

PROPOSITION 65 SAFE HARBOR LEVELS:

No Significant Risk Levels for
Carcinogens and
Maximum Allowable Dose Levels for
Chemicals Causing Reproductive
Toxicity

June 2012



**Reproductive and Cancer Hazard Assessment Branch
Office of Environmental Health Hazard Assessment
California Environmental Protection Agency**

Proposition 65 Safe Harbor Levels Development

The Office of Environmental Health Hazard Assessment (OEHHA) of the California Environmental Protection Agency is the lead agency for the implementation of Proposition 65*. In that role, OEHHA has developed Proposition 65 safe harbor levels – No Significant Risk Levels (NSRLs) for carcinogens and Maximum Allowable Dose Levels (MADLs) for chemicals that cause reproductive toxicity. The NSRL is the daily intake level for a chemical calculated to result in one excess case of cancer in an exposed population of 100,000, assuming lifetime exposure to the chemical at the level in question. The MADL is the level at which a chemical listed for reproductive toxicity would have no observable effect assuming exposure at 1,000 times that level. NSRLs and MADLs assist interested parties in determining whether warnings are required for exposures to listed chemicals, and whether discharges of listed chemicals to sources of drinking water are prohibited. NSRLs and MADLs are promulgated as regulations in Title 27, California Code of Regulations,[†] sections 25705, 25709, and 25805.

Safe harbor levels may be based on risk assessments conducted outside OEHHA, as provided for in Sections 25705(b), 25705(c), and 25805. In some cases, this can expedite safe harbor level development. However, the process of review and consideration of existing risk assessments can be a lengthy one, and will depend on the complexity of the scientific information underlying the assessment, as well as on available resources.

This document provides the status of the development and adoption of safe harbor levels for all chemicals on the Proposition 65 list. Part A reports NSRLs adopted in regulation for carcinogens. Part B reports MADLs adopted in regulation for chemicals that cause reproductive toxicity. Parts C and D give priority levels for development of NSRLs and MADLs, respectively. Parts C and D also include safe harbor levels that have been proposed, but not adopted, in regulation.

OEHHA assigns priority levels based on the following factors: availability and quality of scientific data for dose-response assessments, potential for exposure, resources available to perform the assessment, needs expressed by interested parties, and input from the public and the Attorney General's office. Priority assignments change as assessments are completed or the basis for the priority changes. Interested parties are invited to recommend changes in priority levels. In general, OEHHA gives priority to chemicals that are newly added to the Proposition 65 list and aims to propose safe harbor levels for them within one year of their addition to the list.

This status report will be updated on a regular basis.

* The Safe Drinking Water and Toxic Enforcement Act of 1986, codified at Health and Safety Code Section 25249.5.

[†] All further section references are to Title 27 of the California Code of Regulations unless otherwise indicated.

TABLE OF CONTENTS

A. No Significant Risk Levels (NSRLs) Adopted in Regulation for Carcinogens	1
B. Maximum Allowable Dose Levels (MADLs) Adopted in Regulation for Chemicals Causing Reproductive Toxicity	8
C. Priority List for the Development of NSRLs for Carcinogens	10
D. Priority List for the Development of MADLs for Chemicals Causing Reproductive Toxicity.....	13

A. No Significant Risk Levels (NSRLs) Adopted in Regulation for Carcinogens

The table below lists NSRLs for Proposition 65 carcinogens in regulation (Sections 25705 and 25709), in units of micrograms per day ($\mu\text{g/day}$). These levels provide “safe harbor” for persons subject to the Act, and do not preclude the use of alternative levels that can be demonstrated by their users as being scientifically valid.

A three-tiered procedure for development of NSRLs is currently in place. NSRLs may be based on:

- a *de novo* dose response assessment conducted or reviewed by OEHHA (Section 25705(b)),
- an assessment conducted by another state or federal agency (Section 25705(c)), or
- an expedited process conducted by OEHHA (Section 25705(d)).

The last column of the table below indicates which of these processes was used to develop the NSRL for each chemical. NSRLs represent the daily intake level of a chemical calculated to result in a cancer risk of one excess case of cancer in 100,000 individuals exposed over a lifetime.

NSRLs for chemicals in bold have been adopted since the last report. If a chemical is removed from the Proposition 65 list, the regulatory process to remove the safe harbor level from regulation will be initiated.

Carcinogen	Level ($\mu\text{g/day}$)	Section
A-alpha-C (2-Amino-9H-pyrido[2,3-b]indole)	2	25705(d)
Acetaldehyde	90 (inhalation)	25705(c)
Acetamide	10	25705(d)
2-Acetylaminofluorene	0.2	25705(d)
Acrylamide	0.2	25705(c)
Acrylonitrile	0.7	25705(b)
Actinomycin D	0.00008	25705(d)
AF-2; [2-(2-furyl)-3(5-nitro-2-furyl)acrylamide]	3	25705(d)
Aldrin	0.04	25705(b)
2-Aminoanthraquinone	20	25705(d)
<i>o</i> -Aminoazotoluene	0.2	25705(d)
4-Aminobiphenyl	0.03	25705(d)
3-Amino-9-ethylcarbazole hydrochloride	9	25705(d)
1-Amino-2-methylantraquinone	5	25705(d)
2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole	0.04	25705(d)
Amitrole	0.7	25705(d)
Aniline	100	25705(c)
<i>o</i> -Anisidine	5	25705(d)

