CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

A Compilation of
WATER QUALITY GOALS

August 2000

State of California

California Environmental Protection Agency

REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

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3443 Routier Road, Suite A
Sacramento, California 95827-3003

Phone: (916) 255-3000
CalNet: 8-494-3000

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This publication is a technical report by staff of the California Regional Water Quality Control Board, Central Valley Region. No policy or regulation is either expressed or intended.

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WATER QUALITY GOALS

August 2000

REPORT PREPARED BY:
JON B. MARSHACK, D. ENV.
Senior Environmental Specialist
Environmental/Technical Support Unit

California Regional Water Quality Control Board
Central Valley Region
Steven T. Butler, Acting Chair

Winston H. Hickox
Secretary for Environmental Protection

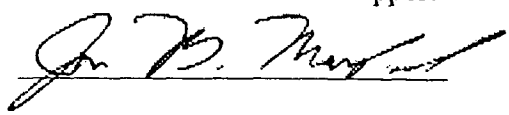
Gray Davis
Governor

Sacramento Main Office
Internet Address: http://www.swrcb.ca.gov/~rwqcb5
3443 Routier Road, Suite A, Sacramento, California 95827-3003
Phone (916) 255-3000 • FAX (916) 255-3015

TO: Technical Staff and Other Interested Persons

FROM: Jon B. Marshack, D.Env.
Senior Environmental Specialist
Environmental/Technical Support

DATE: 11 October 2000

SIGNATURE: 

SUBJECT: NEW PUBLIC HEALTH GOALS FOR CHEMICALS IN DRINKING WATER

In September 2000, the California Office of Environmental Health Hazard Assessment (OEHHA) adopted six new Public Health Goals (PHGs) for chemicals in drinking water. PHGs are levels of drinking water contaminants at which adverse health effects are not expected to occur from a lifetime of exposure. The California Safe Drinking Water Act of 1996 (Health and Safety Code Section 116365) requires OEHHA to adopt PHGs based exclusively on public health considerations. PHGs adopted by OEHHA will be considered by the California Department of Health Services in establishing or revising primary drinking water standards (California Maximum Contaminant Levels, or MCLs).

PHGs and other toxicological criteria may be used to evaluate compliance with narrative water quality objectives for Toxicity in the Basin Plans, as these objectives relate to beneficial uses involving human exposures (e.g., municipal and domestic supply or "MUN"). Therefore, ambient groundwater or surface water with chemical concentrations above PHGs could be interpreted as violating water quality objectives if the waters are designated MUN.

The new Public Health Goals for drinking water are as follows:

Carbofuran	1.7	ug/L (ppb)
Carbon tetrachloride	0.1	ug/L (ppb)
Dichloromethane (Methylene chloride)	4	ug/L (ppb)
Diquat	15	ug/L (ppb)
Thiobencarb[1]	70	ug/L (ppb)
Vinyl chloride	0.05	ug/L (ppb)

Technical support documents for these PHGs are available in electronic format. Please contact me by phone (916-255-3123 or CalNet 8-494-3123) or by e-mail (MarshaJ@rb5s.swrcb.ca.gov) if you need one or more of these documents or if you have any questions.

cc: Frances McChesney, Office of the Chief Counsel, SWRCB
Tim Regan, Office of the Chief Counsel, SWRCB

[1] This PHG covers the parent compound, (thiobencarb), its chlorobenzyl and chlorophenyl moiety-containing degradation products and oxidation products such as thiobencarb sulfoxide, thiobencarb sulfone, and 4-chlorobenzosulfonic acid.

California Regional Water Quality Control Board
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3443 Routier Road, Suite A, Sacramento, California 95827-3003
Phone (916) 255-3000 • FAX (916) 255-3015

TO: Technical Staff and Other Interested Persons

FROM: Jon B. Marshack, D.Env.
Senior Environmental Specialist
Environmental/Technical Support

DATE: 5 December 2000

SIGNATURE:

SUBJECT: NEW ACTION LEVELS AND IRIS CRITERIA FOR DRINKING WATER

DHS Action Levels

In October and November, the California Department of Health Services published eight new Action Levels for chemicals in drinking water. Action Levels are health-based advisory levels for chemicals that do not yet have primary Maximum Contaminant Levels (MCLs). The new Action Levels for drinking water are as follows:

Vanadium	15	ug/L (ppb)
sec-Butylbenzene	260	ug/L (ppb)
tert-Butylbenzene	260	ug/L (ppb)
Isopropylbenzene (Cumene)	770	ug/L (ppb)
N-Methyl dithiocarbamate (Metam sodium)	20	ug/L (ppb)
Methylisothiocyanate (MITC)	50	ug/L (ppb)
n-Propylbenzene	260	ug/L (ppb)
2,3,5,6-Tetrachlorotherephthalate	3500	ug/L (ppb)

USEPA IRIS Criteria

Since August, USEPA has published revisions to their Integrated Risk Information System (IRIS) database. IRIS contains two types of toxicologic criteria, reference doses for non-cancer health effects and cancer risk levels. Drinking water concentrations may be derived from these criteria using standard toxicologic assumptions.[1] The new and revised IRIS criteria as drinking water concentrations are as follows:

[1] See "Selecting Water Quality Goals" in the CVRWQCB report *A Compilation of Water Quality Goals* (August 2000).

	Reference Dose	10^{-6} Cancer Risk Level
Chloral hydrate	70 ug/L (ppb)	
Chlorine dioxide	210 ug/L (ppb)	
Chlorite (sodium salt)	210 ug/L (ppb)	
Vinyl chloride		0.048 ug/L (ppb) adult exposure
		0.024 ug/L (ppb) exposure since birth

The difference between the two vinyl chloride criteria is the assumed exposure duration.

Action Levels, IRIS criteria and other toxicologic limits may be used to evaluate compliance with narrative water quality objectives for Toxicity in the Basin Plans, as these objectives relate to beneficial uses involving human exposures (e.g., municipal and domestic supply or "MUN"). Therefore, ambient groundwater or surface water with chemical concentrations above DHS Action Levels could be interpreted as violating water quality objectives if the waters are designated MUN.

The above criteria and the six Public Health Goals adopted by OEHHA in September (see my memo of 11 October 2000) are not contained in the August 2000 edition of *Water Quality Goals*. The *Water Quality Goals* report and updates may be obtained on the internet at www.swrcb.ca.gov/rwqcb5/wq_goals.

Please contact me by phone at (916) 255-3123 or CalNet 8-494-3123 or by e-mail at marshaj@rb5s.swrcb.ca.gov if you have questions.

cc: Frances McChesney, Office of the Chief Counsel, SWRCB
Tim Regan, Office of the Chief Counsel, SWRCB

California Regional Water Quality Control Board

Central Valley Region

Robert Schneider, Chair

Winston H. Hickox
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3443 Routier Road, Suite A, Sacramento, California 95827-3003
Phone (916) 255-3000 • FAX (916) 255-3015

TO: Technical Staff and Other Interested Persons

FROM: Jon B. Marshack, D.Env.
Senior Environmental Specialist
Environmental/Technical Support

DATE: 8 February 2001

SIGNATURE: Jon B. Marshack

SUBJECT: WATER QUALITY GOALS UPDATE

This is the third notice of changes since the publication of the August 2000 edition of *A Compilation of Water Quality Goals*. This notice contains an explanation of the most recent changes as well as instructions for updating your copy of that document to reflect all three notices. The *Water Quality Goals* report and all updates may be obtained on the internet at www.swrcb.ca.gov/rwqcb5/wq_goals.

New Arsenic MCL

On 22 January, USEPA adopted a new drinking water standard for arsenic. The new Primary Maximum Contaminant Level (MCL) of 10 ug/L is lower than California's current MCL of 50 ug/L. The Safe Drinking Water Act requires that State MCLs be equal to or lower than federal MCLs; so, expect to see a new California MCL for arsenic in the near future. MCLs are not purely health protective concentrations. They include technologic and economic factors associated with providing municipal water at the tap.

Arsenic in drinking water at concentrations lower than the MCL are associated with significant adverse health effects. Arsenic is a known human carcinogen. USEPA adopts MCL Goals at a level that represents no health risk. Because exposure to any amount of a carcinogen is theoretically associated with some risk of getting cancer, USEPA sets MCL Goals for known and probable human carcinogens at "zero." A new MCL Goal for arsenic has been set at this level. The one-in-a-million cancer risk level – the concentration of arsenic in drinking water associated with one additional cancer case in a million persons exposed over their lifetimes – has been estimated at 0.02 ug/L. In interpreting the narrative Toxicity objective in the Basin Plan for carcinogens, we normally cite the one-in-a-million cancer risk level as the *de minimis* or negligible level of cancer risk associated with involuntary exposure of humans to municipal and domestic water supplies. However, natural background concentrations of arsenic in most locations are expected to exceed this concentration.

Arsenic exposure is also associated with other adverse health effects, including cellular necrosis, skin lesions and abnormal nerve conduction. USEPA's Integrated Risk Information System (IRIS) database includes a reference dose (RfD) for arsenic. The RfD can be converted into a concentration of arsenic in drinking water that should protect against non-cancer health effects. That concentration is 2.1 ug/L.

The state Office of Environmental Health Hazard Assessment is expected to propose a Public Health Goal for arsenic in drinking water in the near future.

Radionuclide MCLs

On 7 December, USEPA revised the federal drinking water regulations for radionuclides. A new federal Primary MCL was adopted for uranium at 30 ug/L, with an effective date for community water systems of 8 December 2003. Because radionuclides are carcinogens, MCL Goals of "zero" were also adopted by USEPA for gross alpha particle activity, gross beta particle and photon activity, radium-226 plus radium-228, and uranium.

The current California Primary MCL for uranium – 20 picocuries per liter (pCi/L) – is in different units than the new federal MCL. The Department of Health Services plans to propose adoption of a new California Primary MCL for uranium that is equal to the new federal MCL.

Methylmercury Water Quality Criterion

In late January, USEPA issued a new recommended Ambient Water Quality Criterion for methylmercury to protect human health from exposure to mercury from the aquatic environment. The new criterion is 0.3 mg methylmercury per kg of fish or shellfish tissue. It replaces older recommended human health criteria for total mercury in surface waters. The promulgated California Toxics Rule criteria for human health protection from mercury in sources of drinking water (0.050 ug/L) and in waters that are not sources of drinking water (0.051 ug/L) are unchanged, and still enforceable.

> "[US]EPA concluded that it is more appropriate at this time to derive a fish tissue (including shellfish) residue water quality criterion for methylmercury rather than a water column-based water quality criterion . . . for many reasons. Such a criterion integrates spatial and temporal complexity that occurs in aquatic systems and that affects methylmercury bioaccumulation. A fish tissue residue water quality criterion is more closely tied to the Clean Water Act goal of protecting the public health because it is based directly on the dominant human exposure route for methylmercury. The concentration of methylmercury is also generally easier to quantify in fish tissue than in water and is less variable over the time periods in which water quality standards are typically implemented in water quality-based. Thus, the data used in permitting activities can be based on a more consistent and measurable endpoint. A fish tissue residue criterion is also consistent with how fish advisories are issued. Fish advisories for mercury are based on the amount of methylmercury in fish tissue that is considered acceptable, although they are usually issued for a certain fish or shellfish species in terms of a meal size. A fish tissue residue water quality criterion should enhance harmonization between these two approaches for protecting the public health."

USEPA is developing guidance for using the new methylmercury criterion, including procedures for translating methylmercury concentrations in fish to total mercury concentrations in ambient surface water or effluent.

Updating Water Quality Goals

Please make the following changes to your hard copy of *A Compilation of Water Quality Goals*, August 2000 edition, to reflect the above changes, changes discussed in my memoranda dated 11 October 2000 and 5 December 2000, and to correct a few errors and omissions:

Inorganics Page 1

Arsenic: Change USEPA Primary MCL to 10 ug/L and delete footnotes. Delete footnote for USEPA MCL Goal.

Boron: Add footnote (160) for California State Action Level – Toxicity.

Inorganics Page 2

Chlorine dioxide: Add entry of "210" for USEPA IRIS Reference Dose.

Chlorite: Change entry to "210" for USEPA IRIS Reference Dose.

Chromium (III): Add entry of "10,500" for USEPA IRIS Reference Dose. Delete entry, but keep footnote, for Cancer Risk Estimates – USEPA IRIS.

Inorganics Page 3

Mercury, inorganic: Delete entries in the first and second columns under Non-Cancer Health Effects.

Inorganics Page 7

Radioactivity, Gross Alpha: Change footnote to (110) for USEPA MCL Goal.

Radioactivity, Gross Beta: Delete footnote for USEPA MCL Goal.

Radium-226 + Radium-228: Delete footnote for USEPA MCL Goal.

Uranium: Change USEPA Primary MCL to 30 ug/L and change footnote to (159). Delete footnote for USEPA MCL Goal.

Vanadium: Add entry of "15" for California State Action Level – Toxicity.

Organics Page 13

Add new lines for *sec-Butylbenzene* and *tert-Butylbenzene*: Add entries of "260" for both chemicals under California State Action Level – Toxicity.

Carbofuran: Delete footnote for California Public Health Goal.

Carbon tetrachloride: Delete footnote for California Public Health Goal.

Organics Page 14

Chloral hydrate: Add the entry of "70" for USEPA IRIS Reference Dose.

Organics Page 25

Dichloromethane: Change entry to "4" and delete footnote for California Public Health Goal.

Organics Page 37

Diquat: Delete footnote for California Public Health Goal.

Organics Page 49

Add new line for *Isopropylbenzene*: Add entry of "260" for California State Action Level – Toxicity.

Organics Page 55

Add new line for *N-Methyldithiocarbamate (Metam)*: Add entry of "20" for California State Action Level – Toxicity.

Add new line for *Methylisothiocyanate (MITC)*: Add entry of "50" for California State Action Level – Toxicity.

Organics Page 57

Methyl mercury: Add the entry of "0.3 mg/kg (161)" in the first and second columns under Non-Cancer Health Effects.

Organics Page 73

Add new line for *n-Propylbenzene*: Add entry of "260" for California State Action Level – Toxicity.

Add new line for *2,3,5,6-Tetrachloroterephthalate*: Add entry of "3500" for California State Action Level – Toxicity.

Organics Page 79

Thiobencarb: Change footnote to (158) for California Public Health Goal.

Organics Page 85

Vinyl chloride: Change entry to "0.05" and delete footnote for California Public Health Goal.

Organics Page 86

Vinyl chloride: Change entry to "0.048 / 0.024" for Cancer Risk Estimates – USEPA IRIS.

Footnotes Page 2

Add footnote (158): This limit covers the parent compound (thiobencarb), its chlorobenzyl and chlorophenyl moiety-containing degradation products and oxidation products such as thiobencarb sulfoxide, thiobencarb sulfone, and 4-chlorobenzosulfonic acid.

Add footnote (159): Effective 8 December 2003 for all community water systems.

Add footnote (160): Value rounded from 0.6 mg/L.

Add footnote (161): Concentration in fish or shellfish tissue.

Please contact me by phone at (916) 255-3123 or CalNet 8-494-3123 or by e-mail at marshaj@rb5s.swrcb.ca.gov if you have questions.

cc: Frances McChesney, Office of the Chief Counsel, SWRCB
Tim Regan, Office of the Chief Counsel, SWRCB

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PREFACE TO THE AUGUST 2000 EDITION

This edition of the Regional Water Board staff report, *A Compilation of Water Quality Goals*, supersedes all earlier editions and updates. These and earlier editions and updates should be discarded, as they contain outdated information. The new edition contains information that is current as of late August 2000.

Many significant changes have been incorporated into this edition of *Water Quality Goals*. Numerical water quality limits are newly added from the following sources:

- The California Toxics Rule -- *Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California* – promulgated by the U. S. Environmental Protection Agency (USEPA) on 18 May 2000; and
- Hazard Assessments and Water Quality Criteria for pesticides, from the California Department of Fish and Game.

Updated numerical water quality limits are included from the following sources:

- California Public Health Goals for drinking water from the California Environmental Protection Agency (Cal/EPA), Office of Environmental Health Hazard Assessment (OEHHA);
- California Maximum Contaminant Levels and Action Levels for drinking water from the California Department of Health Services;
- Drinking Water Regulations and Health Advisories from USEPA;
- Reference doses and cancer potency factors from the Integrated Risk Information System (IRIS) database, maintained by USEPA;
- National Recommended Ambient Water Quality Criteria for protection of human health and aquatic life, published by USEPA; and
- Cancer risk estimates from the Cal/EPA Toxicity Criteria Database, maintained by OEHHA.

In addition, Chemical Abstracts Service (CAS) Registry Numbers have been added to help clarify the identity of most listed chemicals.

The narrative *Selecting Water Quality Goals* has been updated to better assist the user in proper selection of numerical limits from the tables to ascertain compliance with California's water quality standards. **To use this report correctly, it is necessary to read the enclosed narrative *Selecting Water Quality Goals* carefully before selecting numerical water quality limits from the tables.** That narrative includes an example of water quality goal selection.

A Compilation of Water Quality Goals is a technical report by staff of the California Regional Water Quality Control Board, Central Valley Region. It is intended to assist in the appropriate interpretation of narrative water quality objectives. **This report does not, nor is it intended to, establish policy or regulation.**

The August 2000 edition of *A Compilation of Water Quality Goals* is available on the Central Valley Regional Water Board's internet web site at:

www.swrcb.ca.gov/rwqcb5

Additional hard copies of *Water Quality Goals* are available in person or by mail from the Reception Desk at the Sacramento Office of the California Regional Water Quality Control Board, Central Valley Region, 3443 Routier Road, Suite A, Sacramento, CA 95827-3003. Public agencies may receive copies free of charge, with the allowable number of copies per agency based on current supply and budgetary constraints. Private entities may receive the report for $38.00 per copy. This charge covers the cost of reproduction, shipping and handling. Payment, if applicable, must accompany all requests. Checks are to be made payable to the Central Valley Regional Water Quality Control Board.

 However, the author cautions that copies of the tables of numerical water quality limits without the accompanying narrative *Selecting Water Quality Goals* could result in misuse of the information.

If you have questions regarding this edition of the *Water Quality Goals* staff report, please contact me by telephone at (916) 255-3123 or CalNet 8-494-3123 or by E-mail at marshaj@rb5s.swrcb.ca.gov.

—Jon B. Marshack

TABLE OF CONTENTS

USING THIS REPORT

The remainder of this report is divided into six sections:

- Selecting Water Quality Goals
- Cross Reference of Chemical Names
- Water Quality Goals for Inorganic Constituents
- Water Quality Goals for Organic Constituents
- Footnotes
- References

Selecting Water Quality Goals — This section describes the process by which numerical limits for water quality parameters and constituents may be selected to protect beneficial uses of groundwater and surface waters. A glossary of commonly used terms is included at the end of this section.

Cross Reference of Chemical Names — This section provides an alphabetical listing of synonyms for the chemical constituents and parameters covered by this report. Many chemical constituents and parameters are commonly referred to by more than one name. **Look here first to find your chemical constituent or parameter of interest.** This section indicates whether the constituent or parameter is listed under *Organic Constituents* or *Inorganic Constituents*. It also shows under which name the constituent or parameter is listed in the tables of *Water Quality Goals*. Chemical Abstracts Service (CAS) Registry Numbers are also provided to help clarify the identity of most constituents.

Water Quality Goals — These two sections contain tables of numerical water quality limits divided into: ***Organic Constituents*** (those chemicals whose chemistry is dominated by the chemistry of the carbon atom) and ***Inorganic Constituents*** (all other chemicals and parameters). Within these sections, numerical water quality limits for a single constituent or parameter are presented on groups of five consecutive pages. This makes comparison of limits easier for a single chemical. It takes this many pages to present the wide range of water quality numerical limits covered by this report. Therefore, for any constituent or parameter of interest, **be sure to review all five pages containing listings for that constituent or parameter before selecting numerical limits**. The sixth page of each group lists CAS Numbers, common synonyms and abbreviations for the chemicals.

> ***To avoid incorrect use of the numerical water quality limits contained in this report, the author strongly recommends that the section*** **Selecting Water Quality Goals** ***be carefully reviewed.***

The numerical value of some water quality limits varies with the hardness, temperature, pH, or other characteristics of the waters to which they are applied. The variable limits for the protection of aquatic life from ammonia, heavy metals, and pentachlorophenol are presented in special tables and graphs at the end of the two *Water Quality Goals* sections. Where a numerical limit varies in this manner, the number of the page which presents the variable limit is cited in the tables.

Footnotes — Many listings in the tables contain footnotes within parentheses. These footnotes, listed near the end of this report, explain limitations on how the numerical water quality limits apply and provide other useful information.

References — Literature sources, from which the numerical water quality limits were obtained, are provided at the end of this report.

