Appendix A
Inert Ingredients in Currently Registered Products

List I - Inerts of toxicological concern

1,4-Benzendiol	Formaldehyde	Nonyl phenol
Diethylhexylphthalate	Isophorone	Phenol Rhodamine B
Dioctyl adipate		

List 2 - Potentially toxic / high priority for testing

Acetonitrile	Dichloromonofluoromethane	Methyl methacrylate
1,2,3-Benzotriazole	Dichlorophene	Monochlorobenzene
2-Butoxy-1-ethanol	Diethanolamine	Nitroethane
1-Butoxyethoxy-2-propanol	Diethylene glycol monomethyl	Nitromethane
1-Butoxy-2-propanol	Diethylene glycol monoethyl	p-Nitrophenol
Butyl benzyl phthalate	Diethylene glycol monobutyl	Petroleum hydrocarbons
Butyl methacrylate	1,1-Difluoromethane	Propylene glycol monobutylether
Butylene oxide	Dimethyl phthalate	Toluene
Chlorodifluoromethane	Dipropylene glycol monomethyl	Tolyl triazole
1-Chloro-1,1-difluoroethane	Dioctyl phthalate	1,1,1-Trichloroethane
2-Chlorotoluene	Ethyl benzene	Trichlorofluoromethane
p-Chloro-m-xylenol	Mercaptobenzothiazole	Trichlorotrifluoromethane
Cyclohexanone	Mesityl oxide	Triethanolamine
Dibutyl phthalate	1-Methoxy-2-propanol	Tripropylene glycol monomethyl
Diethyl phthalate	Methyl ethyl ketoxime	Xylene
Dichlorodifluoromethane	Methyl isobutyl ketone	Xylene-range aromatic solvents

List 4A - Inerts generally regarded as safe

Acetic acid	Citrus pulp	Gelatin	Mineral oil USP	Rye flour
Agar	Clam shells	Glue (animal collagen)	Molasses	Safflower oil
Alfalfa	Cloves	Glycerin	Montmorillonite clay	Sawdust
Alfalfa meal	Cocoa	Granite	Nitrogen	Seaweed, edible
Almond hulls	Cocoa shells	Grape pomace	Nutria meat	Shale
Almond shells	Coco shell flour	Graphite	Nylon	Soapstone
Alpha cellulose	Cod liver oil	Ground oats	Oatmeal	Sodium bicarbonate
Apple pomace	Coffee g rounds	Guar gum	Oats	Sodium chloride
Attapulgite clay	Cookies	Gum arabic	Olive oil	Sorbitol
Beef fat	Cork	Gum tragacanth	Onions	Soy bean hulls
Beeswax	Corn	Gypsum	Orange pulp	Soy bean meal
Beet P owder	Corncobs	Hearts of cornflour	Oyster shells	Soy bean oil
Bentonite	Cornflour	Hydrog.vegetable oils	Paper	Soy flour
Bone Meal	Cornmeal	Honey	Paprika	Soy protein
Bran	Corn oil	Invert sugar	Paraffin wax	Sucrose
Bread crumbs	Cornstarch	Invert syrup	Peanut butter	Sugar beet meal
Calcareous shale	Corn syrup	Kaolinite clay	Peanut	Sunflower seeds
Calcite	Cotton	Lactose	Peanuts	Tallow
Calcium carbonate	Cottonseed meal	Lanolin	Peanut shells	Vanillin
Canary seed	Cottonseed oil	Lard	Peat moss	Vermiculite
Cane syrup	Cracked oats	Latex	Pecans hell flour	Vitamin C
Carbon dioxide	Cracked wheat	Lecithin	Pectin	Vitamin E
Cardboard	Dextrin	Lime	Polyethylene film	Walnut flour
Carrageenan	Dextrose	Limestone	Polyethylene pellets	Walnut shells
Carrots	Dolomite	Linseedoil	Potatoes	Water
Casein	Douglas-fir bark	Malt flavor	Pumice	Wheat
Cheese	Eggs	Meat meal	Raisins	Wheat germ oil
Chlorophyll	Egg Shells	Meal scraps	Red cedar chips	Whey
Cinnamon	Edible fish meal	Medicated feed	Redd og flour	Wintergreen oil
Citric acid	Edible fish oil	Mica	Rice	Wool
Citrus meal	Flour	Milk	Rice hulls	Xanthan gum
Citrus pectin	Fuller's earth	Millet seed	Rubber	Yeast

