	Substance	IRIS RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer call		Date	OPP RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer Call		Date
1	~~Acenaphthene~~												
2	~~Acenaphthylene~~												
3	Acephate	0.004 (0.12 mg/kg/day ÷ 30)	90-d rat feeding	1990	Cq*		1993	0.0012 (0.12 mg/kg/day/100)	90-d rat feeding	1998	C no q*		1998
4	Acetaldehyde							Approved for use as a fragrance inert					
5	Acetochlor	0.02(2.0 mg/kg/day ÷ 100)	1-yr dog feeding	1993	No data		1993	0.02 (2.0 mg/kg/day ÷100)	1 yr dog	1992	C no Q*		2007
6	Acetone							Approved for use as a food, non-food inert					
7	Acetonitrile							Approved for use as a non-food inert					
8	Acetophenone							Approved for use as a food, non-food, fragrance inert					
9	~~Acetyl chloride~~												
10	Acifluorfen, sodium	0.012 (1.25 mg/kg-day÷100)	2-gen rat repro	1988	No data		1988	0.012 (1.25 mg/g/day ÷ 100)	2-gen rat repro	2004	Likely at high doses;unlikely at low		2003
11	Acrolein	0.0005 (0.05 mg/kg-day÷100)	2yr gavage rat	2003	Data inadequate for assessment		2003	no RfD			ND	Inconclusive data	2009
12	~~Acrylamide~~												
13	~~Acrylic acid~~												
14	Acrylonitrile							Registration cancelled 1980					
15	~~Adiponitrile~~												
16	Alachlor	0.01 (1.0 mg/kg-day÷100)	1 yr dog	1993	No data		1993	0.01 (1.0 mg/kg/day ÷ 100)	1 yr dog	1991	Likely at high doses;unlikely at low		1998
17	Alar (daminozide)	0.015(1.5 mg/kg-day÷100)	3-gen rat repro	1991	No data		1991	2.0 (187.5 mg/kg/day÷ 100)	1 yr dog	1993	B2 (UDMH)(Q*)	mouse bioassay	1993
18	Aldicarb	0.001 (0.01 mg/kg/day÷10)	acute human	1993	D		1991	0.001 (0.01 mg/kg/day ÷ 10)	acute human	1998	Group E-Evidence of non-carcinogenicity		1998
19	Aldicarb sulfone							Registration cancelled 2009					
20	Aldrin							Registration cancelled 1986					
21	Ally (Metsulfuron-methyl)	0.025 (25.0 mg/kg-day÷100)	2-year rat study	1988	No data		1988	0.025 (25.0 mg/kg-day÷100)	2 yr rat study	2002	Not likely		2002
22	Allyl alcohol							Registration cancelled ~ 1987; approved as a non-food use inert					
23	~~Allyl chloride~~												
24	Aluminum phosphide	0.004(0.043 mg/kg/day÷100)	2 yr rat oral study	1988	No data		1988	0.0113 (1.13 mg/kg/day÷100)	1 yr rat inhal. study	1998	No data		1998
25	Amdro (hydramethylnon)	0.0003 (0.33 mg/kg-day÷1000) 6	6 mo dog	1987	No data		1987	0.017(1.66 mg/kg/day÷100)	2-gen rat	1998	B2 (1987); C no Q*(1991)		
26	Ametryn	0.009 (8.6 mg.kg-day÷1000)	90d rat oral	1989	No data		1989	0.072 (7.2 mg/kg/day÷ 100)	1 yr dog	2005	C no Q*		2005
27	~~4-Aminopyridine~~	~~ND~~			~~D~~		~~1993~~	~~ND (no chronic data)~~		~~2007~~	~~D~~		~~2007~~
28	Amitraz	0.0025 (0.25 mg/kg-day÷100)	2 yr dog	1988	No data		1988	acute RfD- 0.00125 (0.125 mg/kg/day ÷ 100) human		2006	Suggestive evidence (C noQ*)		2005
29	~~Ammonia~~	~~No RfD~~		~~1991~~	~~No data~~		~~1991~~	~~No RfD~~			~~ND~~		~~2009~~
30	Ammonium acetate							Approved for use as a non-food inert					
31	~~Ammonium methacrylate~~												
32	Ammonium sulfamate							Registration cancelled 1981					
33	~~Aniline~~												
34	~~ortho-Anisidine~~												
35	~~Anthracene~~												
36	~~Antimony~~												
37	Antimony trioxide							Approved for use as a non-food inert					
38	Apollo (Clofentezine)	0.0125 (1.25 mg/kg/day÷100)	1 yr dog	1989	C no Q*	2 yr rat thyroid	1993	0.013 (1.25 mg/kg/day ÷ 100)	1 yr dog	1998	C no Q*		1990
39	Aramite							Registration cancelled 1977					
40	~~Aroclor 1016~~												
41	~~Aroclor 1248~~												
42	~~Aroclor 1254~~												
43	~~Arsenic, inorganic~~												
44	~~Arsine~~												
45	~~Asbestos~~												
45	Assure (Quizalofop-ethyl)	0.009(0.9 mg/kg/day÷100)	2 yr rat	1988	D	data inadequate	1993	0.009 (0.9 mg/kg/day÷ 100)	2 yr rat	1988	D-not classifiable		1988
46	Asulam	0.05 (50 mg/kg/day÷ 1000)	2-gen rat repro	1995	No data		1995	0.36 (36 mg/kg/day ÷100)	2 yr rat	2002	C no Q*		2002
47	Atrazine	0.035 (3.5 mg/kg/day ÷100)	2 yr rat	1993	No data		1993	0.018(1.8 mg/kg/day÷ 100)	6-mo rat study	2006	Not likely		2000/2013
48	Avermectin B1	0.0004 (0.012 mg/kg/day÷ 300)	2-gen rat repro	1989	No data		1989	0.0012 (0.12 mg/kg/day÷ 100)	rat repro +rat develop.	2011	Not likely		2011
49	~~Azobenzene~~												