SELECTING WATER QUALITY GOALS

California is significantly limited in the quantity and quality of its water resources. Recurring periods of drought have clearly demonstrated the magnitude and severity of these limits. At the same time, improper waste management practices and contaminated sites pose significant threats to the quality of California's usable groundwater and surface water resources. The state population is expected to increase by fifty percent over the next quarter century, while the population of the Central Valley is expected to double over the next twenty years. At the same time, there is a growing realization that additional water is also needed for in-stream fisheries management. Therefore, it is imperative that California restore and maintain the quality of its water resources so as to be available to serve the growing needs of agriculture, cities, and industries without impairing in-stream beneficial uses.

The purpose of this staff report of the California Regional Water Quality Control Board, Central Valley Region is to introduce California's water quality standards and to outline a system for selecting numerical water quality limits, consistent with these standards. The resulting numerical limits may be used to assess impacts from waste management activities and constituent releases on the quality of waters of the state and the beneficial uses of these waters.

To determine whether a particular waste management activity or constituent release has caused or threatens to cause adverse water quality impacts, it is necessary to apply California's water quality standards. These standards are found in the *Water Quality Control Plans*. At concentrations equal to or greater than these standards, constituents are considered to have unreasonably impaired the beneficial uses of the state's waters; that is, pollution has occurred. In many cases, water quality standards include narrative, as opposed to numerical, water quality objectives. In such cases, numerical water quality limits from the literature may be used to ascertain compliance with these standards.

CALIFORNIA'S WATER QUALITY CONTROL SYSTEM

Because of its water limitations, California possesses a unique system for the protection and control of the quality of its most valuable resource. Our present system of water quality control was established in 1969, with the adoption, by the state legislature, of the Porter-Cologne Water Quality Control Act. Found in Division 7 of the California Water Code, the Porter-Cologne Act (http://www.swrcb.ca.gov/water_laws) provides for ten water quality control agencies, the State Water Resources Control Board and nine Regional Water Quality Control Boards. The Act instructs the boards to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

The State Water Board carries out its water quality protection authority through the adoption of specific *Water Quality Control Plans*. These plans establish water quality standards for particular bodies of water. California water quality standards are composed of three parts: the designation of beneficial uses of water, water quality objectives to protect those uses, and implementation programs designed to achieve and maintain compliance with the water quality objectives. *Water Quality Control Plans* adopted by the State Water Resources Control Board include:

- The Ocean Plan
- The Thermal Plan (temperature control in coastal and interstate waters and enclosed bays and estuaries)
- The Delta Plan (Sacramento-San Joaquin Delta and Suisun Marsh)
- The Lake Tahoe Basin Water Quality Plan

The State Water Board recently adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California.* This policy provides implementation measures for numerical criteria contained in the *California Toxics Rule*, promulgated in May 2000 by the U.S. Environmental Protection Agency (USEPA). When combined with the beneficial use designations in the *Water Quality Control Plans* adopted by the Regional Water Boards (*Basin Plans*; see below), these documents establish state-wide water quality standards for toxic constituents in surface waters that are not covered by the *Ocean Plan*. This combined Water Board/USEPA action is the first phase in the development of new

Water Quality Control Plans for California's inland surface waters and enclosed bays and estuaries.

The State Water Board also adopts regulations and other policies for water quality control, which have the enforceability of regulation, to protect water quality from discharges of waste to water or to land where water quality could be adversely affected.

To account for the great diversity in California's waterscape, the Porter-Cologne Act separates the state, along major drainage divides, into nine Water Quality Control Regions (see the map on the inside back cover of this report). Nine Regional Water Quality Control Boards act to protect water quality within these regions through the adoption of region-specific *Water Quality Control Plans*, also called *Basin Plans*. The *Basin Plans* contain water quality standards that are specific to surface waters and groundwaters within a particular region or a portion thereof. As with the State Water Board's *Water Quality Control Plans*, the *Basin Plans* contain beneficial use designations, water quality objectives, and implementation programs.

Through the issuance of waste discharge requirements (permits), water quality monitoring and reporting programs, and other enforceable orders, the State and Regional Water Boards implement the statewide and regional *Water Quality Control Plans*, policies for water quality control, and water quality regulations. The State and Regional Water Boards also administer most of the federal clean water laws in California.

The focus of State and Regional Water Boards' water quality control programs are to prevent and correct conditions of pollution of water and nuisance. The Porter-Cologne Act defines "pollution" as "an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects:

1) such waters for beneficial uses, or
2) facilities which serve such beneficial uses."

"Nuisance" is defined as "anything which:

1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property so as to interfere with the comfortable enjoyment of life or property, and
2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal, and
3) occurs during or as the result of the treatment or disposal of wastes."

Water Quality Standards

The term "water quality standards" is defined in regulations that implement the federal Clean Water Act. That definition reads:

"Water quality standards are provisions of state or federal law which consist of a designated use or uses for the waters of the United States and water quality criteria for such waters based upon such uses. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the Act." [40 Code of Federal Regulations (CFR) Section 130.2(c) and 131.3(I)]

So, federal water quality standards must contain at least two critical components:

1) the designation of beneficial uses of water, and
2) the establishment of water quality criteria designed to protect those uses.

In California, the *Water Quality Control Plans* designate the beneficial uses of waters of the state and water quality objectives (the "criteria" under the Clean Water Act) to protect those uses. The *Water Quality Control Plans* are adopted by the State and Regional Water Boards through a formal administrative rulemaking process and, thereby, have the force of regulation. As mentioned above, the California Toxics Rule criteria, adopted by USEPA, when combined with existing beneficial use designations in the *Water Quality Control Plans*, are also water quality standards. One critical difference between the state and federal programs is that while the Clean Water Act focuses on surface water resources, the term "waters of the state" under the Porter-Cologne Act includes both surface waters and groundwaters. Therefore, California has water quality standards applicable to groundwaters as well as to surface waters. Another difference is that California's *Water Quality Control Plans* include implementation programs to achieve and maintain compliance with water quality objectives.

California's water quality standards are enforceable by the State and Regional Water Boards. They apply throughout the bodies of surface water and groundwater for which they were established.

Beneficial Uses

Section 13050(f) of the Porter-Cologne Act defines beneficial uses as follows:

"'Beneficial uses' of waters of the state that may be protected against quality degradation include, but are not necessarily limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves."

The State and Regional Water Boards' *Water Quality Control Plans* list the specific beneficial uses established for each of California's surface water and groundwater bodies. For example, the Central Valley Region's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* lists the following beneficial uses of surface waters and groundwaters:

- Municipal and Domestic Supply
- Agricultural Supply
- Industrial Supply (both Service and Process)
- Groundwater Recharge
- Freshwater Replenishment
- Navigation
- Hydropower Generation
- Recreation (both Water Contact and Non-Water Contact)
- Commercial & Sport Fishing
- Aquaculture
- Freshwater Habitat (both Warm and Cold)
- Estuarine Habitat
- Wildlife Habitat
- Preservation of Biological Habitats of Special Significance
- Preservation of Rare, Threatened, or Endangered Species
- Migration of Aquatic Organisms
- Spawning, Reproduction, and/or Early Development
- Shellfish Harvesting

The *Water Quality Control Plans* specify which beneficial uses apply to each body of water within each region of the state. Under the Porter-Cologne Act, the discharge of waste is not a right, but a privilege, subject to specific permit conditions. The discharge of waste is also not a beneficial use of water. The Water Boards' mission is to protect water quality from discharges of waste that could cause impairment of designated beneficial uses.

Sources of Drinking Water Policy

Also included within California's system of water quality standards are the "policies for water quality control" adopted by the State Water Board and incorporated into each of the Basin Plans. One such policy is critical to the designation of beneficial uses.

In 1988, the State Water Board adopted Resolution No. 88-63, the "Sources of Drinking Water" policy. This policy specifies that, except under specifically defined circumstances, all surface water and groundwater of the state are to be protected as existing or potential sources of municipal and domestic supply, unless this beneficial use is explicitly de-designated in a *Water Quality Control Plan*. The policy lists specific circumstances under which waters may be excluded from this beneficial use, including:

- waters with existing high total dissolved solids concentrations (greater than 3000 mg/l);
- waters having low sustainable yield (less than 200 gallons per day for a single well);
- water with contamination, unrelated to a specific pollution incident, that cannot reasonably be treated for domestic use;
- waters within particular wastewater conveyance and holding facilities; and
- regulated geothermal groundwaters.

These exemptions to the general municipal and domestic supply beneficial use designation are applied to specific water bodies through formal Basin Plan amendments by the appropriate Regional Water Board.

Water Quality Objectives

The second component of California's water quality standards is water quality objectives. The Porter-Cologne Act defines "water quality objectives" as "the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area." Since pollution is defined as an alteration of water quality to a degree which unreasonably affects beneficial uses, pollution occurs whenever water quality objectives are exceeded.

Water quality objectives designed to protect beneficial uses and prevent nuisance are also found in the

Water Quality Control Plans. As with beneficial uses, water quality objectives are established either for specific bodies of water, such as the Sacramento River between Shasta Dam and the Colusa Basin Drain, or for protection of particular beneficial uses of surface waters or groundwaters throughout a specific basin or region. In addition, the water quality criteria for toxic pollutants in the *California Toxics Rule* apply to nearly all of the state's surface waters which are not covered by the *Ocean Plan*, i.e., to inland surface waters, enclosed bays and estuaries. These limits are called "criteria" (rather than "objectives") because they were promulgated by USEPA pursuant to the federal Clean Water Act.

Water quality objectives may be stated in either numerical or narrative form. Where numerical objectives are listed in the *Water Quality Control Plans*, their values are applicable numerical water quality limits for the indicated constituent(s) or parameter(s). If not exceeded, they will provide reasonable protection for beneficial uses of the specified body of water. However in many cases, water quality objectives are stated in narrative form. Narrative objectives describe a requirement or a prohibition. Examples of narrative objectives, established in the Central Valley Region's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*, include:

- Chemical Constituents —
  "Waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses.
  "At a minimum, water designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in ... Title 22 of the California Code of Regulations [California's drinking water standards] ...
  "To protect all beneficial uses, the Regional Water Board may apply limits more stringent than MCLs."
- Tastes and Odors —
  "Water shall not contain taste- or odor-producing substances in concentrations that impart undesirable tastes or odors to domestic or municipal water supplies or to fish flesh or other edible products of aquatic origin, or that cause nuisance, or otherwise adversely affect beneficial uses."
- Toxicity —
  "... waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life associated with designated beneficial use(s). This objective applies regardless of whether the toxicity is caused by a single substance or the interactive effects of multiple substances."

The Central Valley Region's Basin Plans also contain water quality objectives for the following constituents and parameters:

- Bacteria
- Biostimulatory Substances
- Color
- Dissolved Oxygen
- Floating Material
- Oil and Grease
- Pesticides
- pH
- Radioactivity
- Salinity
- Sediment
- Settleable Material
- Suspended Material
- Temperature
- Turbidity

Some are expressed as numerical objectives, while others are in narrative form. Narrative water quality objectives must be interpreted through the selection of numerical limits, as further described below.

Antidegradation Policy

Water is a multiple-use resource. That is, the same water may be used many times between where it falls as rain or snow in the mountains and where it eventually flows into the ocean. Each use of water causes some change or degradation in its quality. Water quality can also be degraded by discharges of waste and other human activities. Multiple water uses and waste discharges and the combined effect on water quality must be considered. If the Board allows a single use or discharge to degrade water quality to a level just sufficient to protect beneficial uses, then no capacity exists for further degradation by other water uses or other human activities. The ability to beneficially use the water has been impaired.

In addition, our understanding of the health and

environmental effects of chemicals and combinations of chemicals is constantly evolving. What is considered safe at 10 ug/L today may be found to be harmful at 1 ug/L tomorrow. For these reasons, it is often desirable to minimize the degradation of water quality and to preserve a higher water quality than that which will just support beneficial uses, that is, better than applicable water quality objectives.

Realizing this need, the State Water Resources Control Board in 1968 adopted Resolution No. 68-16, *Statement of Policy With Respect to Maintaining High Quality of Waters in California.* This established an *Antidegradation Policy* for the protection of water quality in California. Under this policy, whenever the existing quality of water is better than that needed to protect all present and probable future beneficial uses, such existing high quality is to be maintained until or unless it has been demonstrated to the state that any change in water quality:

- will be consistent with the maximum benefit to the people of the state;
- will not unreasonably affect present or probable future beneficial uses of such water; and
- will not result in water quality less than prescribed in state policies.

Unless these three conditions are met, background water quality—the concentrations of substances in natural waters that are unaffected by waste management practices or contamination incidents—is to be maintained.

If the State or Regional Water Board determines that some water quality degradation is in the best interest of the people of California, some incremental increase in constituent concentrations above background levels may be permitted under the Policy. However, in no case may such degradation cause unreasonable impairment of beneficial uses that have been designated for a water of the state.

The effect of this policy is to define a range of water quality—between natural background levels and the water quality objectives—that must be maintained. Within this range, the Water Boards must balance the need to protect existing high quality water with the benefit to California as a whole of allowing some degradation to occur from the discharge of waste.

The policy also specifies that discharges of waste to existing high quality waters are required to use "best practicable treatment or control," thereby imposing a technology-based limit on such discharges.

In more recent actions, the State Water Board further delineated implementation of the Antidegradation Policy. These include the adoption of monitoring and corrective action regulations and a cleanup policy.

Chapter 15, Article 5 Regulations

In July 1991, the State Water Board adopted revised regulations for water quality monitoring and corrective action for waste management units—facilities where wastes are discharged to land for treatment, storage or disposal. These regulations, contained in Title 23 of the California Code of Regulations, Division 3, Chapter 15, Article 5, contain the only interpretation of the state's Antidegradation Policy that has been promulgated in regulations. Article 5 requires the Regional Water Board to establish water quality protection standards for all waste management units. Water quality protection standards include concentration limits for constituents of concern, which must be met in groundwater and surface water that could be affected by a release from the waste management unit.

Section 2550.4 of these regulations requires that, in most cases, concentration limits be established at background levels. However, in a corrective action program for a leaking waste management unit where the discharger of waste has demonstrated that it is technologically or economically infeasible to achieve background levels, the Regional Water Board may adopt concentration limits greater than background (CLGBs). These limits must be set:

- at the lowest concentrations for the individual constituents which are technologically and economically achievable;
- so as not to exceed the maximum concentrations allowable under applicable statutes and regulations for individual constituents [including water quality objectives];
- so as not to result in excessive exposure to a sensitive biological receptor [as shown, for example, through health and ecological risk assessments]; and
- so that theoretical risks from chemicals associated with the release shall be considered additive across all media of exposure and shall be considered additive for those constituents that cause similar toxicologic effects or have carcinogenic effects.

Cleanup Policy

In June 1992, the State Water Board adopted Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*. This policy for water quality control, which was modified in April 1994 and October 1996, states that the *Antidegradation Policy* of Resolution No. 68-16 is applicable to the cleanup of contaminated sites, and that criteria in Section 2550.4 of the Chapter 15 regulations are to be used to set cleanup levels for such sites. [For cleanup of leaking underground tank sites, Section 2550.4 criteria are to be considered in setting cleanup levels under Chapter 16 of Title 23, Division 3 of the California Code of Regulations.] In determining cleanup levels for water and for contaminated soils which threaten water quality, background constituent concentrations in water are the initial goal. If attainment of background concentrations is not achievable, cleanup levels must be set as close to background as technologically and economically feasible. They must, at a minimum, restore and protect all applicable beneficial uses of waters of the state, as measured by the water quality objectives, and must not present significant health or environmental risks.

Numerical Water Quality Limits

To determine whether a particular waste management activity or constituent release has caused or threatens to cause pollution—a degradation in water quality severe enough to impair present or probable future beneficial uses—one must refer to California's water quality standards. As described earlier, the standards consist of a beneficial use or uses of water and water quality objectives to protect those uses. Any narrative objective must be interpreted and a numerical limit selected which meets the narrative objective. Once all beneficial uses, water quality objectives and numerical limits have been identified, those water quality limits that protect all beneficial uses are selected for comparison with measured or projected constituent concentrations in the water body of interest.

The first step in selecting beneficial use protective water quality limits is to identify the bodies of groundwater and/or surface water that have been or have the potential to be affected by the particular waste management activity or constituent release. Under California's *Antidegradation Policy*, water quality limits are initially set equal to true background levels in the body of water. Constituent concentrations in excess of background levels in the water body, caused or threatened to be caused by a discharge of waste, indicate that water quality *degradation* has occurred or is threatened.

If degradation has already occurred, water quality limits should also be selected to determine whether *pollution* has occurred or is threatened. In that case, water quality limits are selected so as to ascertain compliance with all applicable water quality objectives for the protection of the beneficial uses which have been designated for the water body in question. Designated beneficial uses and applicable water quality objectives to protect those uses are contained in the appropriate *Water Quality Control Plan(s)*. The process of selecting beneficial use protective water quality limits to interpret these standards is shown in Figure 1.

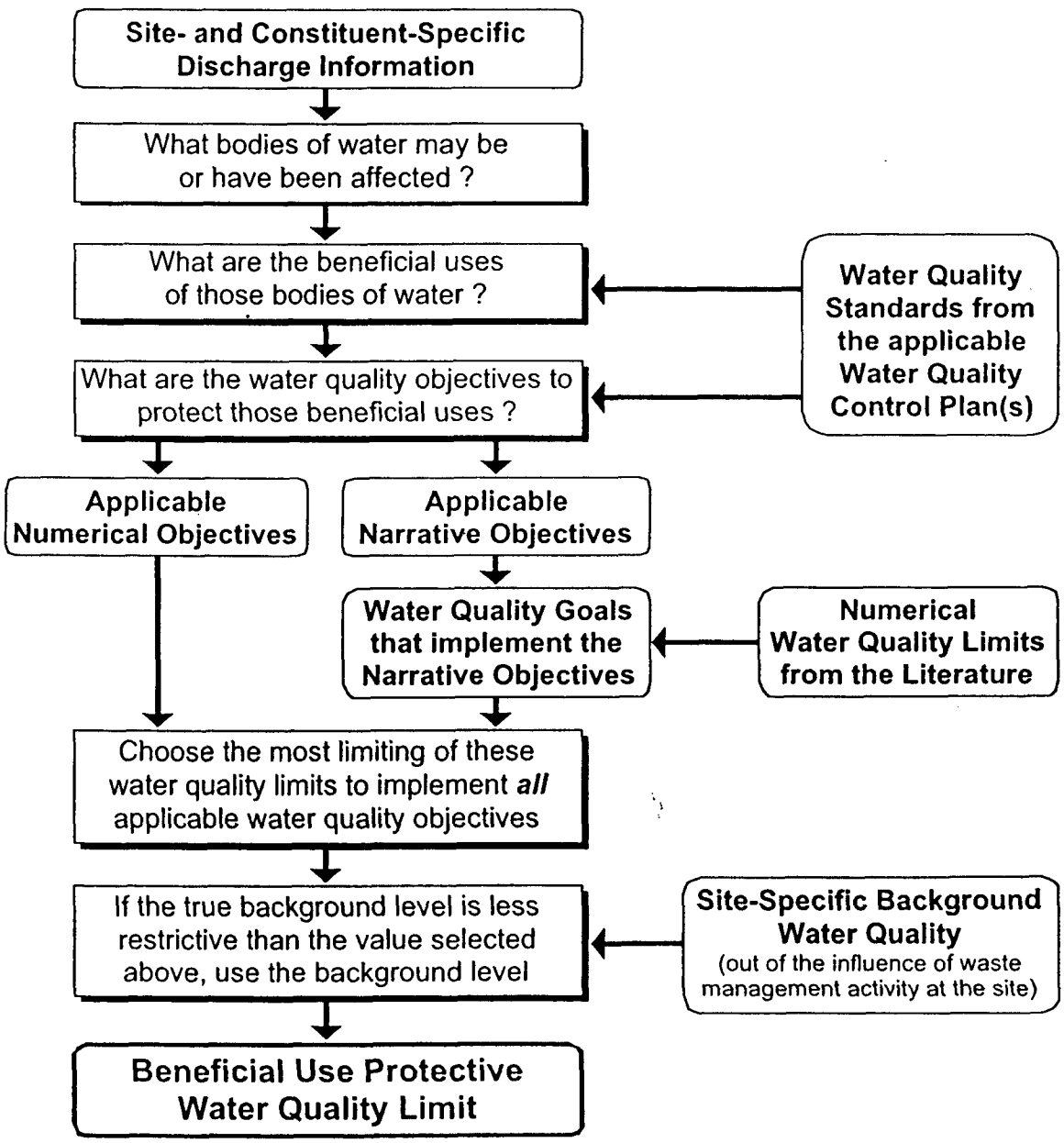
Some water quality objectives are numerical. These numerical objectives are a subset of the applicable beneficial use protective water quality limits. If narrative water quality objectives also apply to the constituent or parameter of interest in the water body, compliance with those objectives may be determined through measurement (e.g., toxicity testing) or other direct evidence of beneficial use impacts. Alternatively, relevant numerical water quality limits may be selected from the literature and used to interpret the narrative objectives. Water quality limits from the literature, called *water quality goals* in this report, include drinking water standards, ambient water quality criteria, cancer risk estimates, health advisories, and other numerical values that represent concentrations of chemicals that would limit specific uses of water. An example of a water quality goal is the taste and odor threshold for ethylbenzene of 29 ug/L, published by USEPA. This water quality goal could be used to interpret compliance with the narrative water quality objective for tastes and odors, discussed above.

