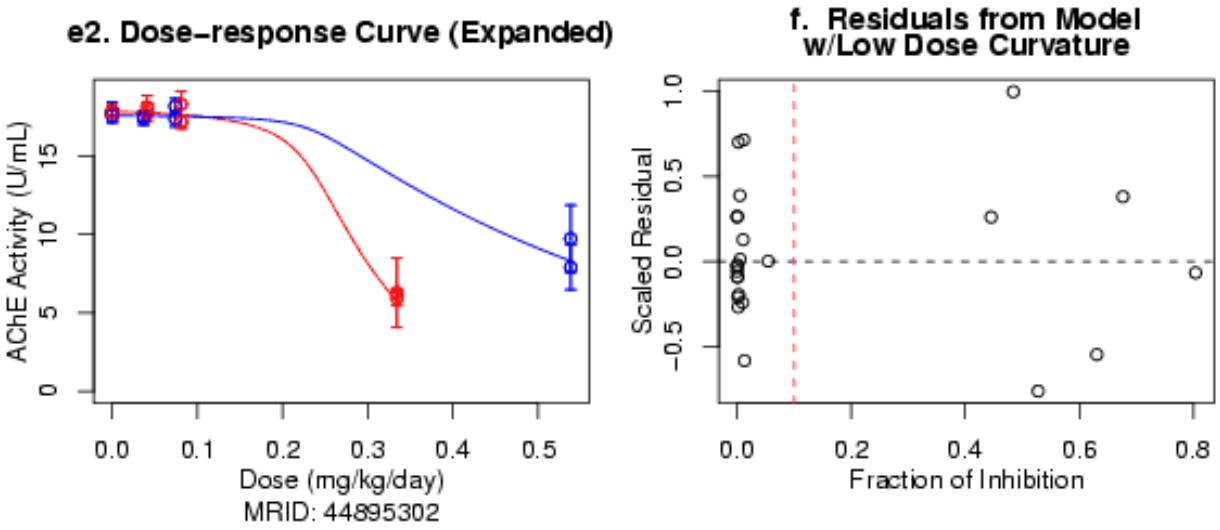


Table III.B.2-25. Phosalone: Toxicology Profile Table

Phosalone						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
44801002	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	13753	0/0, 0.28/0.23, 2.87/2.19, 46.54/31.82 mg/kg/day (females/males)	Guideline	Rat/ Sprague Dawley
45317902	82-7 (870.6200)	Subchronic Neurotoxicity–Rat	13753	0/0, 5/4.6, 14.70/13.80, 61.90/55.80 mg/kg/day (females/males)	Guideline	Rat/ Crl:CD BR

Figure III.B.2-25. Phosalone: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, *D,* and *S*

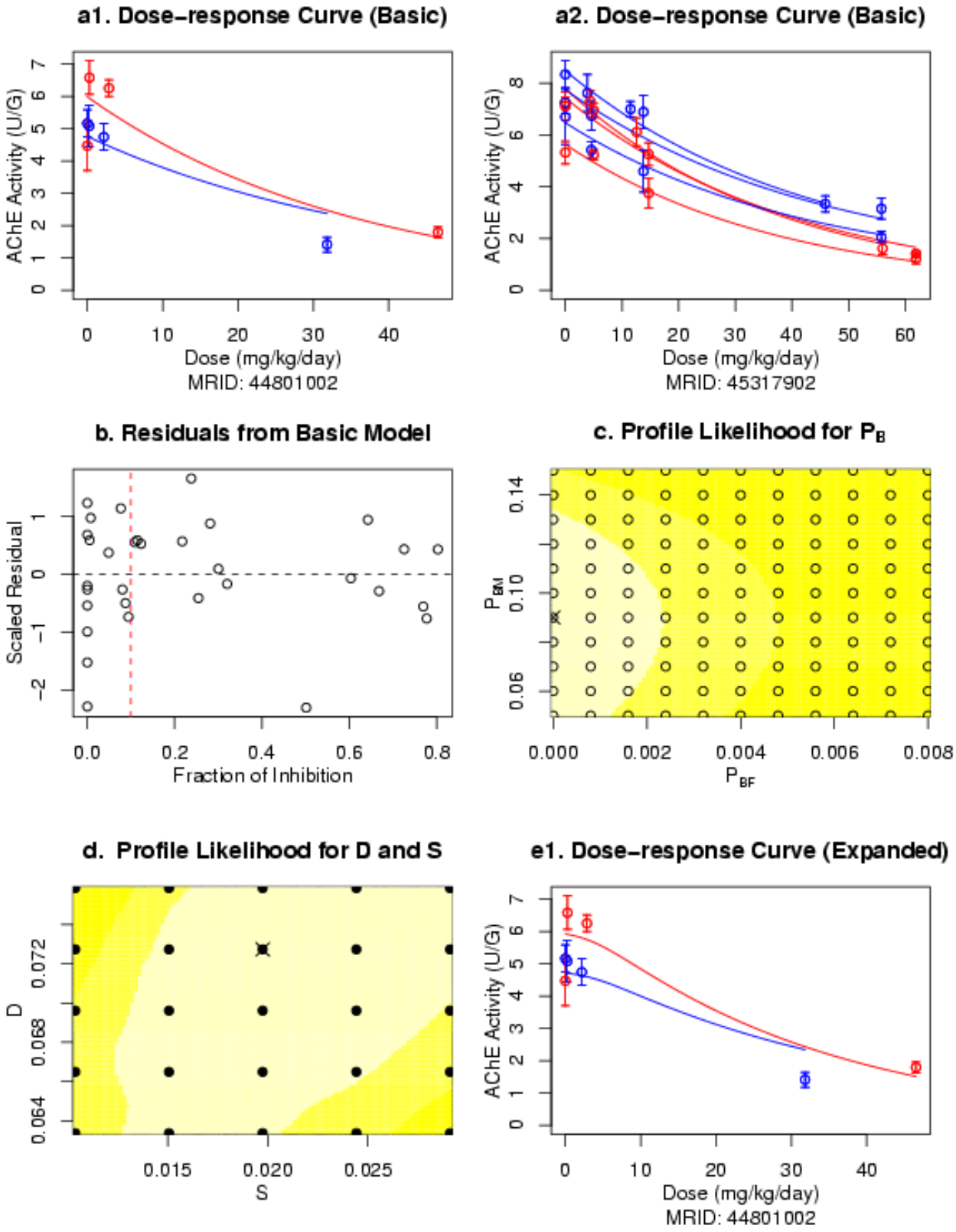


Figure III.B.2-25. Phosalone con't: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