	Substance	IRIS RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer call	Date	OPP RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer Call	Date
1	Barium and Compounds	0.2 (BMDL =63 mg/kg/day÷ 300)	2 yr mouse (NTP)	2005	Not Likely (oral)	1998	None-no food uses for metaborate		1994	None	2008
2	~~Barium cyanide~~										
3	Baygon (propoxur)	0.004 (0.36 mg/kg/day ÷100)	human single dose	1992	No data	1992	aRfd-0.08(0.83 mg/kg/day ÷ 110)	Single dose rat	2007	B2-Probable	1996
4	Bayleton (tridiamefon)	0.025 (2.5 mg/kg/day ÷100)	2 yr rat	1988	No data	1988	0.034 (3.4 mg/kg/day ÷100)	90-d rat neurtox	2006	C no Q*-Possible	1996/2006
5	Baythroid (cyfluthrin)	0.025 (2.5 mg/kg/day÷ 100)	2 yr rat	1988	No data	1988	0.02(2 mg/kg/day÷ 100)	chronic dog	2010	Not likely	2002
6	Benefin (benfluralin)	0.25 (25 mg/kg day÷ 100)	1 yr dog	1988	No data	1988	0.005(0.5 mg/kg/day÷ 100)	2 yr rat	2004	Suggestive,but insufficient data-noQ*	2001
7	Benomyl	0.05 (5 mg/kg/day ÷ 100)	3-gen rat repro	1989	No data	1989	Registration cancelled 2002			C-Possible	2000
8	~~Bentazon (Basagran)~~	~~0.03 (3.2 mg/kg/day÷ 100)~~	~~1 yr dog~~	~~1998~~	~~E- Not likely~~	~~1998~~	~~0.03(3.2 mg/kg/day÷ 100)~~	~~1-yr dog~~	~~2004~~	~~E-Not Likely~~	~~1991~~
9	~~Benz[a]anthracene~~										
10	Benzaldehyde	0.1 (143 mg/kg/day÷ 1000)	90-d rat	1988	No data	1988	Registration cancelled 1991; approved for use as non-food, fragrance inert				
11	Benzene	0.003 (BMDL=1.2 mg/kg/day ÷300	human occup.	2003	A-Known	2000	Registration cancelled 1985				
12	~~Benzidine~~										
13	~~Benzo[a]pyrene (BaP)~~										
14	~~Benzo[b]fluoranthene~~										
15	~~Benzo[g,h,i]perylene~~										
16	~~Benzo[k]fluoranthene~~										
17	Benzoic acid	4.0 (4.4 mg/kg/day÷ 1)	Human intake data	1993	D-Not classifiable	1991	No RfD-no food uses		2007	D- Not classifiable	2007
18	~~Benzotrichloride~~										
19	~~Benzyl chloride~~										
20	~~Beryllium and compounds~~										
21	Bidrin (dicrotophos)	0.001 (0.1 mg/kg/day ÷1000)	3-gen rat repro	1989	No data	1989	0.00007 (0.02 mg/kg/day÷ 300)	2 yr rat	2006	Suggestive	1999
22	Biphenthrin (bifenthrin)	0.015 (1.5 mg/kg/day ÷100)	1 yr dog	1988	No data	1988	0.03 (3.1 mg/kg/day÷ 100)	multiple	2012	C no Q*-Possible	2003
23	1,1-Biphenyl	0.5 (BMDL10/HED=13.9 mg/kg/day÷ 30)	2 yr rat	2013	Suggestive	2013	Registration cancelled 1985+; approved for use as fragrance inert				
24	~~Bis(2-chloro-1-methylethyl) ether~~										
25	~~Bis(2-chloroethoxy)methane~~										
26	~~Bis(chloroethyl)ether (BCEE)~~										
27	~~Bis(chloromethyl)ether (BCME)~~										
28	~~Bisphenol A.~~										
29	Boron/Compounds-Boric acid	0.2 (BMDL=10.3 mg/kg/day ÷ 66)	rat develop tox	2004	D- Data inadequate	2004	0.09 (8.8 mg/kg/day ÷100) 2 yr dog (1994)	No RfD now	2006	E-Not Likely	Boron + Boric acid 1993
30	~~Bromate~~										
31	~~Brominated dibenzofurans~~										
32	~~Bromobenzene~~										
33	~~Bromochloromethane~~										
34	Bromodichloromethane						Not registered				
35	~~p-Bromodiphenyl ether~~										
36	~~Bromoform~~										
37	Bromomethane	0.0014 (1.4 mg/kg/day ÷1000)	90-d rat gavage	1991	D-not classifiable	1990	0.002 (2.2 mg/kg/day÷ 100)	2 yr rat	2003	Not Likely	2001
38	Bromotrichloromethane					1991	Not registered				
39	Bromoxynil	0.02 (5 mg/kg/day÷ 300)	2 yr rat	1988	No data	1988	0.015(1.5 mg/kg/day ÷100)	1 yr dog	1997	Cq*-Possible	1997
40	Bromoxynil octanoate	0.02(7.3 mg/kg/day÷ 300)	2 yr rat	1988	No data	1988	0.015(1.5 mg/kg/day ÷100)	1 yr dog	1997	Cq*-Possible	1997
41	~~1,3-Butadiene~~										1997
42	n-Butanol						Approved for use as food, non-food, fragrance inert				
43	~~Butyl benzyl phthalate~~										
44	Butylate	0.05(5 mg/kg/day÷ 100)	1 yr dog	1994	No data	1994	0.05(5 mg/kg/day÷ 100) Registration cancelled in 2011	1 yr dog	2001	E-Non-carcinogenic	1992
45	~~t-Butylchloride~~										
46	~~Butylphthalyl butylglycolate (BPBG)~~										

	Substance	IRIS RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer call	Date	OPP RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer Call	Date
1	Cacodylic acid	No data			D-Not classifiable	1996	0.014(0.43mg/kg/day÷ 30) Registration cancelled 2009	2 yr rat	2006	B2-but Not Carc up to regen prolif	2006
2	~~Cadmium~~										
3	Calcium cyanide						Registration cancelled-date unknown (~1985)				
4	~~Caprolactam~~										
5	Captafol						Registration cancelled 1987			B2-Q*	1987
6	Captan	0.125 (12.5 mg/kg/day÷ 100)	1/3-gen rat repro	1989	No data	1989	0.125(12.5mg/kg/day÷ 100)	1/3-gen rat repro	2006	Likely at high	2004
7	Carbaryl	0.1 (9.6 mg/kg/day ÷100)	2 yr rat	1988	No data	1988	a and cRfD: 0.01(1.1mg/kg/day ÷100)	rat comp AChE	2007	Likely-Q*	2002
8	Carbofuran	0.005 (0.5 mg/kg/day÷ 100)	1 yr dog	1987	No data	1987	0.00006(0.02mg/kg/day÷ 500) Registration cancelled 2008			Not likely	1997
9	Carbon disulfide						Registration cancelled-≤1999				
10	Carbon tetrachloride						Registration cancelled 1986				
11	~~Carbonyl sulfide~~										
12	Carbosulfan						Registration cancelled-date unknown				
13	Carboxin	0.1 (10 mg/kg/day ÷100)	2 yr rat	1989	No data	1989	0.008(0.8mg/kg/day ÷100)	2 yr rat	2004	Not likely	2003
14	Cerium Oxide and Cerium Compounds						Approved for use as a non-food use inert				
15	~~Chloral hydrate~~										
16	Chloramben						Registration cancelled-date unknown				
17	Chlordane (Technical)						Registration cancelled 1988				
18	Chlordecone (Kepone)						Registration cancelled 1976				
19	Chlorimuron-ethyl	0.02(6.25 mg/kg/day ÷ 300)	1 yr dog	1989	No data	1989	0.09(9mg/kg/day÷ 100)	90-d/1 yr dog	2010	Not likely	2010
20	Chlorine	0.144(14.4 mg/kg/day÷ 100)	2 yr rat dw	1994	No data	1994	0.1(14.4mg/kg/day÷ 100)(d.w.)	2 yr rat	2010	D-Not classifiable	1994
21	~~Chlorine cyanide~~										
22	Chlorine dioxide	0.03(3 mg/kg/day ÷100)	2-gen rat repro	2000	D-Not classifiable	2000	0.03(3mg/kg/day÷ 100)	2-gen rat repro	2006	No data	2006
23	Chlorite (sodium salt)	0.03(3 mg/kg/day ÷100)	2-gen rat repro	2000	D-Not classifiable	2000	0.03(3mg/kg/day÷ 100)	2-gen rat repro	2006	No data	2006
24	1-Chloro-1,1-difluoroethane						Approved for use as a non-food use inert				
25	2-Chloroacetophenone						Not registered				
26	p-Chloroaniline						Registration cancelled-date unknown				
27	Chlorobenzene						Registration cancelled 1987;approved for use as a food, non-food use inert				
28	Chlorobenzilate						Registration cancelled-1987				
29	~~1-Chlorobutane~~										
30	~~2-Chlorobutane~~										
31	Chlorocyclopentadiene						Registration cancelled-date unknown				
32	Chlorodifluoromethane						Registration cancelled-date unknown				
33	Chloroform						Registration cancelled-date unknown				
34	~~Chloromethyl methyl ether (CMME)~~										
35	~~beta-Chloronaphthalene~~										
36	2-Chlorophenol						Registration cancelled-date unknown				
37	p-Chlorophenyl methyl sulfide						Registration cancelled-date unknown				
38	~~p-Chlorophenyl methyl sulfone~~										