For each constituent, all applicable numerical objectives along with water quality goals selected to interpret each applicable narrative objectives are collected and the most limiting (most stringent) of these values is selected. Below this most limiting value, compliance with all applicable water quality objectives is assured and the most sensitive beneficial use should be protected. This most limiting value be-

comes the beneficial use protective water quality limit for the constituent of interest in the water body. If the concentration of the constituent exceeds the beneficial use protective water quality limit, one or more water quality objectives have been violated and pollution has occurred.

The one exception to this is where the site-specific natural background condition in water is a higher concentration than the beneficial use protective water quality limit. The State and Regional Water Boards authority for protection of water quality from waste discharges is limited to the regulation of "controllable water quality factors"—those actions, conditions, or circumstances resulting from human activities that may influence the quality of waters of the state and that may be reasonably controlled. Where the natural

FIGURE 1. SELECTING BENEFICIAL USE PROTECTIVE NUMERICAL LIMITS IN WATER



background level is higher than the beneficial use protective water quality limit, the natural background level is considered to comply with the water quality objective. In such cases, other controllable factors are not allowed to cause any further degradation of water quality.

Types of Water Quality Goals

The literature contains many useful water quality limits designed to protect specific beneficial uses of water. These water quality goals can be used to interpret narrative water quality objectives. The following is a summary of available types of water quality goals that are presented in this document. The Reference section at the end of this report lists the sources of these limits, including internet addresses where available.

Maximum Contaminant Levels (MCLs)

MCLs are part of the drinking water standards adopted by the California Department of Health Services (DHS) pursuant to the California Safe Drinking Water Act. California MCLs may be found in Title 22 of the California Code of Regulations (CCR), Division 4, Chapter 15, *Domestic Water Quality and Monitoring*. USEPA also adopts MCLs under the federal Safe Drinking Water Act. DHS's drinking water standards are required to be at least as stringent as those adopted by the USEPA. Some California MCLs are more stringent than USEPA MCLs.

Primary MCLs are derived from health-based criteria (by USEPA from MCL Goals; by DHS from Publich Health Goals or from one-in-a-million [10^{-6}] incremental cancer risk estimates for carcinogens and threshold toxicity levels for non-carcinogens). MCLs also include technologic and economic considerations relating to the feasibility of achieving and monitoring for these concentrations in drinking water supply systems and at the tap. It should be noted that the balancing of health effects with technologic and economic considerations in the derivation of MCLs may not be appropriate for protection of the quality of a raw surface water or groundwater resource, as will be discussed below. Secondary MCLs are derived from human welfare considerations (e.g., taste, odor, laundry staining) in the same manner as Primary MCLs.

Drinking water MCLs are directly applicable to and enforceable by DHS and local health departments on water supply systems and at the tap. MCLs, both Primary and Secondary, are directly applicable to groundwater and surface water resources when they are specifically referenced as water quality objectives in the pertinent *Water Quality Control Plan*. Where fully health protective, MCLs may also be used to interpret narrative objectives prohibiting toxicity to humans in water designated as a source of drinking water (municipal and domestic supply) in the *Water Quality Control Plan*.

Maximum Contaminant Level Goals (MCL Goals or MCLGs)

MCLGs are promulgated by USEPA as part of the National Primary Drinking Water Regulations. MCLGs represent the first step in establishing Primary MCLs and are required by federal statute to be set at levels that represent no adverse health risks. They are set at "zero" for known and probable human carcinogens, since theoretically a single molecule of such a chemical could present some degree of cancer risk. Threshold levels posing no risk of health effects (other than cancer) are used for non-carcinogens and for possible human carcinogens. Because they are purely health-based, non-zero MCLGs may be useful in interpreting narrative water quality objectives which prohibit toxicity to human consumers.

Public Health Goals (PHGs)

The California Safe Drinking Water Act of 1996 requires the Office of Environmental Health Hazard Assessment (OEHHA) to perform risk assessments and adopt Public Health Goals for contaminants in drinking water based exclusively on public health considerations. PHGs represent levels of contaminants in drinking water that would pose no significant health risk to individuals consuming the water on a daily basis over a lifetime. They are based on a 10^{-6} incremental cancer risk estimate for carcinogens and a threshold toxicity limit for other contaminants, with a margin of safety. OEHHA and DHS consider the 10^{-6} risk level to represent a *de minimis* level of cancer risk from involuntary exposures.

PHGs adopted by OEHHA are for use by the DHS in establishing primary drinking water MCLs. Where PHGs are to be based solely on scientific and public health considerations without regard to economic considerations, drinking water MCLs are to consider eco-

nomic factors and technical feasibility. Each MCL adopted by DHS is to be set at a level that is as close as feasible to the corresponding PHG, placing emphasis on the protection of public health. Being purely health-based, PHGs are also appropriate to use in interpreting narrative toxicity objectives with respect to human exposures from constituents in waters that have been designated as existing or potential sources of municipal and domestic supply. In addition, where water quality objectives require compliance with drinking water MCLs, the PHGs may provide an indication as to whether MCLs are likely to be revised upward or downward in the future. This information is important because the State and Regional Water Boards must ensure the usability of water for the foreseeable future.

State Action Levels

Action levels, published by DHS, are based mainly on health effects. An incremental cancer risk estimate of 10^{-6} is used for carcinogens and a threshold toxicity limit is used for other constituents. As with MCLs, the ability to quantify the amount of the constituent in a water sample using readily available analytical methods may cause action levels to be set at somewhat higher concentrations than purely health-based values. Organoleptic (taste- and odor-based) values are also included as action levels for some chemicals. Action levels are advisory to water suppliers. If exceeded, DHS urges the supplier to correct the problem or to find an alternative raw water source. When they are purely health-based, action levels may also be used to interpret narrative objectives that prohibit toxicity to humans that may drink the water.

Cal/EPA Cancer Potency Factors

The Office of Environmental Health Hazard Assessment has lead responsibility within Cal/EPA for the assessment of human health risks associated with exposures to toxic substances in environmental media. OEHHA also performs health risk assessments for California state agencies outside Cal/EPA, such as the development of PHGs for the Department of Health Services. OEHHA maintains a database of health risk information for chemicals called the Toxicity Criteria Database. The health based criteria presented in this database have been used as a basis for California state regulatory actions. The majority has undergone peer review and in many cases rigorous regulatory review. The database includes cancer potency factors for inhalation and oral exposures to many chemicals. These Cal/EPA cancer potency factors may be used to calculate concentrations in drinking water associated with specific cancer risk levels, using standard exposure assumptions (see *Threshold Risk Characterization*, below.).

Integrated Risk Information System (IRIS)

The USEPA Office of Research and Development, National Center for Environmental Assessment maintain a chemical database called the Integrated Risk Information System. IRIS contains USEPA's most current information on human health effects that may result from exposure to various substances found in the environment. Two types of criteria are presented in IRIS. Reference doses (RfDs) are calculated as safe exposure levels with respect to non-cancer health effects. They are presented in units of milligrams of chemical per kilogram body weight per day of exposure (mg/kg-day). RfDs may be converted into concentrations in drinking water (mg/L or ug/L) using standard exposure assumptions (see *Threshold Risk Characterization*, below.). IRIS also presents concentrations of chemicals in drinking water that would be associated with specific levels of cancer risk.

Drinking Water Health Advisories and Water Quality Advisories

Health Advisories are published by USEPA for short-term (1-day exposure or less or 10-day exposure or less), long-term (7-year exposure or less), and lifetime human exposures through drinking water. Health advisories for non-carcinogens and for possible human carcinogens are calculated for chemicals where sufficient toxicologic data exist. Incremental cancer risk estimates for known and probable human carcinogens are also presented.

Water Quality Advisories contain human health related criteria that assume exposure through both drinking water and consumption of contaminated fish and shellfish from the same water. Some Water Quality Advisories also contain criteria that are intended to be protective of aquatic life.

Suggested No-Adverse-Response Levels (SNARLs)

These human health-based criteria were published by the National Academy of Sciences (NAS) in the nine volumes of *Drinking Water and Health* (1977 to 1989). USEPA's health advisories were also formerly published as "SNARLs." SNARLs do not reflect the cancer risk that may be posed by these chemicals. Incremental cancer risk estimates for carcinogens are presented separately in these NAS and USEPA documents. NAS criteria from *Drinking Water and Health* may not contain the most recent toxicologic information. They should only be used to interpret narrative water quality objectives where more recent health-based criteria are absent.

Proposition 65 Regulatory Levels

Proposition 65 levels are established under the California Safe Drinking Water and Toxic Enforcement Act of 1986 for known human carcinogens and reproductive toxins. Proposition 65, an initiative statute, made it illegal to expose persons to significant amounts of these chemicals without prior notification or to discharge significant amounts of these chemicals to sources of drinking water. These "significant amounts" are adopted by OEHHA in regulations contained in Title 22 of CCR, Division 2, Chapter 3.

For carcinogens, no-significant-risk levels (NSRLs) are set at concentrations associated with a one-in-100,000 (10^{-5}) incremental risk of cancer. These are the only California health based limits derived from risk levels greater than 10^{-6}. As such, they are not as protective of human health as many other published criteria (see *Which Cancer Risk Level?*, below). $^{1}/_{1000}$ of the no-observable-effect level (NOEL) is adopted for reproductive toxicants.

Proposition 65 levels are doses, expressed in units of micrograms per day of exposure (ug/d). These levels may be converted into concentrations in water by assuming 2 liters per day water consumption and 100 percent exposure to the chemical through drinking water, under regulations contained in Title 22 of CCR, Sections 12721 and 12821.

National Ambient Water Quality Criteria

These criteria, also called the National Recommended Water Quality Criteria, are developed by USEPA under Section 304(a) of the Clean Water Act to provide guidance to the states in adopting water quality standards under Section 304(c) of the Act and to interpret narrative toxicity standards (water quality objectives in California). These criteria are designed to protect human health and welfare and aquatic life from pollutants in freshwater and marine surface waters.

The human health protective criteria differ significantly from those discussed above. They assume two different exposure scenarios. For waters that are sources of drinking water, exposure is assumed both from drinking the water and consuming aquatic organisms (fish and shellfish) that live in the water. For waters that are not sources of drinking water, exposure is assumed to be from the consumption of aquatic organisms only. Aquatic organisms are known to bioaccumulate certain toxic pollutants in their tissues, so as to magnify human exposures. Because these human health based criteria assume exposure through fish and shellfish consumption, they should not be used to interpret water quality objectives for groundwater where human exposure will only occur from municipal or domestic supply uses. The criteria also include threshold health protective criteria for non-carcinogens. Incremental cancer risk estimates for carcinogens are presented at a variety of risk levels. Organoleptic (taste- and odor-based) levels are also provided for some chemicals to protect human welfare.

National Ambient Water Quality Criteria also include criteria that are intended to protect freshwater and/or saltwater aquatic life. Normally, two types of limits are presented. Criteria Maximum Concentrations (CMCs) protect aquatic organisms from acute exposures (expressed as 1-hour average or instantaneous maximum concentrations) to pollutants. Criteria Continuous Concentrations (CCCs) protect aquatic organisms from chronic exposures (expressed as 4-day or 24-hour average concentrations). To be able to derive these criteria, the USEPA method requires toxicity data for species representing a minimum of eight families of organisms, including coverage of both vertebrate and invertebrate species. Important aquatic plant species are also considered. Fundamental to the method is protection of all species, even at sensitive life stages, for which there are reliable measurements in the data set. Criteria derived by this method are also intended to protect species for which those in the data set serve as surrogates. Toxicity information, in the

form of lowest observed effect levels, is often presented in the USEPA criteria documents where there is insufficient toxicologic information with which to develop recommended criteria.

The National Ambient Water Quality Criteria are found in a number of USEPA documents:

- *Quality Criteria for Water, 1986*, with updates in 1986 and 1987, also known as the "Gold Book";
- the *Ambient Water Quality Criteria* volumes on specific pollutants or classes of pollutants (1980, 1984, 1985, 1986, 1987, 1988, 1989, 1991, 1993, and 1995);
- *Quality Criteria for Water* (1976), also known as the "Red Book";
- *Water Quality Criteria, 1972*, also known as the "Blue Book."

In December 1992, USEPA promulgated the *National Toxics Rule*, which updated many of these criteria and made them directly applicable standards for surface waters in many states, including some California waters. These regulations, found in 40 CFR Section 131.36, specify that "[t]he human health criteria shall be applied at the State-adopted 10^{-6} risk level" for California. To ascertain compliance with the aquatic life protective criteria for metallic constituents, water quality samples were to be analyzed for "total recoverable" concentrations. In May 1995, USEPA amended these regulations to convert most of these aquatic life criteria to dissolved concentrations. In April 1999, USEPA published the most recent summary of *National Recommended Water Quality Criteria*.

California Toxics Rule (CTR) Criteria

The federal Clean Water Act requires all states to have enforceable numerical water quality criteria applicable to priority toxic pollutants in surface waters. California lacked many of these standards, in part due to the State Water Board's repeal of the *Inland Surface Waters Plan* and *Enclosed Bays and Estuaries Plan*, resulting from a legal challenge. In May 2000, USEPA promulgated water quality criteria for priority toxic pollutants for California's inland surface waters and enclosed bays and estuaries. Included are both human health and aquatic life protective criteria, similar to those published in the *National Recommended Water Quality Criteria*.

The CTR criteria, along with the beneficial use designations in the *Basin Plans*, are directly applicable water quality standards for these toxic pollutants in these waters. Implementation provisions for these standards have been provided in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SWRCB Resolution No. 2000-015), adopted by the State Water Board in March of this year. The policy includes time schedules for compliance, provisions for mixing zones, analytical methods and reporting levels.

Other Numerical Limits

Other sources of numerical water quality limits include:

- *Water Quality for Agriculture*, published by the Food and Agriculture Organization of the United Nations in 1985, which contains criteria protective of agricultural uses of water.
- *Hazard Assessments* and *Water Quality Criteria*, published by the California Department of Fish and Game, which contain criteria that are protective of aquatic life from exposure to several pesticides. USEPA methods are used to derive these criteria.
- *Water Quality Criteria, Second Edition*, written by McKee and Wolf and published by the State Water Resources Control Board in 1963 and 1978, which contains criteria for human health and welfare, aquatic life, agricultural use, industrial use, and various other beneficial uses of water. This document is available from the National Technical Information Service (NTIS) as Publication No. PB 8218824.
- Taste and odor thresholds are published in several documents, including USEPA Drinking Water Contaminant Fact Sheets and an extensive collection by J.E. Amoore and E. Hautala in their paper, *Odor as an Aid to Chemical Safety: Odor Thresholds Compared with Threshold Limit Values and Volatilities for 214 Industrial Chemicals in Air and Water Dilution*, published in Journal of Applied Toxicology (1983).

The numerical water quality limits discussed above as well as the numerical water quality objectives from the State Water Board's *Water Quality Control Plan for Ocean Waters of California* (the Ocean Plan) are summarized in the tables and graphs that make up the remainder of this report.

Risk Characterization Methods for Drinking Water

The methods by which the USEPA and other agencies establish lifetime health advisories and concentration-based cancer risk estimates for constituents in drinking water may be used to calculate water quality goals from other published toxicologic criteria. These methods are based on the following toxicologic principles.

Threshold Toxins vs. Non-Threshold Toxins

The toxic effects of chemicals may be roughly divided into two categories, threshold and non-threshold. It is important to recognize that it is not the chemical itself, but the dose (the concentration of the chemical multiplied by the duration of exposure), which is responsible for the toxic effect. Below a particular threshold dose, many chemicals cause no toxicity. These chemicals are called threshold toxins. Cyanide, mercury, and the pesticide malathion fall into this category. Some threshold chemicals, like Vitamin A, are beneficial to human health at low doses, but toxic at high doses.

On the other hand, some chemicals have no toxicity threshold; they may pose a quantifiable health risk at any concentration. Most carcinogens are thought to fall into this non-threshold category. Essentially, one molecule is considered to have the potential to cause some finite risk of getting cancer. Health risks for non-threshold toxins are characterized by probabilities. The higher the dose, the higher the probability of experiencing the toxic effect. For example, according to Cal/EPA, OEHHA, 0.35 microgram of benzene per liter of drinking water is associated with the probability of causing one additional cancer case in a million persons who are exposed at a 2 liters of water per day over their lifetimes. The value of 0.35 ug/L is the estimated drinking water concentration associated with a 1-in-a-million (10^{-6}) cancer risk, also known as the 10^{-6} cancer risk estimate for benzene. Because cancer risk is a probabilistic event, the cancer risk level is directly proportional to the dose, or the concentration in water if all other factors are held constant. Therefore, the 10^{-5} cancer risk level (1 extra case of cancer in 100,000 exposed persons) for benzene would be 3.5 ug/L.

Chemicals are currently assigned by USEPA into five categories, by considering the weight of cancer risk evidence that exists in the toxicologic record:

Class A chemicals are known human carcinogens (sufficient human exposure data exists);

Class B chemicals are probable human carcinogens (limited human data, but sufficient animal exposure data exist);

Class C chemicals are possible human carcinogens (no human data and limited animal data exist);

Class D chemicals have insufficient cancer risk data to assign them to another category; and

Class E chemicals have sufficient evidence to indicate that they are not carcinogens.

USEPA does not publish threshold health advisories for lifetime exposure for Class A or Class B chemicals. USEPA publishes cancer risk estimates for Class A, Class B, and sometimes for Class C chemicals.

Because of the different ways in which chemicals are believed to cause adverse health impacts, the characterization of health risks for non-threshold toxins is different from that for threshold toxins.

Non-Threshold Risk Characterization

For non-threshold constituents, the *risk* of a toxic effect is considered to be proportional to the amount or *dose* of the chemical to which a population is exposed. For each carcinogen, risk and dose are related by a cancer potency factor (often abbreviated q_1^*) which is equal to the risk of getting cancer per unit dose of the chemical. The factor is expressed in units of inverse milligrams of chemical per kilogram body weight per day of exposure $(mg/kg/day)^{-1}$. The cancer risk level, dose, and cancer potency factor are related by equation [1] in Figure 2. Potency factors for carcinogens are calculated by extrapolation from dose-response relationships developed in laboratory animal exposure studies. They may be found in the Cal/EPA Toxicity Criteria Database, the USEPA Integrated Risk Information System (IRIS) database and USEPA health advisory documents.

If we assume a drinking water consumption rate of 2 liters per day and an average human body weight of 70 kg, dose and concentration in drinking water may be related by equation [2]. These are standard assumptions used by federal and state drinking water regulatory and advisory programs and by OEHHA in regulations that implement Proposition 65. By combining equations [1] and [2] and rearranging, we obtain equation [3]. This equation allows calculation of a

concentration in drinking water associated with a given cancer risk level, if the potency factor is known. For example, the Cal/EPA cancer potency factor for the pesticide 1,2-dibromo-3-chloropropane or DBCP is 7 $(mg/kg/day)^{-1}$. Using equation [3], the concentration in drinking water associated with a 1-in-a-million (10^{-6}) lifetime cancer risk level may be calculated as 0.000005 mg/l or 0.005 ug/L. This 10^{-6} cancer risk estimate along with other similarly calculated cancer risk estimates may be found in the tables of this report.

FIGURE 2. CALCULATION OF HEALTH BASED LIMITS

[1] $\text{Risk Level} = \text{Dose} \times \text{Potency Factor}$

[2] $\text{Dose (mg/kg/day)} = \text{Concentration (mg/l)} \times 2 \text{ liters/day} \div 70 \text{ kg}$

[3] $$\text{Concentration (mg/l)} = \frac{\text{Risk Level} \times 70 \text{ kg}}{\text{Potency Factor} \times 2 \text{ liters/day}}$$

[4] $$\text{RfD} = \frac{\text{NOAEL}}{\text{Uncertainty Factor}}$$

[5] $$\text{DWEL} = \frac{\text{RfD} \times 70 \text{ kg}}{2 \text{ liters/day}}$$

[6] $$\text{Lifetime Health Advisory (mg/l)} = \frac{\text{DWEL} \times 20\% \text{ RSC}}{\text{Additional Uncertainty Factor}}$$

Which Cancer Risk Level?