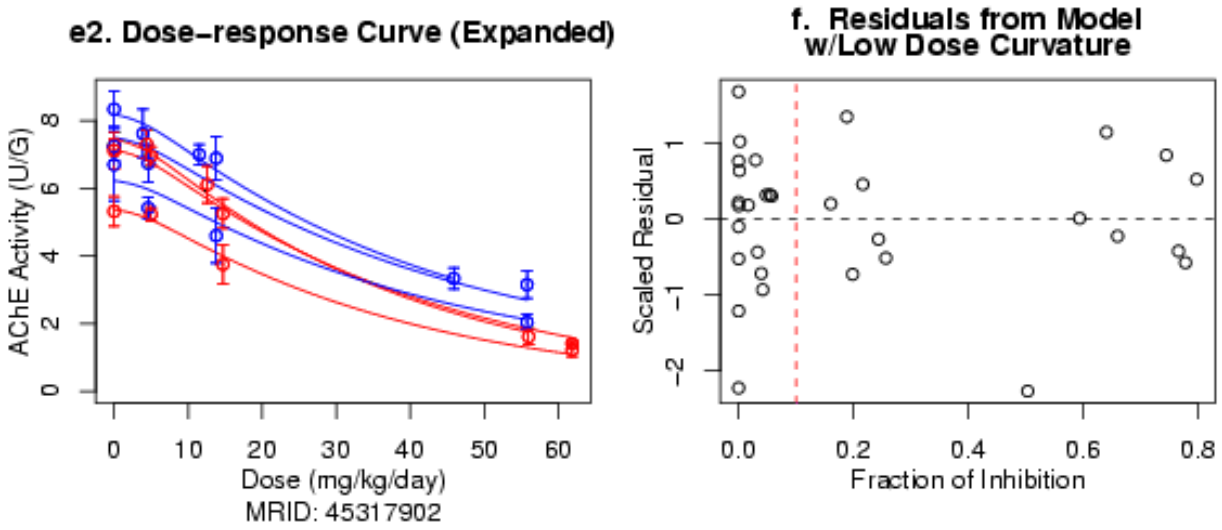


Table III.B.2-26. Phosmet: Toxicology Profile Table

Phosmet						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
41916401	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	9828 10756	0/0, 1.1/1.1, 2.1/1.8, 10.9/9.4, 27.1/22.7 mg/kg/day (females/males)	Guideline	Rat/ Sprague Dawley
44811801	82-7 (870.6200)	Subchronic Neurotoxicity–Rat	13522	0/0, 1.9/1.7, 3.9/3.4, 12.1/10.4 mg/kg/day (females/males)	Guideline	Rat/ Sprague Dawley

Figure III.B.2-26. Phosmet: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

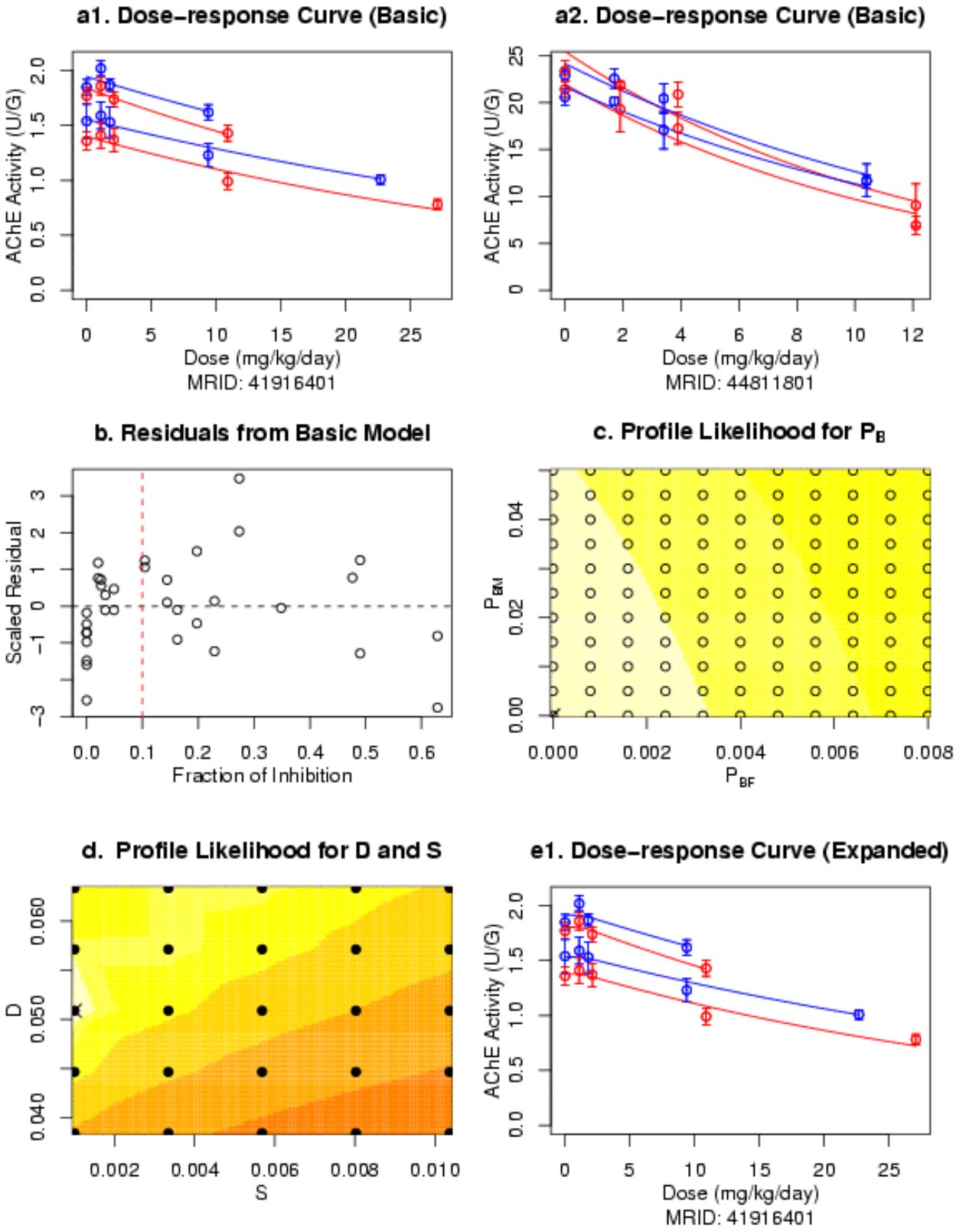


Figure III.B.2-26. Phosmet con't: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, *D,* and *S*