Appendix B

Pesticides Banned, Suspended, or Severely Restricted in the United States

Pesticide	Year	Action
Alar (daminozide)	1990	All food uses canceled, ornamental/nursery plant use still allowed
Aldrin / Dieldrin	1974	All uses cancelled except termite control
	1989	Cancellation all remaining uses
Bendiocarb (Ficam)	2001	Voluntary cancellation all uses
Benomyl	2002	Voluntary withdrawal registration all uses
BHC	1978	All uses cancelled
Cadmium	1987	Home lawn use, golf fairway use cancelled; golf tees/greens cancelled 1990
Calcium arsenate	1989	Voluntary cancellation all non-wood uses
Captafol	1987	Voluntary cancellation all registrations
Chromated copper arsenate	2002	Cancellation certain uses
Chlordimeform	1989	Registration voluntarily withdrawn
Chlordane	1978	Cancellation most uses, except termite contro
	1988	All uses cancelled
Clopyralid	2002	Banned in Washington and California for use on lawns, turf
Chlorpyrifos (Dursban)	2001	Cancellation direct over-the-counter sales to public
Cyanazine(Bladex)	1999	Cancellation all uses
Cyhexatin	1987	Voluntary cancellation all registrations
DBCP	1979	All uses cancelled except pineapple in Hawaii
DBCP	1985	Voluntary cancellation all uses except pineapple in Hawaii
	1989	Pineapple use cancelled
DDT	1972	All agricultural use cancelled. Use only for public health emergencies
Diazinon	1986	Use on golf courses and sod farms cancelled
	2001	Cancellation direct sales to public OTC*
Dinoseb	1986	Emergency suspended and registration cancelled
Endrin	1985	Voluntarily cancellation
EPN	1983	Mosquito larvacide use cancelled
	1987	Voluntary cancellation all uses
Ethylene dibromide	1984	Grain fumigant use cancelled, papaya, citrus use still allowed
	1987	Payapa fumigation use cancelled
	1989	Citrus export fumigation use cancelled
Fonofos	1999	Cancellation all uses
Heptachlor	1983	Most seed treatment uses cancelled; termite, fire ant use allowed
	1988	Most termite uses cancelled; remaining uses cancelled 1994
	1995	Technical product export cancelled, domestic production cancelled 1999
	1999	Fire ant use canceled
Kepone	1977	Cancellation all uses
Lead arsenate	1987	Voluntary cancellation all uses
Lindane (γ-HCH)	1986	Indoor smoke fumigation use cancelled
	1990s	Voluntary cancellation most registrations, seed treatment use still active
Maleic hydrazide	1981	All use suspended
Mancozeb	1992	Home garden turf, fruit use cancelled
Mirex	1977	All uses cancelled except pineapple in Hawaii
	1987	All uses cancelled
Monocrotophos	1988	Voluntary cancellation all registrations
Nitrofen (TOK)	1983	Voluntary cancellation all uses
Phosdrin (mevinphos)	1994	Voluntary cancellation all uses
2,4,5-T / Silvex	1979	Emergency suspended
	1985	All uses cancelled
Sodium arsenite	1989	Ant bait use cancelled; grapes, seed okra, cotton use still allowed
	1993	Voluntary cancellation all remaining uses
Toxaphene	1982	All uses cancelled except sheep/cattl, bananas/pineapple Puerto Rico, Virgin Islands
	1990	Cancellation all remaining uses
Zineb	1990	Voluntarily cancellation all registrations

Appendix C
Dialkylphosphate Metabolites of Organophosphate Pesticides

DMP dimethylphosphate DEP diethylphosphate DMTP dimethylthiophosphate
DETP diethylthiophosphate DMDTP dimethyldithiophosphate DEDTP diethyldithiophosphate

	DMP	DMTP	DMDTP	DEP	DETP	DEDTP
Azinphosmethyl	x	x	x			
Chlorethoxyphos				x	x	
Chlorpyrifos				x	x	
Chlorpyrifos-methyl	x	x				
Coumpahos				x	x	
Dichorvos	x					
Diazinon				x	x	
Dicrotophos	x					
Dimethoate	x	x	x			
Disulfoton				x	x	x
Ethion				x	x	x
Fenitrothion	x	x				
Fenthion	x	x				
Isazaphos-methyl	x	x				
Malathion	x	x	x			
Methidathion	x	x	x			
Methyl parathion	x	x				
Naled	x					
Oxydemeton-methyl	x					
Parathion				x	x	
Phorate				x	x	x
Phosmet	x	x	x			
Pirimiphos-methyl	x	x				
Sulfotepp				x	x	
Temephos	x	x				
Terbufos				x	x	x
Tetrachlorvinphos	x					
Trichlorfon	x					

Appendix D

USEPA
Acute Toxicity Categories for Pesticides

The Environmental Protection Agency (EPA) classifies pesticides into four basic acute toxicity categories. Toxicity Category I (referred to as Tox I) is the most toxic and Category IV the least toxic. The basis of the classification is the oral or dermal dose that is lethal to fifty percent of exposed laboratory animals, the LD_{50}.

