PROPOSITION 65 STATUS REPORT

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

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

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption.

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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 the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65 or the Act). 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 calculated to result in one excess case of cancer in an exposed population of 100,000, assuming lifetime (70-year) exposure at the level in question. The MADL is the level at which the chemical would have no observable adverse reproductive effect assuming exposure at 1,000 times that level. The NSRLs and MADLs are promulgated in Title 22, California Code of Regulations, (CCR) Sections 12705 and 12805 respectively to assist interested parties in determining whether warnings are required for exposures to listed chemicals, and whether discharges to sources of drinking water are prohibited.

Safe harbor levels may be based on risk assessments conducted outside OEHHA, as provided for in 22 CCR 12705(b), 12705(c), and 12805. In some cases, this can expedite safe harbor development. However, it should be noted that 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 intake levels calculated for all chemicals on the Proposition 65 list. In units of micrograms per day (µg/day), Part A reports NSRLs adopted in regulation for carcinogens and Part B reports MADLs adopted in regulation for chemicals that cause reproductive toxicity.

Parts C and D of this document give priority levels for development of dose response assessments for chemicals that cause cancer and reproductive toxicity, respectively. Interested parties are invited to recommend changes in priority levels. OEHHA retains the right to change priorities in response to the nature and availability of scientific information, and resources available, and requests from the public and the Attorney General's office.

Parts C and D also give draft levels, some of which have been available since the early 1990's and others of which have been updated recently. OEHHA will continue to review the basis for draft numbers and update analyses as needed, before proposing or finalizing levels for formal adoption in regulation.

This status report will be updated on a regular basis.

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

The table below lists NSRLs for Proposition 65 carcinogens in regulation (22 CCR §12705 and §12709). These levels are intended to provide "safe harbors" 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 (22 CCR §12705(b)), an assessment conducted by another state or federal agency (22 CCR §12705(c)), or an expedited process conducted by OEHHA (22 CCR §12705(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 calculated to result in a cancer risk of one excess case of cancer in 100,000 individuals exposed over a 70-year lifetime.

As chemicals are removed from the Proposition 65 list, the regulatory process to remove the safe harbor level from regulation will be initiated.

Carcinogen	Level (µg/day)	22 CCR Section [a]
A-alpha-C (2-Amino-9H-pyrido[2,3-b]indole)	2	12705(d)
Acetaldehyde	90 (inhalation)	12705(c)
Acetamide	10	12705(d)
2-Acetylaminofluorene	0.2	12705(d)
Acrylamide	0.2	12705(c)
Acrylonitrile	0.7	12705(b)
Actinomycin D	0.00008	12705(d)
AF-2; [2-(2-furyl)-3(5-nitro-2-furyl)acrylamide]	3	12705(d)
Aldrin	0.04	12705(b)
2-Aminoanthraquinone	20	12705(d)
o-Aminoazotoluene	0.2	12705(d)
4-Aminobiphenyl	0.03	12705(d)
3-Amino-9-ethylcarbazole hydrochloride	9	12705(d)
1-Amino-2-methylanthraquinone	5	12705(d)
2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole	0.04	12705(d)
Amitrole	0.7	12705(d)
Aniline	100	12705(c)
o-Anisidine	5	12705(d)
o-Anisidine hydrochloride	7	12705(d)
Aramite	20	12705(d)
Arsenic	0.06 (inh)	12705(b)
	10 (except inh)	12709
Asbestos	100 fibers[b]/day (inh)	12705(b)
Auramine	0.8	12705(d)

a. Section of Title 22, California Code of Regulations (CCR), under which the NSRL is given.

b. Fibers equal to or greater than 5 micrometers in length and 0.3 micrometers in width, with a length/width ratio greater than or equal to 3:1 as measured by phase contrast microscopy.

Carcinogen	Level (µg/day)	22 CCR Section [a]
Azaserine	0.06	12705(d)
Azathioprine	0.4	12705(d)
Azobenzene	6	12705(c)
Benzene	7	12705(b)
Benzidine	0.001	12705(b)
Benzo[a]pyrene	0.06	12705(c)
Benzyl chloride	4	12705(c)
Benzyl violet 4B	30	12705(d)
Beryllium	0.1	12709
Beryllium oxide	0.1	12705(c)
Beryllium sulfate	0.0002	12705(c)
Bis(2-chloroethyl)ether	0.3	12705(b)
Bis(chloromethyl)ether	0.02	12705(b)
Bromodichloromethane	5	12705(c)
1,3-Butadiene	0.4	12705(c)
Butylated hydroxyanisole	4000	12705(b)
beta-Butyrolactone	0.7	12705(d)
Cadmium	0.05 (inh)	12705(b)
Captafol	5	12705(d)
Captan	300	12705(d)
Carbazole	4.1	12705(d)
Carbon tetrachloride	5	12705(b)
Chlorambucil	0.002	12705(d)
Chlordane	0.5	12705(c)
Chlordecone (Kepone)	0.04	12705(d)
Chlorendic acid	8	12705(d)
Chlorinated paraffins (Ave. chain length C12; approx. 60% chlorine by weight)	8	12705(d)
Chloroform	20 (oral)	12705(c)
	40 (inh)	12705(c)
Chloromethyl methyl ether (technical grade)	0.3	12705(d)
3-Chloro-2-methylpropene	5	12705(d)
4-Chloro-ortho-phenylenediamine	40	12705(d)
Chlorothalonil	200	12705(d)
p-Chloro-ortho-toluidine	3	12705(d)
Chlorozotocin	0.003	12705(d)
Chromium (hexavalent)	0.001 (inh)	12705(b)
C.I. Basic Red 9 monohydrochloride	3	12705(d)
Cinnamyl anthranilate	200	12705(d)
Coke oven emissions	0.3	12705(c)
p-Cresidine	5	12705(d)
Cupferron	3	12705(d)
Cyclophosphamide (anhydrous)	1	12705(d)
Cyclophosphamide (hydrated)	1	12705(d)
D&C Red No. 9	100	12705(d)
Dacarbazine	0.01	12705(d)