39	~~p-Chlorophenyl methyl sulfoxide~~												
40	Chloroprene							Not registered					
41	Chlorothalonil	0.015(1.5mgkg/day÷ 100)	2 yr dog	1988	No Data		1988	0.02(2.0mg/kg/day ÷100)	2 yr rat	1999	Likely-No Q*		2008
42	o-Chlorotoluene	0.02(20 mg/kg/day ÷1000)	15wk rat	1990	No data		1990	Approved for use as a non-food inert					
43	Chlorpropham	0.2(50 mg/kg/day÷ 300)	2-rat repro	1988	No data		1988	0.05(5mg/kg/day ÷100)	2 yr dog	2002	E-No evidence		1994
44	Chlorpyrifos	Not available		2011	Not evaluated		2011	0.0003(0.03mg/kg/day ÷100)	DNT rat gavage	2011	E-No evidence		1993
45	Chlorsulfuron	0.05(5 mg/kg/day÷ 100)	2 yr rat	1990	No data		1990	0.02(5mg/kg/day ÷300)	2 yr rat	2002	Not likely		2002
46	~~Chromium(III), insoluble salts~~												2006
47	~~Chromium(VI)~~												
48	~~Chrysene~~												
49	~~Coke oven emissions~~												
50	Copper	No data			D-Not classifiable		1991	Registered but no RfD warranted		2009	D-Not classifiable		2009
51	~~Copper cyanide~~												
52	Creosote	No data			B1-Probable-NoQ*		1988	Registered but no RfD warranted		2008	B1		2008
53	Crotonaldehyde							Not registered					
54	Cumene							Approved for use as a non-food use inert					
55	Cyanazine							Registration cancelled 1996					
56	Cyanide, free							Not registered					
57	Cyanogen							Not registered					
58	~~Cyanogen bromide~~												
59	Cyclohexane							Registration cancelled-date unknown;	approved for use as a food, non-food use inert				
60	Cyclohexanone							Registration cancelled-date unknown					
61	~~Cyclohexylamine~~												
62	Cyhalothrin/Karate now-lambda-cyhalothrin	0.005(0.5 mg/kg/day ÷100)	3-gen rat repro	1988	No data		1988	0.001(0.1mg/kg/day÷ 100)	1 yr dog	2007	Not likely		2004
63	Cypermethrin	0.01(1mg/kg/day÷ 100)	1 yr dog	1990	No data		1990	0.06(6mg/kg/day÷ 100)	1 yr dog	2008	C noQ*		1988
64	Cyromazine	0.0075(0.75mg/kg/day ÷100)	6 mo dog	1991	No data		1991	0.0015(1.5mg/kg/day ÷1000)	2 yr rat	2013	E-Not likely		1995

	Substance	IRIS RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer call	Date	OPP RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer Call	Date
1	Dacthal	0.01(1mg/kg/day ÷100)	2 yr rat	1994	No data		0.01(1mg/kg/day÷ 100)	2 yr rat	1993	C Q*	1994
2	Dalapon, sodium salt	0.03(8.45mg/kg/day÷ 300)	2 yr rat	1989	No data		Registration cancelled 1989				
3	Danitol (fenpropathrin)	0.025(2.5 mg/kg/day÷ 100)	1 yr dog	1994	No data		0.025(2.5mg/kg/day 100)	1 yr dog	2010	Not likely	2003
4	Decabromodiphenyl ether (BDE-209)						Approved for use as a non-food inert				
5	Demeton (used data for disulfoton)	0.00004(0.04 mg/kg/day ÷1000)	2 yr rat	1988	No data		Registration cancelled 2008/9 0.00013(0.013mg/kg/day ÷100)	1 yr dog	2006	E-Non-carc	1997
6	Di (2-ethylhexyl)phthalate (DEHP)						Approved for use as a non-food inert				
7	Di(2-ethylhexyl)adipate						Approved for use as a non-food inert				
8	~~2,4-Diaminotoluene~~										
9	~~Diazomethane~~										
10	~~Dibenz[a,h]anthracene~~										
11	~~Dibenzofuran~~										
12	1,2-Dibromo-3-chloropropane (DBCP)						Registration cancelled 1979				
13	~~1,4-Dibromobenzene~~										
14	~~Dibromochloromethane~~										
15	~~Dibromodichloromethane~~										
16	~~p,p'-Dibromodiphenyl ether~~										
17	1,2-Dibromoethane (EDB)						Registration cancelled in 1984				
18	~~Dibutyl phthalate~~										
19	Dicamba	0.03(3 mg/kg/day 100)	rabbit devel	1992	No data	1993	0.45(45mg/kg/day ÷ 100)	2-gen rat repro	2006	Not likely	2006
20	Dichloroacetic acid						Approved for use as a non-food inert				
21	1,2-Dichlorobenzene						Registration cancelled 1987				
22	~~1,3-Dichlorobenzene~~										
23	1,4-Dichlorobenzene	No data			No data		No RfD warranted		2008	Not likely-low dose; Q*-high dose-2008	
24	~~3,3'-Dichlorobenzidine~~										
25	Dichlorodifluoromethane						Registration cancelled 1991; Approved for use as non-food use inert				
26	p,p'-Dichlorodiphenyl dichloroethane (DDD)						Registration cancelled 1972 as DDT metabolite				
27	p,p'-Dichlorodiphenyldichloroethylene (DDE)						Registration cancelled 1972 as DDT metabolite				
28	p,p'-Dichlorodiphenyltrichloroethane (DDT)						Registration cancelled 1972				
29	~~1,1-Dichloroethane~~										
30	1,2-Dichloroethane						Registration cancelled 1981+				
31	~~cis-1,2-Dichloroethylene~~										
32	~~trans-1,2-Dichloroethylene~~										
33	~~1,1-Dichloroethylene (1,1-DCE)~~										
34	Dichloromethane						Registration cancelled-date unknown				
35	~~2,4-Dichlorophenol~~										
36	4-(2,4-Dichlorophenoxy)butyric acid (2,4-DB)	0.008(8 mg/kg/day ÷1000)	90d dog	1987	No data	1987	0.03(3mg/kg/day÷ 100)	2 yr rat	2013	Not likely	2013
37	2,4-Dichlorophenoxyacetic acid (2,4-D)	0.02(2mg/kg/day ÷100)	1 yr rat	1988	No data	1988	0.05(5mg/kg/day ÷100)	2 yr rat	2012	D-Not classifiable	1997
38	1,2-Dichloropropane						Registration cancelled-date unknown				
39	~~2,3-Dichloropropanol~~										
40	1,3-Dichloropropene	0.03(3.4 mg/kg/day ÷100)	2 yr rat	2000	Likely	2000	0.025(2.5mg/kg/day ÷100)	2 yr rat	2005	Likely	2005
41	Dichlorvos	0.0005(0.05mg/kg/day÷ 100)	1 yr dog	1993	B2-probable	1994	0.0005(0.05mg/kg/day 100)	1 yr dog	2009	C noQ*-Suggestive	2006

42	Dicofol	No data			Withdrawn		1993	Registration cancelled 2012 0.0012(0.12mg/kg/day÷ 100)	chronic dog	1998	C no Q* -Possible		1992
43	Dieldrin							Registration cancelled 1989					
44	~~Diesel engine exhaust~~												
45	~~Diethyl phthalate~~												
46	~~Diethyl sulfate~~												
47	~~Diethyl-p-nitrophenylphosphate~~												
48	~~Diethylene glycol dinitrate (DEGDN)~~												
49	Difenzoquat	0.08(25mg/kg/day ÷ 380)	2 yr rat	1988	No data		1988	Registration cancelled 2010 0.2(20mg/kg/day ÷100)	1 yr dog		E-No evidence of carc		1994
50	Diflubenzuron	0.02(2mg/kg/day ÷ 100)	1 yr dog	1990	No data		1990	0.02(2mg/kg/day ÷100)	1 yr dog	2014	E-No evidence of carc		2014
51	1,1-Difluoroethane							Approved for use as a food, non-food inert					
52	~~Diisopropyl methylphosphonate (DIMP)~~												
53	Dimethipin	0.02(2 mg/kg/day ÷100)	2 yr rat	1990	C no Q*-Possible		1993	Registration cancelled 2007 0.0218(2.18mg/kg/day÷ 100)	2 yr rat	2005	C noQ*-Possible		1990
54	Dimethoate	0.0002(0.05mg/kg/day ÷300)	2 yr rat	1990	No data		1990	0.0022(0.22mg/kg/day ÷100)	ChE study in rats	2009	C no Q+		2009
55	Dimethyl phthalate							Registration cancelled 1987					
56	~~Dimethyl sulfate~~												
57	~~Dimethyl terephthalate (DMT)~~												
58	Dimethylamine							Approved for use as a non-food inert					
59	~~N-N-Dimethylaniline~~												
60	~~3,3-Dimethylbenzidine~~												
61	N,N-Dimethylformamide							Registration cancelled- date unknown					
62	2,4-Dimethylphenol	0.0006(0.6mg/kg/day÷ 1000)	90d rat	1988	No data		1988	No RfD needed-2010 Approved for use as fragrance	inert		No data needed		2010
63	2,6-Dimethylphenol	0.0006(0.6mg/kg/day÷ 1000)	90d rat	1988	No data		1988	Registration cancelled- date	unknown	Approved for use as a fragrance inert			
64	3,4-Dimethylphenol							Approved for use as fragrance inert					
65	4,6-Dinitro-o-cyclohexyl phenol							Registration cancelled-date unknown					
66	~~m-Dinitrobenzene~~												
67	~~o-Dinitrobenzene~~												
68	2,4-Dinitrophenol							Registration cancelled 1987					
69	~~2,4-Dinitrotoluene~~												
70	~~2,4-/2,6-Dinitrotoluene mixture~~												
71	Dinoseb	0.001(1mg/kg/day ÷1000)	3-gen rat repro	1989	D- not classifiable		1993	Registration cancelled 1986					
72	~~1,4-Dioxane~~												
73	Diphenamid							Registration cancelled- 1985					
74	Diphenylamine	0.025(2.5mg/kg/day÷ 100)	2 yr dog	1990	No data		1992	0.1(10mg/kg/day ÷100)	chronic dog	2005	Not likely		1997
75	~~1,2-Diphenylhydrazine~~												
76	Diquat (dibromide)	0.022(2.2mg/kg/day ÷100)	2 yr rat	1995	No data		1995	0.005(0.5mg/lg/day ÷ 100)	chronic dog	2009	E-Non-carc		1994/2009
77	Disulfoton	0.00004(0.4 mg/kg/day÷ 1000)	2 yr rat	1988	No data		1988	Registration cancelled 2009 0.00013(0.013mg/kg/day÷ 100)	1 yr dog	2006	E-Non-carc		1997
78	~~1,4-Dithiane~~												
79	Diuron	0.002(0.625 mg/kg/day÷ 300)	2 yr dog	1988	No data		1988	0.003(1mg/kg/day ÷300)	2 yr rat	2003	Known/likely	rat, mouse	1997/2003