The table shows the oral, dermal, and inhalation.LD_{50} cut off values for each category. An active ingredient pesticide can be in more than one category. A lower toxicity pesticide could be classified as a Tox I if other (inert) ingredients in the final formulated product make it corrosive to the eyes or skin.

Skull and Cross Bones on the Label

Pesticides that are in Tox I category because of LD_{50} must have a skull and cross bones on the label.

Pesticides that are in the Tox I category because of corrosiveness to the eyes or skin do not require a skull and crossbones on the label, just the signal work "Danger".

Category and Signal Word	Oral LD_{50}	Dermal LD_{50}	Inhalation LC_{50}	Eye Effects	Skin Effects	Lethal to Adult Human
Tox I *Danger / Peligro*	≤ 50 mg/kg	≤ 200 mg/kg	≤ 0.2 mg/l	Corrosive., corneal opacity not reversible in 7 days	Corrosive	Few drops to a teaspoon
Tox II *Warning / Aviso*	50-500 mg/kg	200-2,000 mg/kg	0.2-2 mg/l	Corneal opacity rever-sible in 7 days. Irritation persists 7 days	Severe irritation at 72 hours	A teaspoon to an ounce
Tox III *Caution / Precaución*	500-5,000 mg/kg	2,000-20,000 mg/kg	2-20 mg/l	No corneal opacity. Irritation reversible in 7 days	Moderate irritation at 72 hrs	An ounce to a pint
Tox IV *Caution / Precaución*	>5,000 mg/kg	>20,000 mg/kg	> 20 mg/l	No irritation.	Slight irritation at 72 hours	A pint to a quart

Appendix E
Cholinesterase Testing Guidelines

When to Do the Test

A test for organophosphate and N-methyl carbamates pesticides only.
The test is not appropriate for poisoning by other classes of pesticides.
If in doubt or suspect combined exposures – do the test .
In general, the test is useful only if the suspected or confirmed exposure occurred within the past week for organophosphates and a few hours for N-methyl carbamates.
Serum can be saved and frozen for possible later testing if indicated.
If no baseline is available, two or more repeat tests over a period of 2-3 weeks using the same method and laboratory can indicate possible overexposure if the activity level increases by 15% or more.

Which Test to Do

Both RBC (red blood cell) and plasma tests should be done.
In general plasma activity is reduced earlier and regenerates quicker, usually within days
RBC activity takes longer to regenerate. A rough rule of thumbs is 1% per day; therefore a 30% reduction from baseline would take about a month to regenerate
RBC activity is more reflective of functional cholinesterase at nerve endings and in the brain.
If can only do one test, RBC is preferable, except for chlorpyrifos (Dursban/Lorsban) which preferentially has a greater effect on plasma cholinesterase..

Difficulties in Interpreting the Test

Test results "within the "normal range" cannot be relied upon for worker protection, especially if a pre-explsure baseline activity level is not availabe for comparison..
There is a fourfold difference between the upper and lower limits of "normal " for common laboratory testing methods
One test cannot confirm or exclude overexposure or poisoning, unless results are clearly below the lower range of normal., especially if no pre-exposure baseline value is availab.e
A pre-exposure baseline level of activity to compare the results to is usually not available.
Individual variation in activity can be as high as 25% even on the same day in the same person and the same laboratory.
Results "within normal limits" can be useless without a baseline level

Relationship of Test Results to Poisoning

15-25% reduction in RBC activity	Mild poisoning
25-35% reduction in RBC activity	Moderate poisoning
35-50% reduction in RBC activity	Severe poisoning

Worker Monitoring

Plasma or RBC cholinesterase drops to 80% of baseline (a 20% reduction in activity) – investigation required
Plasma level drops to 60% or less of baseline (40% reduction in activity) or RBC cholinesterase drops to 70% or less of baseline (a 30% reduction in activity) – remove exposure until cholinesterase levles return to 80% or more of baseline..