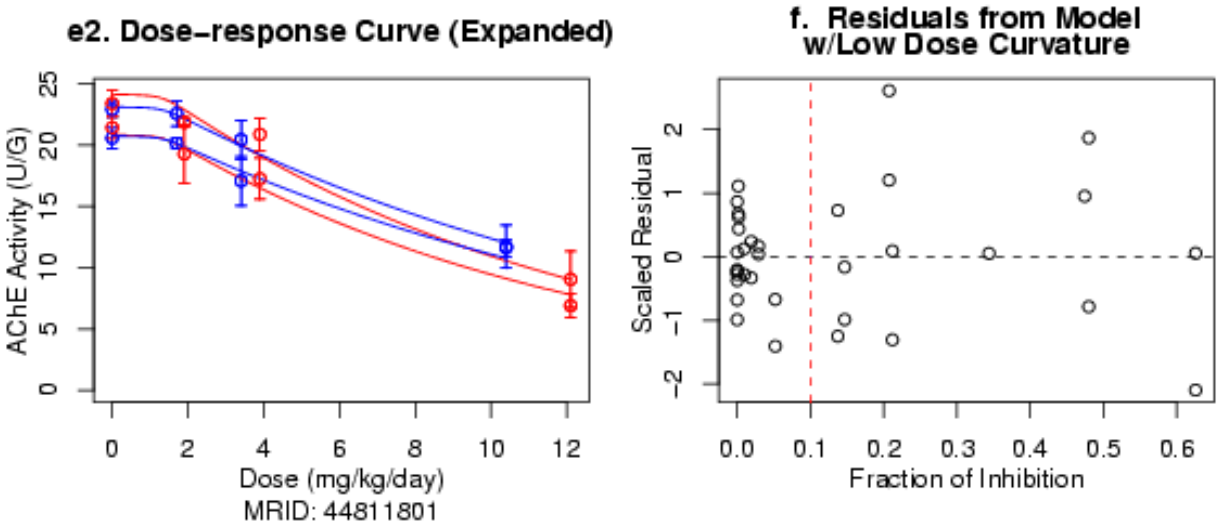


Table III.B.2-27. Phostebupirim: Toxicology Profile Table

Phostebupirim						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
43656302	82-7 (870.6200)	Subchronic Dietary Neurotoxicity - Rat	013283	0, 0.30/0.26, 0.96/1.2, and 3.6/4.4 mg/kg/day (females/males)	Guideline	Rat/Fischer
42005451	83-5 (870.4300)	Combined Chronic Oral Toxicity/Oncogenicity - Rat	009954	0/0, 0.08/0.06, 0.42/0.30, 2.37/1.71 mg/kg/day (females/males)	Minimum	Rat/Wistar
42005447	82-1 (870.3100)	Subchronic Oral Toxicity - Rat	009954	0/0, 0.2/0.2, 0.4/0.3, 1.2/1.0, 4.9/3.6 mg/kg/day (females/males)	Guideline	Rat/Wistar

Figure III.B.2-27. Phostebupirim: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, *D,* and *S*

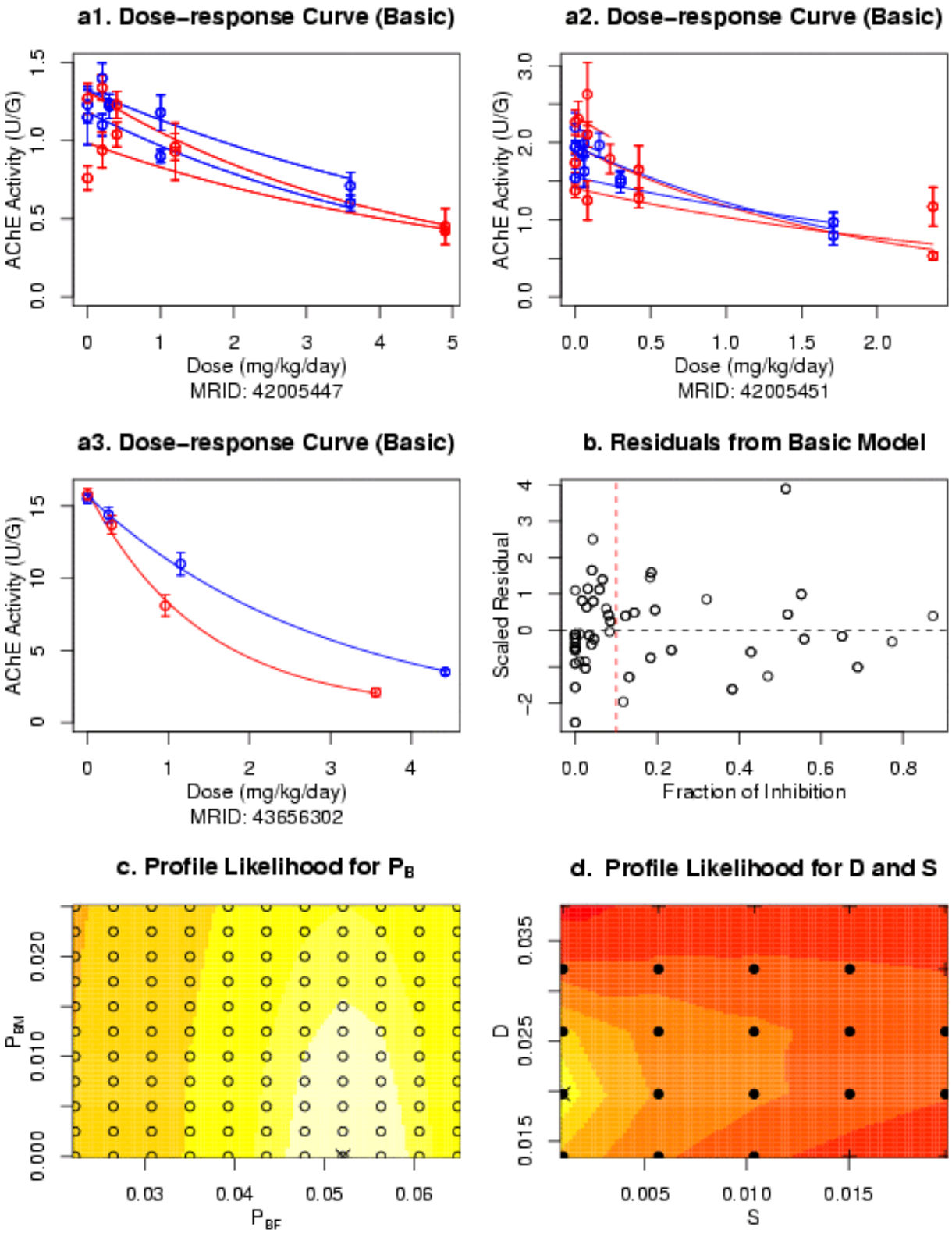


Figure III.B.2-27. Phostebupirim con't: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