80	Dodine	0.003 (1.25mg/kg/day ÷300)	1 yr dog	1990	No data	1990	0.02(2mg/kg/day ÷100)	chronic dog	2008	Not likely	2008

	A	C	D	E	F	J	K	L	M	N	O	S	T	U
1		**Substance**	**IRIS RfD (NOAEL or LOAEL/UF)**	**Study used**	**Date**	**Cancer call**		**Date**	**OPP RfD (NOAEL or LOAEL/UF)**	**Study used**	**Date**	**Cancer Call**		**Date**
2	1	Endosulfan	0.006(0.6mg/kg/day÷ 100)	2 yr rat	1994	Not available		1994	Registration cancelled 2010 0.006(0.06mg/kg/day÷ 100)	2 yr rat	2010	Not likely		2000/2010
3	2	Endothall	0.02(2mg/kg/day÷ 100)	2 yr dog	1991	No data		1991	0.007(2mg/kg/day÷ 300)	2-gen rat repro	2005	Not likely		2008
4	3	Endrin							Registration cancelled 1980/1991			D-Not classifiable		2006
5	4	Epichlorohydrin							Not registered					
6	5	1,2-Epoxybutane (EBU)							Approved for use as a non-food inert					
7	6	Ethephon	0.005(0.5mg/kg/day ÷ 100)	16d human	1991	No data		1991	0.06(1.8mg/kg/day÷ 30)	28d human	2010	Not likely		2008
8	7	Ethion	0.0005(0.05mg/kg/day ÷ 100)	human, dog	1989	No data		1989	Registration cancelled 2002 0.0005(0.05mg/kg/day ÷100)	chronic dog	2001	E-No carc		1994
9	8	~~2-Ethoxyethanol~~							Not registered					
10	9	Ethyl acetate							Approved for use as a food, non-food, fragrance inert					
11	10	~~Ethyl carbamate~~												
12	11	~~Ethyl chloride~~												
13	12	EPTC	0.025 (2.5mg/kg/day÷ 100)	2-gen rat repro	1990	No data		1990	0.05(5mg/kg/day÷ 100)	2yr,2-gen rat	2013	Not likely		1999/2013
14	13	Ethyl ether							Approved for use as a non-food inert					
15	14	Ethyl p-nitrophenyl phenylphosphorothioate							Registration cancelled -~1986					
16	15	Ethylbenzene							Approved for use as a non-food inert					
17	16	Ethylene diamine							Registration cancelled ~1987 ; approved for use as a non-food inert					
18	17	Ethylene glycol							Registration cancelled ~1989-1991;approved for use as a food, non-food, fragrance inert					
19	18	Ethylene glycol monobutyl ether							Registration cancelled ~1989; approved for use as a food, non-food, fragrance inert					
20	19	Ethylene thiourea (ETU)	0.00008(0.25mg/kg/day÷ 3000)	2 yr rat	1996	No data		1993	Not a registered pesticide, but EBDC metabolite			B-Probable		1999
21	20	~~Ethyleneimine~~												
22	21	~~Ethylphthalyl ethylglycolate (EPEG)~~												
23	22	Express (Tribenuron-methyl)	0.008(7.5mg/kg/day÷ 100)	1 yr dog	1990	No data		1990	0.008(0.8mg/kg/day ÷100)	chronic dog		C no Q*-Possible		1989

	Substance	IRIS RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer call	Study used	Date	OPP RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer Call	Study used	Date
1	Fenamiphos	0.00025(0.025 mg/kg/day 100)	2 yr dog	1990	No data		1990	Registration cancelled -2008 0.0001(0.01mg/kg/day÷ 100)	2 yr dog	2002	Not likely		1993
2	Fluometuron	0.013(1.25mg/kg/day÷ 100)	2 yr rat	1990	No data		1990	0.0055(0.55mg/kg/day ÷ 100)	2 yr rat	2005	Cq*-Possible		1996/2005
3	~~Fluoranthene~~												
4	~~Fluorene~~												
5	~~Fluorine (soluble F)~~												
6	Fluridone	0.08(8mg/kg/day ÷ 100)	2 yr rat	1990	No data		1990	0.15(15mg/kg/day ÷100)	2 yr mouse	2009	Not likely		1985/2009
7	Flurprimidol	0.02(1.8mg/kg/day÷ 100)	2-gen rat repro	1990	No data		1990	0.015(1.5mg/kg/day÷ 100)	90d dog	2009	Not likely		2005
8	Flutolanil	0.06(63.7mg/kg/day÷ 1000)	3-gen rat repro	1990	No data		1990	0.5(50mg/kg/day ÷ 100)	2 yr dog	2010	Not likely		1994/2008
9	(tau)-Fluvalinate	0.01(1mg/kg/day÷ 100)	2 yr rat	1990	No data		1990	0.005(0.5mg/kg/day ÷ 100)	2 yr rat	2010	Not likely		2005
10	Folpet	0.1(10mg/kg/day ÷100)	chronic dog	1990	B2-Probable		1993	Approved as non-food inert 0.09(9mg/kg/day÷ 100)	2 yr rat	2012	Not likely at doses below irritation-2010		
11	Fomesafen	No data			Cq*-Possible		1993	0.0025(0.25mg/kg/day ÷ 100)	2 yr rat	2007	Not likely		2005/2007
12	Fonofos	0.002(0.02mg/kg/day ÷100)	2 yr dog	1987	No data		1987	Registration cancelled-1998 0.002(0.2mg/kg/day ÷100)	1 yr dog	1999	E-No evidence		1993
13	Formaldehyde	0.2(15mg/kg/day ÷100)	2 yr rat	1990	B1-probable		1991	No RfD-no food uses			B1-Probable		2008
14	Formic acid	Withdrawn		1996	No data		1996	No RfD-FDA GRAS substance-Approved as non-food use inert			No data		1999
15	Fosetyl-al	3.0(250mg/kg/day ÷ 100)	2 yr dog	1991	C noQ*-Possible		1994	2.5(250mg/kg/day ÷100)	2 yr dog	2002	Not likely		1993
16	~~Furan~~												
17	Furfural	0.003(7.9mg/kg/day÷ 3000)	90d rat	1996	No data		1996	Approved for use as a food, non-food, fragrance inert 0.01(30mg/kg/day ÷3000)	2 yr rat	2010	Not classified to date		2010
18	Furmecyclox				Not available at this time			Registration cancelled 1987					
1	Glufosinate-ammonium	0.0004(0.4mg/kg/day÷ 1000)	90d rat	1992	No data		1992	0.006(6mg/kg/day÷ 1000)	Multiple	2012	Not likely		1999/2012
2	~~Glycidaldehyde~~												
3	Glyphosate	0.1(10mg/kg/day ÷100)	3-gen rat repro	1990	D-Not classifiable		1993	1.75(175mg/kg/day ÷ 100)	rabbit develop	2010	E-No carc		1991/2010