Plasma and Red Blood Cell Cholinesterase Activity in Humans*
Approximate Lower Limits of Normal

Method	Plasma	RBC	Units
pH (Michel)	0.45	0.55	Δ pH /mL/hr
pH Stat (Nabb-Whitfield)	2.3	8.0	µM/mL/min
Ellman-Boehringer	1,875	3,000	mU /mL/min
Dupont ACA	< 8		Units/mL
Garry-Routh (Micro)		♂ 7.8 ♀5.8	µM-SH /3mL/min
Techlnicon	2.0	8.0**	µM /ml/min

*Measurement techniques vary and more accurate estimates are based on a particular laboratory's own reference range of values ** Whole blood

Appendix F
Explanation of Data in the Tables

Epidemiology is the study of diseases and their causes in human populations. It compares groups of people with an exposure to those without it, or people with a disease to those without it. For example, groups of people with cancer (called "cases"), are compared to people without cancer (called "controls"). Or people with pesticide exposure (the "cases") are compared to those without pesticide exposure (the "controls").

The purpose of these types of studies is to find out if the people with cancer or other diseases (the cases) are more likely to have exposure to pesticides than the people without cancer (the controls). Or to find out if the people with pesticide exposure (the cases) are more likely to have cancer or other diseases than people without pesticide exposure (the controls).

How Study Results are Reported

Study results are reported as risk ratios. These ratios indicate whether the people with a specific disease were **more** likely to be exposed to pesticides (at increased risk), **equally** likely to be exposed to pesticides (no difference in risk), or **less** likely to be exposed to pesticides (at decreased risk) than the people without the disease.

Or whether the people with pesticide exposure were **more** likely to have the disease (at increased risk), **equall**y likely (no difference in risk), or **less** likely to have the disease (at decreased risk) than the people without pesticide exposure.

For example: In a study of leukemia in children, the cases would be children with leukemia, and the controls children without it. There are three possible outcomes. The children with leukemia could be more likely, equally likely, or less likely to have exposure to pesticides.

1. More likely: If the ratio is greater than 1 (> 1), it means that the children with leukemia were more likely to have exposure to pesticides – that pesticide exposure **increases** the risk of leukemia. The size of the ratio indicates how much the risk is increased. A ratio of 1.4 means a 40% increase in risk. A ratio of 2.0 means a doubling of the risk, or a 200% increase. At least a doubling of the risk is considered more important than ratios less than 2.

2. Equally likely - If the ratio is equal to one (= 1) this means that children with or without leukemia were equally likely to have pesticide exposure–that there was no association with pesticides, which did **not** increase the risk of leukemia.

3. Less likely: If the ratio is less than one (< 1), it means that children with leukemia were less likely to have pesticide exposure than children without it–that the risk was **decreased**. The smaller the number the lower the risk. A ratio of 0.80 means that children with leukemia were 20% less likely to have been exposed to pesticides. A ratio of 0.40, that they were 60% less likely.

Other Factors

When studying humans, it is impossible to determine every factor that might influence the results of a study. It is possible that any increase in risk was not from pesticides, but something else. This could be something the researcher didn't think of, or didn't ask about. Or it could be from pesticide exposure in combination with other unknown or unstudied factors. Or it could have occurred by chance.

Therefore, finding an increase in risk does **not** mean that pesticides "cause" leukemia.

This is why it is common to report an increase in risk by stating that "pesticide exposure increases the risk of leukemia in children", or "pesticide exposure is a risk factor for leukemia in children", and not that pesticides "cause" leukemia.

Are the Study Results "Significant"?

There are methods to determine how strong the link or associations between leukemia and pesticides are, and if they occurred by chance. They are called tests of statistical significance. The statistical part is usually left out, and the results reported as "significant" or "not significant". The two most common tests are the "p" value, and confidence intervals.

1. "p" value: This tests whether the findings could have occurred by chance 5% of the time or less. The 5% is converted to a fraction and written as 0.05. For example, you will see the results as "p = 0.05" (read as p equals point 0 5), or "p < 0.05" (read as p less than point 0 5), or "p ≤ 0.05" (read as p less than or equal to point 0 5).

If the "p" value is less than or equal to 0.05, the findings are considered to be statistically significant; that is, they are unlikely to have occurred by chance. The smaller the "p" value the more significant the findings. For example" p ≤ 0.01" (read as p less than or equal to point 0 1) means that it could have occurred by chance 1% of the time or less.