Carcinogen	Level (µg/day)	Section
<i>o</i> -Anisidine hydrochloride	7	25705(d)
Aramite	20	25705(d)
Arsenic (inorganic)	0.06 (inhalation) 10 (except inhalation)	25705(b) 25709
Asbestos [NSRL for fibers ≥ 5 micrometers (µm) long and 0.3 µm wide, with a length/width ratio ≥ 3:1 as measured by phase contrast microscopy.]	100 fibers/day (inhalation)	25705(b)
Auramine	0.8	25705(d)
Azaserine	0.06	25705(d)
Azathioprine	0.4	25705(d)
Azobenzene	6	25705(c)
Benz[a]anthracene	0.033 (oral)	25705(b)
Benzene	6.4 (oral) 13 (inhalation)	25705(b) 25705(b)
Benzidine	0.001	25705(b)
Benzo[b]fluoranthene	0.096 (oral)	25705(b)
Benzo[j]fluoranthene	0.11 (oral)	25705(b)
Benzofuran	1.1	25705(b)
Benzo[a]pyrene	0.06	25705(c)
Benzyl chloride	4	25705(c)
Benzyl violet 4B	30	25705(d)
Beryllium	0.1	25709
Beryllium oxide	0.1	25705(c)
Beryllium sulfate	0.0002	25705(c)
Bis(2-chloroethyl)ether	0.3	25705(b)
Bis(chloromethyl)ether	0.02	25705(b)
Bromodichloromethane	5	25705(c)
Bromoform	64	25705(b)
1,3-Butadiene	0.4	25705(c)
Butylated hydroxyanisole	4000	25705(b)
beta-Butyrolactone	0.7	25705(d)
Cadmium	0.05 (inhalation)	25705(b)
Captafol	5	25705(d)
Captan	300	25705(d)
Carbazole	4.1	25705(d)
Carbon tetrachloride	5	25705(b)
N-Carboxymethyl-N-nitrosourea	0.70	25705(b)
Chlorambucil	0.002	25705(d)
Chlordane	0.5	25705(c)
Chlordecone (Kepone)	0.04	25705(d)
Chlorendic acid	8	25705(d)
Chlorinated paraffins [Avg. chain length C12; approx. 60% chlorine by weight]	8	25705(d)
<i>p</i> -Chloroaniline	1.5	25705(b)
<i>p</i> -Chloroaniline hydrochloride	1.9	25705(b)
Chloroethane (Ethyl chloride)	150	25705(b)
Chloroform	20 (oral) 40 (inhalation)	25705(c) 25705(c)

Carcinogen	Level (µg/day)	Section
Chloromethyl methyl ether (technical grade)	0.3	25705(d)
3-Chloro-2-methylpropene	5	25705(d)
4-Chloro-ortho-phenylenediamine	40	25705(d)
Chlorothalonil	41	25705(b)
<i>p</i> -Chloro-ortho-toluidine	3	25705(d)
<i>p</i> -Chloro- <i>o</i> -toluidine, hydrochloride	3.3	25705(d)
Chlorozotocin	0.003	25705(d)
Chromium (hexavalent compounds)	0.001 (inhalation)	25705(b)
Chrysene	0.35 (oral)	25705(b)
C.I. Basic Red 9 monohydrochloride	3	25705(d)
C.I. Direct Blue 218	50	25705(b)
Cinnamyl anthranilate	200	25705(d)
Coke oven emissions	0.3	25705(c)
<i>p</i> -Cresidine	5	25705(d)
Cupferron	3	25705(d)
Cyclophosphamide (anhydrous)	1	25705(d)
Cyclophosphamide (hydrated)	1	25705(d)
D&C Red No. 9	100	25705(d)
Dacarbazine	0.01	25705(d)
Daminozide	40	25705(d)
Dantron (Chrysazin; 1,8-Dihydroxyanthraquinone)	9	25705(d)
DDT, DDE, DDD (in combination)	2	25705(b)
DDVP (Dichlorvos)	2	25705(c)
2,4-Diaminoanisole	30	25705(d)
2,4-Diaminoanisole sulfate	50	25705(d)
4,4'-Diaminodiphenyl ether (4,4'-Oxydianiline)	5	25705(d)
2,4-Diaminotoluene	0.2	25705(d)
Dibenz[a,h]anthracene	0.2	25705(d)
7H-Dibenzo[c,g]carbazole	0.0030 (oral)	25705(b)
Dibenzo[a,h]pyrene	0.0054 (oral)	25705(b)
Dibenzo[a,i]pyrene	0.0050 (oral)	25705(b)
1,2-Dibromo-3-chloropropane	0.1	25705(b)
<i>p</i> -Dichlorobenzene	20	25705(b)
3,3'-Dichlorobenzidine	0.6	25705(b)
1,1-Dichloroethane	100	25705(d)
1,2-Dichloroethane (Ethylene dichloride)	10	25705(b)
Dichloromethane (Methylene chloride)	200 (inhalation)	25705(b)
	50	25705(c)
1,2-Dichloropropane	9.7	25705(b)
Dieldrin	0.04	25705(b)
Di(2-ethylhexyl)phthalate (DEHP)	310	25705(b)
Diethylstilbesterol	0.002	25705(d)
Diglycidyl resorcinol ether (DGRE)	0.4	25705(d)
Dihydrosafrole	20	25705(d)
3,3'-Dimethoxybenzidine (<i>o</i> -Dianisidine)	0.15	25705(b)
3,3'-Dimethoxybenzidine dihydrochloride	0.19	25705(b)
4-Dimethylaminoazobenzene	0.2	25705(d)