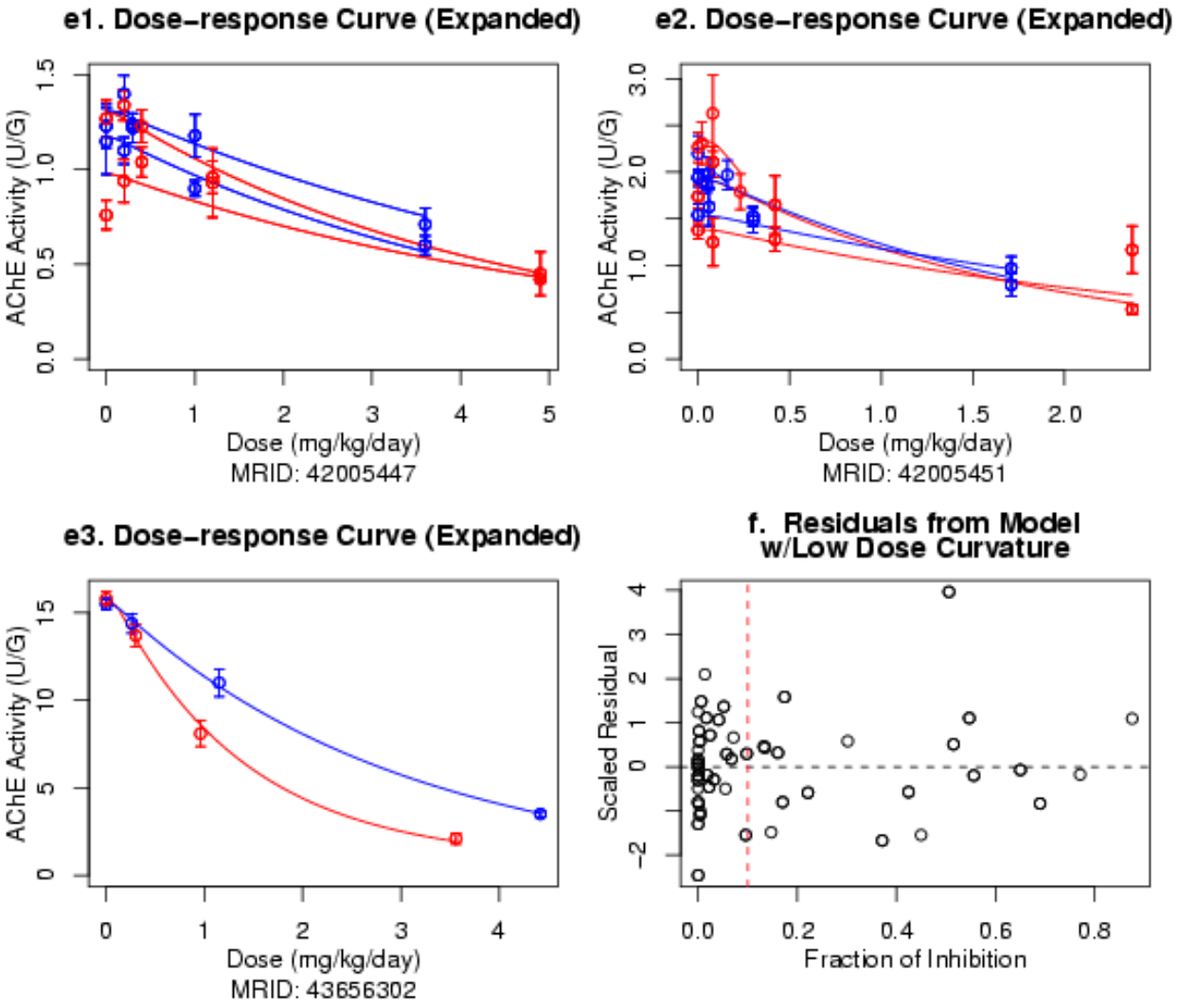


Table III.B.2-28. Pirimiphos-methyl: Toxicology Profile Table

Pirimiphos-methyl						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
00129343	82-1 (870.3100)	Subchronic Oral Toxicity–Rat	014067 3582	0, 0.25, 0.40, 0.50, 2.50 mg/kg/day	Guideline	Rat/ Wistar
92147035	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	14067 3582 5105 8819	0/0,0.4/0.4, 2.1/2.1, 12.6/12.6 mg/kg/day (females/males)	Guideline	Rat/ Wistar

Figure III.B.2-28. Pirimiphos-methyl: Dose-response Curves Using the Basic Model, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot for P_B

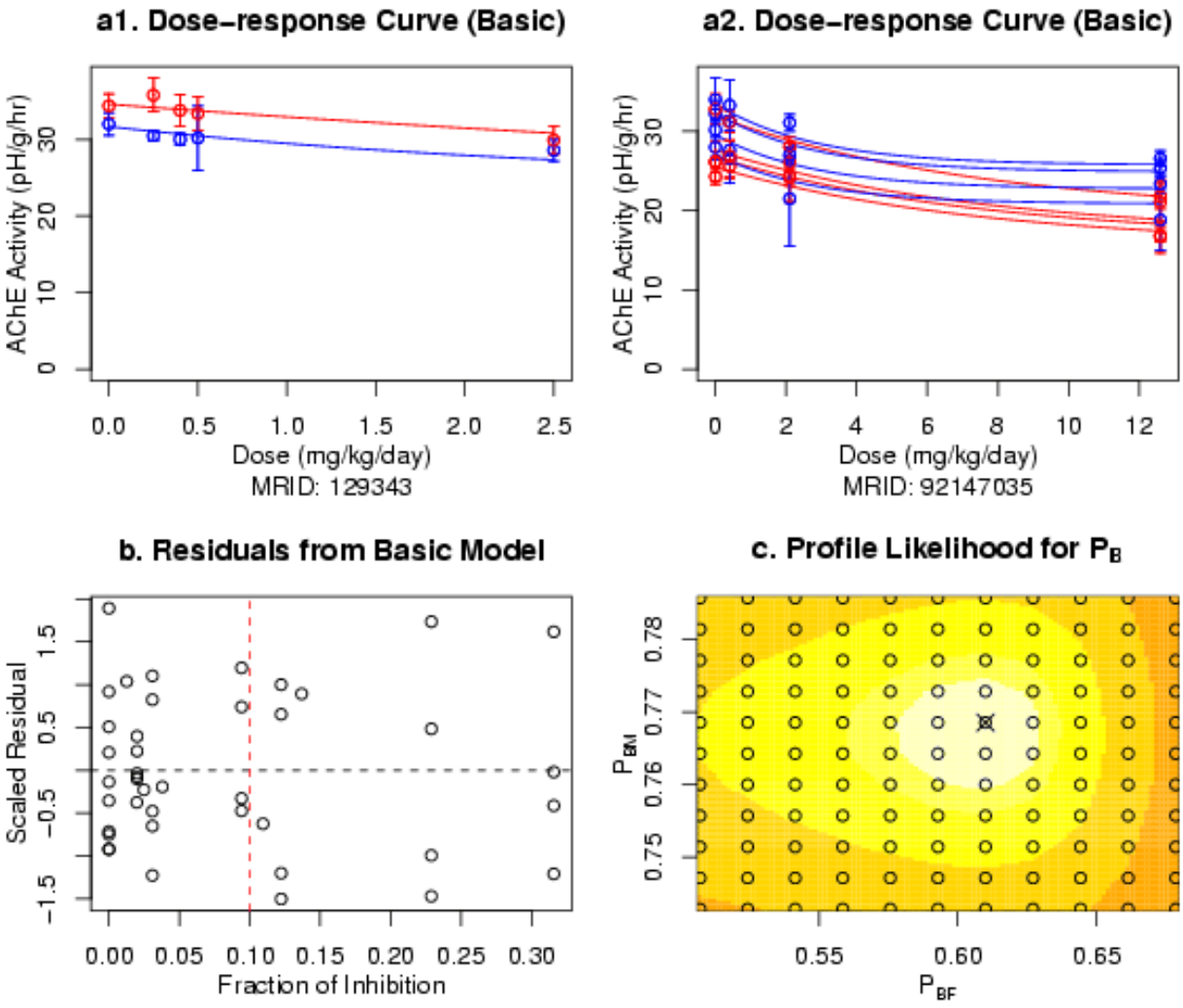


Table III.B.2-29. Profenofos: Toxicology Profile Table

Profenofos						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
92148022	82-1 (870.3100)	Subchronic Oral Toxicity - Rat	NA	0/0, 0.001/0.001,0.003/0.003, 0.01/0.009,0.03/0.02, 0.09/0.09,0.25/0.21, 0.96/0.87, 2.6/2.1, 9.2/8.4, 24.8/21.1, 96.8/85.9 (females/males)	NA	Rat/Fischer
43213303	82-7 (870.6200)	Subchronic Dietary Neurotoxicity - Rat	011795	0/0, 1.84/1.7, 8.4/7.7, 37.9/36 mg/kg/day (females/males)	Acceptable	Rat/Sprague Dawley
92148031	83-5 (870.4300)	Combined Chronic Oral Toxicity/Oncogenicity - Rat	011916	0/0, 0.02/0.017, 0.694/0.559, 6.951/5.685 mg/kg/day (females/males)	Acceptable	Rat/Fischer

NA=Not available

Figure III.B.2-29. Profenofos: Dose-response Curves Using the Basic Model, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot for P_B