There is often confusion as to which cancer risk level should be used in selecting human health-based criteria to interpret the narrative water quality objectives. The one-in-a-million (10^{-6}) cancer risk level has historically formed the basis of human health protective numerical water quality limits in California. It is generally recognized by California and federal agencies as the *de minimis* level of risk associated with involuntary exposure to toxic chemicals in environmental media. Therefore the 10^{-6} risk level should govern the selection of human health-based criteria to interpret narrative toxicity objectives.

Regulations implementing Proposition 65 cite the one-in-a-hundred-thousand (10^{-5}) risk level for carcinogens. However, the intent of this initiative statute is public notice prior to exposure to certain chemicals and the prohibition of specific discharges of these chemicals. It is not the intent of Proposition 65 to establish levels of involuntary environmental exposure that are considered "safe." Therefore, Proposition 65 does not provide a relevant precedent for determining the level of cancer risk for compliance with the narrative toxicity objectives.

The 10^{-6} risk level has long formed the basis of water-related health-protective regulatory decision-making in California. The following are some of the more significant instances:

- DHS *Statement of Reasons* documents that justify Primary MCLs for carcinogenic substances all use the 10^{-6} risk level for lifetime exposure as the basis from which the MCLs were derived. In these documents DHS describes the 10^{-6} risk level as "the *de minimis* excess cancer risk value" which is "typically assumed by federal and state regulatory agencies for involuntary exposures to environmental pollutants." MCLs for carcinogens deviate from the 10^{-6} risk level only where technologic or economic factors prevent the use of this level.
- DHS action levels for drinking water are also set at the 10^{-6} risk level unless technologic or economic factors prevent using that level, as with the Primary MCLs.
- The *Preliminary Endangerment Assessment Guidance Manual* published by the Department of Toxic Substances Control (DTSC) [page 2-26] states that "[i]n general, a risk estimation greater that [sic] 10^{-6} or a hazard index greater than 1 indicate the presence of contamination which may pose a significant threat to human health."
- USEPA National Ambient Water Quality Criteria, recommended to protect human health from carcinogenic chemicals in surface waters, historically have presented 10^{-5}, 10^{-6}, and 10^{-7} risk estimates (with a geometric mean of 10^{-6}) in water.

- Clean Water Act water quality criteria promulgated on California waters by USEPA in the National Toxics Rule and the California Toxics Rule state that "[t]he human health criteria shall be applied at the State-adopted 10^{-6} risk level." These criteria are water quality standards for surface waters in California.
- *Functional Equivalent Documents* adopted by the State Water Board that provide background and justification for the *California Ocean Plan* and the former *California Inland Surface Waters* and *Enclosed Bays and Estuaries Plans* all cite the 10^{-6} risk level as the basis of human health protective water quality objectives for carcinogens.
- Public Health Goals for drinking water, adopted by OEHHA, are based on the 10^{-6} risk level for carcinogens, "a level that has been considered negligible or *de minimis*," and a 70 year exposure period.
- Recent enforcement decisions regarding an off-site chlorinated solvent plume from Mather Air Force Base, the Central Valley Regional Water Quality Control Board required that replacement water supply be provided when the level of carcinogenic chemicals is detected and confirmed at or above concentrations that represent 10^{-6} lifetime cancer risk levels in individual wells. This decision implements the narrative toxicity objective for groundwater from the *Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins.*
- Cleanup and Abatement Order No. 92-707 adopted by the Central Valley Regional Water Quality Control Board established cleanup levels for groundwater at the Southern Pacific Transportation Company, Tracy Yard, San Joaquin County at the 10^{-6} lifetime cancer risk levels for carcinogens, based on the narrative toxicity objective for groundwater from the *Basin Plan for the Sacramento River and San Joaquin River Basins.*

Threshold Risk Characterization

To determine the concentration of a threshold toxin that is safe for humans to consume in drinking water, toxic and safe dose information is first derived from animal studies. In these studies, laboratory animals are exposed to a chemical at specific dose levels. USEPA and other agencies choose one of two dose level results from these studies from which to calculate safe levels in drinking water. The no observed adverse effect level (NOAEL) is the highest dose that caused no toxic effect to animals in the study. The lowest observed adverse effect level (LOAEL) is the lowest dose that did cause a measurable toxic effect in the study. The LOAEL is a higher dose than the NOAEL. Because the toxic dose of a chemical is usually related to the body weight of the animal studied, doses are often reported in units of milligrams of chemical per kilogram of body weight per day of exposure (mg/kg-day). Both NOAELs and LOAELs are expressed in these units.

USEPA and other agencies use the NOAEL or LOAEL to calculate a reference dose or RfD for a toxic chemical, using equation [4] in Figure 2. The uncertainty factor in the equation accounts for unknowns in the derivation of human risk levels from animal data. The minimum uncertainty factor is 10, which accounts for the fact that some people (e.g., children and the elderly) are more sensitive to toxic chemical exposures than is the average person. The minimum uncertainty factor is normally multiplied by additional factors of 10 for each of the following conditions, if they apply:

- Extrapolation from animal toxicity studies to human toxicity (not used with human exposure data);
- Using a LOAEL in place of a NOAEL in equation [4], above;
- Using a dose (NOAEL or LOAEL) from a study which examined a less appropriate route of exposure to the chemical (the route of exposure most relevant to drinking water is ingestion);
- Using a dose from a study which exposed test animals for a period of time which is not a significant fraction of the animals' lifetime (subchronic exposure);
- Potential synergism among chemicals (the toxicity of two or more chemicals is greater than additive —the sum of their individual toxicities); and
- Any other toxicologic data gaps.

RfDs have the same units as the NOAELs and LOAELs from which they are derived, mg/kg/day. The USEPA IRIS database contains reference doses for many threshold toxins.

The next step, equation [5], is the calculation of a drinking water equivalent level (DWEL) from the reference dose. This step is derived from equation [2] by

assuming an average human body weight of 70 kilograms and an average drinking water consumption rate of two liters per day. As with the calculation of cancer risk criteria in water, these are standard assumptions used by federal and state drinking water regulatory and advisory programs.

One last step, equation [6] in Figure 2, is required to turn the DWEL into the equivalent of a lifetime health advisory concentration. Two additional factors are used. The first is the relative source contribution or RSC. It accounts for the fact that we are usually exposed to chemicals from sources other than drinking water (e.g., in foods and in the air we breathe). The combined exposure from all sources forms the overall dose that may cause toxicity. The relative source contribution normally used by USEPA in deriving lifetime health advisories for threshold constituents is 20%. This means that 20% of the exposure is assumed to come from drinking water and 80% from all other sources combined. The second factor is an additional uncertainty factor, used to provide an extra margin of safety for those chemicals for which limited evidence of cancer risk exists (Class C carcinogens). This uncertainty factor is equal to 10 for Class C carcinogens, and 1 for chemicals in Classes D and E. As stated above, lifetime health advisories are usually not calculated for chemicals in cancer Classes A and B.

With equations [5] and [6], one can calculate health protective water quality goals for threshold toxins from RfD values published in the IRIS database and elsewhere in the literature. For example, acetone is a Class D chemical (no evidence of cancer risk) and has an RfD of 0.10 mg/kg/day. From equation [5], a DWEL of 3.5 mg/l may be calculated. By equation [6], this DWEL may be converted into an expected lifetime-exposure safe limit in drinking water of 0.7 mg/l or 700 ug/L. This and other similarly calculated limits are presented in the tables of this report.

Selecting a Water Quality Goal From Among Available Numerical Limits

To protect all applicable beneficial uses, the most protective (lowest), appropriate (per the beneficial use designations and water quality objectives in the *Water Quality Control Plans*) numerical water quality limit should be selected as the beneficial use protective water quality limit for a particular water body and constituent. Due to the rapid evolution of data on the health and environmental effects of chemicals, caution should be observed in selecting from among the various water quality goals to be sure that the most current limits are used. The original literature should be consulted whenever possible to determine the appropriateness and limitations of the water quality limits being considered. Other government agencies, such as the California Department of Health Services, the California Department of Fish and Game, the Office of Environmental Health Hazard Assessment, and the U.S. Environmental Protection Agency may be consulted for up-to-date information.

In some cases, multiple human health-protective numerical limits are available for a particular chemical. A decision must be made as to which of these limits is the most appropriate. In May of 1994, representatives of the State and Regional Water Boards met with toxicologists and other representatives of the DTSC and OEHHA to discuss the use of toxicologic criteria in contaminated site assessment and cleanup. The group agreed to use guidance parallel to that given on page 2-20 of DTSC's *Preliminary Endangerment Assessment Guidance Manual* (January 1994). When selecting numerical limits from the literature to interpret health based narrative water quality objectives or when selecting criteria for use in health risk assessments, limits should be used in the following hierarchy:

1) Cancer potency slope factors and reference doses promulgated into California regulations.
2) Cancer potency slope factors and reference doses used to develop environmental criteria promulgated into California regulations. The entirely health-based dose criteria should be used, and not necessarily the resulting risk management environmental concentration criteria (e.g., the RfD rather than the MCL).
3) Cancer potency slope factors and reference doses from USEPA's Integrated Risk Information System (IRIS).
4) Cancer potency slope factors or reference doses from USEPA's Health Effects Assessment Summary Tables (Health Advisories), the most current edition.

Criteria in the first two categories may be found in the Cal/EPA Toxicity Criteria Database maintained by OEHHA.

It has been common practice to rely on Primary

MCLs as "enforceable standards" for human health protection from chemicals in water. However, MCLs are designed to apply to water within a drinking water distribution system and at the tap. Care should be taken when relying on Primary MCLs to protect sources of drinking water (groundwater or surface water resources).

A common example of incorrect MCL application is the use of the total trihalomethane (THM) MCL for the protection of groundwater quality from chloroform, bromoform, bromodichloromethane and dibromochloromethane, the four chemicals covered by the term "trihalomethanes." These probable and possible human carcinogens are formed in drinking water by the action of chlorine, used for disinfection, on organic matter present in the raw source water. The total THM Primary MCL of 100 ug/L is 17 to 370 times higher than the one-in-a-million incremental cancer risk estimates for the individual chemicals published by OEHHA and USEPA. USEPA has stated that the MCL for total THMs was based mainly on technologic and economic considerations. Therefore, this drinking water standard is not fully health protective, and does not clearly protect the beneficial use of municipal and domestic supply.

The MCL for total THMs was derived by balancing the benefit provided by the chlorination process—elimination of pathogens in drinking water—with the health threat posed by the trihalomethane by-products of this process and the cost associated with conversion to non-chlorine disinfection methods. In the case of groundwater protection, this type of cost/benefit balancing—accepting some cancer risk from chloroform and other THMs in order to eliminate the health risk from pathogens and avoid disinfection process conversion costs—is not germane. This water has not been and may not need to be chlorinated for domestic consumption. Therefore, the total THM MCL is not sufficiently protective of the ambient quality of domestic water supply sources.

To ensure that compliance can be ascertained, MCLs are required to be set at or above commonly achievable analytical quantitation limits. In several cases, DHS and USEPA have established MCLs at concentrations higher than health protective levels, where the health-based levels are below readily available analytical quantitation limits. It is clear from the *Statement of Reasons* documents that the intent of DHS was to adopt one-in-a-milion cancer risk values for several chlorinated solvents as MCLs if analytical quantitation limits had been lower. Since the adoption of these MCLs, analytical quantitation limits have improved, such that their respective health-based levels can be reliably measured at reasonable cost. The technologic constraint posed by analytical quantitation limits is no longer germane. Therefore, it is no longer reasonable to rely on outdated analytical quantitation limits as substitutes for truly health-based criteria when interpreting the narrative water quality objective for toxicity.

In several cases, Public Health Goals adopted by OEHHA are more stringent than existing Primary MCLs. The intent of the legislation that mandated the adoption of PHGs is to inform DHS when their MCLs are less than fully health-protective. DHS must periodically review their MCLs and revise them to be as close to PHG values as is technologically and economically achievable. Compliance with health-based PHGs, which indicate the probable levels of future MCLs, may be appropriate for protection of water resources for municipal and domestic supply uses.

MCLs are only a subset of the water quality objectives applicable to sources of municipal and domestic supply under most *Basin Plans*. Narrative objectives related to toxicity and general beneficial use protection from chemical constituents are also applicable to these waters under most *Basin Plans*. Due to the constraints discussed above, MCLs that are not fully health protective are not appropriate water quality goals to interpret these objectives. Published health-based limits, such as one-in-a-million incremental cancer risk estimates, are appropriate to interpret these narrative objectives. They are more accurate measures of potential impairment by toxic chemicals of the beneficial use of groundwater and surface water for municipal and domestic supply.

Virtually all Primary MCLs are derived by balancing health effects information with the technologic and economic considerations that are directly related to providing that water to customers through conventional drinking water supply systems. Thus, Primary MCLs are not always reliable indicators of the protection of beneficial uses of ambient groundwaters or surface waters. They may not be appropriate water quality goals to interpret narrative water quality objectives that prevent human toxicity or generally protect bene-

ficial uses from chemical constituents.

There are additional instances where water quality limits more stringent than MCLs are applied to protect all of the beneficial uses of a water resource. For example, the Regional Water Boards require surface waters to comply with aquatic life protective criteria for metals where these criteria are more stringent than MCLs. Agricultural use protective limits for several constituents, including chloride, are more stringent than MCLs, indicating that agricultural use may be impaired at lower concentrations. Several chemicals cause water to taste or smell bad at concentrations far lower than MCLs. The following are taste and odor thresholds and MCLs (in ug/L) for three common gasoline constituents:

	Taste & Odor Threshold	*Primary MCL*
Ethylbenzene	29	700
Toluene	42	150
Xylene(s)	17	1750

Water will be rendered unpalatable and beneficial uses will be impaired at concentrations that are significantly below MCLs.

Again, even though the MCL may be an applicable water quality objective for these waters, it may not be the most relevant numerical water quality limit with which to ascertain compliance with all applicable water quality objectives. As such, MCLs may not be sufficiently protective of the most sensitive beneficial use.

As discussed above, the state's Antidegradation Policy requires water quality limits to be set below beneficial use protective concentrations, toward or equal to background levels, when feasible.

An Example of Beneficial Use Protective Water Quality Limit Selection

Suppose that you are investigating a site where a waste oil tank has leaked into the surrounding soils. Groundwater sampling results indicate that zinc, trichloroethylene (TCE), benzene, and xylene have entered groundwater. You wish to know whether the levels of constituents detected in water samples are of significant concern.

The first step would be to look at the *Water Quality Control Plan* (Basin Plan) for the particular Region in which your site is located. Upon examination of that document, you determine that the beneficial uses designated for groundwater beneath this site are municipal and domestic supply and agricultural supply. No numerical groundwater quality objectives are listed in the Basin Plan for the constituents of concern. However, there are three narrative objectives that appear to be applicable:

- *Chemical Constituents*
  Groundwaters shall not contain chemical constituents in concentrations that adversely affect beneficial uses.
  At a minimum, groundwaters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in Title 22 of the California Code of Regulations.
- *Tastes and Odors*
  Groundwaters shall not contain taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.
- *Toxicity*
  Groundwaters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life associated with designated beneficial use(s). This objective applies regardless of whether the toxicity is caused by a singled substance or the interactive effect of multiple substances.

Together, these beneficial uses and water quality objectives constitute the *water quality standards* for the chemical constituents in groundwater at the site of your investigation. The next step is to select water quality goals to interpret these narrative objectives. The tables of this *Water Quality Goals* staff report contain an extensive list of such numerical limits.

The chemical constituents objective from the *Basin Plan*, stated above, incorporates by reference California's maximum contaminant levels (MCLs). The Basin Plans do not differentiate between Primary and Secondary MCLs, so both types of limits are applicable. These drinking water standards are:

Zinc	5000 ug/L
TCE	5 ug/L
Benzene	1 ug/L
Xylene	1750 ug/L

[Note that federal MCLs for benzene (5 ug/L) and xylene (10,000 ug/L) are less stringent than California MCLs.]

This objective also prohibits chemical constituents in concentrations that adversely affect beneficial uses. One of the constituents of concern for our site could adversely affect the use of groundwater for agricultural supply. A numerical limit to protect agricultural water use from zinc is 2000 ug/L. Agricultural use protective numerical limits are not available for the organic solvents. Note that this zinc limit is more stringent than the MCL. Agricultural use of water is not necessarily protected by compliance with MCLs alone.

The second water quality objective stated above requires that water not contain substances that could impart objectionable tastes or odors. Taste- and odor-based (organoleptic) levels include:

- California and federal Secondary MCLs;
- California State Action Levels based on taste and odor;
- USEPA National Ambient Water Quality Criteria based on taste & odor or welfare; and
- Other taste and odor thresholds from the scientific and regulatory literature.

For the constituents of concern, taste- and odor- based numerical limits are:

Zinc	5000 ug/L
TCE	310 ug/L
Benzene	170 ug/L
Xylene	17 ug/L

Note that xylene can make water taste or smell bad at a concentration that is over 100-fold lower than the health-based MCL. [The proposed USEPA Secondary MCL for xylene, at 20 ug/L, was rounded from and is slightly higher than the taste and odor threshold. However, it is only a proposed value.]

The toxicity objective, stated above, prohibits toxic chemicals in water in toxic amounts. Human health-based limits that are derived for drinking water exposures are relevant to the waste oil tank leak situation because humans could experience toxic effects if the chemicals of concern were present in groundwater used for municipal and domestic supply. Health-based National Ambient Water Quality Criteria from USEPA are not relevant, because those limits assume that exposure also occurs through ingestion of contaminated fish and shellfish, not present in groundwater.

Relevant health-based limits for zinc include:

USEPA IRIS Reference Dose	2100 ug/L
USEPA Health Advisory	2000 ug/L

IRIS values are usually preferred over health advisories, because they are intended to reflect USEPA's most recent health risk information. In this case, the health advisory was derived from the IRIS reference dose by rounding to one significant figure.

Health-based limits for TCE include:

Primary MCL	5	ug/L
California Public Health Goal	0.8	ug/L
Cal/EPA Cancer Potency Factor	2.3	ug/L
USEPA Health Advisory - cancer	3	ug/L
NAS cancer risk level	1.5	ug/L
Proposition 65 regulatory level	25	ug/L

The MCL is not purely health protective because it was based on quantitation limits using older analytical methods. The Proposition 65 regulatory level is based on the less-appropriate 10^{-5} cancer risk level. All of the remaining limits are based on a 10^{-6} cancer risk level. According to the hierarchy of health-based criteria agreed upon by staff of the Water Boards, DTSC and OEHHA, discussed above, the California-derived limits (the PHG and the Cal/EPA cancer potency factor) are preferred over federal limits for use in California. Both California limits assume exposure through inhalation caused by in-home water use in addition to direct ingestion of water. Both of these limits are from OEHHA, but the PHG is a more recent criterion. If the two California limits were not available, the NAS criterion, from *Drinking Water and Health*, is far older than the USEPA Health Advisory, and was "based on limited evidence" (as indicated in the footnote in the *Water Quality Goals* tables).

Relevant health-based values for benzene include:

California Primary MCL	1	ug/L
USEPA Primary MCL	5	ug/L
Draft Calif. Public Health Goal	0.14	ug/L
10-day USEPA Health Advisory	200	ug/L
Cal/EPA Cancer Potency Factor	0.35	ug/L
IRIS Cancer Potency Factor	1	ug/L
USEPA Health Advisory – cancer	1	ug/L
Proposition 65 regulatory level	3.5	ug/L

The USEPA MCL is not purely health protective because it was based on quantitation limits using older

analytical methods. The Proposition 65 regulatory level is based on the less-appropriate 10^{-5} cancer risk level. The 10-day health advisory does not protect against cancer and other health effects associated with potential long-term water use and is, therefore, not relevant to protecting a groundwater resource for existing and future beneficial use. The California MCL may not be purely health protective by comparison to the remaining health-based limits. Of the remaining limits, the PHG is the most recent California-derived value; however, it has not yet been adopted in final form. The Cal/EPA cancer potency factor is the only other California agency derived limit that is based entirely on health effects.

Health-based limits for xylene include:

California Primary MCL	1750 ug/L
USEPA Primary MCL	10,000 ug/L
USEPA MCL Goal	10,000 ug/L
California Public Health Goal	1800 ug/L
USEPA IRIS Reference Dose	14,000 ug/L
USEPA Health Advisory	10,000 ug/L

The California derived limits (MCL and PHG) are virtually identical and are significantly more stringent than any of the USEPA criteria. It is plausible that the reference dose was rounded to one significant figure to derive the remaining USEPA limits.

In summary, appropriate health-based numerical water quality limits for use in interpreting the toxicity objective for the constituents of concern at our site are:

Zinc	2100	ug/L	USEPA IRIS RfD
TCE	0.8	ug/L	Calif. Public Health Goal
Benzene	0.35	ug/L	Cal/EPA Cancer Potency
Xylene	1750	ug/L	California Primary MCL

So far, we have selected water quality goals to interpret each of the applicable narrative water quality objectives for each constituent of concern (in ug/L).