Carcinogen	Level (µg/day)	Section
trans-2-[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazole	2	25705(d)
7,12-Dimethylbenz(a)anthracene	0.003	25705(d)
3,3'-Dimethylbenzidine (o-Tolidine)	0.044	25705(b)
3,3'-Dimethylbenzidine dihydrochloride	0.059	25705(b)
Dimethylcarbamoyl chloride	0.05	25705(d)
1,2-Dimethylhydrazine	0.001	25705(d)
Dimethylvinylchloride	20	25705(d)
2,4-Dinitrotoluene	2	25705(c)
1,4-Dioxane	30	25705(b)
Direct Black 38 (technical grade)	0.09	25705(d)
Direct Blue 6 (technical grade)	0.09	25705(d)
Direct Brown 95 (technical grade)	0.1	25705(d)
Disperse Blue 1	200	25705(d)
Epichlorohydrin	9	25705(b)
Estradiol 17b	0.02	25705(d)
Ethylbenzene	41 (oral) 54 (inhalation)	25705(b)
Ethyl-4,4'-dichlorobenzilate (Chlorobenzilate)	7	25705(d)
Ethylene dibromide	0.2 (oral) 3 (inhalation)	25705(b) 25705(b)
Ethyleneimine	0.01	25705(d)
Ethylene oxide	2	25705(b)
Ethylene thiourea	20	25705(d)
Folpet	200	25705(c)
Formaldehyde (gas)	40	25705(c)
2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole	0.3	25705(d)
Furmecyclox	20	25705(c)
Glu-P-1 (2-Amino-6-methyldipyrido[1,2-a:3',2'-d]imidazole)	0.1	25705(d)
Glu-P-2 (2-Aminodipyrido[1,2-a:3',2'-d]-imidazole)	0.5	25705(d)
Glycidol	0.54	25705(b)
Gyromitrin (Acetaldehyde methylformylhydrazone)	0.07	25705(d)
HC Blue 1	10	25705(d)
Heptachlor	0.2	25705(c)
Heptachlor epoxide	0.08	25705(c)
Hexachlorobenzene	0.4	25705(b)
Hexachlorocyclohexane		
alpha isomer	0.3	25705(c)
beta isomer	0.5	25705(c)
gamma isomer	0.6	25705(c)
technical grade	0.2	25705(b)
Hexachlorodibenzodioxin	0.0002	25705(b)
Hexachloroethane	20	25705(d)
Hydrazine	0.04	25705(c)
Hydrazine sulfate	0.2	25705(c)
Hydrazobenzene (1,2-Diphenylhydrazine)	0.8	25705(d)
Imazalil	11	25705(c)

Carcinogen	Level (µg/day)	Section
IQ (2-Amino-3-methylimidazo[4,5-f]quinoline)	0.5	25705(d)
Isobutyl nitrite	7.4	25705(d)
Lasiocarpine	0.09	25705(d)
Lead	15 (oral)	25705(b)
Lead acetate	23 (oral)	25705(b)
Lead phosphate	58 (oral)	25705(b)
Lead subacetate	41 (oral)	25705(b)
Me-A-alpha-C (2-Amino-3-methyl-9H-pyrido[2,3-b]indole)	0.6	25705(d)
MeIQ (2-amino-3,4-dimethylimidazo-[4,5-f]quinoline)	0.46	25705(d)
MeIQx (2-Amino-3,8-dimethylimidazo[4,5-f]quinoxaline)	0.41	25705(d)
Melphalan	0.005	25705(d)
2-Methylaziridine (Propyleneimine)	0.028	25705(b)
Methyl carbamate	160	25705(d)
3-Methylcholanthrene	0.03	25705(d)
5-Methylchrysene	0.0084 (oral)	25705(b)
4,4'-Methylene bis(2-chloroaniline)	0.5	25705(d)
4,4'-Methylene bis(N,N-dimethyl)benzeneamine	20	25705(c)
4,4'-Methylene bis(2-methylaniline)	0.8	25705(d)
4,4'-Methylenedianiline	0.4	25705(d)
4,4'-Methylenedianiline dihydrochloride	0.6	25705(d)
Methylhydrazine	0.058 (oral) 0.090 (inhalation)	25705(b) 25705(b)
Methylhydrazine sulfate	0.18	25705(b)
4-Methylimidazole	29	25705(b)
Methyl methanesulfonate	7	25705(d)
2-Methyl-1-nitroanthraquinone (of uncertain purity)	0.2	25705(d)
N-Methyl-N'-nitro-N-nitrosoguanidine	0.08	25705(d)
Methylthiouracil	2	25705(d)
Michler's ketone	0.8	25705(d)
Mirex	0.04	25705(d)
Mitomycin C	0.00009	25705(d)
Monocrotaline	0.07	25705(d)
5-(Morpholinomethyl)-3-[(5-nitrofurfurylidene)-amino]-2-oxazolidinone	0.18	25705(b)
MX (3-chloro-4-(dichloromethyl)-5-hydroxy-2(5H)-furanone)	0.11	25705(b)
Nalidixic acid	28	25705(d)
Naphthalene	5.8	25705(b)
2-Naphthylamine	0.4	25705(d)
Nickel refinery dust	0.8	25705(c)
Nickel subsulfide	0.4	25705(c)
Nitrilotriacetic acid	100	25705(d)
Nitrilotriacetic acid, trisodium salt monohydrate	70	25705(d)
5-Nitroacenaphthene	6	25705(d)
Nitrofen (technical grade)	9	25705(d)
Nitrofurazone	0.5	25705(d)
1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone	0.4	25705(d)
N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide	0.5	25705(d)