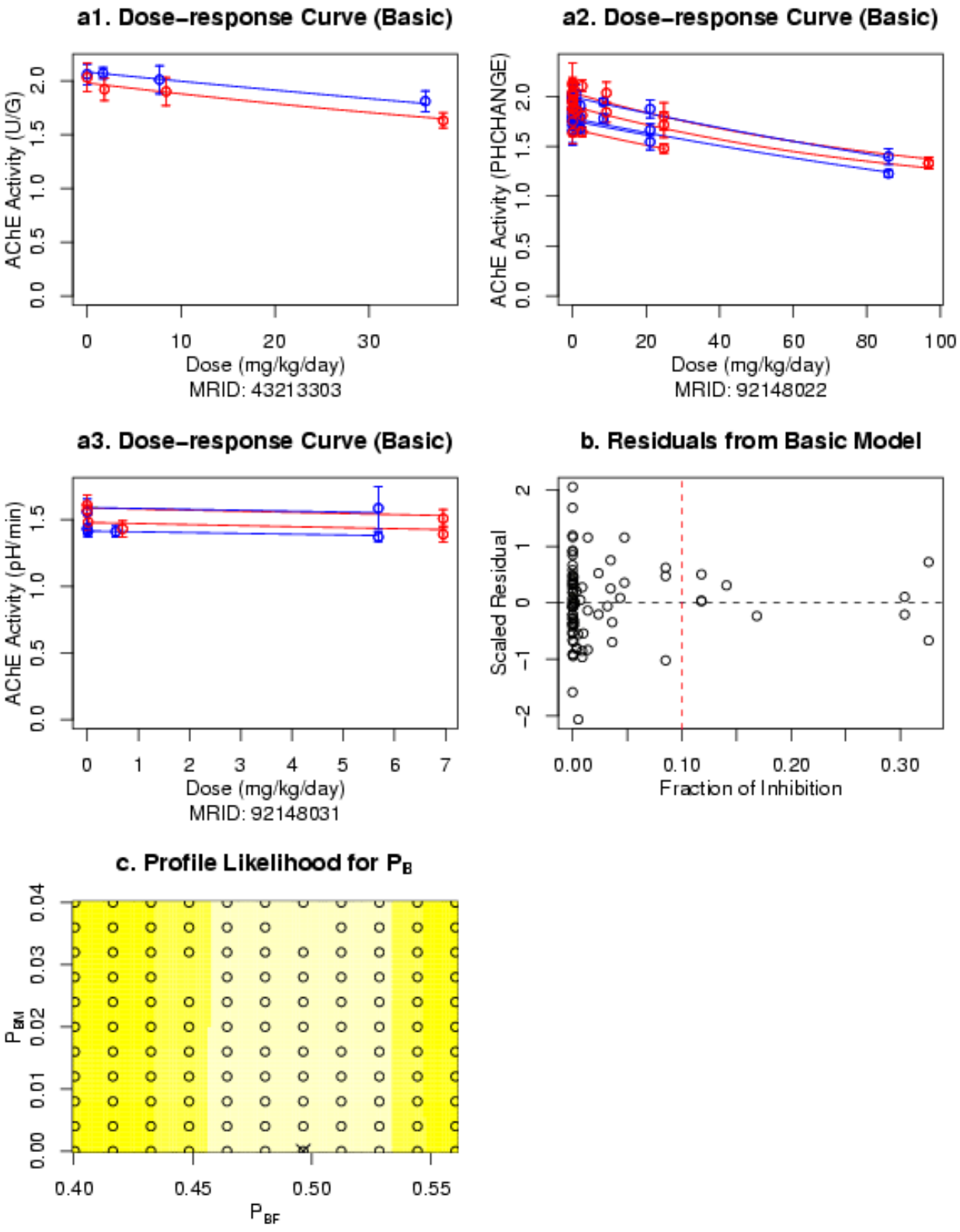


Table III.B.2-30. Terbufos: Toxicology Profile Table

Terbufos						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
00109446	82-1 (870.3100)	Subchronic Oral Toxicity–Rat	002377 005612	0/0, 0.01/0.01, 0.02/0.02, 0.05/0.04, 0.095/0.08 mg/kg/day (females/males)	Guideline	Rat/ Sprague Dawley
40089602	83-1 (870.4100)	Chronic Oral Toxicity–Rat	006352	0/0, 0.009/0.007, 0.04/0.03, 0.07/0.06 mg/kg/day (females/males)	Guideline	Rat/ Sprague Dawley
00049236	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity–Rat	004898 003847 001514 005612 006352	0/0, 0.01/0.01, 0.05/0.04, 0.22/0.33 mg/kg/day (females/males)	Guideline	Rat/ Long Evans
44842302	82-7 (870.6200)	Subchronic Neurotoxicity–Rat	013572	0/0, 0.04/0.04, 0.06/0,06, 0.25/0.37 mg/kg/day (females/males)	Guideline	Rat/ Sprague Dawley

Figure III.B.2-30. Terbufos: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