a. Section of Title 22, California Code of Regulations (CCR), under which the NSRL is given.

Carcinogen	Level (µg/day)	22 CCR Section [a]
Daminozide	40	12705(d)
Dantron (Chrysazin; 1,8-Dihydroxyanthraquinone)	9	12705(d)
DDT, DDE, DDD (in combination)	2	12705(b)
DDVP (Dichlorvos)	2	12705(c)
2,4-Diaminoanisole	30	12705(d)
2,4-Diaminoanisole sulfate	50	12705(d)
4,4'-Diaminodiphenyl ether (4,4'-Oxydianiline)	5	12705(d)
2,4-Diaminotoluene	0.2	12705(d)
Dibenz[a,h]anthracene	0.2	12705(d)
1,2-Dibromo-3-chloropropane	0.1	12705(b)
p-Dichlorobenzene	20	12705(b)
3,3'-Dichlorobenzidine	0.6	12705(b)
1,1-Dichloroethane	100	12705(d)
1,2-Dichloroethane (Ethylene dichloride)	10	12705(b)
Dichloromethane (Methylene chloride)	200 (inh)	12705(b)
	50	12705(c)
Dieldrin	0.04	12705(b)
	300	12705(b)
Di(2-ethylhexyl)phthalate (DEHP)	80	12705(c)
Diethylstilbesterol	0.002	12705(d)
Diglycidyl resorcinol ether (DGRE)	0.4	12705(d)
Dihydrosafrole	20	12705(d)
4-Dimethylaminoazobenzene	0.2	12705(d)
trans-2-[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazole	2	12705(d)
7,12-Dimethylbenz(a)anthracene	0.003	12705(d)
Dimethylcarbamoyl chloride	0.05	12705(d)
1,2-Dimethylhydrazine	0.001	12705(d)
Dimethylvinylchloride	20	12705(d)
2,4-Dinitrotoluene	2	12705(c)
1,4-Dioxane	30	12705(b)
Direct Black 38 (technical grade)	0.09	12705(d)
Direct Blue 6 (technical grade)	0.09	12705(d)
Direct Brown 95 (technical grade)	0.1	12705(d)
Disperse Blue 1	200	12705(d)
Epichlorohydrin	9	12705(b)
Estradiol 17b	0.02	12705(d)
Ethyl-4,4'-dichlorobenzilate (Chlorobenzilate)	7	12705(d)
Ethylene dibromide	0.2 (oral)	12705(b)
	3 (inh)	12705(b)
Ethylene oxide	2	12705(b)
Ethylene thiourea	20	12705(d)
Ethyleneimine	0.01	12705(d)
Folpet	200	12705(c)
Formaldehyde (gas)	40	12705(c)
2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole	0.3	12705(d)

a. Section of Title 22, California Code of Regulations (CCR), under which the NSRL is given.