Carcinogen	Level (µg/day)	Section
Nitromethane	39	25705(b)
N-Nitrosodi-n-butylamine	0.06	25705(b)
N-Nitrosodiethanolamine	0.3	25705(c)
N-Nitrosodiethylamine	0.02	25705(b)
N-Nitrosodimethylamine	0.04	25705(b)
<i>p</i> -Nitrosodiphenylamine	30	25705(d)
N-Nitrosodiphenylamine	80	25705(b)
N-Nitrosodi-n-propylamine	0.1	25705(b)
N-Nitroso-N-ethylurea	0.03	25705(b)
4-(N-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone	0.014	25705(d)
N-Nitrosomethylethylamine	0.03	25705(c)
N-Nitroso-N-methylurea	0.006	25705(b)
N-Nitroso-N-methylurethane	0.006	25705(d)
N-Nitrosomorpholine	0.1	25705(d)
N-Nitrosornicotine	0.5	25705(d)
N-Nitrosopiperidine	0.07	25705(d)
N-Nitrosopyrrolidine	0.3	25705(c)
Pentachlorophenol	40	25705(c)
Phenacetin	300	25705(d)
Phenazopyridine	4	25705(d)
Phenazopyridine hydrochloride	5	25705(d)
Phenesterin	0.005	25705(d)
Phenobarbital	2	25705(d)
Phenoxybenzamine	0.2	25705(d)
Phenoxybenzamine hydrochloride	0.3	25705(d)
<i>o</i> -Phenylenediamine	26	25705(d)
<i>o</i> -Phenylenediamine dihydrochloride	44	25705(d)
Phenyl glycidyl ether	5.0	25705(b)
Phenylhydrazine	1.0	25705(b)
Phenylhydrazine hydrochloride	1.4	25705(b)
<i>o</i> -Phenylphenate, sodium	200	25705(d)
Polybrominated biphenyls	0.02	25705(b)
Polychlorinated biphenyls	0.09	25705(c)
Polygeenan	1200	25705(b)
Ponceau MX	200	25705(d)
Ponceau 3R	40	25705(d)
Potassium bromate	1	25705(d)
Procarbazine	0.05	25705(d)
Procarbazine hydrochloride	0.06	25705(d)
1,3-Propane sultone	0.3	25705(d)
beta-Propiolactone	0.05	25705(d)
Propylthiouracil	0.7	25705(d)
Reserpine	0.06	25705(d)
Safrole	3	25705(d)
Sterigmatocystin	0.02	25705(d)
Streptozotocin	0.006	25705(d)

Carcinogen	Level (µg/day)	Section
Styrene oxide	4	25705(d)
Sulfallate	4	25705(d)
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin	0.000005	25705(b)
1,1,2,2-Tetrachloroethane	3	25705(d)
Tetrachloroethylene	14	25705(c)
Tetranitromethane	0.059	25705(b)
Thioacetamide	0.1	25705(d)
4,4'-Thiodianiline	0.05	25705(d)
Thiourea	10	25705(d)
Toluene diisocyanate	20	25705(d)
ortho-Toluidine	4	25705(d)
ortho-Toluidine hydrochloride	5	25705(d)
Toxaphene	0.6	25705(b)
Trichloroethylene	50 (oral) 80 (inhalation)	25705(b) 25705(b)
2,4,6-Trichlorophenol	10	25705(b)
Trimethyl phosphate	24	25705(d)
2,4,6-Trinitrotoluene	8.2	25705(b)
Tris(1-aziridinyl)phosphine sulfide (Thiotepa)	0.06	25705(d)
Tris(2,3-dibromopropyl)phosphate	0.3	25705(d)
Trp-P-1 (Tryptophan-P-1)	0.03	25705(d)
Trp-P-2 (Tryptophan-P-2)	0.2	25705(d)
Urethane (Ethyl carbamate)	0.7	25705(b)
Vinyl chloride	3	25705(b)
Vinyl trichloride (1,1,2-Trichloroethane)	10	25705(d)
2,6-Xylidine	110	25705(b)

B. Maximum Allowable Dose Levels (MADLs) Adopted in Regulation for Chemicals Causing Reproductive Toxicity

The following table is a compilation of MADLs in regulation (Section 25805) for Proposition 65 chemicals that cause reproductive toxicity. These levels represent the No Observable Effect Level (NOEL) for the chemical, divided by 1,000. NOELs are set in accordance with procedures specified in Section 25803. MADLs are reported in units of micrograms per day ($\mu\text{g}/\text{day}$).