CoC	*Water Quality Objective*	*Goal*
Zinc	Chemical Constituents (MCL)	5000
	Chemical Constituents (Ag use)	2000
	Taste and Odor	5000
	Toxicity	2100
TCE	Chemical Constituents (MCL)	5
	Taste and Odor	310
	Toxicity	0.8
Benzene	Chemical Constituents (MCL)	1
	Taste and Odor	170
	Toxicity	0.35
Xylene	Chemical Constituents (MCL)	1750
	Taste and Odor	17
	Toxicity	1750

The most limiting of these goals for each constituent would ensure compliance with all water quality objectives and should protect all beneficial uses. Therefore, the beneficial use protective water quality limits for the constituents of concern at our leaking waste oil tank site are:

Zinc	2000	ug/L	Agricultural Use Limit
TCE	0.8	ug/L	Calif. Public Health Goal
Benzene	0.35	ug/L	Cal/EPA Cancer Potency
Xylene(s)	17	ug/L	Taste & Odor Threshold

Measured concentrations in groundwater which exceed these limits would be considered to violate applicable water quality standards.

The reader is cautioned that these values would apply to groundwater at the hypothetical site in this example, and not necessarily to water bodies in other locations. Water resources at other sites may have different beneficial use designations and water quality objectives.

In the above example, the solvents are not normally found in groundwater. So aquifer-specific background levels are not relevant to beneficial use protection. Where background concentrations (out of the influence of waste management activities at the site) are higher than the limits selected to ascertain compliance with all applicable water quality objectives, the Regional Water Board would not normally require the site owner or operator to improve upon such background conditions. In such cases, the background concentrations are considered to comply with the applicable water quality numerical limits.

In addition, strict application of California's Antidegradation Policy would require that background levels of chemicals in groundwater ("zero" for anthropogenic substances, such as solvents, at most sites) be selected as appropriate water quality limits if some water quality degradation is not found to be consistent with the requirements of that policy, as discussed above. Cleanup of groundwater to meet background levels would be required unless attaining such levels is

determined to be infeasible. If cleanup levels higher than background are selected, those levels may not exceed applicable water quality standards, i.e., they should not exceed the beneficial use protective water quality limits, as selected above.

Additive Toxicity Criterion for Multiple Constituents

When multiple constituents have been found in groundwater or surface waters, their combined toxicity should be evaluated. In the absence of scientifically valid data to the contrary, Section 2550.4(g) of the Chapter 15, Article 5 regulations, which is referenced in the State Water Board's *Site Investigation and Cleanup Policy*, requires that theoretical risks from chemicals found together in a water body "shall be considered additive for all chemicals having similar toxicologic effects or having carcinogenic effects." Some *Water Quality Control Plans* also require that combined toxicological effects be considered in this manner. This requirement is also found in the California hazardous waste management regulations [Title 22 of CCR, Section 66264.94(f)], and in the USEPA Risk Assessment Guidance for Superfund (RAGS).

The commonly used toxicologic formula for assessing additive risk is:

$$\sum_{i=1}^{n} \frac{[\text{Concentration of Constituent}]_i}{[\text{Toxicologic Limit in Water}]_i} < 1.0$$

The concentration of each constituent is divided by its toxicologic limit. The resulting ratios are added for constituents having similar toxicologic effects and, separately, for carcinogens. If such a sum of ratios is less than one, no additive toxicity problem is assumed to exist. If the summation is equal to or greater than one, the combination of chemicals is assumed to present an unacceptable level of health risk.

For our leaking waste oil tank example discussed above, monitoring shows that groundwater quality beneath the site has been degraded by four constituents of concern in the following concentrations:

Zinc	1300	ug/L
TCE	0.6	ug/L
Benzene	0.3	ug/L
Xylene	9	ug/L

None of these concentrations exceeds beneficial use protective water quality limits.

However, two of these constituents, TCE and benzene, are associated with cancer risk. The Public Health Goal for TCE was established at the one-in-a-million incremental cancer risk level. A one-in-a-million incremental cancer risk level may also be calculated from the Cal/EPA cancer potency factor. These cancer-based health limits are:

TCE	0.8	ug/L
Benzene	0.35	ug/L

Individually, no chemical exceeds its toxicologic limit. However, an additive cancer risk calculation shows:

$$\frac{0.6}{0.8} + \frac{0.3}{0.35} = 1.6$$

The sum of the ratios is greater than unity (>1.0); therefore, the additive toxicity criterion has been violated. The chemicals together present an unacceptable level of toxicity—in this case, cancer risk.

Cleanup Levels in Water

If contaminants are found to impair or threaten the beneficial uses of groundwater or surface water resources, cleanup levels in water must be chosen. To satisfy State Water Board Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*, the *Antidegradation Policy*, and Section 2550.4 of Title 23 of CCR, cleanup levels for constituents in water are to be chosen at or below applicable water quality standards. Water quality numerical limits, selected using the procedures discussed above, may be used to determine that remaining constituents do not exceed these standards. In addition, such cleanup levels must also:

- not result in excessive exposure to sensitive biological receptors;
- not pose a substantial present or potential hazard to human health or the environment;
- not exceed the maximum concentration allowable under applicable statutes or regulations; and
- be the lowest concentration for each individual constituent that is technologically and economically achievable, toward background levels.

Conventional health and ecological risk assessment procedures can be used to satisfy the first and second

of these additional requirements. Feasibility studies provide information that can be used to satisfy the last requirement.

Conclusion and Status

This staff report has been developed to provide a uniform method and a convenient source of numerical limits for consistently determining compliance with California's water quality standards. It is referenced for this use in both *Water Quality Control Plans* for the Central Valley Region.

This report has been used by the State Water Board and the other Regional Water Boards as a reference for selecting numerical water quality limits. This report has also been referenced in the *Water Quality Control Plan* for the San Francisco Bay Region.

A Compilation of Water Quality Goals will be updated and expanded to account for newly developed numerical water quality information, as needed and as Regional Board staff resources are made available for that effort.

Glossary

Beneficial Use Protective Water Quality Limit — The most limiting relevant numerical water quality limit for a constituent or parameter of concern in a specific body of groundwater or surface water at a specific site. This limit is chosen to determine compliance with all applicable water quality objectives for the protection of designated beneficial uses. The beneficial use protective water quality limit is selected from among applicable numerical water quality objectives and water quality goals used to interpret narrative water quality objectives. In no case is this limit more stringent than the true background concentration of the constituent of concern.

Beneficial Uses — Uses of surface water and groundwater that must be protected against water quality degradation. Beneficial uses are established in the *Water Quality Control Plans*. See *Water Quality Standards*.

Water Quality Criteria — Numerical or narrative limits for constituents or characteristics of water designed to protect specific designated uses of the water under the authority of the federal Clean Water Act. California's water quality criteria are called "water quality objectives." See *Water Quality Standards*.

Water Quality Goal — A numerical water quality limit from the literature used to interpret an applicable narrative water quality objective from a *Water Quality Control Plan*.

Water Quality Objectives — Numerical or narrative limits for constituents or characteristics of water designed to protect specific designated uses of the water under the authority of the California Porter-Cologne Water Quality Control Act. Water quality objectives are established by the State Water Resources Control Board and the nine Regional Water Quality Control Boards in *Water Quality Control Plans*. See *Water Quality Standards*.

Water Quality Standards — Pursuant to the federal Clean Water Act, a combination of the designated beneficial uses of water and criteria (or water quality objectives) to protect those uses. In California, beneficial uses and water quality objectives are adopted by the State Water Resources Control Board and nine Regional Water Quality Control Boards in *Water Quality Control Plans*. *Water Quality Control Plans* adopted by the Regional Water Boards are also called *Basin Plans*. These Plans establish enforceable limits for bodies of surface water and groundwater.

CROSS REFERENCE OF CHEMICAL NAMES

CROSS REFERENCE OF CHEMICAL NAMES

CONSTITUENT	Category	See Listing(s) Under:	CAS No.
A 2-AAF	Organic	2-Acetylaminofluorene	53-96-3
A-alpha-C	Organic	A-alpha-C	26148-68-5
Aatrex	Organic	Atrazine	1912-24-9
Abamectin	Organic	Avermectin B1	65195-55-3
Acenaphthene	Organic	Acenaphthene	83-32-9
Acenaphthylene	Organic	Acenaphthylene	208-96-8
Acephate	Organic	Acephate	30560-19-1
Acetaldehyde	Organic	Acetaldehyde	75-07-0
Acetaldehyde methylformylhydrazone	Organic	Gyromitrin	16568-02-8
Acetamide	Organic	Acetamide	60-35-5
2-Acetaminofluorene	Organic	2-Acetylaminofluorene	53-96-3
Acetic acid	Organic	Acetic acid	64-19-7
Acetic acid amide	Organic	Acetamide	60-35-5
Acetochlor	Organic	Acetochlor	34256-82-1
Acetone	Organic	Acetone	67-64-1
Acetonitrile	Organic	Acetonitrile	75-05-8
Acetophenone	Organic	Acetophenone	98-86-2
2-Acetylaminofluorene	Organic	2-Acetylaminofluorene	53-96-3
Acetylene	Organic	Acetylene	74-86-2
Acifluorfen	Organic	Acifluorfen	62476-59-9
Acrolein	Organic	Acrolein	107-02-8
Acrylamide	Organic	Acrylamide	79-06-1
Acrylic acid	Organic	Acrylic acid	79-10-7
Acrylonitrile	Organic	Acrylonitrile	107-13-1
Actinomycin D	Organic	Actinomycin D	50-76-0
Advantage	Organic	Carbosulfan	55285-14-8
AF-2	Organic	AF-2	3688-53-7
Aflatoxins	Organic	Aflatoxins	1402-68-2
Ag	Inorganic	Silver	7440-22-4
Al	Inorganic	Aluminum	7429-90-5
Alachlor	Organic	Alachlor	15972-60-8
Alanex	Organic	Alachlor	15972-60-8
Alanine nitrogen mustard	Organic	Melphalan	148-82-3
Alar	Organic	Daminozide	1596-84-5
Aldicarb	Organic	Aldicarb	116-06-3
Aldicarb sulfone	Organic	Aldicarb sulfone	1646-88-4
Aldicarb sulfoxide	Organic	Aldicarb sulfoxide	
Aldrin	Organic	Aldrin	309-00-2
Aldrosol	Organic	Aldrin	309-00-2
Aliette	Organic	Fosetyl-al	39148-24-8
Alkalinity	Inorganic	Alkalinity	
Alkeran	Organic	Melphalan	148-82-3
Ally	Organic	Ally	74223-64-6
Allyl alcohol	Organic	Allyl alcohol	107-18-6
Allyl chloride	Organic	3-Chloropropene	107-05-1
4-Allyl-1,2-methylenedioxybenzene	Organic	Safrole	94-59-7
Allyl trichloride	Organic	1,2,3-Trichloropropane	96-18-4
Alochlor	Organic	Alachlor	15972-60-8
Altrad	Organic	Estradiol 17B	50-28-2
Aluminum	Inorganic	Aluminum	7429-90-5
Aluminum phosphide	Inorganic	Aluminum phosphide	20859-73-8
Amber	Organic	Triasulfuron	82097-50-5
Amdro	Organic	Amdro	67485-29-4
Ametrex	Organic	Ametryn	834-12-8
Ametryn	Organic	Ametryn	834-12-8
Ametycine	Organic	Mitomycin C	50-07-7
Amiben	Organic	Chloramben	133-90-4
o-Aminoanisole hydrochloride	Organic	o-Anisidine hydrochloride	134-29-2
o-Amino-anisole	Organic	o-Anisidine	90-04-0
2-Aminoanthraquinone	Organic	2-Aminoanthraquinone	117-79-3
o-Aminoazotoluene	Organic	o-Aminoazotoluene	97-56-3
Aminobenzene	Organic	Aniline	62-53-3
4-Aminobiphenyl	Organic	4-Aminobiphenyl	92-67-1
1-Aminobutane	Organic	n-Butylamine	109-73-9
2-Amino-alpha-carboline	Organic	A-alpha-C	26148-68-5
1-Amino-4-chlorobenzene	Organic	p-Chloroaniline	106-47-8
Aminocyclohexane	Organic	Cyclohexylamine	108-91-8
4'-Amino-2,3-dimethylazobenzene	Organic	o-Aminoazotoluene	97-56-3
Amino-2,4-dimethylbenzene	Organic	2,4-Xylidine	1300-73-8
Amino-2,6-dimethylbenzene	Organic	2,6-Xylidine	87-62-7
4-Aminodiphenyl	Organic	4-Aminobiphenyl	92-67-1
Aminoethane	Organic	Ethylamine	75-04-7
2-Aminoethanol	Organic	Ethanolamine	141-43-5
3-Amino-9-ethylcarbazole hydrochloride	Organic	3-Amino-9-ethylcarbazole hydrochloride	6109-97-3
Aminomethane	Organic	Methylamine	74-89-5
1-Amino-2-methylanthraquinone	Organic	1-Amino-2-methylanthraquinone	82-28-0
2-Amino-6-methyldipyrido[1,2-a:3',2'-d]-imidazole	Organic	Glu-P-1	67730-11-4
2-Amino-3-methylimidazo[4,5-f]quinoline	Organic	IQ	76180-96-6
2-Amino-3-methyl-9H-pyrido-[2,3-b]indole	Organic	Me-A-alpha-C	68006-83-7
2-Aminonaphthalene	Organic	2-Methyl-1-nitroanthraquinone	129-15-7
2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole	Organic	2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole	712-68-5

CROSS REFERENCE OF CHEMICAL NAMES

	CONSTITUENT	Category	See Listing(s) Under:	CAS No.
A	2-Aminopropane	Organic	Isopropylamine	75-31-0
	2-Aminopyrido[1,2-a:3',2'-d]-imidazole	Organic	Glu-P-2	67730-10-3
	2-Amino-9H-pyrido(2,3-b)indole	Organic	A-alpha-C	26148-68-5
	2-Aminotoluene	Organic	o-Toluidine	95-53-4
	2-Aminotoluene hydrochloride	Organic	o-Toluidine hydrochloride	636-21-5
	3-Amino-1,2,4-triazole	Organic	Amitrole	61-82-5
	Amitraz	Organic	Amitraz	33089-61-1
	Amitrole	Organic	Amitrole	61-82-5
	Ammonia	Inorganic	Ammonia	7664-41-7
	Ammonium (NH_4^+)	Inorganic	Ammonia	7664-41-7
	Ammonium nitroso-beta-phenylhydroxylamine	Organic	Cupferron	135-20-6
	Ammonium sulfamate	Inorganic	Ammonium sulfamate	7773-06-0
	n-Amyl acetate	Organic	n-Amyl acetate	628-63-7
	Amyl aldehyde	Organic	n-Valeraldehyde	110-62-3
	Aniline	Organic	Aniline	62-53-3
	o-Anisidine	Organic	o-Anisidine	90-04-0
	o-Anisidine hydrochloride	Organic	o-Anisidine hydrochloride	134-29-2
	Antergon	Organic	Maleic hydrazide	123-33-1
	Anthracene	Organic	Anthracene	120-12-7
	Antimony	Inorganic	Antimony	7440-36-0
	Antioxyne B	Organic	Butylated hydroxyanisole	25013-16-5
	Apollo	Organic	Apollo	74115-24-5
	Aquacide	Organic	Diquat	85-00-7
	Aracide	Organic	Aramite	140-57-8
	Aramite	Organic	Aramite	140-57-8
	Arilate	Organic	Benomyl	17804-35-2
	Arsenic	Inorganic	Arsenic	7440-38-2
	Arsine	Inorganic	Arsine	7784-42-1
	As	Inorganic	Arsenic	7440-38-2
	Asbestos	Inorganic	Asbestos	1332-21-4
	AsH_3	Inorganic	Arsine	7784-42-1
	Assure	Organic	Assure	76578-14-8
	Asulam	Organic	Asulam	3337-71-1
	Atranex	Organic	Atrazine	1912-24-9
	Atrazine	Organic	Atrazine	1912-24-9
	Auramine	Organic	Auramine	492-80-8
	Avenge	Organic	Difenzoquat	43222-48-6
	Avermectin B1	Organic	Avermectin B1	65195-55-3
	Azaserine	Organic	Azaserine	115-02-6
	Azathioprine	Organic	Azathioprine	446-86-6
	Azide, sodium	Inorganic	Sodium azide	26628-22-8
	Azimethiphos	Organic	Cyromazine	66215-27-8
	Azinone	Organic	Norflurazon	27314-13-2
	Azinphos-methyl	Organic	Azinphos-methyl	86-50-0
	Aziridine	Organic	Ethyleneimine	151-56-4
	Azoamine scarlet	Organic	5-Nitro-o-anisidine	99-59-2
	Azobenzene	Organic	Azobenzene	103-33-3
B	B	Inorganic	Boron	7440-42-8
	Ba	Inorganic	Barium	7440-39-3
	Balan	Organic	Benefin	1861-40-1
	Banner	Organic	Propiconazole	60207-90-1
	Banvel	Organic	Dicamba	1918-00-9
	BaP	Organic	Benzo(a)pyrene	50-32-8
	Baridol	Organic	Estradiol 17B	50-28-2
	Barium	Inorganic	Barium	7440-39-3
	Basagran	Organic	Bentazon	25057-89-0
	Basic lead acetate	Organic	Lead subacetate	1335-32-6
	Basic parafuchsine	Organic	C. I. Basic Red 9 monohydrochloride	569-61-9
	Basta	Organic	Glufosinate-ammonium	77182-82-2
	Basudin	Organic	Diazinon	333-41-5
	Baygon	Organic	Baygon	114-26-1
	Bayleton	Organic	Bayleton	43121-43-3
	Baythroid	Organic	Baythroid	68359-37-5
	BCEE	Organic	Bis(2-chloroethyl) ether	111-44-4
	BCIE	Organic	Bis(2-chloroisopropyl) ether	39638-32-9
	BCME	Organic	Bis(chloromethyl) ether	542-88-1
	BDCM	Organic	Bromodichloromethane	75-27-4
	Be	Inorganic	Beryllium	7440-41-7
	Benefin	Organic	Benefin	1861-40-1
	Benfluralin	Organic	Benefin	1861-40-1
	Benlate	Organic	Benomyl	17804-35-2
	Benomyl	Organic	Benomyl	17804-35-2
	Bensylyte	Organic	Phenoxybenzamine	59-96-1
	Bentazon	Organic	Bentazon	25057-89-0
	Benthiocarb	Organic	Thiobencarb	28249-77-6
	Benzaldehyde	Organic	Benzaldehyde	100-52-7
	Benzamine	Organic	Aniline	62-53-3
	Benz(a)anthracene	Organic	Benz(a)anthracene	56-55-3
	1,2-Benzanthracene	Organic	Benz(a)anthracene	56-55-3
	Benzene	Organic	Benzene	71-43-2