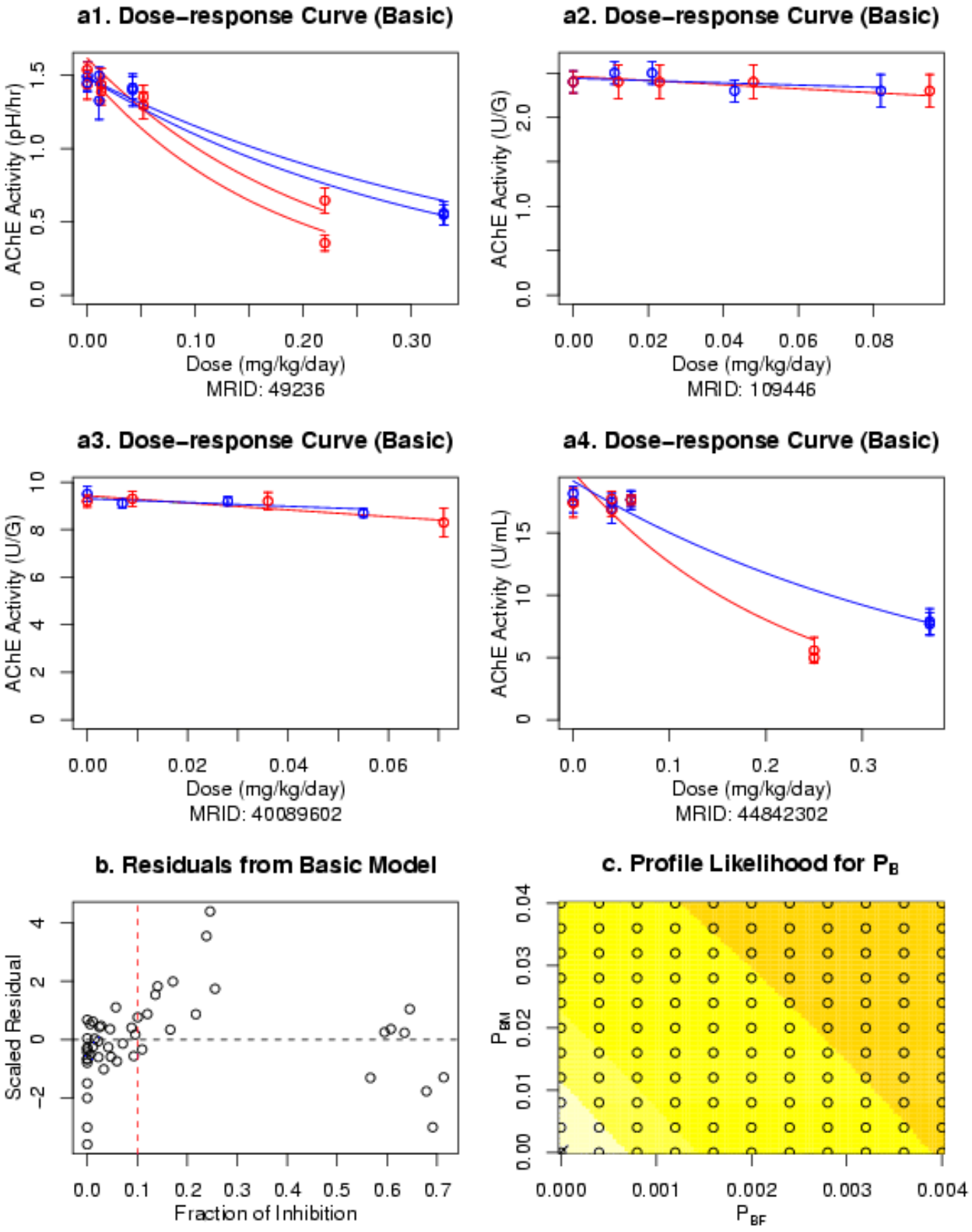


Figure III.B.2-30. Terbufos con't: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, *D,* and *S*

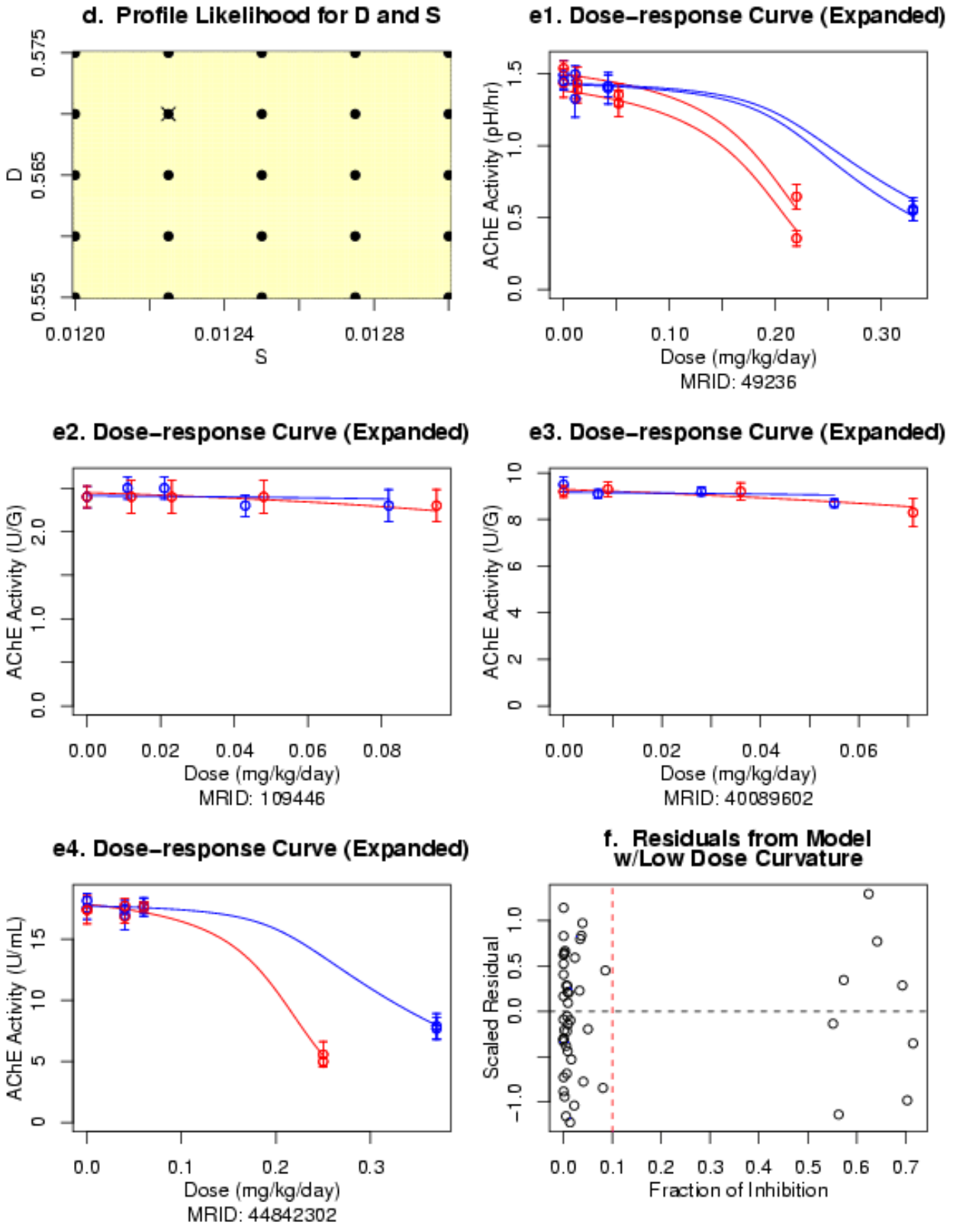


Table III.B.2-31. Tetrachlorvinphos: Toxicology Profile Table

Tetrachlorvinphos						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
43371201	82-1 (870.3100)	Subchronic Oral Toxicity–Rat	11295	0, 5, 100, 250 mg/kg/day	Guideline	Rat/Sprague Dawley
00112525	83-2 (870.4200)	Chronic Oral Toxicity–Rat	002607 007181	0, 0.25, 1.25, 6.25, 100 mg/kg/day	Guideline	Rat/ Porton strain derived from Turnstall Lab
42980901	83-2 (870.4200)	Chronic Oral Toxicity–Rat	010884 010884 011295	0/0, 5.93/4.23, 62.7/43.2, 125.3/88.5 mg/kg/day (females/males)	Guideline	Rat/Sprague Dawley
45570601	Nonguideline	21-Day Cholinesterase Study–Rat	TXR No. 0050614	0, 8, 12, 50 mg/kg/day	Acceptable	Rat/Crl:CD®(SD)IGS BR
41342001	82-2 (870.3200)	21-Day Dermal Toxicity–Rat	7844	0, 10, 100, 1000 mg/kg/day	Guideline	Rat/Sprague Dawley

Figure III.B.2-31. Tetrachlorvinphos: Dose-response Curves Using the Basic Model, Plot of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plot for P_B