2. Confidence intervals: Another widely used test is called the confidence interval. It shows how close the risk ratio found in the study is to the "true" or expected value. The level used is usually 95%. This means that if you went out and did the study over and over again, 95% of the time the study results would be within the calculated interval. Another way of saying this is that 5% of the time they will not.

Because it is an interval, there are two numbers, with the lower number written first. If the lower number of the confidence interval is less than or equal to one (≤ 1), than the increase in risk is "not significant" or "non-significant". If the lower number of the interval is greater than one (> 1) then the increase in risk is considered "significant".

If the number of cases is small, the confidence interval can be very wide. When there is a very wide interval between the lowest and the highest number, the less confidence you have in the findings. It usually means that the number of cases found were very small. The larger the number of people in the study (the sample size), the narrower the confidence interval, and the more significant the findings.

Some Commonly Used Ratios

FR– Fecundability Ratio
OR– Odds Ratio
PMR– Proportionate Mortality Ratio
PCMR– Proportionate Cancer Mortality Ratio
PR–Prevalence Ratio
RR–Relative Risk or Rate Ratio
SMR–Standardized Mortality Ratio
SHR–Standardized Hospital Ratio
SMbR–Standardized Morbidity Ratio
SIR–Standardized Incidence Ratio
SPR–Standard Proportional Ratio
SRR–Standardized Rate Ratio

Appendix G
List of Chemicals Evaluated for Human Carcinogenic Potential
US EPA- May 22, 2002

A =	Human carcinogen	**E** =	Evidence not a human carcinogen.
B1 =	Probable human carcinogen limited evidence	**L** =	Likely to be carcinogenic in humans
B2 =	Probable human carcinogen sufficient evidence	**NL** =	Not likely to be a human carcinogen.
C =	Possible human carcinogen	**NC** =	Not classified: no data, data suggestive but not sufficient, not evaluated, not determined.
D =	Not classifiable. as to carcinogenicty.		

Chemical	Group
Acephate	C
Acetaldehyde	B2
Acetamide	C
Acetochlor	B2
Acetone	D
Acetophenone	D
Acibenzolar-S-methyl	NL
Acifluorfen sodium	B2
Acrinathrin	D
Acrolein	C
Acrylamide	B2
Acrylonitrile	B1
Alachlor L hd*	NL ld*
Aldicarb (Temik)	E
Aldrin	B2
ADBAC[a]	NL
Alpha-Metolachlor	NDA
Al/Mg phosphide	NDA
4-Aminopyridine	D
Amitraz (Baam)	C
Amitrole	B2
Aramite	B2
Arsenic acid	A
Arsenic pentoxide	A
Arsenate, sodium	A
Assert (with128841)	D
Asulam	C
Atrazine	NL
Avermectin B1	E
Azafenidin	DI
Azinphosmethyl	NL
Azobenzene	B2
Azoxystrobin	NL
Bardac 22	E
Baygon (Propoxur)	B2
Bendiocarb	NL
Benfluralin	NC
Benomyl	C
Benoxacor	NC
Bensulide	NL
Bentazon (Basagran)	E
Benzene	A
2-Benzyl-4-chlorophenol	C
Benzoic acid	D
Bifenazate	NL
Bifenthrin (Talstar)	C
Bioallethrin	NC
Biphenyl	D
Bis(chloroethyl)ether	B2
Bispyribac-Sodium	NL
Borax	E
Boric acid	E
Boron	E
Bromacil	C
BBAB[b]	NC
Bromotrichloromethane	D
Bromoxynil	C
Bromuconazole	E