Carcinogen	Level (µg/day)	22 CCR Section [a]
Furmecyclox	20	12705(c)
Glu-P-1 (2-Amino-6-methyldipyrido[1,2-a:3',2'-d]imidazole)	0.1	12705(d)
Glu-P-2 (2-Aminodipyrido[1,2-a:3',2'-d]-imidazole)	0.5	12705(d)
Gyromitrin (Acetaldehyde methylformylhydrazone)	0.07	12705(d)
HC Blue 1	10	12705(d)
Heptachlor	0.2	12705(c)
Heptachlor epoxide	0.08	12705(c)
Hexachlorobenzene	0.4	12705(b)
Hexachlorocyclohexane		
alpha isomer	0.3	12705(c)
beta isomer	0.5	12705(c)
gamma isomer	0.6	12705(c)
technical grade	0.2	12705(b)
Hexachlorodibenzodioxin	0.0002	12705(b)
Hexachloroethane	20	12705(d)
Hydrazine	0.04	12705(c)
Hydrazine sulfate	0.2	12705(c)
Hydrazobenzene (1,2-Diphenylhydrazine)	0.8	12705(d)
IQ (2-Amino-3-methylimidazo[4,5-f]quinoline)	0.5	12705(d)
Lasiocarpine	0.09	12705(d)
Lead acetate	3	12705(d)
Lead subacetate	20	12705(d)
Me-A-alpha-C (2-Amino-3-methyl-9H-pyrido[2,3-b]indole)	0.6	12705(d)
Melphalan	0.005	12705(d)
Methyl carbamate	160	12705(d)
3-Methylcholanthrene	0.03	12705(d)
4,4'-Methylene bis(2-chloroaniline)	0.5	12705(d)
4,4'-Methylene bis(N,N-dimethyl)benzeneamine	20	12705(c)
4,4'-Methylene bis(2-methylaniline)	0.8	12705(d)
4,4'-Methylenedianiline	0.4	12705(d)
4,4'-Methylenedianiline dihydrochloride	0.6	12705(d)
Methyl methanesulfonate	7	12705(d)
2-Methyl-1-nitroanthraquinone (of uncertain purity)	0.2	12705(d)
N-Methyl-N'-nitro-N-nitrosoguanidine	0.08	12705(d)
Methylthiouracil	2	12705(d)
Michler's ketone	0.8	12705(d)
Mirex	0.04	12705(d)
Mitomycin C	0.00009	12705(d)
Monocrotaline	0.07	12705(d)
2-Naphthylamine	0.4	12705(d)
Nickel refinery dust	0.8	12705(c)
Nickel subsulfide	0.4	12705(c)
Nitrilotriacetic acid	100	12705(d)
Nitrilotriacetic acid, trisodium salt monohydrate	70	12705(d)

a. Section of Title 22, California Code of Regulations (CCR), under which the NSRL is given.

Carcinogen	Level (µg/day)	22 CCR Section [a]
5-Nitroacenaphthene	6	12705(d)
5-Nitro-o-anisidine	10	12705(d)
Nitrofen (technical grade)	9	12705(d)
Nitrofurazone	0.5	12705(d)
1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone	0.4	12705(d)
N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide	0.5	12705(d)
N-Nitrosodi-n-butylamine	0.06	12705(b)
N-Nitrosodiethanolamine	0.3	12705(c)
N-Nitrosodiethylamine	0.02	12705(b)
N-Nitrosodimethylamine	0.04	12705(b)
p-Nitrosodiphenylamine	30	12705(d)
N-Nitrosodiphenylamine	80	12705(b)
N-Nitrosodi-n-propylamine	0.1	12705(b)
N-Nitroso-N-ethylurea	0.03	12705(b)
N-Nitrosomethylethylamine	0.03	12705(c)
N-Nitroso-N-methylurea	0.006	12705(b)
N-Nitroso-N-methylurethane	0.006	12705(d)
N-Nitrosomorpholine	0.1	12705(d)
N-Nitrosonornicotine	0.5	12705(d)
N-Nitrosopiperidine	0.07	12705(d)
N-Nitrosopyrrolidine	0.3	12705(c)
Pentachlorophenol	40	12705(c)
Phenacetin	300	12705(d)
Phenazopyridine	4	12705(d)
Phenazopyridine hydrochloride	5	12705(d)
Phenesterin	0.005	12705(d)
Phenobarbital	2	12705(d)
Phenoxybenzamine	0.2	12705(d)
Phenoxybenzamine hydrochloride	0.3	12705(d)
o-Phenylphenate, sodium	200	12705(d)
Polybrominated biphenyls	0.02	12705(b)
Polychlorinated biphenyls	0.09	12705(c)
Ponceau MX	200	12705(d)
Ponceau 3R	40	12705(d)
Potassium bromate	1	12705(d)
Procarbazine	0.05	12705(d)
Procarbazine hydrochloride	0.06	12705(d)
1,3-Propane sultone	0.3	12705(d)
beta-Propiolactone	0.05	12705(d)
Propylthiouracil	0.7	12705(d)
Reserpine	0.06	12705(d)
Safrole	3	12705(d)
Sterigmatocystin	0.02	12705(d)
Streptozotocin	0.006	12705(d)
Styrene oxide	4	12705(d)
Sulfallate	4	12705(d)

a. Section of Title 22, California Code of Regulations (CCR), under which the NSRL is given.

Carcinogen	Level (µg/day)	22 CCR Section [a]
Tetrachlorodibenzo-p-dioxin	0.000005	12705(b)
1,1,2,2-Tetrachloroethane	3	12705(d)
Tetrachloroethylene	14	12705(c)
Thioacetamide	0.1	12705(d)
4,4'-Thiodianiline	0.05	12705(d)
Thiourea	10	12705(d)
Toluene diisocyanate	20	12705(d)
ortho-Toluidine	4	12705(d)
ortho-Toluidine hydrochloride	5	12705(d)
Toxaphene	0.6	12705(b)
Trichloroethylene	50 (oral)	12705(b)
	80 (inh)	12705(b)
2,4,6-Trichlorophenol	10	12705(b)
Trimethyl phosphate	24	12705(d)
Tris(1-aziridinyl)phosphine sulfide (Thiotepa)	0.06	12705(d)
Tris(2,3-dibromopropyl)phosphate	0.3	12705(d)
Trp-P-1 (Tryptophan-P-1)	0.03	12705(d)
Trp-P-2 (Tryptophan-P-2)	0.2	12705(d)
Urethane (Ethyl carbamate)	0.7	12705(b)
Vinyl chloride	3	12705(b)
Vinyl trichloride (1,1,2-Trichloroethane)	10	12705(d)

a. Section of Title 22, California Code of Regulations (CCR), under which the NSRL is given.