	Substance	IRIS RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer call	Date	OPP RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer Call	Date
1	Haloxyfop-methyl	0.0005(0.005mg/kg/day ÷100)	3-gen rat repro	1991	No data	1991	Registration cancelled-date unknown			B2-Probable	1989
2	Harmony (thifensulfuron)	0.13(1.25mg/kg/day ÷ 100)	2 yr rat	1991	No data	1991	0.043(4.3mg/kg/day ÷100)	mouse carc	2012	Not likely	2006/2012
3	Heptachlor	0.0005(0.15mg/kg/day ÷ 300)	2 yr rat	1991	B2-probable	1993	Registration cancelled 1988 0.0005(0.15mg/kg/day ÷300)	2 yr rat	1992	B2-Probable	1992
4	Heptachlor epoxide	0.000013(0.0125mg/kg/day ÷ 1000	60wk dog	1991	B2-probable	1993	0.000013(0.0125mg/kg/day ÷ 1000)	1 yr dog	1992	B2-Probable	1992
5	n-Heptane						Approved as non-food use inert				
6	~~Hexabromobenzene~~										
7	~~Hexabromodiphenyl ether~~										
8	~~2,2',4,4',5,5'-Hexabromodiphenyl ether~~										
9	Hexachlorobenzene	0.0008(0.08mg/kg/day÷ 100)	chronic rat	1991	B2-Probable	1996	Registration cancelled 1984				
10	~~Hexachlorobutadiene~~										
11	~~alpha-Hexachlorocyclohexane (alpha-HCH)~~										
12	~~beta-Hexachlorocyclohexane (beta-HCH)~~										
13	~~delta-Hexachlorocyclohexane (delta-HCH)~~										
14	~~epsilon-Hexachlorocyclohexane (epsilon-HC)~~										
15	gamma-Hexachlorocyclohexane (gamma-HCH)	0.0003(0.33mg/kg/day ÷ 1000)	90d rat	1988	No data	1988	Registration cancelled 2006 0.0047(0.47mg/kg/day÷ 100)	2 yr rat	2002	C noQ*	2001
16	technical Hexachlorocyclohexane (t-HCH)	No data			B2-probable	1993	Registration cancelled 2006 0.047(0.47mg/kg/day ÷100)	2 yr rat	2002	C no Q*	2001
17	Hexachlorocyclopentadiene (HCCPD)						Registration cancelled-date unknown				
18	~~Hexachlorodibenzo-p-dioxin (HxCDD)~~										
19	Hexachloroethane						Not registered				
20	Hexachlorophene						Registration cancelled-~1987				
21	~~Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)~~										
22	~~1,6-Hexamethylene diisocyanate~~										
23	~~n-Hexane~~										
24	~~2-Hexanone~~										
25	Hexazinone	0.033 (10mg/kg/day ÷300)	2 yr rat	1990	No data	1990	0.05(5.0mg/kg/day÷ 100)	chronic dog	1994	D-Not classifiable	1994
26	~~Hydrazine/Hydrazine sulfate~~										
27	Hydrogen Cyanide and Cyanide Salts	0.0006(1.9 mg/kg/day÷ 3000)	13wk rat dw	2010	Inadequate data	2010	Registration cancelled-~1985				
28	Hydrogen chloride	No data			No data		No Rfd-no food uses		1992	No data	1992
29	~~Hydrogen sulfide~~										
30	Hydroquinone	No data			No data		Approved as non-food use inert (List 1- Inert Ingredient of Toxicological Concern)				
1	Imazalil	0.013(1.25mg/kg/day÷ 100)	2 yr dog	1990	No data	1990	0.0025(2.5mg/kg/day ÷1000)	1 yr dog	2013	Likely	1999
2	Imazaquin	0.25(25mg/kg/day ÷100)	1 yr dog	1990	No data	1990	0.25(25mg/kg/day÷ 100)	1 yr dog	2013	Not likely	2005/2013
3	~~Indeno[1,2,3-cd]pyrene~~										
4	Iprodione	0.04(4mg/kg/day ÷ 100)	1 yr dog	1991	No data	1991	0.05(50mg/kg/day ÷ 1000)	2yr and pubertal rat-	2012	Likely	1998/2012

5	Isobutyl alcohol						Not registered as an active; approved for food and non-food use as an inert					
6	Isophorone						Registration cancelled-date unknown					
7	Isopropalin						Registration cancelled ~1987					
8	~~Isopropyl methyl phosphonic acid (IMPA)~~											
9	Isoxaben	0.05(5mg/kg/day ÷ 100)	2 yr rat	1991	C noQ*-Possible	1993	0.05(5mg/kg/day÷ 100)	2 yr rat	2010	Suggestive		2008
1	Lactofen	0.002(1.5mg/kg/day ÷1000)	18mo mouse	1991	No data	1991	0.008(0.79mg/kg/day ÷ 100)	chronic dog	2006	Not Likely at doses w/o liver path		-2007
2	~~Lead and compounds (inorganic)~~											
							Approved as food, non-food fragrance inert					
3	d-Limonene	No data		1993	No data	1993	1.5(150mg/kg/day ÷100)	2 yr rat	1994	Not likely		2005
4	Linuron	0.002(0.625mg/kg/day ÷ 300)	2 yr dog	1990	C-no Q*	1993	0.0077(0.77mg/kg/day ÷ 100)	chronic dog	2010	C-noQ*-		1995
5	Londax (bensulfuron)	0.2(19.9mg/kg/day ÷ 100)	1 yr dog	1991	No data	1991	0.2(19.9mg/kg/day ÷100)	chronic dog	1997/	Not likely		2011