Chemical	Group
Bronopol	E
Buprofezin	NC
Butachlor(Machete)	L
Butylate (Sutan)	E
Cacodylic acid	B2
Cadmium	B1
Cadusafos	E
Captafol	B2
Captan	B2
Carbaryl	C
Carbofuran	NL
Carbon tetrachloride	B2
Carfentrazone-ethyl	NL
Chloramben	NC
Chlordane	B2
Chlordimeform	B2
Chlorethoxyfos	NC
Chlorfenapyr	NC
Chlorine dioxide	NC
Chloroaniline,p-	B2
Chlorobenzene	D
Chloroform	B2
Chlorothalonil	L
Chlorpropham	E
Chlorpyrifos	E
Chromic Acid	A
Cinch(Cinmethylin)	D
Clethodim	NC
Clodinafop-propargyl	L
Clofentezine	C
Clomazone	NL
Clopyralid	NL
Cloransulam-methyl	NL
Cocamide /diethanolamine	L
Copper (metallic)	D
Coumaphos	E
Creosote	B1
Cresol,p-Chloro	D
Cryolite (Kryocide)	D
Cyanazine (Bladex)	C
Cyclanilide	NL
Cyfluthrin N	NL
Cyhalofop butyl	NC
Cyhalothrin/Karate	D
Cyhexatin (TCTH)	NL
Cymoxanil	NL
Cypermethrin	C
Cyproconazole	B2
Cyprodinil	NL
Cyromazine(Larvadex)	E
Dacthal (DCPA)	C
Daminozide (Alar)	B2
Dazomet	D
2,4-D	D
DDD	B2
DDE	B2
DDT	B2
Deet	D

Chemical	Group
Desmedipham	E
Di(2-ethylhexyl)phthalate	B2
Diazinon	NL
Dibromochloropropane	B2
1,2-Dibromoethane	B2
Dibutyl phthalate	D
Dicamba	D
Dichlobenil	C
2,6- Dichlorobenzamide	D
1,2-Dichlorobenzene	D
1,2-Dichloroethane	B2
1,1-Dichloroethylene	C
Dichloromethane II	B2
Dichlorvos (DDVP)	C
Diclofop-methyl (Hoelon)	L
Dicloran	NC
Diclosulam	NL
Dicofol(Kelthane)	C
Dicrotophos(Bidrin)	NC
Dieldrin	B2
Diethyl phthalate	D
Difenoconazole	C
Difenzoquatmethyl sulfate	E
Diflubenzuron (Dimilin)	E
Diflufenzopyr-sodium	NL
Dimethenamid	C
Dimethipin (Harvade)	C
Dimethoate	C
Dimethomorph	NL
Dimethyl ether	D
Dimethylphthalate	D
DimethylSulfoxide	NC
5,5 -Dimethylhydantoin	NL
Dinocap (Karathane)	E
Dinoseb	C
Diquat dibromide	E
Disulfoton(Disyston)	E
Dithiopyr (MON7200)	E
Diuron	L
DSMA	NL
Ecolyst	NL
Emamectin	NL
Endosulfan	NL
Endrin	D
Epichlorohydrin	B2
Epoxiconazole	NC
EPTC	NL
Esbiol	NC
Esfenvalerate(Asna)	E
Ethalfluralin(Sonalan)	C
Ethametsulfuron	NC
Ethephon	D
Ethion	E
Ethiozin (Ebuzin/Tycor)	C
Ethofenprox (Etofenprox)	C
Ethofumesate	D
Ethoprop (Ethoprophos)	L
Ethylene diamine	D

Chemical	Group
Ethylene oxide	B1
Ethylenethiourea (ETU)	B2
Febram	L
Fenamiphos (Nemacur)	E
Fenarimol	NL
Fenbuconazole	C
Fenbutatin oxide (Vendex)	E
Fenhexamid	NL
Fenitrothion (Sumithion)	E
Fenoxaprop-ethyl	NC
Fenoxycarb	L
Fenpropathrin (Danitol)	E
Fenpryroximate	NL
Fenthion	E
Fenvalerate	E
Febam	NC
Fipronil	C
Fluazinam	NC
Flucarbazonesodium	NL
Fludioxonil (Maxim)	D
Flumetsulam	E
Flumicloracpentyl	E
Flumioxazin	NL
Fluometuron	C
Fluridone	E
Fluroxypyr	NL
Flusilazole	NC
Fluthiacet-methyl)	L
Flutolanil	E
Folpet	B2
Fomesafen	C
Fonofos(Dyfonate)	E
Foramsulfuron	NL
Forchlorfenur	NC
Formaldehyde	B1
Formetanate hydrochloride	E
Fosetyl-Al (Aliette)	NL
Furmecyclox (Xyligen B)	B2
Glufosinate ammonium	NL
Glyphosate	E
Glyphosate trimesium	E
Halosulfuron-methyl	NL
Haloxyfop-methyl	B2
Heptachlor	B2
Heptachlorepoxide	B2
Hexachlorobenzene	B2
Hexachlorocyclohexane	B2
Hexachlorocyclopentadiene	D
Hexachloroethane	C
Hexaconazole	C
Hexazinone	D
Hexythiazox	C
HOE	NL
Hydramethylnon	C
Hydrogencyanamide	C
Hydroprene (Altozar)	D
Hydroquinone	NC
Imazalil	L