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

The following table is a compilation of MADLs in regulation (22 CCR §12805) 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 22 CCR §12803.

Chemical Listed as Causing Reproductive Toxicity	Level (µg/day)
Ethylene oxide	20
Lead	0.5
Toluene	7000[c]

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 Proposition 65 Carcinogens

OEHHA has developed the following priority list, which classifies into four priorities carcinogens for which dose-response assessments have not been completed. Priority levels reflect the availability and quality of scientific data for dose-response assessments, potential for exposure, resources available to perform the assessment, commitments made in settlement of the case of AFL-CIO v. Deukmejian (Sacramento Superior Court No. 3481295) and input from the public and Attorney General's office. OEHHA anticipates proposing NSRLs for the majority of chemicals in the first priority group within the next two years, and for second priority chemicals within the next two to four years. It is unlikely that NSRLs for third and fourth priority chemicals would be released within the next three years.

Any interested party may submit recommendations to OEHHA for revising the priority assignment for any of the chemicals listed. Recommendations should be accompanied by appropriate documentation supporting the alternative priority assignment suggested. OEHHA expects changes in priorities resulting from the availability of scientific information and resources, and requests from the public and Attorney General's office.

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 (22 CCR §12705(b)), an assessment conducted by another state or federal agency (22 CCR §12705(c)), or an expedited process conducted by OEHHA (22 CCR §12705(d)). The table below lists draft NSRLs and their year of release, along with the subsection of 12705 indicating the procedure used to develop the value. OEHHA will review the basis for draft numbers and update analyses as needed, before proposing or finalizing levels for formal adoption in regulation. Chemicals in bold font have been added to the Proposition 65 list since the last Status Report.

1. First Priority for NSRL Development

Acetochlor	(1992 draft NSRL: 70 µg/day [12705(c)])
Acifluorfen	(1992 draft NSRL: 20 µg/day [12705(c)])
Alachlor	(1992 draft NSRL: 9 µg/day [12705(c)])
1-Amino-2,4-dibromoanthraquinone	
Aniline hydrochloride	
Antimony oxide	
Azacitidine	
Benz[a]anthracene	(1994 draft NSRL: 0.04 µg/day [12705(b)])
Benzo[b]fluoranthene	(1994 draft NSRL: 0.04 µg/day [12705(b)])
Benzo[j]fluoranthene	(1994 draft NSRL: 0.09 µg/day [12705(b)])
Benzo[k]fluoranthene	
Benzofuran	(1992 draft NSRL: 1 µg/day [12705(b)])
Benzotrichloride	(1993 draft oral NSRL: 0.05 µg/day [12705(c)])
	(1993 draft NSRL: 0.0002 µg/day [12705(b)])
2,2-Bis(bromomethyl)-1,3-propanediol	
Bromoform	(1993 draft NSRL: 90 µg/day [12705(c)])
Carbazole	(2001 draft NSRL: 4.1 µg/day [12705(d)])
N-Carboxymethyl-N-nitrosourea	
Chlordimeform	(1992 draft NSRL: 0.5 µg/day [12705(c)])
p-Chloroaniline	
p-Chloroaniline hydrochloride	
Chloroethane (Ethyl chloride)	(2001 draft NSRL: 150 µg/day [12705(b)])
p-Chloro-*o*-toluidine, strong acid salts of	
Chrysene	(1994 draft NSRL: 0.2 µg/day [12705(b)])
C. I. Acid Red 114	