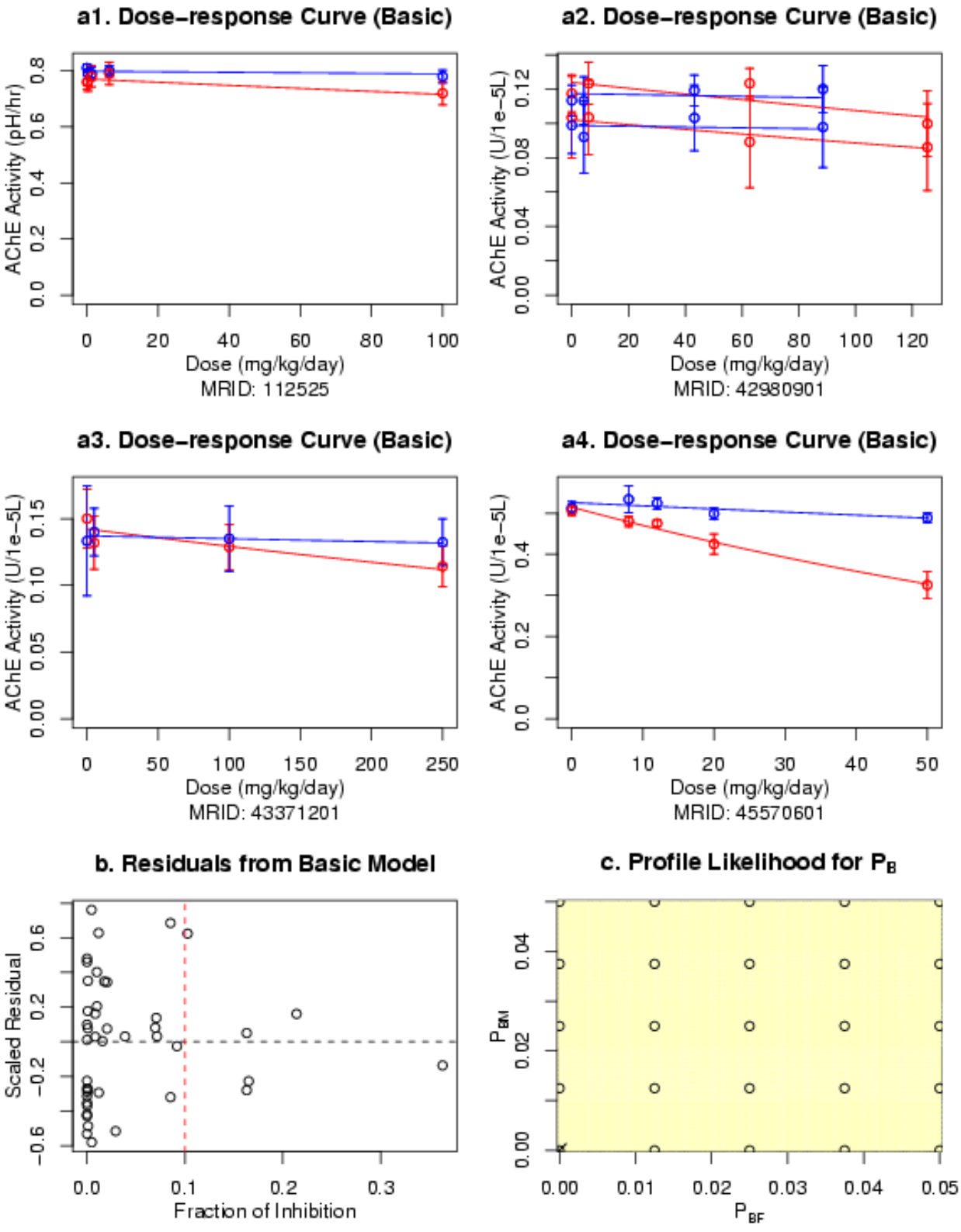


Table III.B.2-32. Tribufos: Toxicology Profile Table

Tribufos						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
42335101	83-5 (870.4300)	Combined Chronic Oral Toxicity/Carcinogenicity/Neurotoxicity–Rat	010119	0/0, 0.2/0.2, 2.3/1.8, 21.1/16.8 mg/kg/day (females/males)	Guideline	Rat/Fischer
45369101	82-7 (870.6200)	Subchronic Neurotoxicity–Rat	NA	0/0, 0.17/0.14, 3.54/2.89, 46.2/36.8 mg/kg/day (females/males)	NA	Rat/ Wistar

NA=Not available

Figure III.B.2-32. Tribufos: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

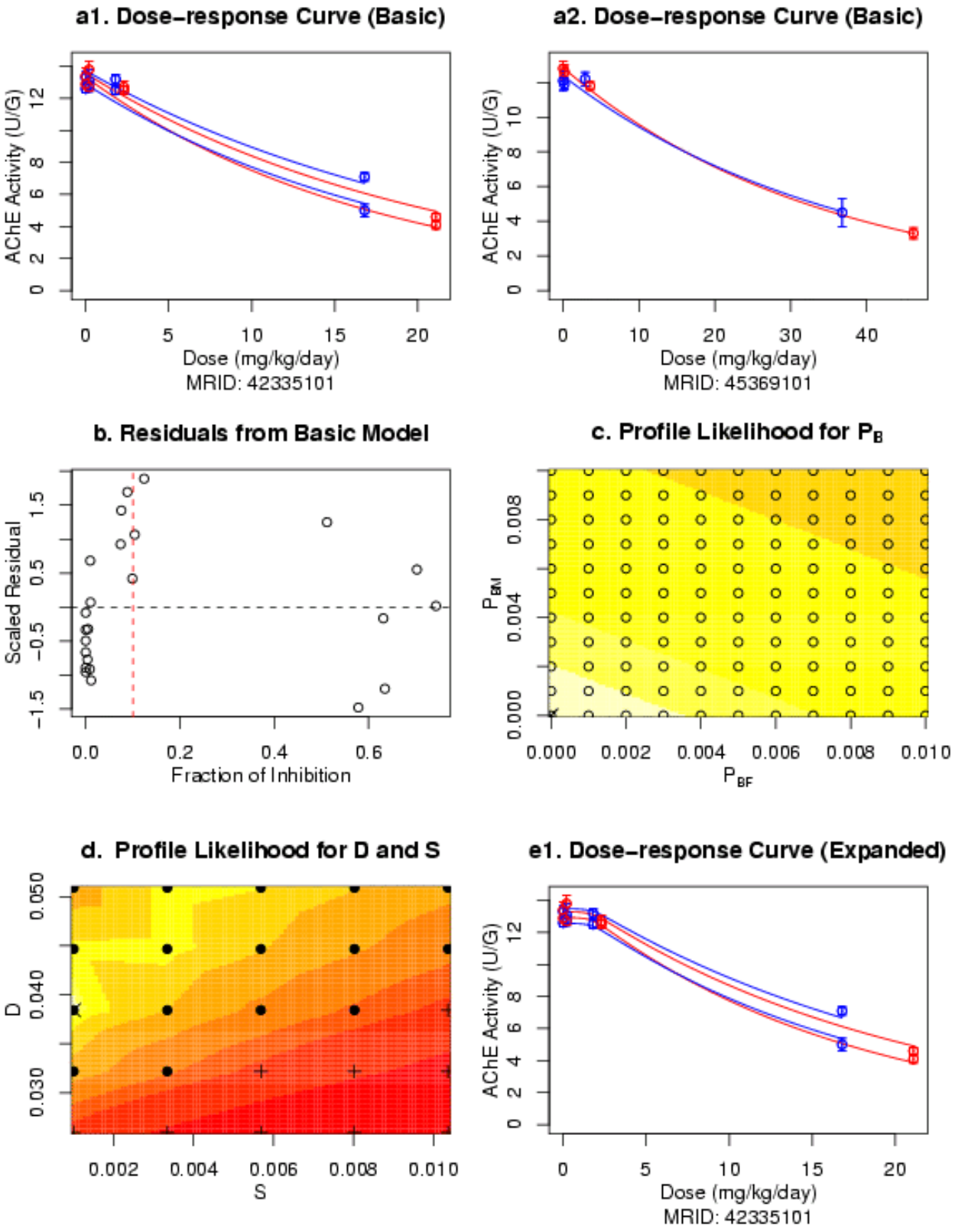


Figure III.B.2-32. Tribufos con't: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