Chemical Listed as Causing Reproductive Toxicity	Level ($\mu\text{g}/\text{day}$) ^a
Acrylamide	140
Avermectin B1	4.4
Benzene	24 (oral) 49 (inhalation)
Cadmium	4.1 (oral)
Chromium (hexavalent compounds)	8.2 (oral)
2,4-D butyric acid (2,4-dichlorophenoxybutyric acid)	910
1,2-Dibromo-3-chloropropane (DBCP)	3.1 (oral) 4.3 (inhalation)
Di- <i>n</i> -butyl phthalate (DBP)	8.7
Di(2-ethylhexyl)phthalate (DEHP)	
adults	4200 (intravenous)
infant boys, age 29 days to 24 months ^b	600 (intravenous)
neonatal infant boys, age 0 to 28 days ^b	210 (intravenous)
Di(2-ethylhexyl)phthalate (DEHP)	
adults	410 (oral)
infant boys, age 29 days to 24 months ^b	58 (oral)
neonatal infant boys, age 0 to 28 days ^b	20 (oral)
Di- <i>n</i> -hexyl phthalate (DnHP)	2200 (oral)
Di-isodecyl phthalate (DIDP)	2200
<i>m</i> -Dinitrobenzene	38
Disodium cyanodithiomidocarbonate [32% pesticidal formulation]	56 (oral) 170 (oral)
Ethyl dipropylthiocarbamate	700 (oral and inhalation) 6700 (dermal)
Ethylene glycol monoethyl ether (EGEE)	750 (oral) 960 (inhalation)
Ethylene glycol monoethyl ether acetate (EGEEA)	1100 (oral) 1400 (inhalation)
Ethylene glycol monomethyl ether	63 (oral)
Ethylene glycol monomethyl ether acetate	98 (oral)
Ethylene oxide	20
Hydramethylnon	120 (oral)
Lead	0.5
Linuron	460
Methyl bromide as a structural fumigant	810 (inhalation)

Chemical Listed as Causing Reproductive Toxicity	Level (µg/day) ^a
N-Methylpyrrolidone	3200 (inhalation) 17000 (dermal)
Potassium dimethyldithiocarbamate	720
Quizalofop-ethyl	590
Sodium dimethyldithiocarbamate [40% pesticidal formulation]	23 (oral) 58 (oral)
Thiophanate-methyl	600 (oral)
Toluene	7000 ^c

^a Where a source or product results in exposures by multiple routes, the total exposure must be considered. For example, the MADL for benzene is exceeded when the absorbed dose exceeds 24 µg/day. If only inhalation and oral exposure occurs, the benzene MADL is exceeded when:

$$(\text{oral dose} \div 24 \text{ } \mu\text{g/day}) + (\text{inhalation dose} \div 49 \text{ } \mu\text{g/day}) > 1.0$$

^b Levels for male children and adolescents were calculated by application of the default bodyweights specified in Section 25703(a)(8) to the procedure specified in Sections 25801 and 25803.

^c Level represents absorbed dose (rounded from 6,525 µg/day). Since 100% of ingested toluene is absorbed, oral dose is equivalent to administered dose. It is assumed that roughly 50% of the dose administered by the inhalation route is absorbed. Therefore the MADL for inhaled toluene is 13,000 µg/day (rounded from 13,050 µg/day), corresponding to an absorbed dose of 6,525 µg/day.

C. Priority List for the Development of NSRLs for Carcinogens

OEHHA has developed the following priority list, which classifies into four priorities carcinogens for which NSRLs have not been adopted. OEHHA assigns priority levels based on the availability and quality of scientific data for dose-response assessments, potential for exposure, resources available to perform the assessment, need expressed by interested parties and input from the public and Attorney General's office. OEHHA anticipates proposing NSRLs for many of the chemicals in the first priority group within the next year, and anticipates proposing NSRLs within the next two to five years for many of the chemicals in the second priority group. It is unlikely that NSRLs for third and fourth priority chemicals will be released within the next five years.

Priority assignments change as assessments are completed or the basis for the priority changes. Any interested party may submit recommendations to OEHHA for revising the priority assignment for any of the chemicals listed, preferably with a supporting rationale for the change in priority. In general, OEHHA will give priority to chemicals that are newly added to the Proposition 65 list and propose safe harbor levels for them within one year of their addition to the list.

If a level is currently being proposed for adoption in regulation, it is provided below in the first priority group. Chemicals in bold font have been added to the Proposition 65 list or changed in priority status since the last report.

First Priority for NSRL Development		
Androstenedione	Hexachlorobutadiene	Polychlorinated biphenyls (Proposed: 0.35 µg/day (food chain exposures))
Bromate	2,4-Hexadienal (89% trans, trans isomer; 11% cis, trans isomer)	Propylene glycol mono-t-butyl ether
Bromochloroacetic acid	Kresoxim-methyl	Pymetrozine
Bromoethane	Methyl isobutyl ketone	Pyridine
Carbaryl	N-Methylolacrylamide	Resmethrin
Cumene	MON 4660 (dichloroacetyl-1-oxa-4-azaspiro(4,5)-decane)	Trichloroethylene (Proposed: 14 µg/day oral and 50 µg/day inhalation)
Cyclopenta[cd]pyrene	MON 13900 (furilazole)	1,2,3-Trichloropropane
Dibromoacetic acid	3-Monochloropropane-1,2-diol	Tris(1,3-dichloro-2-propyl)-phosphate (Proposed: 5.4 µg/day)
Dibromoacetonitrile	o-Nitrotoluene	
1,3-Dichloro-2-propanol	Ochratoxin A	
Diclofop-methyl	Oryzalin	
Diuron		
Epoxiconazole		
Furan		
Second Priority for NSRL Development		
Alachlor	Anthraquinone	2,2-Bis(bromomethyl)-1,3-propanediol
<i>p</i> -Aminoazobenzene	Antimony oxide	Catechol
Aniline hydrochloride	Benzotrichloride	