C.I. Direct Blue 15	
C.I. Direct Blue 218	
C.I. Solvent Yellow 14	
Dibenz[a,h]acridine	
Dibenz[a,j]acridine	
7H-Dibenzo[c,g]carbazole	(1994 draft NSRL: 0.0009 µg/day [12705(b)])
Dibenzo[a,e]pyrene	
Dibenzo[a,h]pyrene	(1994 draft NSRL: 0.002 µg/day [12705(b)])
Dibenzo[a,i]pyrene	(1994 draft NSRL: 0.002 µg/day [12705(b)])
Dibenzo[a,l]pyrene	
3,3'-Dichlorobenzidine dihydrochloride	
1,2-Dichloropropane	
1,3-Dichloropropene	(1993 draft oral NSRL: 4 µg/day [12705(b)]) (1993 draft inhalation NSRL: 20 µg/day [12705(c)])
Diepoxybutane	
Diethyl sulfate	(1993 draft NSRL: 0.7 µg/day [12705(b)])
3,3'-Dimethoxybenzidine (o-Dianisidine)	(1993 draft NSRL: 0.1 µg/day [12705(b)])
3,3'-Dimethoxybenzidine dihydrochloride	(1993 draft NSRL: 0.2 µg/day [12705(b)])
Dimethyl sulfate	(1993 draft NSRL: 0.05 µg/day [12705(b)])
3,3'-Dimethylbenzidine (o-Toluidine)	(1993 draft NSRL: 0.009 µg/day [12705(b)])
3,3'-Dimethylbenzidine dihydrochloride	(1993 draft NSRL: 0.01 µg/day [12705(b)])
1,1-Dimethylhydrazine (UDMH)	(1992 draft NSRL: 0.3 µg/day [12705(b)])
1,6-Dinitropyrene	(1993 draft NSRL: 0.02 µg/day [12705(b)])
1,8-Dinitropyrene	(1993 draft NSRL: 0.01 µg/day [12705(b)])
2,6-Dinitrotoluene	
Estragole	
Ethinylestradiol	
Furan	
Glycidol	(1992 draft NSRL: 0.4 µg/day [12705(b)])
Griseofulvin	(1992 draft NSRL: 50 µg/day [12705(b)])
Hexamethylphosphoramide	(1992 draft NSRL: 0.01 µg/day [12705(b)])
Indeno[1,2,3-cd]pyrene	
Isobutyl nitrite	
Isoprene	
Lactofen	(1992 draft NSRL: 4 µg/day [12705(c)])
Lead	(2001 draft oral NSRL: 15 µg/day [12705(b)])
Lead phosphate	(2001 draft oral NSRL: 58 µg/day [12705(b)])
MeIQ (2-amino-3,4-dimethylimidazo-[4,5-f]quinoline)	(2001 draft NSRL: 0.46 µg/day [12705(d)]
MeIQx (2-Amino-3,8-dimethylimidazo-[4,5-f]quinoxaline)	(2001 draft NSRL : 0.41 µg/day [12705(d)])
2-Methylaziridine (Propyleneimine)	(1992 draft NSRL: 0.03 µg/day [12705(b)])
Methyl carbamate	(2001 draft NSRL: 160 µg/day [12705(d)])
5-Methylchrysene	(1994 draft NSRL: 0.005 µg/day [12705(b)])
Methyleugenol	
Methylhydrazine	(2001 draft oral NSRL: 0.058 µg/day [12705(b)]) (2001 draft inhalation NSRL: 0.090 µg/day [12705(b)])
Methylhydrazine sulfate	(2001 draft NSRL: 0.18 µg/day [12705(b)])
N-Methylolacrylamide	(1992 draft NSRL: 2 µg/day [12705(b)])
Metronidazole	(1992 draft NSRL: 4 µg/day [12705(b)])
5-(Morpholinomethyl)-3-[(5-nitrofur-furylidene)-amino]-2-oxazolidinone	(2001 draft NSRL: 0.18 µg/day [12705(b)])

MX (3-chloro-4-(dichloromethyl)-5-hydroxy-2(5*H*)-furanone)	(2001 draft NSRL: 0.11 µg/day [12705(b)])
Nafenopin	
Nalidixic acid	
Nickel carbonyl	
o-Nitroanisole	
Nitrobenzene	
4-Nitrobiphenyl	
6-Nitrochrysene	(1993 draft NSRL: 0.002 µg/day [12705(b)])
2-Nitrofluorene	(1993 draft NSRL: 0.09 µg/day [12705(b)])
2-Nitropropane	(1993 draft inhalation NSRL: 30 µg/day [12705(b)])
1-Nitropyrene	(1993 draft NSRL: 0.6 µg/day [12705(b)])
4-Nitropyrene	(1993 draft NSRL: 0.03 µg/day [12705(b)])
4-(N-Nitrosomethylamino)-1-(3-pyridyl)1-butanone	(2001 draft NSRL: 0.014 µg/day [12705(d)])
N-Nitrosomethylvinylamine	(1993 draft NSRL: 0.004 µg/day [12705(b)])
N-Nitrososarcosine	(1993 draft NSRL: 5 µg/day [12705(b)])
Ochratoxin A	(1992 draft NSRL: 0.03 µg/day [12705(b)])
Oxazepam	
o-Phenylenediamine and its salts	
Phenyl glycidyl ether	(1992 draft NSRL: 5 µg/day [12705(b)])
Phenylhydrazine	(2001 draft NSRL: 1.0 µg/day [12705(b)])
Phenylhydrazine hydrochloride	(2001 draft NSRL: 1.4 µg/day [12705(b)])
o-Phenylphenol	
PhiP	
Polygeenan	(2001 draft NSRL: 1200 µg/day [12705(b)])
Pronamide	
Selenium sulfide	
Tetranitromethane	(1992 draft NSRL: 0.05 µg/day [12705(b)])
1,2,3-Trichloropropane	
Trimethyl phosphate	(2001 draft NSRL: 24 µg/day [12705(d)])
Tris(2-chloroethyl)phosphate	
Vinyl bromide	(1992 draft oral NSRL: 1 µg/day [12705(b)]) (1992 draft inhalation NSRL: 4 µg/day [12705(b)])
4-Vinylcyclohexene	
2,6-Xylidine	(1992 draft NSRL: 100 µg/day [12705(b)])