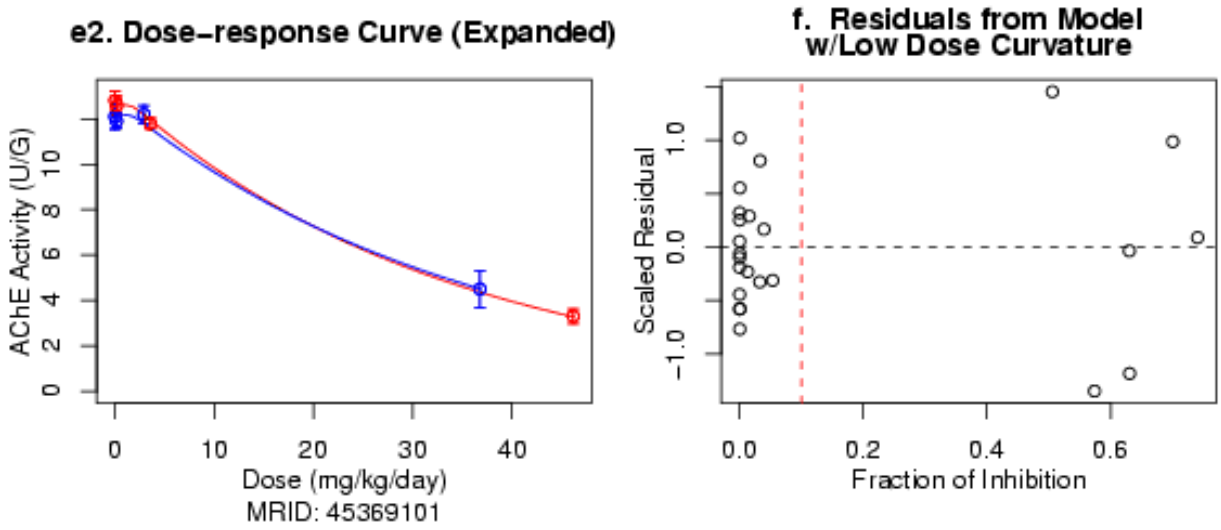


Table III.B.2-33. Trichlorfon: Toxicology Profile Table

Trichlorfon						
MRID #	Guideline No.	Study Type	HED Doc. No.	Dose	Guideline/ Nonguideline	Species/ Strain
43871701	82-7 (870.6200)	Subchronic Neurotoxicity–Rat	13967	0/0, 6.9/6.1, 35.4/31.2, 188.7/164.7 mg/kg/day (females/males)	Guideline	Rat/ Fischer
41056201	83-5 (870.4300)	Combined Chronic Oral Toxicity/ Carcinogenicity–Rat	9626	0/0, 5.8/4.5, 17.4/13.3, 109.2/85.7 mg/kg/day (females/males)	Guideline	Rat/ Fischer
41973001	83-5 (870.4300)	Combined Chronic Oral Toxicity/ Carcinogenicity–Rat	013703	0/0, 159/129 mg/kg/day (females/males)	NA	Rat/ Fischer
40306901	82-2 (870.3200)	21-Day Dermal Toxicity–Rabbit	6476	0, 100, 300, 1000 mg/kg/day	Guideline	Rabbit/New Zealand
00152137	82-4 (870.3465)	21-Day Inhalation Toxicity–Rat	004509 004915	0 (EtON/PEG), 12.7, 35.4, 103.5 mg/m^3	Guideline	Rat/ Wistar

NA=Not available

Figure III.B.2-33. Trichlorfon: Dose-response Curves Using the Basic and Expanded Models, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S

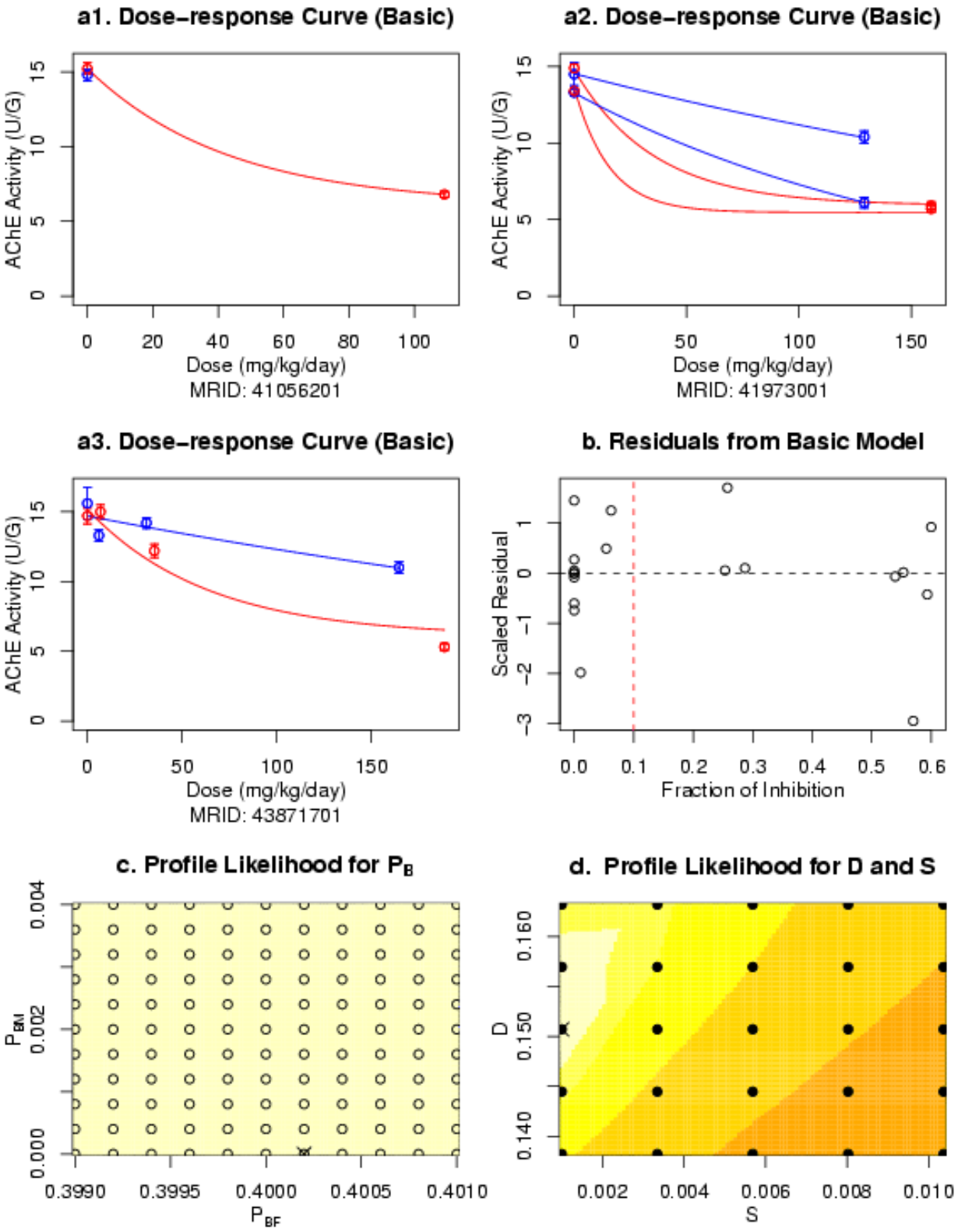


Figure III.B.2-33. Trichlorfon con't: Dose-response Curves Using the Basic Model, Plots of the Scaled Residuals Versus Predicted Inhibition, and the Profile Likelihood Plots for P_B, D, and S