1	Substance	IRIS RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer call	Date	OPP RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer Call	Date
2	Malathion	0.02(0.23mg/kg/day ÷ 10)	30d Human	1992	No data	1992	0.07(7.1mg/kg/day ÷ 100)	Rat ChE	2009	Suggestive	2000/2009
3	Maleic anhydride	0.1(10mg/kg/day÷ 100)	rat chronic	1993	No data	1993	Approved as food, non-food, fragrance inert				
4	Maleic hydrazide	0.5(500mg/kg/day ÷1000)	2 yr rat	1992	No data	1992	0.25(25mg/kg/day ÷ 100)	2 yr rat	2009	E-Non-carc	1993/2009
5	Maneb	0.005(5mg/kg/day ÷1000)	60d monkey	1992	No data	1992	Registration cancelled in 2010 0.05(5mg/kg/day÷ 100)	90d rat	2005	B2-Probable	1999
6	~~Manganese~~										
7	Mepiquat chloride	0.002(25mg/kg/day÷ 1000)	90d dog	1991	No data	1991	0.195(58.4mg/kg/day÷ 300)	1 yr dog	2012	E-Non-carc	2003/2012
8	Mercuric chloride (HgCl2)						Registration cancelled ~1987				
9	Mercury, elemental						Not registered				
10	Merphos						Registration cancelled 1986-7				
11	Merphos oxide (tribufos)	0.00003(0.1mg/kg/day ÷3000)	90d hen	1991	No data	1991	0.001(0.1mg/kg/day ÷100)	chronic dog	2000	Not likely at low doses	1997
12	Metalaxyl	0.06(6.25mg/kg/day÷ 100)	6mo dog	1995	No data	1995	0.074(7.41mg/kg/day ÷ 100)	6mo dog	2009	Not likely	1985/2009
13	~~Methacrylonitrile~~										
14	Methamidophos	0.00005(0.05mg/kg/day÷ 1000)	1 yr dog	1991	No data	1991	Registration cancelled in 2009 0.001(0.03mg/kg/day÷ 300)	8wk rat	2008	Not likely	1998
15	Methanol						Registration cancelled ~1987; approved for use as food, non-food, fragrance inert				
16	Methidathion	0.001(0.1mg/kg/day÷ 100)	2 yr dog	1990	C no Q*	1993	Registration cancelled in 2010 0.0015(0.15mg/kg/day÷ 100)	chronic dog	2002	C noq*-Possible	1988
17	Methomyl	0.025(2.5mg/kg/day ÷ 100)	2yr dog	1991	No data	1991	aRfD only(0.03mg/kg/day ÷ 10?)	Human study	2010	E-Non-carc	1996/2010
18	Methoxychlor						Registration cancelled in 2003				
19	2-Methoxyethanol						Registration cancelled 1991+				
20	~~Methyl acrylate~~										
21	Methyl chloride						Not registered				
22	~~Methyl chlorocarbonate~~										
23	Methyl ethyl ketone (MEK)						Not registered				
24	Methyl iodide	No RfD		1992	No data	1994	Registration cancelled 2011 No RfD-no food uses		2007	Not likely	2007
25	Methyl isobutyl ketone (MIBK)						Registration cancelled 1987-1989; approved for use a food, non-food use inert				
26	~~Methyl isocyanate~~										
27	Methyl methacrylate						Approved for use as non-food use inert				
28	Methyl parathion	0.00025(0.025mg/kg/day ÷ 100)	2 yr rat	1991	No data	1991	Registration cancelled 2010 0.0002(0.021mg/kg/day÷ 100)	2 yr rat	2003	Not likely	1997
29	~~Methyl tert-butyl ether (MTBE)~~										
30	4-(2-Methyl-4-chlorophenoxy) butyric acid	0.01(12 mg/kg/day ÷ 1000	90d dog	1990	No data	1990	0.0044(4.4mg/kg/day ÷ 1000)	2 yr rat	2006	Not likely-No carc	2003/2006
31	2-(2-Methyl-4-chlorophenoxy)propionic acid	0.003(3mg/kg/day÷ 3000)	90d rat	1990	No data	1990	0.04(4mg/kg/day÷ 100)	Mouse carc	2007	Suggestive	2003/2007
32	2-Methyl-4-chlorophenoxyacetic acid	0.0005(0.15mg/kg/day÷ 300)	1 yr dog	1991	No data	1991	0.0044(4.4mg/kg/day÷ 1000)	2 yr rat	2004	Not likely	2003
33	~~Methylene Diphenyl Diisocyanate~~										
34	~~4,4'-Methylene bis(N,N'-dimethyl)aniline~~										
35	~~Methylmercury (MeHg)~~										

36	~~2-Methylnaphthalene~~												
37	2-Methylphenol	Approved for use as non-food use inert											
38	3-Methylphenol	0.05(50mg/kg/day÷ 100)	90 rat neuro	1990	C no Q*		1991	No Rfd-no food uses; approved for fragrance uses as inert			D-Not classifiable		1995
39	4-Methylphenol	Approved for use as fragrance inert											
40	Metolachlor	0.15(15mg/kg/day÷ 100)	2yr/2-gen rat	1994	C noQ*-Possible		1993	0.1(9.7mg/kg/day ÷ 100)	1 yr dog	1995	CQ*-Possible		1994
41	Metribuzin	0.025(2.5mg/kg/day ÷ 100)	2yr dog	1993	D-Not classifiable		1996	0.013(1.3mg/kg/day ÷100)	2 yr rat	2012	D-Not classifiable		1995/2012
42	Mirex	Registration cancelled 1978											
43	Molinate	Registration cancelled 2003											
44	~~Molybdenum~~												
45	~~Monochloramine~~												

	Substance	IRIS RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer call	Date	OPP RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer Call	Date
1	Naled	0.002(0.2mg/kg/day ÷100)	2 yr rat	1995	No data	1995	0.002(0.2mg/kg/day ÷100)	2 yr rat	2009	E-Non-carc	1994
2	Naphthalene (acetates)	0.02(71 mg/kg/day÷ 3000)	90d rat	1998	Data inadequate	1998	0.1(100mg/kg/day ÷ 100)	90d rat	2008	Not likely ?	2009
3	Napropamide	0.1(30mg/kg/day ÷300)	3-gen rat repro	1990	No data	1990	0.12(12mg/kg/day÷ 100)	2 yr rat	2005	Not likely	2005
4	~~Nickel carbonyl~~										
5	~~Nickel refinery dust~~										
6	~~Nickel subsulfide~~										
7	Nickel, soluble salts						Registration of nickel sulfate hexahydrate cancelled-date unknown				
8	Nitrapyrin	RfD withdrawn		1992	No data	1992	0.033mg/kg/day ÷ 100)	chronic dog	2012	Suggestive-no Q*	2011/2012
9	~~Nitrate~~										
10	~~Nitric oxide~~										
11	~~Nitrite~~										
12	Nitrobenzene						Registration cancelled-1988				
13	~~Nitrogen dioxide~~										
14	Nitroguanidine						Not registered				
15	p-Nitrophenol	No data		1991	No data	1991	No RfD-no food uses; approved as non-food use inert		1998	D-Not classifiable	1996
16	2-Nitropropane						Not registered; no longer cleared as inert				
17	~~N-Nitroso-N-methylethylamine~~										
18	~~N-Nitroso-di-n-butylamine~~										
19	~~N-Nitrosodi-N-propylamine~~										
20	~~N-Nitrosodiethanolamine~~										
21	~~N-Nitrosodiethylamine~~										
22	~~N-Nitrosodimethylamine~~										
23	~~N-Nitrosodiphenylamine~~										
24	~~N-Nitrosopyrrolidine~~										
25	~~Nonabromodiphenyl ether~~										
26	Norflurazon	0.04(3.75mg/kg/day ÷ 100)	6mo dog	1991	No data	1991	0.015(1.5mg.kg.day ÷ 100)	6mo dog	2012	CnoQ*-suggestive	1990/2012
27	NuStar (flusilazole)	0.0007 (0.2mg/kg/day ÷300)	1 yr dog	1991	No data	1991	Registration cancelled or never granted (Section 18 only) 0.002(0.2 mg/kg/day÷ 100)	chronic dog	2006	Not evaluated but Q*	2006
1	~~Octabromodiphenyl ether~~										
2	~~Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine~~										
3	Oryzalin	0.05(5 mg/kg/day÷ 100)	1 yr dog	1991	C no Q*-Possible	1993	0.14(13.8mg/kg/day ÷ 100)	2 yr rat	2010	Likely	2003/2010
4	Oxadiazon	0.005 (0.5mg/kg/day÷ 100)	2 yr rat	1991	No data	1991	0.0036(0.36mg/kg/day ÷ 100)	2 yr rat	2003	Likely	2001/2003
5	Oxamyl	0.025(2.5mg/kg/day 100)	2 yr rat	1991	No data 1991	aRfD=	0.0069(0.069mg/kg/day ÷ 10)	Human study	2010	Not likely	1999/2010
6	Oxyfluorfen	0.003(0.3mg/kg/day÷ 100)	chronic mouse	1991	No data	1991	0.03(3mg/kg/day ÷ 100)	Mouse carc/chronic dog	2002	Likely	2002