CROSS REFERENCE OF CHEMICAL NAMES

CONSTITUENT	Category	See Listing(s) Under:	CAS No.
alpha-Benzene hexachloride	Organic	alpha-BHC	319-84-6
beta-Benzene hexachloride	Organic	beta-BHC	319-85-7
gamma-Benzene hexachloride	Organic	gamma-BHC (Lindane)	58-89-9
delta-Benzene hexachloride	Organic	delta-BHC	319-86-8
technical-Benzene hexachloride	Organic	technical-BHC	608-73-1
Benzenes, chlorinated	Organic	Chlorinated benzenes	68411-45-0
		Chlorobenzene	108-90-7
		1,2-Dichlorobenzene	95-50-1
		1,3-Dichlorobenzene	541-73-1
		1,4-Dichlorobenzene	106-46-7
		Dichlorobenzenes	25321-22-6
		Hexachlorobenzene	118-74-1
		Pentachlorobenzene	608-93-5
		1,2,4,5-Tetrachlorobenzene	95-94-3
		1,2,4-Trichlorobenzene	120-82-1
		1,3,5-Trichlorobenzene	108-70-3
		Trichlorobenzenes	12002-48-1
Benzenes, dichloro-	Organic	1,2-Dichlorobenzene	95-50-1
		1,3-Dichlorobenzene	541-73-1
		1,4-Dichlorobenzene	106-46-7
		Dichlorobenzenes	25321-22-6
Benzenes, trichloro-	Organic	1,2,4-Trichlorobenzene	120-82-1
		1,3,5-Trichlorobenzene	108-70-3
		Trichlorobenzenes	12002-48-1
Benzidine	Organic	Benzidine	92-87-5
Benzo(a)anthracene	Organic	Benz(a)anthracene	56-55-3
1,3-Benzodioxole	Organic	Dihydrosafrole	94-58-6
10,11-Benzofluoranthene	Organic	Benzo(j)fluoranthene	205-82-3
3,4-Benzofluoranthene	Organic	Benzo(b)fluoranthene	205-99-2
8,9-Benzofluoranthene	Organic	Benzo(k)fluoranthene	207-08-9
Benzo(b)fluoranthene	Organic	Benzo(b)fluoranthene	205-99-2
Benzo(j)fluoranthene	Organic	Benzo(j)fluoranthene	205-82-3
Benzo(k)fluoranthene	Organic	Benzo(k)fluoranthene	207-08-9
Benzofuran	Organic	Benzofuran	271-89-6
Benzoic adic	Organic	Benzoic adic	65-85-0
Benzo(g,h,i)perylene	Organic	Benzo(g,h,i)perylene	191-24-2
1,12-Benzoperylene	Organic	Benzo(g,h,i)perylene	191-24-2
Benzo(a)pyrene	Organic	Benzo(a)pyrene	50-32-8
3,4-Benzopyrene	Organic	Benzo(a)pyrene	50-32-8
1,4-Benzoquinone	Organic	Quinone	106-51-4
Benzotrichloride	Organic	Benzotrichloride	98-07-7
Benzyl butyl phthalate	Organic	n-Butyl benzyl phthalate	85-68-7
Benzyl chloride	Organic	Benzyl chloride	100-44-7
Benzyl violet 4B	Organic	Benzyl violet 4B	1694-09-3
Beryllium	Inorganic	Beryllium	7440-41-7
Beryllium oxide	Inorganic	Beryllium oxide	1304-56-9
Beryllium sulfate	Inorganic	Beryllium sulfate	13510-49-1
Betanal	Organic	Phenmedipham	13684-63-4
BHA	Organic	Butylated hydroxyanisole	25013-16-5
alpha-BHC	Organic	alpha-BHC	319-84-6
beta-BHC	Organic	beta-BHC	319-85-7
gamma-BHC	Organic	gamma-BHC (Lindane)	58-89-9
delta-BHC	Organic	delta-BHC	319-86-8
technical-BHC	Organic	technical-BHC	608-73-1
Bidrin	Organic	Bidrin	141-66-2
Biofurcina	Organic	Nitrofurazone	59-87-0
Biphenthrin	Organic	Biphenthrin	82657-04-3
1,1-Biphenyl	Organic	1,1-Biphenyl	92-52-4
4-Biphenylamine	Organic	4-Aminobiphenyl	92-67-1
Bis(4-aminophenyl)ether	Organic	4,4'-Diaminodiphenyl ether	101-80-4
Bis-butyl phthalate	Organic	Dibutyl phthalate	84-74-2
Bis(2-chloroethoxy) methane	Organic	Bis(2-chloroethoxy) methane	111-91-1
Bis(2-chloroethyl) ether	Organic	Bis(2-chloroethyl) ether	111-44-4
Bis(2-chloroisopropyl) ether	Organic	Bis(2-chloroisopropyl) ether	39638-32-9
Bis(chloromethyl) ether	Organic	Bis(chloromethyl) ether	542-88-1
Bis(2-chloro-1-methylethyl) ether	Organic	Bis(2-chloroisopropyl) ether	39638-32-9
Bisclofentezine	Organic	Apollo	74115-24-5
bis(p-(Dimethylanino)phenyl)methane	Organic	4,4'-Methylenebis(N,N-dimethyl)aniline	101-61-1
Bis(2-ethylhexyl) phthalate	Organic	Di(2-ethylhexyl)phthalate	117-81-7
Bis-ethyl phthalate	Organic	Diethyl phthalate	84-66-2
Bis(4-hydroxyphenyl)propane	Organic	Bisphenol A	80-05-7
Bis-methyl phthalate	Organic	Dimethyl phthalate	131-11-3
Bis-n-octyl phthalate	Organic	Di(n-octyl) phthalate	117-84-0
Bis(pentabromophenyl) ether	Organic	Decabromodiphenyl ether	1163-19-5
Bisphenol A	Organic	Bisphenol A	80-05-7
Bivinyl	Organic	1,3-Butadiene	106-99-0
BLA	Organic	Lead subacetate	1335-32-6
Bladex	Organic	Cyanazine	21725-46-2
Blazer	Organic	Acifluorfen	62476-59-9
Bolero	Organic	Thiobencarb	28249-77-6
Boron	Inorganic	Boron	7440-42-8

CROSS REFERENCE OF CHEMICAL NAMES

	CONSTITUENT	Category	See Listing(s) Under:	CAS No.
B	BPBG	Organic	Butylphthalyl butylglycolate	85-70-1
	Br	Inorganic	Bromide	
	Bravo	Organic	Chlorothalonil	1897-45-6
	Brigade	Organic	Biphenthrin	82657-04-3
	Bromacil	Organic	Bromacil	314-40-9
	Bromate	Inorganic	Bromate	15541-45-4
	Bromide	Inorganic	Bromide	
	Bromine	Inorganic	Bromine	7726-95-6
	Bromine cyanide	Inorganic	Cyanogen bromide	506-68-3
	Bromoacetic acid	Organic	Bromoacetic acid	79-08-3
	Bromobenzene	Organic	Bromobenzene	108-86-1
	Bromochloromethane	Organic	Bromochloromethane	74-97-5
	2-Bromo-2-chloro-1,1,1-trifluoroethane	Organic	Halothane	151-67-7
	Bromodichloromethane	Organic	Bromodichloromethane	75-27-4
	p-Bromodiphenyl ether	Organic	4-Bromophenyl phenyl ether	101-55-3
	Bromoethane	Organic	Ethyl bromide	74-96-4
	Bromoethene	Organic	Vinyl bromide	593-60-2
	Bromoethylene	Organic	Vinyl bromide	593-60-2
	Bromoform	Organic	Bromoform	75-25-2
	Bromomethane	Organic	Bromomethane	74-83-9
	4-Bromophenyl phenyl ether	Organic	4-Bromophenyl phenyl ether	101-55-3
	Bromoxynil	Organic	Bromoxynil	1689-84-5
	Bromoxynil octanoate	Organic	Bromoxynil octanoate	1689-99-2
	BTS 40542	Organic	Prochloraz	67747-09-5
	Butachlor	Organic	Butachlor	23184-66-9
	1,3-Butadiene	Organic	1,3-Butadiene	106-99-0
	Butane	Organic	Butane	106-97-8
	Butanedioic acid mono(2,2-dimethyl hydrazide)	Organic	Daminozide	1596-84-5
	1-Butanethiol	Organic	n-Butyl mercaptan	109-79-5
	Butanex	Organic	Butachlor	23184-66-9
	2-Butanol	Organic	sec-Butyl alcohol	78-92-2
	n-Butanol	Organic	n-Butanol	71-36-3
	sec-Butanol	Organic	sec-Butyl alcohol	78-92-2
	t-Butanol	Organic	tert-Butyl alcohol	75-65-0
	2-Butanone	Organic	Methyl ethyl ketone	78-93-3
	2-Butenal	Organic	trans-Crotonaldehyde	4170-30-3
	Butiphos	Organic	Merphos oxide	78-48-8
	n-Butylbenzene	Organic	n-Butylbenzene	104-51-8
	2-Butoxy ethanol	Organic	Ethylene glycol monobutyl ether	111-76-2
	Butter yellow	Organic	4-Dimethylaminoazobenzene	60-11-7
	n-Butyl acetate	Organic	n-Butyl acetate	123-86-4
	n-Butyl acrylate	Organic	n-Butyl acrylate	141-32-2
	n-Butyl alcohol	Organic	n-Butanol	71-36-3
	sec-Butyl alcohol	Organic	sec-Butyl alcohol	78-92-2
	t-Butyl alcohol	Organic	tert-Butyl alcohol	75-65-0
	tert-Butyl alcohol	Organic	tert-Butyl alcohol	75-65-0
	n-Butylamine	Organic	n-Butylamine	109-73-9
	Butylate	Organic	Butylate	2008-41-5
	Butylated hydroxyanisole	Organic	Butylated hydroxyanisole	25013-16-5
	n-Butyl benzyl phthalate	Organic	n-Butyl benzyl phthalate	85-68-7
	Butyl glycolyl butyl phthalate	Organic	Butylphthalyl butylglycolate	85-70-1
	n-Butyl lactate	Organic	n-Butyl lactate	138-22-7
	n-Butyl mercaptan	Organic	n-Butyl mercaptan	109-79-5
	2-P(butylphenoxy)-1-methylethyl-2-chloroethyl sulfite	Organic	Aramite	140-57-8
	Butylphthalyl butylglycolate	Organic	Butylphthalyl butylglycolate	85-70-1
	p-tert-Butyltoluene	Organic	p-tert-Butyltoluene	98-51-1
	beta-Butyrolactone	Organic	beta-Butyrolactone	96-48-0
C	Cadmium	Inorganic	Cadmium	7440-43-9
	2-Camphanone	Organic	Camphor	464-49-3
	Camphechlor	Organic	Toxaphene	8001-35-2
	Camphor	Organic	Camphor	464-49-3
	Campogran	Organic	Furmecyclox	60568-05-0
	Caprolactam	Organic	Caprolactam	105-60-2
	Captafol	Organic	Captafol	2425061
	Captan	Organic	Captan	133-06-2
	Carbaryl	Organic	Carbaryl	63-25-2
	Carbathiin	Organic	Carboxin	5234-68-4
	Carbofuran	Organic	Carbofuran	1563-66-2
	Carbon bisulfide	Inorganic	Carbon disulfide	75-15-0
	Carbon disulfide	Inorganic	Carbon disulfide	75-15-0
	Carbon tetrachloride	Organic	Carbon tetrachloride	56-23-5
	Carbophenothion	Organic	Trithion	786-19-6
	Carbosulfan	Organic	Carbosulfan	55285-14-8
	Carboxin	Organic	Carboxin	5234-68-4
	Carboxine	Organic	Carboxin	5234-68-4
	Carboxybenzene	Organic	Benzoic adic	65-85-0
	Catechol	Organic	Catechol	120-80-9
	Cd	Inorganic	Cadmium	7440-43-9
	CDEC	Organic	Sulfallate	95-06-7
	Celphos	Inorganic	Aluminum phosphide	20859-73-8

CROSS REFERENCE OF CHEMICAL NAMES

CONSTITUENT	Category	See Listing(s) Under:	CAS No.
Chemform	Organic	Maleic hydrazide	123-33-1
Chloral	Organic	Chloral	75-87-6
Chloral hydrate	Organic	Chloral hydrate	302-17-0
Chloramben	Organic	Chloramben	133-90-4
Chlorambucil	Organic	Chlorambucil	305-03-3
Chloramine	Inorganic	Chloramine	127-65-1
Chlorate	Inorganic	Chlorate	
Chlordan	Organic	Chlordane	57-74-9
Chlordane	Organic	Chlordane	57-74-9
Chlordecone	Organic	Kepone	143-50-0
Chlordimeform	Organic	Chlordimeform	6164-98-3
Chlorendic acid	Organic	Chlorendic acid	115-28-6
Chloride	Inorganic	Chloride	16887-00-6
Chlorimuron-ethyl	Organic	Chlorimuron-ethyl	90982-32-4
Chlorinated paraffins	Organic	Chlorinated paraffins	
Chlorinated benzenes	Organic	Chlorinated benzenes	68411-45-0
		Chlorobenzene	108-90-7
		1,2-Dichlorobenzene	95-50-1
		1,3-Dichlorobenzene	541-73-1
		1,4-Dichlorobenzene	106-46-7
		Dichlorobenzenes	25321-22-6
		Hexachlorobenzene	118-74-1
		Pentachlorobenzene	608-93-5
		1,2,4,5-Tetrachlorobenzene	95-94-3
		1,2,4-Trichlorobenzene	120-82-1
		1,3,5-Trichlorobenzene	108-70-3
		Trichlorobenzenes	12002-48-1
Chlorinated naphthalenes	Organic	Chlorinated naphthalenes	25586-43-0
		2-Chloronaphthalene	91587
Chlorinated paraffins	Organic	Chlorinated paraffins	
Chlorinated phenols	Organic	Chlorinated phenols	
		4-Chloro-m-cresol	59-50-7
		4-Chloro-o-cresol	1570-64-5
		6-Chloro-m-cresol	
		2-Chlorophenol	95-57-8
		3-Chlorophenol	108-43-0
		4-Chlorophenol	106-48-9
		2,3-Dichlorophenol	576-24-9
		2,4-Dichlorophenol	120-83-2
		2,5-Dichlorophenol	583-78-8
		2,6-Dichlorophenol	87-65-0
		3,4-Dichlorophenol	95-77-2
		Pentachlorophenol	87-86-5
		2,3,4,6-Tetrachlorophenol	58-90-2
		2,3,5,6-Tetrachlorophenol	935-95-5
		2,4,5-Trichlorophenol	95-95-4
		2,4,6-Trichlorophenol	88-06-2
Chlorinated waxes	Organic	Chlorinated paraffins	
Chlorine	Inorganic	Chlorine	7782-50-5
Chlorine cyanide	Inorganic	Cyanogen chloride	506-77-4
Chlorine dioxide	Inorganic	Chlorine dioxide	10049-04-4
Chlorite	Inorganic	Chlorite	7758-19-2
Chloroacetic acid	Organic	Chloroacetic acid	79-11-8
Chloroalkyl ethers	Organic	Bis(2-chloroethyl) ether	111-91-1
		Bis(2-chloroisopropyl) ether	111-44-4
		Bis(chloromethyl) ether	39638-32-9
		Chloroalkyl ethers	
		Chloromethyl methyl ether	107-30-2
2-Chloroallyl-diethyldithiocarbamate	Organic	Sulfallate	95-06-7
p-Chloroaniline	Organic	p-Chloroaniline	106-47-8
Chlorobenzene	Organic	Chlorobenzene	108-90-7
Chlorobenzilate	Organic	Ethyl-4,4'-dichlorobenzilate	510-15-6
Chlorobromomethane	Organic	Bromochloromethane	74-97-5
2-Chlorobutadiene-1,3	Organic	beta-Chloroprene	
Chlorocamphene	Organic	Toxaphene	8001-35-2
4-Chloro-m-cresol	Organic	4-Chloro-m-cresol	59-50-7
4-Chloro-o-cresol	Organic	4-Chloro-o-cresol	1570-64-5
6-Chloro-m-cresol	Organic	6-Chloro-m-cresol	
p-Chloro-m-cresol	Organic	4-Chloro-m-cresol	59-50-7
p-Chloro-o-cresol	Organic	4-Chloro-o-cresol	1570-64-5
1-Chloro-3,4-diaminobenzene	Organic	4-Chloro-o-phenylenediamine	95-83-0
Chlorodibromomethane	Organic	Dibromochloromethane	124-48-1
1-Chloro-2,3-epoxypropane	Organic	Epichlorohydrin	106-89-8
Chloroethane	Organic	Chloroethane	75-00-3
Chloroethene	Organic	Vinyl chloride	75-01-4
Chloroethylaminobenzeneacetate	Organic	Phenesterin	3546109
Chloroethylene	Organic	Vinyl chloride	75-01-4
2-Chloroethylphosphonic acid	Organic	Ethephon	16672-87-0
Chloroform	Organic	Chloroform	67-66-3
Chlorofos	Organic	Trichlorfon	52-68-6
Chloro-IPC	Organic	Chlorpropham	101-21-3

CROSS REFERENCE OF CHEMICAL NAMES

CONSTITUENT	Category	See Listing(s) Under:	CAS No.
1-Chloroisobutene	Organic	Dimethylvinylchloride	513-37-1
3-Chloroisobutylene	Organic	3-Chloro-2-methylpropene	563-47-3
Chloromethane	Organic	Chloromethane	74-87-3
Chloromethoxymethane	Organic	Chloromethyl methyl ether	107-30-2
Chloromethyl ether	Organic	Bis(chloromethyl) ether	542-88-1
Chloromethyl methyl ether	Organic	Chloromethyl methyl ether	107-30-2
4-Chloro-2-methylphenol	Organic	4-Chloro-o-cresol	1570-64-5
4-Chloro-3-methylphenol	Organic	4-Chloro-m-cresol	59-50-7
6-Chloro-3-methylphenol	Organic	6-Chloro-m-cresol	
1-Chloro-2-methylpropene	Organic	Dimethylvinylchloride	513-37-1
3-Chloro-2-methylpropene	Organic	3-Chloro-2-methylpropene	563-47-3
2-Chloronaphthalene	Organic	2-Chloronaphthalene	91587
beta-Chloronaphthalene	Organic	2-Chloronaphthalene	91587
2-Chlorophenol	Organic	2-Chlorophenol	95-57-8
3-Chlorophenol	Organic	3-Chlorophenol	108-43-0
4-Chlorophenol	Organic	4-Chlorophenol	106-48-9
m-Chlorophenol	Organic	3-Chlorophenol	108-43-0
o-Chlorophenol	Organic	2-Chlorophenol	95-57-8
p-Chlorophenol	Organic	4-Chlorophenol	106-48-9
4-Chloro-o-phenylenediamine	Organic	4-Chloro-o-phenylenediamine	95-83-0
Chlorophenylmethane	Organic	Benzyl chloride	100-44-7
Chloropicrin	Organic	Chloropicrin	76-06-2
beta-Chloroprene	Organic	beta-Chloroprene	
3-Chloropropene	Organic	3-Chloropropene	107-05-1
Chloropropylene	Organic	Epichlorohydrin	106-89-8
Chlorothalonil	Organic	Chlorothalonil	1897-45-6
2-Chlorotoluene	Organic	2-Chlorotoluene	95-49-8
4-Chlorotoluene	Organic	4-Chlorotoluene	106-43-4
alpha-Chlorotoluene	Organic	Benzyl chloride	100-44-7
o-Chlorotoluene	Organic	2-Chlorotoluene	95-49-8
p-Chlorotoluene	Organic	4-Chlorotoluene	106-43-4
p-Chloro-o-toluidine	Organic	p-Chloro-o-toluidine	95-69-2
Chlorozotocin	Organic	Chlorozotocin	54749-90-5
Chlorpropham	Organic	Chlorpropham	101-21-3
Chlorpyrifos	Organic	Chlorpyrifos	2921-88-2
Chlorsulfuron	Organic	Chlorsulfuron	64902-72-3
Chromium (III)	Inorganic	Chromium (III)	16065-83-1
Chromium (VI)	Inorganic	Chromium (VI)	7440-47-3
Chromium, hexavalent	Inorganic	Chromium (VI)	7440-47-3
Chromium (total)	Inorganic	Chromium (total)	7440-47-3
Chromium, trivalent	Inorganic	Chromium (III)	16065-83-1
Chrysanthemumic acid	Organic	Dimethrin	70-38-2
Chrysazin	Organic	Dantron	117-10-2
Chrysene	Organic	Chrysene	218-01-9
C. I. Basic Red 9 monohydrochloride	Organic	C. I. Basic Red 9 monohydrochloride	569-61-9
C.I. disperse orange 11	Organic	1-Amino-2-methylanthraquinone	82-28-0
Cinnamyl anthranilate	Organic	Cinnamyl anthranilate	87-29-6
CIPC	Organic	Chlorpropham	101-21-3
Cl^-	Inorganic	Chloride	16887-00-6
Cl_2	Inorganic	Chlorine	7782-50-5
ClO_2	Inorganic	Chlorine dioxide	10049-04-4
ClO_2^-	Inorganic	Chlorite	7758-19-2
ClO_3^-	Inorganic	Chlorate	
ClO_4^-	Inorganic	Perchlorate	
Clofentezine	Organic	Apollo	74115-24-5
CMME	Organic	Chloromethyl methyl ether	107-30-2
CN^-	Inorganic	Cyanide	57-12-5
Co	Inorganic	Cobalt	7440-48-4
Cobalt	Inorganic	Cobalt	7440-48-4
Cobra	Organic	Lactofen	77501-63-4
Color	Inorganic	Color	
Conductivity	Inorganic	Specific conductance (EC)	
Contraven	Organic	Terbufos	13071-79-9
Copper	Inorganic	Copper	7440-50-8
Copper cyanide	Inorganic	Copper cyanide	544-92-3
Corrosivity	Inorganic	Corrosivity	
Cotoron	Organic	Fluometuron	2164-17-2
Cottonex	Organic	Fluometuron	2164-17-2
Coumadin	Organic	Warfarin	81-81-2
Coumafen	Organic	Warfarin	81-81-2
Counter	Organic	Terbufos	13071-79-9
Coxistat	Organic	Nitrofurazone	59-87-0
Cr	Inorganic	Chromium (total)	7440-47-3
Cr (III)	Inorganic	Chromium (III)	16065-83-1
Cr (VI)	Inorganic	Chromium (VI)	7440-47-3
p-Cresidine	Organic	p-Cresidine	120-71-8
m-Cresol	Organic	m-Cresol	108-39-4
o-Cresol	Organic	o-Cresol	95-48-7
p-Cresol	Organic	p-Cresol	106-44-5
Crisazina	Organic	Atrazine	1912-24-9
Crisuron	Organic	Diuron	330-54-1