It is anticipated that changes to NSRLs currently in regulation will be proposed or adopted during the next year for the following chemicals:

Benzene	
Chromium (VI)	
Di(2-ethylhexyl)phthalate (DEHP)	(2001 draft NSRL: 300 µg/day [12705(b)])
Ethylene thiourea	
Lead acetate	(2001 draft oral NSRL: 23 µg/day [12705(b)])
Lead subacetate	(2001 draft oral NSRL: 41 µg/day [12705(b)])
o-Phenylphenate, sodium	
Pentachlorophenol	
Safrole	
Tetrachloroethylene	

2. <u>Second Priority for NSRL Development</u>

Aflatoxins	(1992 draft NSRL: 0.02 µg/day [12705(b)])

p-Aminoazobenzene
Bis(2-chloro-1-methylethyl)ether, technical grade
Bromoethane
Cacodylic acid
Ceramic fibers (airborne particles of respirable size)
1-Chloro-4-nitrobenzene
Chloroprene
5-Chloro-o-toluidine and its strong acid salts
Cobalt metal powder
Cobalt [II] oxide
Cobalt sulfate heptahydrate
Diaminotoluene (mixed)
2,3-Dibromo-1-propanol
Dichloroacetic acid
1,4-Dichloro-2-butene
Diesel engine exhaust
Di-n-propyl isocinchomeronate (MGK Repellent 326)
Ethoprop
Fenoxycarb
Indium phosphide
Iprodione
Isoxaflutole
Isosafrole
Metham sodium
Methyl iodide
1-Naphthylamine
Nickel and certain nickel compounds
Nitromethane
o-Nitrotoluene
Oxadiazon
Oxythioquinox
Polychlorinated dibenzo-p-dioxins
Primidone
Propachlor
Quinoline and its strong acid salts
Radionuclides
Saccharin, sodium (1993 draft NSRL: 2800 to 840000 µg/day[d] [12705(b)])
Salicylazosulfapyridine
Silica, crystalline (airborne particles of respirable size)
Testosterone and its esters
p-a,a,a-Tetrachlorotoluene
Tetrafluoroethylene
2,4,5-Trimethylaniline and its strong acid salts
Triphenyltin hydroxide
Trypan blue (commercial grade)
4-Vinyl-1-cyclohexene diepoxide

d. OEHHA evaluated several possible approaches for deriving an NSRL for sodium saccharin. The range corresponds to the options considered. If the evidence supports a finding that sodium saccharin is carcinogenic by a species-specific mechanism of action, further alternative approaches to deriving an NSRL will be considered.

3. Third Priority for NSRL Development

Adriamycin (Doxorubicin hydrochloride)
Benzidine-based dyes
N,N-Bis(2-chloroethyl)-2-naphthylamine
Bischloroethyl nitrosourea (BCNU) (Carmustine)
1,4-Butanediol dimethanesulfonate (Busulfan)
Chloramphenicol
1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU)
1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea
Chlorotrianisene
Ciclosporin (Cyclosporin A; Cyclosporine)
Cidofovir
Cisplatin
Clofibrate
Daunomycin
N,N'-Diacetylbenzidine
3,3'-Dichloro-4,4'-diaminodiphenyl ether
Dienestrol
1,2-Diethylhydrazine
Diisopropyl sulfate
2,4-/2,6-Dinitrotoluene mixture
Diphenylhydantoin (Phenytoin)
Diphenylhydantoin (Phenytoin), sodium salt
Estrone
Estropipate
Ethyl acrylate
Furazolidone
Fusarin C
Ganciclovir sodium
Gasoline engine exhaust (condensates/extracts)
Gemfibrozil
Glasswool fibers (airborne particles of respirable size)
Glycidaldehyde
Mancozeb
Maneb
Medroxyprogesterone acetate
Merphalan
Mestranol
Metiram
Mustard Gas
Niridazole
Nitrogen mustard (Mechlorethamine)
Nitrogen mustard hydrochloride (Mechlorethamine HC1)
Norethisterone (Norethindrone)
Oxymetholone
Panfuran S
Polychlorinated dibenzofurans
Procymidone
Progesterone
Propargite
Propylene oxide (1991 draft oral NSRL: 3 µg/day [12705(c)])
(1991 draft inhalation NSRL: 60 µg/day [12705(c)])
Spironolactone

Stanozolol
Tamoxifen and its salts
Terrazole
Thiodicarb
Thorium dioxide
Treosulfan
Trichlormethine (Trimustine hydrochloride)
Uracil mustard
Vinclozolin
Vinyl fluoride
Zileuton