Ceramic fibers (airborne particles of respirable size)	1,4-Dichloro-2-butene	<i>o</i> -Phenylphenol
1-Chloro-4-nitrobenzene	1,3-Dichloropropene	Progesterone
Chloroprene	Diesel engine exhaust	Propoxur
5-Chloro- <i>o</i> -toluidine and its strong acid salts	Diethyl sulfate	Propylene oxide
C.I. Acid Red 114	Dimethyl sulfate	Quinoline and its strong acid salts
C.I. Direct Blue 15	1,1-Dimethylhydrazine (UDMH)	Spirodiclofen
Cobalt sulfate heptahydrate	Indium phosphide	Tetrafluoroethylene
D&C Orange No. 17	Isoprene	S,S,S-Tributyl phosphorotrithioate
Diaminotoluene (mixed)	Methyleugenol	Tris(2-chloroethyl)phosphate
Dichloroacetic acid	Methyl iodide	Vanadium pentoxide (orthorhombic crystalline form)
3,3'-Dichlorobenzidine dihydrochloride	1-Naphthylamine	Vinyl bromide
	Nitrapyrin	4-Vinylcyclohexene
	Nitrobenzene	
	2-Nitropropane	

Third Priority for NSRL Development

Acetochlor	Cobalt metal powder	Estrogens, steroidal
Acifluorfen sodium	Cobalt [II] oxide	Estrone
Aflatoxins	Cobalt sulfate	Estropipate
1-Amino-2,4-dibromoanthraquinone	Daunomycin	Ethinylestradiol
Areca nut	N,N'-Diacetylbenzidine	Ethoprop
Azacitidine	Diazoaminobenzene	Ethyl acrylate
Benthiavalicarb-isopropyl	Dibenz[a,h]acridine	Fenoxycarb
Benzidine-based dyes	Dibenz[a,j]acridine	Fumonisin B ₁
Benzo[k]fluoranthene	Dibenzo[a,e]pyrene	Furazolidone
Betel quid without tobacco	Dibenzo[a,l]pyrene	Fusarin C
N,N-Bis(2-chloroethyl)-2-naphthylamine	2,3-Dibromo-1-propanol	Gallium arsenide
Bischloroethyl nitrosourea (BCNU) (Carmustine)	3,3'-Dichloro-4,4'-diaminodiphenyl ether	Ganciclovir
Bis(2-chloro-1-methylethyl)ether, technical grade	Dienestrol	Gasoline engine exhaust (condensates/extracts)
1,4-Butanediol dimethanesulfonate (Busulfan)	Diepoxybutane	Gemfibrozil
Cacodylic acid	1,2-Diethylhydrazine	Glass wool fibers (inhalable and biopersistent)
Carbon black (airborne, unbound particles of respirable size)	Diisopropyl sulfate	Glycidaldehyde
Chloramphenicol	3,3'-Dimethoxybenzidine-based dyes metabolized to 3,3'-dimethoxybenzidine	Griseofulvin
Chlordimeform	3,3'-Dimethylbenzidine-based dyes metabolized to 3,3'-dimethylbenzidine	Hexamethylphosphoramide
1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU)	1,6-Dinitropyrene	1-Hydroxyanthraquinone
1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea	1,8-Dinitropyrene	Indeno[1,2,3-cd]pyrene
Chlorotrianisene	2,6-Dinitrotoluene	Iprodione
Ciclosporin (Cyclosporin A; Cyclosporine)	2,4-/2,6-Dinitrotoluene mixture	Iprovalicarb
Cidofovir	Diphenylhydantoin (Phenytoin)	Isoxaflutole
C.I. Solvent Yellow 14	Diphenylhydantoin (Phenytoin), sodium salt	Lactofen
Cisplatin	Di-n-propyl isocinchomeronate (MGK Repellent 326)	Malonaldehyde, sodium salt
Clofibrate	Doxorubicin hydrochloride (adriamycin)	Mancozeb
	Estragole	Maneb
		Medroxyprogesterone acetate
		Mepanipyrim
		Merphalan
		Mestranol
		Metam potassium
		Metham sodium

Methylmercury compounds	Oxythioquinox (Chinomethionat)	Terrazole
Metiram	Oxymetholone	Testosterone and its esters
Metronidazole	Panfuran S	p-a,a,a-Tetrachlorotoluene
Mustard Gas	PhiP	Thiodicarb
Nafenopin	Pirimicarb	Thiouracil
Nickel and nickel compounds	Polychlorinated dibenzo- <i>p</i> -dioxins	Thorium dioxide
Nickel carbonyl	Polychlorinated dibenzofurans	Titanium dioxide (airborne, unbound particles of respirable size)
Niridazole	Primidone	Treosulfan
<i>o</i> -Nitroanisole	Procymidone	Trichlormethine (Trimustine hydrochloride)
4-Nitrobiphenyl	Pronamide	2,4,5-Trimethylaniline and its strong acid salts
6-Nitrochrysene	Propachlor	Triphenyltin hydroxide
2-Nitrofluorene	Propargite	Trypan blue (commercial grade)
1-Nitropyrene	Radionuclides	Uracil mustard
4-Nitropyrene	Selenium sulfide	Vinclozolin
Nitrogen mustard (Mechlorethamine)	Silica, crystalline (airborne particles of respirable size)	4-Vinyl-1-cyclohexene diepoxide
Nitrogen mustard hydrochloride (Mechlorethamine HCl)	Spironolactone	Vinyl fluoride
<i>N</i> -Nitrosomethylvinylamine	Stanozolol	Wood dust
<i>N</i> -Nitrososarcosine	Strong inorganic acid mists containing sulfuric acid	Zileuton
Norethisterone (Norethindrone)	Sulfasalazine (salicylazosulfapyridine)	
Oxadiazon	Tamoxifen and its salts	
Oxazepam		