	Substance	IRIS RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer call	Date	OPP RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer Call	Date
1	Paclobutrazol	0.013(112.5mg/kg/day÷ 1000)	90d rat	1992	No data	1992	0.11(10.8mg/kg/day ÷ 1000)	2 yr rat	2013	D-Not classifiable	1994/2013
2	Paraquat	0.0045 (0.045mg/kg/day÷ 100)	1 yr dog	1991	C no Q*	1993	0.0045(.45mg/kg/day ÷ 100)	1 yr dog	2010	E-Non-carc	1988/2000
3	Parathion	No Data			C no Q*	1993	Registration cancelled 2000 0.00003(0.01mg/kg/day ÷300)	6 mo dog	1999	C no Q*	1991
4	Pendimethalin	0.04(21.5mg/kg/day ÷ 300)	2 yr dog	1991	No data	1991	0.3(10mg/kg/day÷ 30)	3 rat thyroid studies	2012	C no Q*	1992
5	~~Pentabromodiphenyl ether~~										
6	~~2,2',4,4',5-Pentabromodiphenyl ether~~										
7	~~Pentachlorobenzene~~										
8	~~Pentachlorocyclopentadiene~~										
9	Pentachloronitrobenzene (PCNB)	0.0003(0.75mg/kg/day÷ 300)	2 yr dog	1992	No data	1992	0.01(1mg/kg/day ÷100)	2 yr rat	2006	C noQ*	1992/2006
10	Pentachlorophenol	0.005(1.5mg/kg/day ÷ 300)	1 yr dog	2010	Likely	2010	0.005(1.5mg/kg/day ÷ 300)	chronic dog	2008	B2-Probable	1991/2008
11	~~Pentafluoroethane~~										
12	~~Perchlorate (ClO4) and its Salts~~										
13	Permethrin	0.05(5mg/kg/day÷ 100)	2 yr rat	1992	No data	1992	0.25(25mg/kg/day÷ 100)	acute neurotox rat	2013	Likely	2002/2013
14	~~Phenanthrene~~										
15	Phenmedipham	0.25(25 mg/kg/day ÷100)	2yr rat	1990	No data	1990	0.24(24mg/kg/day ÷ 100)	2 yr rat	2005	Not likely	2005
16	Phenol	0.3(93mg/kg/day ÷ 300)	rat develop	2002	D-Not classifiable	2002	0.6(60mg/kg/day ÷100)	rat develop	2009	Data inadequate	2002/2009
17	~~m-Phenylenediamine~~										
18	Phenylmercuric acetate						Registration cancelled≤1989				
19	Phosalone	RfD withdrawn		1988	No data		Registration cancelled 2008 0.002 (?????)	????	????	Not likely	1999
20	~~Phosgene~~										
21	Phosmet	0.02(2mg/kg/day ÷100)	2 yr rat	1992	No data	1992	0.006(0.6mg/kg/day ÷ 100)	7d repeat CCA-rat	2009	Suggestive-no Q*	1999/2009
22	Phosphine	0.0003(0.26mg/kg/day ÷ 100)	rat chronic	1993	D-not classifiable	1996	0.0113(1.13mg/kg/day÷ 100)	1 yr rat	1998/2013	Not likely	1998/2013
23	Phosphoric acid	No data		1995	Not determined	1995	No RfD-no food uses; approved for use as food, non-food inert			Not determined	1993
24	Phthalic anhydride						Approved for use as as non-food inert				
25	Picloram	0.07(7mg/kg/day÷ 100)	6mo dog	1992	No data	1992	0.2(20mg/kg/day ÷100)	2 yr rat	2013	E-Non-carc	1994/2013
26	Pirimiphos-methyl	0.01(0.25mg/kg/day÷ 25)	56d human	1992	No data		0.0002(0.2mg/kg/day÷ 1000)	90d rat	2009	Cannot be determined	1998/2009
27	Polychlorinated biphenyls (PCBs)						Not registered				
28	Potassium cyanide						Registration cancelled ~1988				
29	~~Potassium silver cyanide~~										
30	Prochloraz	0.009(0.9mg/kg/day÷ 100)	2 yr dog	1989	C-Q*	1997	Registration cancelled-date unknown				
31	Prometon	0.015(15mg/kg/day÷ 1000)	90d rat	1992	No data	1992	0.05(5mg/kg/day ÷ 100)	2-gen rat repro	2012	D-Not classifiable	1992/2012
32	Prometryn	0.004(3.75mg/kg/day ÷ 1000)	2 yr dog	1992	No data	1992	0.04(3.75mg/kg/day÷ 100)	chronic dog	2013	E-Non-carc	1994/2013
33	Pronamide	0.075(7.5mg/kg/day ÷100)	2 yr dog	1994	No data	1994	0.08(8.46mg/kg/day ÷100)	2 yr rat	2009	B2-Likely	2001/2009
34	Propachlor	0.013(13.3mg/kg/day ÷ 1000)	90d rat	1992	No data	1992	0.054(5.4mg/kg/day 100)÷	2 yr rat	1997	Likely	1997
35	Propanil	0.005(5mg/kg/day÷ 1000)	2 yr rat	1992	No data	1992	0.009(9mg/kg/day÷ 1000)	2 yr rat	2006	Suggestive -no Q*	2001/2003
36	Propargite	0.02(22.5mg/kg/day ÷ 1000)	2 yr dog,rabbit develop-1990		No data	1990	0.04(4mg/kg/day ÷100)	2 yr rat	2001	B2-Probable	1992/2001
37	Propargyl alcohol						Not registered; approved for use as a non-food inert				

38	Propazine	0.02(5mg/kg/day ÷ 300)	2 yr rat	1990	No data	1990	0.018(1.8mg/kg/day ÷100)	6mo rat LH surge	2013	Not likely	2005/2013
39	Propham						Registration cancelled 1984-1987				
40	Propiconazole	0.013(1.3mg/kg/day ÷ 100)	1 yr dog	1992	No data	1992	0.1(10mg/kg/day÷ 100)	2 yr mouse	2013	Possible-C noQ*	1992/2013
41	beta-Propiolactone						Not registered				
42	Propionaldehyde						Not registered as an active; approved for use as a non-food use inert				
43	Propylene glycol	No data		1991	No data	1991	Approved for use as a food, non-food, fragrance inert No RfD needed		2006	No data-not needed	2006
44	~~Propylene glycol monoethyl ether~~										
45	Propylene glycol monomethyl ether						Approved for food, non-food, fragrance use as an inert				
46	Propylene oxide	No data		1990/1994	B2-probable	1994	0.001(1.4mg/kg/day÷ 1000)	2 yr rat	2006	B2-Probable	2006
47	~~Propyleneimine~~										
48	Pursuit (imazethapyr)	0.25(25mg/kg/day ÷ 100)	1 yr dog	1990	No data		2.5(250 mg/kg/day ÷ 100)	1 yr dog	2006	E-Non-carc	2002/2006
49	Pydrin (fenvalerate)						Registration cancelled 2008				
50	~~Pyrene~~										
51	Pyridine						Registration cancelled ~1985				

	Substance	IRIS RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer call	Date	OPP RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer Call	Date
1	Quinalphos						Not registered				
2	~~Quinoline~~										
3	Quinone						Registration cancelled 1986				
1	~~Radium 226,228~~										
2	~~Radon 222~~										
3	~~Refractory ceramic fibers~~										
							Registration cancelled 2013				
4	Resmethrin	0.02(25mg/kg/day ÷1000)	3-gen rat repro	1988	No data	1988	0.035(35mg/kg/day ÷1000)	2 gen repro	2006	Likely	2005
5	Rotenone	0.004(0.38mg/kg/day÷ 100)	2-gen rat repro	1988	No data	1988	0.0004(0.375mg/kg/day÷ 1000)	2 yr rat	2007	E-Non-carc	1988/2007
1	Savey (hexythiazox)	0.025(2.5mg/kg/day ÷100)	1 yr dog	1988	No data	1988	0.025(2.5mg/kg/day÷ 100)	1 yr dog	2013	Likely-no Q*	2009
2	~~Selenious acid~~										
3	~~Selenium and Compounds~~										
4	~~Selenium sulfide~~										
5	~~Selenourea~~										
6	Sethoxydim	0.09(9mg/kg/day ÷100)	1 yr dog	1989	No data	1989	0.14(13.8mg/kg/day÷ 100)	chronic mouse	2005	Not likely	2003/2005
7	Silver	0.005(0.014mg/kg/day ÷3)	2-9yr human	1996	D-Not classifiable	1989	0.005(0.014mg/kg/day ÷3)	2-9yr human	1993	D-Not classifiable	1988
8	~~Silver cyanide~~										
9	Simazine	0.005(0.52mg/kg/day÷ 100)	2 yr rat	1994	No data	1994	0.0018(1.8mg/kg/day÷ 100)	6 mo LH surge rat	2013	Not likely	2005
10	Sodium azide						Registration cancelled ~1989				
11	Sodium cyanide	0.0006(1.9mg/kg/day÷ 3000)	90day rat	2010	Inadquate data	2010	No cRfD warranted		2010	Inadequate data	2006
12	~~Sodium diethyldithiocarbamate~~										
13	Sodium fluoroacetate	0.00002(0.05mg/kg/day÷ 3000)	90d rat	1991	No data	1991	No cRfD warranted		2010	No data	2010
14	~~Strontium~~										
15	Strychnine	0.0003(2.5mg/kg/day÷ 10000)	28d rat	1988	No data	1988	No cRfD warranted		1996	No classification	1996
16	~~Styrene~~										
17	Systhane (myclobutanil)	0.025(2.5mg/kg/day÷ 100)	2 yr rat	1995	No data	1995	0.005(15mg/kg/day÷ 3000)	rat repro	2007	Inadequate data	2007