4. Fourth Priority for NSRL Development

Alcoholic beverages
2-Aminofluorene
4-Amino-2-nitrophenol
Analgesic mixtures containing phenacetin
Betel quid with tobacco
Bitumens, extracts of steam-refined
Bracken fern
Caffeic acid
Carbon-black extracts
Certain combined chemotherapy for lymphomas
Citrus Red No. 2
Conjugated estrogens
Creosotes
Cycasin
Cytembena
D&C Orange No. 17
D&C Red No. 8
D&C Red No. 19
3,7-Dinitrofluoranthene
3,9-Dinitrofluoranthene
Erionite
Ethyl methanesulfonate
Iron dextran complex
Lynestrenol
8-Methoxypsoralen with ultraviolet A therapy
5-Methoxypsoralen with ultraviolet A therapy
Methylazoxymethanol
Methylazoxymethanol acetate
Methylmercury compounds
Nitrogen mustard N-oxide
Nitrogen mustard N-oxide hydrochloride
3-(N-Nitrosomethylamino)propionitrile
Norethynodrel
Oil Orange SS
Oral contraceptives, combined
Oral contraceptives, sequential
Palygorskite fibers
Phenolphthalein
Residual (heavy) fuel oils
Shale-oils

Soots, tars, and mineral oils
Talc containing asbestiform fibers
Tobacco, oral use of smokeless products
Tobacco smoke
Tris(aziridinyl)-para-benzoquinone (Triaziquone)
Unleaded gasoline (wholly vaporized)

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

OEHHA has developed the following priority list, which divides chemicals causing reproductive toxicity for which dose-response assessments have not been completed into three priorities. Priority levels reflect the availability and quality of scientific data for dose-response assessments, potential for exposure, resources available to perform the assessment, and input from the public and the Attorney General's office. OEHHA anticipates proposing MADLs for the majority of chemicals in the first priority group within the next two years, and for several chemicals in the second priority within the next two to four years. It is unlikely that MADLs for chemicals in the third priority group would be released within the next three years.

Any interested party may submit recommendations to OEHHA on revising the priority assignment for any of the chemicals listed. Recommendations should be accompanied by appropriate documentation supporting the alternative priority assignment suggested. OEHHA expects changes in priorities resulting from the availability of scientific information and resources and requests from the public and Attorney General's office.

Also given below are draft levels available and year of release. OEHHA will review the basis for draft numbers and update analyses as needed, before proposing or finalizing levels for formal adoption in regulation. Chemicals in bold font have been added to the Proposition 65 list since the last Status Report.

1. <u>First Priority for MADL Development</u>

Arsenic (inorganic oxides)	(2001 draft MADL: 220 µg/day)
Benzene	(2001 draft oral MADL: 24 µg/day)
	(2001 draft inhalation MADL: 49 µg/day)
Cadmium	(2001 draft MADL: 4.1 µg/day)
Carbon disulfide	(1994 draft oral MADL: 600 µg/day)
	(1994 draft inhalation MADL: 1000 µg/day)
2,4-D butyric acid	
1,2-Dibromo-3-chloropropane (DBCP)	(1994 draft MADL: 5 µg/day)
m-Dinitrobenzene	(1994 draft MADL: 80 µg/day)
Ethylene glycol monoethyl ether	
Ethylene glycol monomethyl ether	
Ethylene glycol monoethyl ether acetate	
Ethylene glycol monomethyl ether acetate	
Hydramethylnon	
Linuron	
Methyl bromide as a structural fumigant	(1994 draft MADL: 1000 µg/day)
N-Methylpyrrolidone	
Quizalofop-ethyl	(2001 draft MADL: 590 µg/day)
Thiophanate-methyl	
Vinclozolin	

2. <u>Second Priority for MADL Development</u>

Amitraz
Bromacil lithium salt
Bromoxynil
Bromoxynil octanoate
Chinomethionat (Oxythioquinox)
Chlorsulfuron

Cocaine
Cycloate
Dichlorophene
Diclofop methyl
Disodium cyanodithiomidocarbonate
Ethyl dipropylthiocarbamate
Ethylene thiourea
Fenoxaprop ethyl
Fluazifop butyl
Fluvalinate
Metham Sodium
Methazole
Metiram
Myclobutanil
Nabam
Nicotine
Nitrapyrin
Oxadiazon
Oxydemeton methyl
Potassium dimethyldithiocarbamate
Propargite
Resmethrin
Sodium dimethyldithiocarbamate
Sodium fluoroacetate
Terbacil
2,3,7,8-Tetrachlorodibenzo-para-dioxin (TCDD)
Triadimefon
Tributyltin methacrylate
Triforine

3. Third Priority for MADL Development

Acetazolamide
Acetohydroxamic acid
Actinomycin D
All-trans retinoic acid
Alprazolam
Altretamine
Amantadine hydrochloride
Amikacin sulfate
Aminoglutethimide
Aminoglycosides
Aminopterin
Amiodarone hydrochloride
Amoxapine
Anabolic steroids
Angiotensin converting enzyme (ACE) inhibitors
Anisindione
Aspirin
Atenolol
Auranofin
Azathioprine
Barbiturates
Beclomethasone dipropionate
Benomyl