Chemical	Group
Imazamox	NL
Imazapic	E
Imazapyr (Arsenal)	E
Imidacloprid	E
Indoxacarb	NL
Iprodione	L
Iprovalicarb	L
Isocyanuric acid	NC
Isofenphos	NL
Isophorone	C
Isoxaben (EL-107)	C
Isoxadifen-ethyl	NL
Isoxaflutole	L
Kathon[c] 287	NC
Kathon[c] 886 biocide)	D
KBR 3023 (propidine)	NL
Kresoxim-methyl	L
Lactofen	B2
Lindane	NC
Linuron	C
Lithiumpfos[d]	NC
Malathion	NC
Maleic hydrazide	E
Maneb	B2
MB46513 (from fipronil)	NL
MBC (Carbendazim)	C
Mefenoxam	NL
Melamine	D
Mepiquatchloride	E
2-Mercaptobenzothiazole	C
Mercury, inorganic	D
Mesotrione	NL
Metalaxyl	E
Metam sodium	B2
Methamidophos (Monitor)	E
Methanearsonic acid	NL
Methidathion	C
Methiocarb	D
Methomyl	E
Methoxychlor	D
Methoxyfenozide	NL
Methyl bromide	NL
Methyl ethylketone	D
Methylisothiocyanate	B2
Methyl parathion	NL
Methylenebis(thiocyanate)	D
3-Methylpheno	C
Metiram (based on ETU)	B2
Metolachlor	C
Metribuzin	D
Mevinphos	NC
MGK Repellent	C
MGK-264	C
MNDA[e]	NC
Molinate	C
MON 13900 (Furilazole)	L
MON 21200(Genesis)	C
MON 4660	L
MSMA	NL
Myclobutanil	E
Naled (Dibrom)	E
Naptalam	D
Naptalam, sodium salt	D
Niclosamide	NC
Nicosulfuron	E
Nitrapyrin	L
Nitrobenzene	D
Norflurazon	C
Novaluron	NC
Orthophenylphenol	B2
Oryzalin	C
Oxadiazon	L
Oxadixyl	C
Oxamyl (Vydate)	E
Oxydemeton-methyl	NL
Oxyfluorfen (Goal)	C
Oxytetracycline	D
Oxythioquinox	B2
Paclobutrazol	D
Paradichlorobenzene	C
Paranitrophenol	D
Paraquat dichloride	E
Parathion ,ethyl	C
Pebulate	NL
Pendimethalin	C
Pentachloronitrobezene	C
Pentachlorophenol	B2
Permethrin	C
Phenmedipham	D
Phenol	D
Phorate (Thimet)	E
Phosalone	NL
Phosmet (Imidan)	NC
Phosphamidon	C
Phosphine	D
Phostebupirim	E
Picloram[f]	E
Piperonyl butoxide	C
Pirimiphos-methyl	NC
PHMB[g]	NC
Polychlorinated biphenyls	B2
Prallethrin	NL
Primisulfuron-methyl	D
Prochloraz	C
Procymidone	B2
Prodiamine	C
Profenofos	E
Prohexadione calcium	E
Prometon	D
Prometryn	E
Pronamide	B2
Propachlor	L
Propamocarb HCl	NL
Propanil	NC
Propargite (Omite)	B2
Propazine	C
Propetamphos	NL
Propiconazole	C
Propylene oxide	B2
Prosulfuron	D
Pymetrozine	L
Pyraclostrobin	NC
Pyrethrins	L
Pyridaben	E
Pyridate	NC
Pyrimethanil	C
Pyriproxyfen	E
Pyrithiobac-sodium	C
Quinclorac	D
Quizalofop ethyl	NC
Quizalofop ethyl (Assure)	D
Rimsulfuron	E
Rotenone	E
Selenium and compounds	D
Sethoxydim	NC
Silver	D
Silvex	D
Simazine	C
Sodium dichromate	D
Sodium omadine	D
Spinosad	NL
Sulfentrazone	E
Sulfluramid	NC
Sulfosate	E
Sulfosulfuron	L
Sulfurylfluoride	NL
Sulprofos	E
Surfonic AGM-550	NC
TCMTB (Busan 72)	C
Tebuconazole	C
Tebufenozide	E
Tebuthiuron	D
Temephos	NC
Tepraloxydim	NC
Terbacil	E
Terbufos	E
Terbuthylazine	D
Terbutryn	C
Terrazole	B2
1,1,2,2-Tetrachloroethane	C
Tetrachlorvinphos	C
Tetraconazole	L
Tetramethrin	C
TFM	NC
Thallium I sulfate	D
Thiabendazole	L hd* NL ld
Thiafluamide	NL
Thiamethoxam	L
Thiazopyr	C
Thiobencarb	D
Thiodicarb	B2
Thiophanate-methyl	L
Thiram	NC
Toluene	D
Toxaphene	B2
Tralkoxydim	L
Triadimefon	C
Triadimenol	C
Triallate	C
Triasulfuron	E
Triazamate	NL
Tribenuronmethyl	C
Tribufos (Def)	L h* NL ld
Trichlorfon	L h* NL ld
TCP[h]	NC
1,2,4-Trichlorobenzene,	D
1,1,1- Trichloroethane	D
1,1,2- Trichloroethane	C
2,4,6- Trichlorophenol	B2
Triclopyr salts & esters)	D
Triclosan)	NC
Tridiphane	C
Trifloxystrobin	NL
Triflumizole	E
Trifluralin (Treflan)	C
Triflusulfuron-methyl	C
Triphenyltin	B2
Troysan polyphase	NL
UDMH 57-14-7	B2
UMP-488 (PAL6000)	E
Uniconazole(Prunit)	C
Vinclozolin	C
White phosphorus	D
Xylenes	D
Zinc and compounds	D
Zinc Omadine	NC
Zinc Phosphide	NC
Ziram	L
Zoxamide	NL