	Substance	IRIS RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer call	Date	OPP RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer Call	Study used	Date
1	Tebuthiuron	0.07(7mg/kg/day÷ 100)	2-gen rat	1992	No data	1992	0.14(14mg/kg/day÷ 100)	2-gen rat repro	2009	D-Not classifiable		1993/2009
2	Terbacil	0.013(1.25mg/kg/day÷ 100)	2 yr dog	1989	No data	1989	0.014(1.4mg/kg/day ÷100)	2 yr rat	2011	Not likely		1994/2011
3	Terbutryn	0.001(0.1mg/kg/day ÷100)	2 yr rat	1989	No data	1989	0.001(0.1mg/kg/day ÷100)	2 yr rat	2013	C noQ*-Possible		1988/2013
4	~~Tetrabromodiphenyl ether~~											
5	~~2,2',4,4'-Tetrabromodiphenyl ether~~											
6	~~1,2,4,5-Tetrachlorobenzene~~											
7	~~Tetrachlorocyclopentadiene~~											
8	~~2,3,7,8-Tetrachlorodibenzo-p-dioxin~~											
9	~~1,1,1,2-Tetrachloroethane~~											
10	1,1,2,2-Tetrachloroethane						Registration cancelled-date unknown; approved for use as non-food use inert					
11	Tetrachloroethylene						Registration cancelled 1991					
12	~~2,3,4,6-Tetrachlorophenol~~											
13	Tetrachlorvinphos	0.03(3.13mg/kg/day ÷100)	2 yr dog	1992	No data	1992	0.042(4.23mg/kg/day ÷100)	2 yr rat	2008	CQ*-Possible		2002/2008
14	~~Tetraethyl lead~~											
15	Tetraethyldithiopyrophosphate						Registration cancelled 2002					
16	1,1,1,2-Tetrafluoroethane						Registration cancelled- date unknown;		approved for use as a food and non-food inert			
17	Tetrahydrofuran						Approved as a non-food use inert					
18	~~Thallium (I), soluble salts~~											
19	~~Thallium acetate~~											
20	~~Thallium carbonate~~											
21	~~Thallium chloride~~											
22	~~Thallium nitrate~~											
23	~~Thallium oxide~~											
24	~~Thallium selenite~~											
25	Thallium(I) sulfate						Not registered					
26	Thiobencarb	0.01(1mg/kg/day÷ 100)	2 yr rat	1992	No data	1992	0.01(1.0mg/kg/day÷ 100)	3 rat studies	2011	D-Not classifiable		1996/2011
27	Thiophanate-methyl	0.08(8 mg/kg/day ÷ 100)	2 yr rat	1992	No data	1992	0.08(8mg/kg/day ÷100)	chronic dog	2009	Likely		1999/2009
28	Thiram	0.005(5 mg/kg/day÷ 1000)	2 yr rat	1992	No data	1992	0.015(1.5mg/kg/day÷ 100)	2 yr rat	2004	Not likely		2003/2004
29	Toluene						Registration cancelled 1983-1987;	approved for non-food use as an inert				
30	~~2,4-/2,6-Toluene diisocyanate mixture~~											
31	Toxaphene						Registration cancelled ~1982					
							Registration cancelled 2011					
32	Tralomethrin	0.0075 (0.75mg/kg/day÷ 100)	2 yr rat, 2 gen rat	19	No data	1990	0.01(1mg/kg/day ÷100)	rat neuro	2010	Not assessed		2010
33	Triallate	0.013(1.275mg/kg/day ÷ 100)	2 yr dog	1992	No data	1992	0.025(2.5mg/kg/day÷ 100)	2 yr rat	2001	C Q*-possible		1994
34	Triasulfuron	0.01(1.2 mg/kg/day ÷ 100)	2 yr mouse	1991	No data	1991	0.01(1.2mg/kg/day ÷100)	2 yr mouse	2012	E-No evidence		1991/2012
35	~~1,2,4-Tribromobenzene~~											
36	~~Tribromochloromethane~~											
37	~~Tribromodiphenyl ether~~											
38	Tributyltin oxide (TBTO)	0.0003(0.03 mg/kg/day ÷ 100)	rat immunotox	1997	D-Not classifiable	1997	0.0003(0.03mg/kg/day÷ 100)	rat immunotox	2008	Not determined		2008
39	1,1,2-Trichloro-1,2,2-trifluoroethane						Registration cancelled-1991;	approved for use as a non-food inert				
40	Trichloroacetic acid						Registration cancelled ~1987					
41	1,2,4-Trichlorobenzene						Registration cancelled ~1986					
42	~~Trichlorocyclopentadiene~~											

43	1,1,1-Trichloroethane						Registration cancelled ~1989; approved for use as non-food inert					
44	1,1,2-Trichloroethane						Inert use revoked					
45	Trichloroethylene						Registration cancelled 1985-1989; no inert use approved					
46	Trichlorofluoromethane						Registration cancelled 1991; approved for use as a non-food inert					
47	2,4,5-Trichlorophenol						Registration cancelled 1987; approved for use as a non-food inert					
48	2,4,6-Trichlorophenol						Registration cancelled 1986-1989					
49	2(2,4,5-Trichlorophenoxy) propionic acid (Silvex)						Registration cancelled 1983					
50	2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)						Registration cancelled 1983					
51	~~1,1,2-Trichloropropane~~											
52	~~1,2,3-Trichloropropane~~											
53	Tricresol						Registration cancelled 1987					
54	Tridiphane						Registration cancelled 2001					
55	~~Triethylamine~~											
56	~~Triethylene glycol monobutyl ether~~											
57	~~Triethylene glycol monoethyl ether~~											
58	Trifluralin	0.0075(7.5 mg/kg/day ÷100)	1 yr dog	1989	No data	1989	0.024(2.4mg/kg/day÷ 100)	chronic dog	2012	C Q*-Possible		1986/2012
59	~~2,2,4-Trimethylpentane~~											
60	~~1,3,5-Trinitrobenzene~~											
61	~~2,4,6-Trinitrotoluene (TNT)~~											

	Substance	IRIS RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer call	Date	OPP RfD (NOAEL or LOAEL/UF)	Study used	Date	Cancer Call	Date
1	~~Uranium, natural~~										
2	~~Uranium, soluble salts~~										
3	Urea	No RfD		2011	Inadequate information	2011	No registration as of 2010; new one requested 2011;approved for use as food, non-food use inert)				
1	~~Vanadium pentoxide~~										
2	Vernam (vernolate)						Registration cancelled 1999				
3	Vinclozolin	0.025(2.5 mg/kg/day ÷ 100)	6 mo dog	1992	No data	1992	0.012(1.2 mg/kg/day÷ 100)	2 yr rat	2000	C Q* and no Q*-Possible	2000
4	Vinyl acetate						Approved for use as a non-food inert				
5	~~Vinyl bromide~~										
6	Vinyl chloride						Approved for use as a non-food inert				
1	Warfarin	0.0003(0.029 mg/kg/day÷ 100)	Human data	1988	no data	1988	No RfD warranted; no food uses		1991	No data	1991
2	White phosphorus						Registration cancelled 1982-1986				
1	Xylenes	0.2(179 mg/kg/day ÷ 1000)	chronic rat	2003	Inadequate data	2003	No RfD warranted;approved as food, non-food, fragrance		2005	Not determined	2005
1	Zinc and Compounds	0.3(0.91 mg/kg day ÷ 3)	Human studies	2003	Inadequate data	2003	No RfD warranted-FDA GRAS		2009	Not formally evaluated, but not likely-1992	
2	~~Zinc cyanide~~										
3	Zinc phosphide	0.0003(3.48 mg/kg/day ÷ 10000)	90d rat	1990	No data	1990	0.0001(0.1 mg/kg/day÷ 1000)	90d rat	1998	Not determined	1998
4	Zineb						Registration cancelled 1989				