Benzphetamine hydrochloride
Benzodiazepines
Bischloroethyl nitrosourea (BCNU) (Carmustine)
Butabarbital sodium
1,4-Butanediol dimethanesulfonate (Busulfan)
Carbamazepine
Carbon monoxide
Carboplatin
Chenodiol

Chlorambucil
Chlorcyclizine hydrochloride
Chlordecone (Kepone)
Chlordiazepoxide
Chlordiazepoxide hydrochloride
1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU) (Lomustine)
Cidofovir
Cladribine
Clarithromycin
Clobetasol propionate
Clomiphene citrate
Clorazepate dipotassium
Codeine phosphate
Colchicine
Conjugated estrogens
Cyanazine
Cycloheximide
Cyclophosphamide (anhydrous)
Cyclophosphamide (hydrated)
Cyhexatin
Cytarabine
Dacarbazine
Danazol
Daunorubicin hydrochloride
o,p'-DDT
p,p'-DDT
Demeclocycline hydrochloride (internal use)
Diazepam
Diazoxide
Dichlophenamide
Dicumarol
Diethylstilbestrol (DES)
Diflunisal
Dihydroergotamine mesylate
Diltiazem hydrochloride
o-Dinitrobenzene
p-Dinitrobenzene
2,4-Dinitrotoluene
2,6-Dinitrotoluene
Dinitrotoluene (technical grade)
Dinocap
Dinoseb
Diphenylhydantoin (Phenytoin)
Doxorubicin hydrochloride

Doxycycline (internal use)
Doxycycline calcium (internal use)
Doxycycline hyclate (internal use)
Doxycycline monohydrate (internal use)

Endrin
Epichlorohydrin
Ergotamine tartrate
Estropipate
Ethionamide
Ethyl alcohol in alcoholic beverages
Ethylene dibromide
Etodolac
Etoposide
Etretinate
Filgrastim
Flunisolide
Fluorouracil
Fluoxymesterone
Flurazepam hydrochloride
Flurbiprofen
Flutamide
Fluticasone propionate
Ganciclovir sodium
Gemfibrozil
Goserelin acetate
Halazepam
Halobetasol propionate
Haloperidol
Halothane
Heptachlor
Hexachlorobenzene
Hexamethylphosphoramide
Histrelin acetate
Hydroxyurea
Idarubicin hydrochloride
Ifosfamide
Iodine-131
Isotretinoin
Leuprolide acetate
Levodopa
Levonorgestrel implants
Lithium carbonate
Lithium citrate
Lorazepam
Lovastatin
Mebendazole
Medroxyprogesterone acetate
Megestrol acetate
Melphalan
Menotropins
Meprobamate
Mercaptopurine
Mercury and mercury compounds

Methacycline hydrochloride
Methimazole
Methotrexate
Methotrexate sodium
Methyl chloride
Methyl mercury
Methyltestosterone
Midazolam hydrochloride
Minocycline hydrochloride (internal use)
Misoprostol
Mitoxantrone hydrochloride
Nafarelin acetate
Neomycin sulfate (internal use)
Netilmicin sulfate
Nickel carbonyl
Nifedipine
Nimodipine
Nitrofurantoin
Nitrogen mustard (Mechlorethamine)
Nitrogen mustard hydrochloride (Mechlorethamine hydrochloride)
Norethisterone (Norethindrone)
Norethisterone acetate (Norethindrone acetate)
Norethisterone (Norethindrone)/Ethinyl estradiol
Norethisterone (Norethindrone)/Mestranol
Norgestrel
Oxazepam
Oxymetholone
Oxytetracycline (internal use)
Oxytetracycline hydrochloride (internal use)
Paclitaxel
Paramethadione
Penicillamine
Pentobarbital sodium
Pentostatin
Phenacemide
Phenprocoumon
Pimozide
Pipobroman
Plicamycin
Polybrominated biphenyls
Polychlorinated biphenyls
Pravastatin sodium
Prednisolone sodium phosphate
Procarbazine hydrochloride
Propylthiouracil
Pyrimethamine
Quazepam
Retinol/retinyl esters, when in daily dosages in
excess of 10,000 IU, or 3,000 retinol equivalents.
Ribavirin
Rifampin
Secobarbital sodium
Sermorelin acetate
Streptomycin sulfate

Streptozocin (streptozotocin)
Sulfasalazine
Sulindac
Tamoxifen citrate
Temazepam
Teniposide
Testosterone cypionate
Testosterone enanthate
Tetracycline (internal use)
Tetracyclines (internal use)
Tetracycline hydrochloride (internal use)
Thalidomide
Thioguanine
Tobacco smoke (primary)
Tobramycin sulfate
Triazolam
Trientine hydrochloride
Trilostane
Trimethadione
Trimetrexate glucuronate
Uracil mustard
Urethane
Urofollitropin
Valproate (Valproic acid)
Vinblastine sulfate
Vincristine sulfate
Warfarin
Zileuton