Fourth Priority for NSRL Development

Alcoholic beverages	Estrogen-progestogen (combined) used as menopausal therapy	Nitrogen mustard N-oxide hydrochloride
2-Aminofluorene	Ethanol in alcoholic beverages	3-(<i>N</i> -Nitrosomethylamino)propio- nitrile
4-Amino-2-nitrophenol	Ethyl methanesulfonate	Norethynodrel
Amsacrine	Etoposide	Oil Orange SS
Analgesic mixtures containing phenacetin	Etoposide in combination with cisplatin and bleomycin	Oral contraceptives, combined
Aristolochic acid	Herbal remedies containing plant species of the genus Aristolochia	Oral contraceptives, sequential
Betel quid with tobacco	Iron dextran complex	Palygorskite fibers
Bitumens, extracts of steam- refined	Leather dust	Phenolphthalein
Bracken fern	Lynestrenol	Residual (heavy) fuel oils
Caffeic acid	Marijuana Smoke	Riddelliine
Carbon-black extracts	8-Methoxypsoralen with ultraviolet A therapy	Salted fish, Chinese-style
Certain combined chemotherapy for lymphomas	5-Methoxypsoralen with ultraviolet A therapy	Shale-oils
Citrus Red No. 2	Methylazoxymethanol	Soots, tars, and mineral oils
Conjugated estrogens	Methylazoxymethanol acetate	Talc containing asbestiform fibers
Creosotes	MOPP (vincristine-prednisone- nitrogen mustard- procarbazine mixture)	Tobacco, oral use of smokeless products
Cycasin	Nitrogen mustard N-oxide	Tobacco smoke
Cytembena		Toxins derived from <i>Fusarium moniliforme</i> (<i>Fusarium verticillioides</i>)
D&C Red No. 8		Unleaded gasoline (wholly vaporized)
D&C Red No. 19		Zalcitabine
3,7-Dinitrofluoranthene		Zidovudine (AZT)
3,9-Dinitrofluoranthene		
Erionite		

D. Priority List for the Development of MADLs for Chemicals Causing Reproductive Toxicity

OEHHA has developed the following priority list, which divides into three priorities chemicals causing reproductive toxicity for which MADLs have not been adopted.

OEHHA assigns priority levels based on the availability and quality of scientific data for dose-response assessments, potential for exposure, resources available to perform the assessment, need expressed by interested parties, and input from the public and the Attorney General's office. OEHHA anticipates proposing MADLs for many of the chemicals in the first priority group within the next year, and for second priority chemicals within the next two to five years. It is unlikely that MADLs for chemicals in the third priority group will be released within the next five years.

Priority assignments change as assessments are completed or the basis for the priority changes. Any interested party may submit recommendations to OEHHA on revising the priority assignment for any of the chemicals listed, preferably with supporting rationale for the change in priority. In general, OEHHA will give priority to chemicals that are newly added to the Proposition 65 list and propose safe harbor levels for them within one year of their addition to the list.

If a level is currently being proposed for adoption in regulation, it is provided below in the first priority group. Chemicals in bold font have been added to the Proposition 65 list or changed in priority status since the last report.

First Priority for MADL Development		
Amitraz	Diglycidyl ether	Nitrous oxide
1-Bromopropane	N, N-Dimethylacetamide	p,p'-Oxybis(benzenesulfonyl hydrazide)
Bromoxnyl octanoate	2-Ethylhexanoic acid	Phenyl glycidyl ether
1,3-Butadiene	Ethyl-tert-butyl ether (EBTE)	Phenylphosphine
Butyl benzyl phthalate (BBP) (Proposed: 1,200 µg/day oral)	Hexafluoroacetone	Polychlorinated biphenyls (Proposed: 2.3 µg/day (food chain exposures))
N-Butyl glycidyl ether	Metham sodium	Sulfur dioxide
Carbaryl	Methanol (Proposed: 47,000 µg/day inhalation and 23,000 µg/day oral)	Tert-amyl methyl ether (TAME)
Chloroform (Proposed: 600 µg/day inhalation)	Methyl n-butyl ketone	1,3,5-Triglycidyl-s-triazinetrione
2-Chloropropionic acid	Methyl isocyanate	Vinclozolin
Chlorsulfuron	Methyl isopropyl ketone	Vinyl cyclohexene dioxide
Cycloate	α-Methyl styrene	4-Vinylcyclohexene
Dichloroacetic acid	Myclobutanil	
	Nitrobenzene	
Second Priority for MADL Development		
Arsenic (inorganic oxides)	2-Bromopropane	Dichlorophene
Bromacil lithium salt	Carbon disulfide	Diclofop methyl
Bromoxnyl	Cocaine	Ethylene thiourea

Fenoxaprop ethyl	Nicotine	Terbacil
Fluazifop butyl	Nitrapyrin	2,3,7,8-Tetrachlorodibenzo-para-dioxin (TCDD)
Fluvalinate	Oxadiazon	Triadimefon
Mercury and mercury compounds	Oxydemeton methyl	Tributyltin methacrylate
Methazole	Oxythioquinox (Chinomethionat)	Triforine
Methyl mercury	Propargite	Triphenyl tin hydroxide
Metiram	Resmethrin	
Nabam	Sodium fluoroacetate	