CROSS REFERENCE OF CHEMICAL NAMES

	CONSTITUENT	Category	See Listing(s) Under:	CAS No.
C	Crotaline	Organic	Monocrotaline	315-22-0
	trans-Crotonaldehyde	Organic	trans-Crotonaldehyde	4170-30-3
	CS_2	Inorganic	Carbon disulfide	75-15-0
	Cu	Inorganic	Copper	7440-50-8
	Cumene	Organic	Cumene	98-82-8
	Cupferron	Organic	Cupferron	135-20-6
	Cupricin	Inorganic	Copper cyanide	544-92-3
	Cuprous cyanide	Inorganic	Copper cyanide	544-92-3
	Cutlass	Organic	Flurprimidol	56425-91-3
	Cyanazine	Organic	Cyanazine	21725-46-2
	Cyanide	Inorganic	Cyanide	57-12-5
	Cyanide, copper	Inorganic	Copper cyanide	544-92-3
	Cyanide, potassium	Inorganic	Potassium cyanide	151-50-8
	Cyanide, silver	Inorganic	Silver cyanide	506-64-9
	Cyanide, sodium	Inorganic	Sodium cyanide	143-33-9
	Cyanide, zinc	Inorganic	Zinc cyanide	557-21-1
	Cyanoethylene	Organic	Acrylonitrile	107-13-1
	Cyanogen	Organic	Cyanogen	460-19-5
	Cyanogen bromide	Inorganic	Cyanogen bromide	506-68-3
	Cyanogen chloride	Inorganic	Cyanogen chloride	506-77-4
	Cyanomethane	Organic	Acetonitrile	75-05-8
	2-Cyanopropene	Organic	Methacrylonitrile	126-98-7
	Cyclohexane	Organic	Cyclohexane	110-82-7
	Cyclohexanol	Organic	Cyclohexanol	108-93-0
	Cyclohexanone	Organic	Cyclohexanone	108-94-1
	Cyclohexene	Organic	Cyclohexene	110-83-8
	Cyclohexylamine	Organic	Cyclohexylamine	108-91-8
	Cyclonite	Organic	RDX (Cyclonite)	121-82-4
	Cyclopentadiene	Organic	Cyclopentadiene	542-92-7
	Cyclophosphamide	Organic	Cyclophosphamide	50-18-0
	Cyclotetramethylene tetranitramine	Organic	HMX	2691-41-0
	Cyfluthrin	Organic	Baythroid	68359-37-5
	Cygon	Organic	Dimethoate	60-51-5
	Cyhalothrin	Organic	Cyhalothrin	68085-85-8
	Cypermethrin	Organic	Cypermethrin	52315-07-8
	Cyromazine	Organic	Cyromazine	66215-27-8
	Cythion	Organic	Malathion	121-75-5
D	2,4-D	Organic	2,4-D	94-75-7
	Dacarbazine	Organic	Dacarbazine	4342034
	Daconil	Organic	Chlorothalonil	1897-45-6
	Dacthal (DCPA)	Organic	Dacthal (DCPA)	1861-32-1
	Dactinomycin	Organic	Actinomycin D	50-76-0
	Dalapon	Organic	Dalapon	75-99-0
	Daminozide	Organic	Daminozide	1596-84-5
	Danitol	Organic	Danitol	39515-41-8
	Dantron	Organic	Dantron	117-10-2
	Dazide	Organic	Daminozide	1596-84-5
	DBCP	Organic	Dibromochloropropane (DBCP)	96-12-8
	DBDPE	Organic	Decabromodiphenyl ether	1163-19-5
	DBNA	Organic	N-Nitrosodi-n-butylamine	924-16-3
	2,4-D butyric acid	Organic	4-(2,4-Dichlorophenoxy)butyric acid	94-82-6
	1,1-DCA	Organic	1,1-Dichloroethane	75-34-3
	1,2-DCA	Organic	1,2-Dichloroethane	107-06-2
	DCB	Organic	3,3'-Dichlorobenzidine	91-94-1
	o-DCB	Organic	1,2-Dichlorobenzene	95-50-1
	p-DCB	Organic	1,4-Dichlorobenzene	106-46-7
	1,1-DCE	Organic	1,1-Dichloroethylene	75-35-4
	cis-1,2-DCE	Organic	cis-1,2-Dichloroethylene	156-59-2
	trans-1,2-DCE	Organic	trans-1,2-Dichloroethylene	156-60-5
	DCPA	Organic	Dacthal (DCPA)	1861-32-1
	D&C Red No. 5	Organic	Ponceau MC	3761-53-3
	D&C Red No. 9	Organic	D&C Red No. 9	2092-56-0
	D-D Mixture	Organic	1,2-Dichloropropane	78-87-5
			1,3-Dichloropropene	542-75-6
	DDD	Organic	DDD	72-54-8
	4,4'-DDD	Organic	DDD	72-54-8
	DDE	Organic	DDE	72-55-9
	4,4'-DDE	Organic	DDE	72-55-9
	DDT	Organic	DDT	50-29-3
	4,4'-DDT	Organic	DDT	50-29-3
	DDVP	Organic	Dichlorvos	62-73-7
	DEA	Organic	Diethanolamine	111-42-2
	Decabromodiphenyl ether	Organic	Decabromodiphenyl ether	1163-19-5
	Dechlorane	Organic	Mirex	2385-85-5
	De-Fend	Organic	Dimethoate	60-51-5
	DEHP	Organic	Di(2-ethylhexyl)phthalate	117-81-7
	Demeton	Organic	Demeton	8065-48-3
	DEN	Organic	N-Nitrosodiethylamine	55-18-5
	Dermofural	Organic	Nitrofurazone	59-87-0
	DES	Organic	Diethylstilbestrol	56-53-1

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CONSTITUENT	Category	See Listing(s) Under:	CAS No.
Devrinol	Organic	Napropamide	15299-99-7
DGRE	Organic	Diglycidyl resorcinol ether	101-90-6
Diacetone alcohol	Organic	Diacetone alcohol	123-42-2
Dialon	Organic	Diuron	330-54-1
Diamine	Inorganic	Hydrazine	302-01-2
2,4-Diaminoanisole	Organic	2,4-Diaminoanisole	615-05-4
2,4-Diaminoanisole sulfate	Organic	2,4-Diaminoanisole sulfate	39156-41-7
1,3-Diaminobenzene	Organic	m-Phenylenediamine	108-45-2
4,4'-Diaminodiphenyl ether	Organic	4,4'-Diaminodiphenyl ether	101-80-4
p-Diaminodiphenyl	Organic	Benzidine	92-87-5
1,2-Diaminoethane	Organic	Ethylenediamine	107-15-3
2,6-Diamino-3-phenylazopyridine	Organic	Phenazopyridine	94-78-0
2,6-Diamino-3-phenylazopyridine hydrochloride	Organic	Phenazopyridine hydrochloride	136-40-3
2,4-Diaminotoluene	Organic	2,4-Diaminotoluene	95-80-7
o-Dianisidine dihydrochloride	Organic	3,3'-Dimethoxybenzidine hydrochloride	20325-40-0
o-Dianisidine	Organic	3,3'-Dimethoxybenzidine	119-90-4
Diazine blue	Organic	Direct Blue 6	2602-46-2
Diazinon	Organic	Diazinon	333-41-5
Diazobenzene	Organic	Azathioprine	446-86-6
Dibenz(a,h)acridine	Organic	Dibenz(a,h)acridine	226-36-8
Dibenz(a,j)acridine	Organic	Dibenz(a,j)acridine	224-42-0
1,2:5,6-Dibenzanthracene	Organic	Dibenz(a,h)anthracene	53-70-3
Dibenz(a,h)anthracene	Organic	Dibenz(a,h)anthracene	53-70-3
Dibenzo(a,h)anthracene	Organic	Dibenz(a,h)anthracene	53-70-3
7H-Dibenzo(c,g)carbazole	Organic	7H-Dibenzo(c,g)carbazole	194-59-2
Dibenzo(a,e)pyrene	Organic	Dibenzo(a,e)pyrene	192-65-4
Dibenzo(a,h)pyrene	Organic	Dibenzo(a,h)pyrene	189-64-0
Dibenzo(a,i)pyrene	Organic	Dibenzo(a,i)pyrene	189-55-9
Dibenzo(a,l)pyrene	Organic	Dibenzo(a,l)pyrene	191-30-0
Dibenzyline hydrochloride	Organic	Phenoxybenzamine hydrochloride	63-92-3
Dibrom	Organic	Naled	300-76-5
Dibromoacetic acid	Organic	Dibromoacetic acid	
Dibromoacetonitrile	Organic	Dibromoacetonitrile	3252-43-5
1,4-Dibromobenzene	Organic	1,4-Dibromobenzene	106-37-6
Dibromochloromethane	Organic	Dibromochloromethane	124-48-1
Dibromochloropropane (DBCP)	Organic	Dibromochloropropane (DBCP)	96-12-8
1,2-Dibromo-3-chloropropane	Organic	Dibromochloropropane (DBCP)	96-12-8
2,6-Dibromo-4-cyanophenol	Organic	Bromoxynil	1689-84-5
1,2-Dibromoethane	Organic	1,2-Dibromoethane	106-93-4
3,5-Dibromo-4-hydroxybenzonitrile	Organic	Bromoxynil	1689-84-5
Dibutylnitrosamine	Organic	N-Nitrosodi-n-butylamine	924-16-3
Dibutyl phthalate	Organic	Dibutyl phthalate	84-74-2
Di-n-butylphthalate	Organic	Dibutyl phthalate	84-74-2
Dicamba	Organic	Dicamba	1918-00-9
Dichloroacetic acid	Organic	Dichloroacetic acid	79-43-6
Dichloroacetonitrile	Organic	Dichloroacetonitrile	3018-12-0
1,2-Dichlorobenzene	Organic	1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	Organic	1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	Organic	1,4-Dichlorobenzene	106-46-7
m-Dichlorobenzene	Organic	1,3-Dichlorobenzene	541-73-1
o-Dichlorobenzene	Organic	1,2-Dichlorobenzene	95-50-1
p-Dichlorobenzene	Organic	1,4-Dichlorobenzene	106-46-7
Dichlorobenzenes	Organic	1,2-Dichlorobenzene	95-50-1
		1,3-Dichlorobenzene	541-73-1
		1,4-Dichlorobenzene	106-46-7
		Dichlorobenzenes	25321-22-6
3,3'-Dichlorobenzidine	Organic	3,3'-Dichlorobenzidine	91-94-1
Dichlorobromomethane	Organic	Bromodichloromethane	75-27-4
1,1-Dichloro-2,2-bis(p-chlorophenyl)ethane	Organic	DDD	72-54-8
2,2'-Dichlorodiethyl ether	Organic	Bis(2-chloroethyl) ether	111-44-4
Dichlorodiethyl formal	Organic	Bis(2-chloroethoxy) methane	111-91-1
Dichlorodifluoromethane	Organic	Dichlorodifluoromethane	75-71-8
Dichlorodimethyl ether	Organic	Bis(chloromethyl) ether	542-88-1
Dichlorodimethylvinylphosphate	Organic	Dichlorvos	62-73-7
Dichlorodiphenyldichloroethane	Organic	DDD	72-54-8
Dichlorodiphenyldichloroethylene	Organic	DDE	72-55-9
Dichlorodiphenyltrichloroethane	Organic	DDT	50-29-3
1,1-Dichloroethane	Organic	1,1-Dichloroethane	75-34-3
1,2-Dichloroethane	Organic	1,2-Dichloroethane	107-06-2
1,1-Dichloroethene	Organic	1,1-Dichloroethylene	75-35-4
cis-1,2-Dichloroethene	Organic	cis-1,2-Dichloroethylene	156-59-2
trans-1,2-Dichloroethene	Organic	trans-1,2-Dichloroethylene	156-60-5
Dichloroethenes	Organic	1,1-Dichloroethylene	75-35-4
		cis-1,2-Dichloroethylene	156-59-2
		trans-1,2-Dichloroethylene	156-60-5
		Dichloroethylenes	
Dichloroethyl formal	Organic	Bis(2-chloroethoxy) methane	111-91-1
1,1-Dichloroethylene	Organic	1,1-Dichloroethylene	75-35-4
cis-1,2-Dichloroethylene	Organic	cis-1,2-Dichloroethylene	156-59-2
trans-1,2-Dichloroethylene	Organic	trans-1,2-Dichloroethylene	156-60-5

CROSS REFERENCE OF CHEMICAL NAMES

CONSTITUENT	Category	See Listing(s) Under:	CAS No.
Dichloroethylenes	Organic	1,1-Dichloroethylene	75-35-4
		cis-1,2-Dichloroethylene	156-59-2
		trans-1,2-Dichloroethylene	156-60-5
		Dichloroethylenes	
symmetical-Dichloroethyl ether	Organic	Bis(2-chloroethyl) ether	111-44-4
Dichloromethane	Organic	Dichloromethane	75-09-2
2,4-Dichloro-1-(4-nitrophenoxy)benzene	Organic	Nitrofen	1836-75-5
2,3-Dichlorophenol	Organic	2,3-Dichlorophenol	576-24-9
2,4-Dichlorophenol	Organic	2,4-Dichlorophenol	120-83-2
2,5-Dichlorophenol	Organic	2,5-Dichlorophenol	583-78-8
2,6-Dichlorophenol	Organic	2,6-Dichlorophenol	87-65-0
3,4-Dichlorophenol	Organic	3,4-Dichlorophenol	95-77-2
2,4-Dichlorophenoxyacetic acid	Organic	2,4-D	94-75-7
4-(2,4-Dichlorophenoxy)butyric acid	Organic	4-(2,4-Dichlorophenoxy)butyric acid	94-82-6
1,2-Dichloropropane	Organic	1,2-Dichloropropane	78-87-5
Dichloropropanes	Organic	1,2-Dichloropropane	78-87-5
		Dichloropropanes	26638-19-7
1,3-Dichloropropene	Organic	1,3-Dichloropropene	542-75-6
Dichloropropenes	Organic	1,3-Dichloropropene	542-75-6
		Dichloropropenes	
2,2-Dichloropropionic acid	Organic	Dalapon	75-99-0
1,3-Dichloropropylene	Organic	1,3-Dichloropropene	542-75-6
Dichlorvos	Organic	Dichlorvos	62-73-7
Dicrotophos	Organic	Bidrin	141-66-2
Dieldrin	Organic	Dieldrin	60-57-1
Diesel Oil	Organic	Diesel Oil	68476-34-6
Diethanolamine	Organic	Diethanolamine	111-42-2
Diethanolnitrosamine	Organic	N-Nitrosodiethanolamine	1116-54-7
Diethion	Organic	Ethion	563-12-2
Diethylamine	Organic	Diethylamine	109-89-7
Diethyldithiocarbamate, sodium	Organic	Sodium diethyldithiocarbamate	148-18-5
Diethylene ether	Organic	1,4-Dioxane	123-91-1
Di(2-ethylhexyl) adipate	Organic	Di(2-ethylhexyl) adipate	103-23-1
Di(2-ethylhexyl)phthalate	Organic	Di(2-ethylhexyl)phthalate	117-81-7
Diethyl ketone	Organic	Diethyl ketone	96-22-0
Diethylnitrosamine	Organic	N-Nitrosodiethylamine	55-18-5
Diethyl phthalate	Organic	Diethyl phthalate	84-66-2
Diethylstilbestrol	Organic	Diethylstilbestrol	56-53-1
Diethyl sulfate	Organic	Diethyl sulfate	64-67-5
Difenzoquat	Organic	Difenzoquat	43222-48-6
Diflubenzuron	Organic	Diflubenzuron	35367-38-5
Difluorodichloromethane	Organic	Dichlorodifluoromethane	75-71-8
Difolatan	Organic	Captafol	2425061
Difonate	Organic	Fonofos	944-22-9
Diglycidyl resorcinol ether	Organic	Diglycidyl resorcinol ether	101-90-6
1,2-Dihydroacenaphthylene	Organic	Acenaphthene	83-32-9
Dihydrosafrole	Organic	Dihydrosafrole	94-58-6
1,8-Dihydroxyanthraquinone	Organic	Dantron	117-10-2
Diisobutyl ketone	Organic	Diisobutyl ketone	108-83-8
Diisocyanatotoluene	Organic	Toluene diisocyanate	26471-62-5
Diisopropylamine	Organic	Diisopropylamine	108-18-9
Di-isopropyl ether	Organic	Isopropyl ether	108-20-3
Diisopropyl methyl phosphonate	Organic	Diisopropyl methyl phosphonate	1445-75-6
1,4:5,8-Dimethanonaphthalene	Organic	Aldrin	309-00-2
Dimethipin	Organic	Dimethipin	55290-64-7
Dimethoate	Organic	Dimethoate	60-51-5
3,3'-Dimethoxybenzidine	Organic	3,3'-Dimethoxybenzidine	119-90-4
3,3'-Dimethoxybenzidine hydrochloride	Organic	3,3'-Dimethoxybenzidine hydrochloride	20325-40-0
Dimethrin	Organic	Dimethrin	70-38-2
Dimethylamine	Organic	Dimethylamine	124-40-3
4-Dimethylaminoazobenzene	Organic	4-Dimethylaminoazobenzene	60-11-7
4,4-Dimethylaminobenzo-phenonimide	Organic	Auramine	492-80-8
trans-2-[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazole	Organic	trans-2-[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazole	55738-54-0
2,4-Dimethylaniline	Organic	2,4-Xylidine	1300-73-8
2,6-Dimethylaniline	Organic	2,6-Xylidine	87-62-7
N,N-Dimethylaniline	Organic	N,N-Dimethylaniline	121-69-7
7,12-Dimethylbenz(a)anthracene	Organic	7,12-Dimethylbenz(a)anthracene	57-97-6
3,3'-Dimethylbenzidine	Organic	3,3'-Dimethylbenzidine	119-93-7
3,3'-Dimethylbenzidine dihydrochloride	Organic	3,3'-Dimethylbenzidine dihydrochloride	612-82-8
2,4-Dimethylbenzylester	Organic	Dimethrin	70-38-2
Dimethylcarbamoyl chloride	Organic	Dimethylcarbamoyl chloride	79-44-7
Dimethylcarbamyl chloride	Organic	Dimethylcarbamoyl chloride	79-44-7
N,N-Dimethylformamide	Organic	N,N-Dimethylformamide	68-12-2
2,6-Dimethyl-4-heptanone	Organic	Diisobutyl ketone	108-83-8
1,1-Dimethylhydrazine	Organic	1,1-Dimethylhydrazine	57-14-7
1,2-Dimethylhydrazine	Organic	1,2-Dimethylhydrazine	540-73-8
symmetrical-Dimethylhydrazine	Organic	1,2-Dimethylhydrazine	540-73-8
unsymmetrical-Dimethylhydrazine	Organic	1,1-Dimethylhydrazine	57-14-7
Dimethylketone	Organic	Acetone	67-64-1
Dimethyl methyl phosphonate	Organic	Dimethyl methyl phosphonate	
Dimethylnitrosamine	Organic	N-Nitrosodimethylamine	62-75-9