* No registered products in the U.S.

a Alkyl dimethylbenzyl ammoniumchloride

b 1,4-(bis) Bromoacetoxy-2-butene

c 4,5-Dichloro-2-n-octyl-3(2H) isothiazolone [RH-287]

d Perfluorooctanesulfonate

e N-MethylNeodecanamide

f Includes diethanolamine, methylamine, potassium, and triisoproanolamine salts

g Polyhexamethylenebiguanide

h 3,5,6-Trichloro-2-pyridinol, a degradation product of chlorpyrifos

Appendix H

Teratogenic Pesticides

State of California Proposition 65 List of Chemicals That Are "Known to Cause Reproductive Toxicity"

Amitraz	Diclofop-methyl	Myclobutanil	Resmethrin
Arsenic pentoxide	EPTC	Nabam	Sodium dimethydithio-carbamate
Arsenic trioxide	Ethylene oxide	Nicotine	
Benomyl	Fenoxaprop ethyl	Nitrapyrin	Streptomycin sulfate
Bromacil	Fluazifop-butyl	Oxadiazon	Thiophanate-methyl
Bromoxynil heptanoate	Tau-fluvalinate	Oxydemeton-methyl	Triadimefon
Bromoxynil octanoate	Hydramethylnon	Oxythioquinox	Tributyltin Methacrylate
Chlorsulfuron	Linuron	Potassium dimethyldithio-carbamate	Triforine
Cyanazine	Metam-sodium		Vinclozolin
Cycloate	Methyl bromide	Propargite	Warfarin
	Metiram		

Teratogenic Pesticides Based on EPA Data (as of June, 1988)

Acrolein	Cyanazine	Fenarimol	Picloram
Avermectin	Cyromazine	Fenoxaprop ethyl	Maleic hydrazide
Chloramben	2,4-D	Fluazifop-butyl	Sodium arsenate
Bitertanol	Dichlobenil	Folpet	Sodium arsenite
Benazolin*	Dichlorophene	Hexachlorobenzene	Sodium omadine
Benomyl*	DMF	Kinoprene	2,4,5-T
Bentazon	Dichlorprop	Mancozeb	Terrazole
Bromoxynil	Dinocap	Methoprene	Triadimefon
Cacodylic acid	Dinoseb	Methyl parathion	Tributyltin oxide
Captafol*	Diquat	Mirex	Trichlorfon
Captan	Endosulfan	Nitrofen*	Trifluralin
Carbaryl	Endothall	Phosmet	Triphenyltin fluoride
Chlordimeform*	Ethion	Propargite	Triphenyltin acetate
Chlorpropham	Ethyl hexanediol*	Ortho-phenylphenol	Triphenyltin hydroxide
Copper sulfate	Ethylene dichloride	Paclobutrazol	Vinyzene*
Cycloheximide	Fenamiphos	Pentachloronitrobenzene	Warfarin