Third Priority for MADL Development

Acetazolamide	nitrosourea (CCNU)	Diphenylhydantoin (Phenytoin)
Acetohydroxamic acid	(Lomustine)	Doxorubicin hydrochloride (adriamycin)
Actinomycin D	Cidofovir	Doxycycline (internal use)
All-trans retinoic acid	Cladribine	Doxycycline calcium (internal use)
Alprazolam	Clarithromycin	Doxycycline hyclate (internal use)
Altretamine	Clobetasol propionate	Doxycycline monohydrate (internal use)
Amantadine hydrochloride	Clomiphene citrate	Endrin
Amikacin sulfate	Clorazepate dipotassium	Environmental tobacco smoke (ETS)
Aminoglutethimide	Codeine phosphate	Epichlorohydrin
Aminoglycosides	Colchicine	Ergotamine tartrate
Aminopterin	Conjugated estrogens	Estropipate
Amiodarone hydrochloride	Cyanazine	Ethionamide
Amoxapine	Cycloheximide	Ethyl alcohol in alcoholic beverages
Anabolic steroids	Cyclophosphamide (anhydrous)	Ethylene dibromide
Angiotensin converting enzyme (ACE) inhibitors	Cyclophosphamide (hydrated)	Etodolac
Anisindione	Cyhexatin	Etoposide
Aspirin	Cytarabine	Etretinate
Atenolol	Dacarbazine	Filgrastim
Auranofin	Danazol	Flunisolide
Azathioprine	Daunorubicin hydrochloride	Fluorouracil
Barbiturates	<i>o,p'</i> -DDT	Fluoxymesterone
Beclomethasone dipropionate	<i>p,p'</i> -DDT	Flurazepam hydrochloride
Benomyl	Demeclocycline hydrochloride (internal use)	Flurbiprofen
Benzphetamine hydrochloride	Diazepam	Flutamide
Benzodiazepines	Diazoxide	Fluticasone propionate
Bischloroethyl nitrosourea (BCNU) (Carmustine)	Dichlophenamide	Ganciclovir
Butabarbital sodium	1,1-Dichloro-2,2-bis(<i>p</i> -chlorophenyl)ethylene (DDE)	Ganciclovir sodium
1,4-Butanediol dimethanesulfonate (Busulfan)	Dicumarol	Gemfibrozil
Carbamazepine	Diethylstilbestrol (DES)	Goserelin acetate
Carbon monoxide	Diflunisal	Halazepam
Carboplatin	Dihydroergotamine mesylate	Halobetasol propionate
Chenodiol	Diltiazem hydrochloride	Haloperidol
Chlorambucil	<i>o</i> -Dinitrobenzene	Halothane
Chlorcyclizine hydrochloride	<i>p</i> -Dinitrobenzene	Heptachlor
Chlordecone (Kepone)	2,4-Dinitrotoluene	Hexachlorobenzene
Chlordiazepoxide	2,6-Dinitrotoluene	Hexamethylphosphoramide
Chlordiazepoxide hydrochloride	Dinitrotoluene (technical grade)	Histrelin acetate
1-(2-Chloroethyl)-3-cyclohexyl-1-	Dinocap	
	Dinoseb	

Hydroxyurea	Nitrogen mustard	IU, or 3,000 retinol equivalents.
Idarubicin hydrochloride	(Mechlorethamine)	Ribavirin
Ifosfamide	Nitrogen mustard hydrochloride	Rifampin
Iodine-131	(Mechlorethamine	Secobarbital sodium
Isotretinoin	hydrochloride)	Sermorelin acetate
Leuprolide acetate	Norethisterone (Norethindrone)	Streptomycin sulfate
Levodopa	Norethisterone acetate	Streptozocin (streptozotocin)
Levonorgestrel implants	(Norethindrone acetate)	Sulfasalazine
Lithium carbonate	Norethisterone	(salicylazosulfapyridine)
Lithium citrate	(Norethindrone)/Ethinyl	Sulindac
Lorazepam	estradiol	Tamoxifen citrate
Lovastatin	Norethisterone	Temazepam
Mebendazole	(Norethindrone)/Mestranol	Teniposide
Medroxyprogesterone acetate	Norgestrel	Testosterone cypionate
Megestrol acetate	Oxazepam	Testosterone enanthate
Melphalan	Oxymetholone	Tetracycline (internal use)
Menotropins	Oxytetracycline (internal use)	Tetracyclines (internal use)
Meprobamate	Oxytetracycline hydrochloride	Tetracycline hydrochloride
Mercaptopurine	(internal use)	(internal use)
Methacycline hydrochloride	Paclitaxel	Thalidomide
Methimazole	Paramethadione	Thioguanine
Methotrexate	Penicillamine	Tobacco smoke (primary)
Methotrexate sodium	Pentobarbital sodium	Tobramycin sulfate
Methyl chloride	Pentostatin	Triazolam
Methyltestosterone	Phenacemide	Trientine hydrochloride
Midazolam hydrochloride	Phenprocoumon	Trilostane
Minocycline hydrochloride (internal use)	Pimozide	Trimethadione
Misoprostol	Pipobroman	Trimetrexate glucuronate
Mitoxantrone hydrochloride	Plicamycin	Uracil mustard
Molinate	Polybrominated biphenyls	Urethane
Nafarelin acetate	Polychlorinated biphenyls	Urofollitropin
Neomycin sulfate (internal use)	Pravastatin sodium	Valproate (Valproic acid)
Netilmicin sulfate	Prednisolone sodium phosphate	Vinblastine sulfate
Nickel carbonyl	Procarbazine hydrochloride	Vincristine sulfate
Nifedipine	Propylthiouracil	Warfarin
Nimodipine	Pyrimethamine	Zileuton
Nitrofurantoin	Quazepam	
	Retinol/retinyl esters, when in daily dosages in excess of 10,000	