CROSS REFERENCE OF CHEMICAL NAMES

CONSTITUENT	Category	See Listing(s) Under:	CAS No.
2,4-Dimethylphenol	Organic	2,4-Dimethylphenol	105-67-9
2,6-Dimethylphenol	Organic	2,6-Dimethylphenol	576-26-1
3,4-Dimethylphenol	Organic	3,4-Dimethylphenol	95-65-8
Dimethyl phthalate	Organic	Dimethyl phthalate	131-11-3
Dimethyl p-phthalate	Organic	Dimethyl terephthalate	120-61-6
Dimethyl sulfate	Organic	Dimethyl sulfate	77-78-1
Dimethyl terephthalate	Organic	Dimethyl terephthalate	120-61-6
Dimethylvinylchloride	Organic	Dimethylvinylchloride	513-37-1
DIMP	Organic	Diisopropyl methyl phosphonate	1445-75-6
1,3-Dinitrobenzene	Organic	1,3-Dinitrobenzene	99-65-0
m-Dinitrobenzene	Organic	1,3-Dinitrobenzene	99-65-0
4,6-Dinitro-o-cresol	Organic	4,6-Dinitro-o-cresol	534-52-1
4,6-Dinitro-o-cyclohexyl phenol	Organic	4,6-Dinitro-o-cyclohexyl phenol	131-89-5
4,6-Dinitro-2-methylphenol	Organic	4,6-Dinitro-o-cresol	534-52-1
2,4-Dinitrophenol	Organic	2,4-Dinitrophenol	51-28-5
Dinitrophenols	Organic	4,6-Dinitro-o-cresol	534-52-1
		4,6-Dinitro-o-cyclohexyl phenol	131-89-5
		2,4-Dinitrophenol	51-28-5
		Dinitrophenols	25550-58-7
1,6-Dinitropyrene	Organic	1,6-Dinitropyrene	42397-64-8
1,8-Dinitropyrene	Organic	1,8-Dinitropyrene	42397-65-9
2,4-Dinitrotoluene	Organic	2,4-Dinitrotoluene	121-14-2
2,6-Dinitrotoluene	Organic	2,6-Dinitrotoluene	606-20-2
Dinitrotoluenes	Organic	2,4-Dinitrotoluene	121-14-2
		2,6-Dinitrotoluene	606-20-2
		Dinitrotoluenes	25321-14-6
Dinoseb	Organic	Dinoseb	88-85-7
Di(n-octyl) phthalate	Organic	Di(n-octyl) phthalate	117-84-0
1,4-Dioxane	Organic	1,4-Dioxane	123-91-1
p-Dioxane	Organic	1,4-Dioxane	123-91-1
Dioxin	Organic	2,3,7,8-TCDD (Dioxin)	1746-01-6
DIPE	Organic	Isopropyl ether	108-20-3
Diphenamid(e)	Organic	Diphenamid(e)	957-51-7
Diphenamide	Organic	Diphenamid(e)	957-51-7
Diphenyl	Organic	1,1-Biphenyl	92-52-4
Diphenylamine	Organic	Diphenylamine	122-39-4
Diphenyldiazene	Organic	Azathioprine	446-86-6
Diphenyldiimide	Organic	Azathioprine	446-86-6
Diphenyldiimide	Organic	Azobenzene	103-33-3
Diphenyl ether	Organic	Phenyl ether	101-84-8
1,2-Diphenylhydrazine	Organic	1,2-Diphenylhydrazine	122-66-7
Diphenylnitrosamine	Organic	N-Nitrosodiphenylamine	86-30-6
		p-Nitrosodiphenylamine	156-10-5
Dipropylnitrosamine	Organic	N-Nitrosodipropylamine	621-64-7
Dipterex	Organic	Trichlorfon	52-68-6
Diquat	Organic	Diquat	85-00-7
Direct Black 38	Organic	Direct Black 38	1937-37-7
Direct Blue 6	Organic	Direct Blue 6	2602-46-2
Direct Brown 95	Organic	Direct Brown 95	16071-86-6
Direct Brown BR	Organic	m-Phenylenediamine	108-45-2
Direct Brown GG	Organic	m-Phenylenediamine	108-45-2
Diridone	Organic	Phenazopyridine	94-78-0
Disperse Blue 1	Organic	Disperse Blue 1	2475-45-8
Dissolved Oxygen	Inorganic	Oxygen, dissolved	7782447
Disulfoton	Organic	Disyston	298-04-4
Disyston	Organic	Disyston	298-04-4
Dithane M-22	Organic	Maneb	12427-38-2
Dithane Z-78	Organic	Zineb	12122-67-7
1,4-Dithiane	Organic	1,4-Dithiane	505-29-3
Dithiocarb	Organic	Sodium diethyldithiocarbamate	148-18-5
Diuron	Organic	Diuron	330-54-1
Divinyl	Organic	1,3-Butadiene	106-99-0
DMA	Organic	Dimethylamine	124-40-3
DMBA	Organic	7,12-Dimethylbenz(a)anthracene	57-97-6
DMF	Organic	N,N-Dimethylformamide	68-12-2
DMNA	Organic	N-Nitrosodimethylamine	62-75-9
2,4-DMP	Organic	2,4-Dimethylphenol	105-67-9
DMT	Organic	Dimethyl terephthalate	120-61-6
DNBP	Organic	Dinoseb	88-85-7
DNOHP	Organic	4,6-Dinitro-o-cyclohexyl phenol	131-89-5
DO	Inorganic	Oxygen, dissolved	7782447
Dodecylguanidine acetate	Organic	Dodine	2439103
Dodine	Organic	Dodine	2439103
Dowpon	Organic	Dalapon	75-99-0
DPNA	Organic	N-Nitrosodipropylamine	621-64-7
DPX 6376	Organic	Ally	74223-64-6
DPX-F5384	Organic	Londax	83055-99-6
DPX-H6573	Organic	NuStar	85509-19-9
DPX-M6316	Organic	Harmony	79277-27-3
DPX-Y5893	Organic	Savey	78587-05-0
Dual	Organic	Metolachlor	51218-45-2

CROSS REFERENCE OF CHEMICAL NAMES

	CONSTITUENT	Category	See Listing(s) Under:	CAS No.
D	Dursban	Organic	Chlorpyrifos	2921-88-2
	Dyfonate	Organic	Fonofos	944-22-9
	Dyphonate	Organic	Fonofos	944-22-9
E	EAK	Organic	Ethyl n-amyl ketone	106-68-3
	EC	Inorganic	Specific conductance (EC)	
	EDB	Organic	1,2-Dibromoethane	106-93-4
	EGBE	Organic	Ethylene glycol monobutyl ether	111-76-2
	EL-107	Organic	Isoxaben	82558-50-7
	Electrical Conductivity	Inorganic	Specific conductance (EC)	
	Endosulfan	Organic	Endosulfan	115-29-7
	Endosulfan I (alpha)	Organic	Endosulfan	115-29-7
	Endosulfan II (beta)	Organic	Endosulfan	115-29-7
	Endosulfan sulfate	Organic	Endosulfan sulfate	1031-07-8
	Endothal	Organic	Endothal	145-73-3
	Endothall	Organic	Endothal	145-73-3
	Endoxan monohydrate	Organic	Cyclophosphamide	50-18-0
	Endrex	Organic	Endrin	72-20-8
	Endrin	Organic	Endrin	72-20-8
	ENU	Organic	N-Nitroso-N-ethylurea	759-73-9
	EPEG	Organic	Ethylphthalyl ethylglycolate	84-72-0
	Epic 500	Organic	Furmecyclox	60568-05-0
	Epichlorohydrin	Organic	Epichlorohydrin	106-89-8
	EPN	Organic	Ethyl p-nitrophenyl phenylphosphorothioate	2104-64-5
	Epoxyethane	Organic	Ethylene oxide (ETO)	75-21-8
	1,2-Epoxyethylbenzene	Organic	Styrene oxide	96-09-3
	Eptam	Organic	S-Ethyl dipropylthiocarbamate	759-94-4
	EPTC	Organic	S-Ethyl dipropylthiocarbamate	759-94-4
	Estradiol 17B	Organic	Estradiol 17B	50-28-2
	Ethanal	Organic	Acetaldehyde	75-07-0
	Ethanamide	Organic	Acetamide	60-35-5
	Ethane	Organic	Ethane	74-84-0
	Ethanedinitrile	Organic	Cyanogen	460-19-5
	1,2-Ethane diol	Organic	Ethylene glycol	107-21-1
	Ethanethiol	Organic	Ethyl mercaptan	75-08-1
	Ethanol	Organic	Ethanol	64-17-5
	Ethanolamine	Organic	Ethanolamine	141-43-5
	Ethephon	Organic	Ethephon	16672-87-0
	Ethers, chloroalkyl-	Organic	Bis(2-chloroethyl) ether	111-44-4
			Bis(2-chloroisopropyl) ether	39638-32-9
			Bis(chloromethyl) ether	542-88-1
			Chloroalkyl ethers	
			Chloromethyl methyl ether	107-30-2
	Ethers, halo-	Organic	Bis(2-chloroethyl) ether	111-44-4
			Bis(2-chloroisopropyl) ether	39638-32-9
			Bis(chloromethyl) ether	542-88-1
			4-Bromophenyl phenyl ether	101-55-3
			Chloroalkylethers	
			Chloromethyl methyl ether	107-30-2
			Decabromodiphenyl ether	1163-19-5
			Haloethers	
			Octabromodiphenyl ether	32536-52-0
			Pentabromodiphenyl ether	32534-81-9
	Ethion	Organic	Ethion	563-12-2
	2-Ethoxyethanol	Organic	2-Ethoxyethanol	110-80-5
	2-Ethoxyethyl acetate	Organic	2-Ethoxyethyl acetate	111-15-9
	Ethyl acetate	Organic	Ethyl acetate	141-78-6
	Ethyl acetone	Organic	Methyl n-propyl ketone	107-87-9
	Ethyl acrylate	Organic	Ethyl acrylate	140-88-5
	Ethyl alcohol	Organic	Ethanol	64-17-5
	Ethylamine	Organic	Ethylamine	75-04-7
	Ethyl n-amyl ketone	Organic	Ethyl n-amyl ketone	106-68-3
	Ethylbenzene	Organic	Ethylbenzene	100-41-4
	Ethyl bromide	Organic	Ethyl bromide	74-96-4
	Ethyl carbamate	Organic	Urethane	51-79-6
	Ethyl carbethoxymethyl phthalate	Organic	Ethylphthalyl ethylglycolate	84-72-0
	Ethyl chloride	Organic	Chloroethane	75-00-3
	Ethyl-4,4'-dichlorobenzilate	Organic	Ethyl-4,4'-dichlorobenzilate	510-15-6
	S-Ethyl dipropylthiocarbamate	Organic	S-Ethyl dipropylthiocarbamate	759-94-4
	Ethylene	Organic	Ethylene	74-85-1
	Ethylenediamine	Organic	Ethylenediamine	107-15-3
	Ethylene dibromide	Organic	1,2-Dibromoethane	106-93-4
	Ethylene dichloride	Organic	1,2-Dichloroethane	107-06-2
	Ethylene glycol	Organic	Ethylene glycol	107-21-1
	Ethylene glycol butyl ether	Organic	Ethylene glycol monobutyl ether	111-76-2
	Ethylene glycol monobutyl ether	Organic	Ethylene glycol monobutyl ether	111-76-2
	Ethylene glycol monoethyl ether	Organic	2-Ethoxyethanol	110-80-5
	Ethylene glycol monoethyl ether acetate	Organic	2-Ethoxyethyl acetate	111-15-9
	Ethyleneimine	Organic	Ethyleneimine	151-56-4
	Ethylene oxide (ETO)	Organic	Ethylene oxide (ETO)	75-21-8

CROSS REFERENCE OF CHEMICAL NAMES

	CONSTITUENT	Category	See Listing(s) Under:	CAS No.
E	Ethylenes, dichloro-	Organic	1,1-Dichloroethylene	75-35-4
			cis-1,2-Dichloroethylene	156-59-2
			trans-1,2-Dichloroethylene	156-60-5
			Dichloroethylenes	
	Ethylene thiourea (ETU)	Organic	Ethylene thiourea (ETU)	96-45-7
	Ethyl ether	Organic	Ethyl ether	60-29-7
	Ethyl formate	Organic	Ethyl formate	109-94-4
	Ethyl mercaptan	Organic	Ethyl mercaptan	75-08-1
	Ethyl nitrile	Organic	Acetonitrile	75-05-8
	Ethyl p-nitrophenyl phenylphosphorothioate	Organic	Ethyl p-nitrophenyl phenylphosphorothioate	2104-64-5
	Ethylnitrosourea	Organic	N-Nitroso-N-ethylurea	759-73-9
	Ethyl parathion	Organic	Parathion	56-38-2
	Ethylphthalyl ethylglycolate	Organic	Ethylphthalyl ethylglycolate	84-72-0
	Ethylthiodemeton	Organic	Disyston	298-04-4
	Ethyne	Organic	Acetylene	74-86-2
	ETO	Organic	Ethylene oxide (ETO)	75-21-8
	ETU	Organic	Ethylene thiourea (ETU)	96-45-7
	Express	Organic	Express	101200-48-0
F	F-	Inorganic	Fluoride	7782-41-4
	FD&C Red No. 1	Organic	Ponceau 3R	3564098
	Fe	Inorganic	Iron	7439-89-6
	Femogen	Organic	Estradiol 17B	50-28-2
	Fenamiphos	Organic	Fenamiphos	22224-92-6
	Fenpropanate	Organic	Danitol	39515-41-8
	Fenpropathrin	Organic	Danitol	39515-41-8
	Fenvalerate	Organic	Pydrin	51630-58-1
	Ferbam	Organic	Ferbam	14484-64-1
	Fermate	Organic	Ferbam	14484-64-1
	Fluometuron	Organic	Fluometuron	2164-17-2
	Fluoranthene	Organic	Fluoranthene	206-44-0
	Fluorene	Organic	Fluorene	86-73-7
	2-Fluorenylacetamide	Organic	2-Acetylaminofluorene	53-96-3
	Fluoride	Inorganic	Fluoride	7782-41-4
	Fluorine, soluble	Inorganic	Fluoride	7782-41-4
	Fluorotrichloromethane	Organic	Trichlorofluoromethane	75-69-4
	Fluridone	Organic	Fluridone	59756-60-4
	Flurprimidol	Organic	Flurprimidol	56425-91-3
	Flutolanil	Organic	Flutolanil	66332-96-5
	Fluvalinate	Organic	Fluvalinate	69409-94-5
	FNT	Organic	2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole	3570-75-0
	Foaming agents (MBAS)	Organic	Foaming agents (MBAS)	
	Folex 6EC	Organic	Merphos	150-50-5
	Folpan	Organic	Folpet	133-07-3
	Folpet	Organic	Folpet	133-07-3
	Fomesafen	Organic	Fomesafen	72178-02-0
	Fonofos	Organic	Fonofos	944-22-9
	Formaldehyde	Organic	Formaldehyde	50-00-0
	Formic acid	Organic	Formic acid	64-18-6
	2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole	Organic	2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole	3570-75-0
	Fosetyl-al	Organic	Fosetyl-al	39148-24-8
	Fosfamid	Organic	Dimethoate	60-51-5
	Freon 10	Organic	Carbon tetrachloride	56-23-5
	Freon 11	Organic	Trichlorofluoromethane	75-69-4
	Freon 12	Organic	Dichlorodifluoromethane	75-71-8
	Freon 20	Organic	Chloroform	67-66-3
	Freon 113	Organic	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1
	Freon 150	Organic	1,2-Dichloroethane	107-06-2
	Fuel oil #1	Organic	Kerosene	8008-20-6
	Fuel oil #2	Organic	Diesel Oil	68476-34-6
	Furadan	Organic	Carbofuran	1563-66-2
	Furan	Organic	Furan	110-00-9
	Furathiazole	Organic	N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide	531-82-8
	Furfural	Organic	Furfural	98-01-1
	Furfuran	Organic	Furan	110-00-9
	Furidiazine	Organic	2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole	712-68-5
	Furium	Organic	N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide	531-82-8
	Furmecyclox	Organic	Furmecyclox	60568-05-0
	Furmetamide	Organic	Furmecyclox	60568-05-0
	Furylamide	Organic	AF-2	3688-53-7
	2-(2-Furyl)-3-(5-nitro-2-furyl)acrylamide	Organic	AF-2	3688-53-7
G	Gasoline	Organic	Gasoline	8006-61-9
	Genoxal	Organic	Cyclophosphamide	50-18-0
	Gesafram 50	Organic	Prometon	1610-18-0
	Glob-P-2	Organic	A-alpha-C	26148-68-5
	Glucopyranose	Organic	Chlorozotocin	54749-90-5
	Glufosinate-ammonium	Organic	Glufosinate-ammonium	77182-82-2
	Glu-P-1	Organic	Glu-P-1	67730-11-4
	Glu-P-2	Organic	Glu-P-2	67730-10-3
	Glycidaldehyde	Organic	Glycidaldehyde	765-34-4

CROSS REFERENCE OF CHEMICAL NAMES

	CONSTITUENT	Category	See Listing(s) Under:	CAS No.
G	Glycidol	Organic	Glycidol	556-52-5
	Glyphosate	Organic	Glyphosate	1071-83-6
	Glyphosate isopropylamine salt	Organic	Glyphosate	1071-83-6
	Goal	Organic	Oxyfluorfen	42874-03-3
	Graslan	Organic	Tebuthiuron	34014-18-1
	Grease	Organic	Oil & grease	
	Griseofluvin	Organic	Griseofluvin	126-07-8
	Gross Alpha radioactivity	Inorganic	Radioactivity, Gross Alpha	
	Gross Beta radioactivity	Inorganic	Radioactivity, Gross Beta	
	Guthion	Organic	Azinphos-methyl	86-50-0
	Gyromitrin	Organic	Gyromitrin	16568-02-8
H	H_2NNH_2	Inorganic	Hydrazine	302-01-2
	H_2S	Inorganic	Hydrogen sulfide	7783064
	H_2Se	Inorganic	Hydrogen selenide	7783075
	3H	Inorganic	Tritium	10028-17-8
	Haloacetic acids	Organic	Bromoacetic acid	79-08-3
			Chloroacetic acid	79-11-8
			Dibromoacetic acid	
			Dichloroacetic acid	79-43-6
			Trichloroacetic acid	76-03-9
	Haloethers	Organic	Bis(2-chloroethyl) ether	111-44-4
			Bis(2-chloroisopropyl) ether	39638-32-9
			Bis(chloromethyl) ether	542-88-1
			4-Bromophenyl phenyl ether	101-55-3
			Chloroalkylethers	
			Chloromethyl methyl ether	107-30-2
			Decabromodiphenyl ether	1163-19-5
			Haloethers	
			Octabromodiphenyl ether	32536-52-0
			Pentabromodiphenyl ether	32534-81-9
	Halomethanes	Organic	Bromochloromethane	74-97-5
			Bromodichloromethane	75-27-4
			Bromoform	75-25-2
			Bromomethane	74-83-9
			Carbon tetrachloride	56-23-5
			Chloroform	67-66-3
			Chloromethane	74-87-3
			Dibromochloromethane	124-48-1
			Dichlorodifluoromethane	75-71-8
			Dichloromethane	75-09-2
			Halomethanes	
			Iodoform	75-47-8
			Trichlorofluoromethane	75-69-4
	Halothane	Organic	Halothane	151-67-7
	Haloxyfop-methyl	Organic	Haloxyfop-methyl	69806-40-2
	Harmony	Organic	Harmony	79277-27-3
	Harvade	Organic	Dimethipin	55290-64-7
	HCB	Organic	Hexachlorobenzene	118-74-1
	HCBD	Organic	Hexachlorobutadiene	87-68-3
	HC Blue 1	Organic	HC Blue 1	2784-94-3
	HCCPD	Organic	Hexachlorocyclopentadiene	77-47-4
	HCH	Organic	alpha-BHC	319-84-6
			beta-BHC	319-85-7
			gamma-BHC (Lindane)	58-89-9
			delta-BHC	319-86-8
			technical-BHC	608-73-1
	HCN	Inorganic	Cyanide	57-12-5
	Heptachlor	Organic	Heptachlor	76-44-8
	Heptachlor epoxide	Organic	Heptachlor epoxide	1024-57-3
	Heptane	Organic	Heptane	142-82-5
	2-Heptanone	Organic	Methyl n-amyl ketone	110-43-0
	HEX	Organic	Hexachlorocyclopentadiene	77-47-4
	Hexabromobenzene	Organic	Hexabromobenzene	87-82-1
	Hexachlorobenzene	Organic	Hexachlorobenzene	118-74-1
	Hexachlorobutadiene	Organic	Hexachlorobutadiene	87-68-3
	Hexachlorocyclohexane	Organic	alpha-BHC	319-84-6
			beta-BHC	319-85-7
			gamma-BHC (Lindane)	58-89-9
			delta-BHC	319-86-8
			technical-BHC	608-73-1
	Hexachlorocyclopentadiene	Organic	Hexachlorocyclopentadiene	77-47-4
	Hexachlorodibenzo-p-dioxin	Organic	Hexachlorodibenzo-p-dioxin	19408-74-3
	Hexachloroethane	Organic	Hexachloroethane	67-72-1
	Hexachlorophene	Organic	Hexachlorophene	70-30-4
	Hexadrin	Organic	Endrin	72-20-8
	Hexahydro-1,3,5-trinitro-1,3,5-triazine	Organic	RDX (Cyclonite)	121-82-4
	Hexamethylphosphoramide	Organic	Hexamethylphosphoramide	680-31-9
	n-Hexane	Organic	n-Hexane	110-54-3
	2-Hexanone	Organic	Methyl n-butyl ketone	591-78-6
	Hexazinone	Organic	Hexazinone	51235-04-2

CROSS REFERENCE OF CHEMICAL NAMES

	CONSTITUENT	Category	See Listing(s) Under:	CAS No.
H	Hexogen	Organic	RDX (Cyclonite)	121-82-4
	1,6-Hexolactam	Organic	Caprolactam	105-60-2
	Hg	Inorganic	Mercury, inorganic	7439-97-6
	$HgCl_2$	Inorganic	Mercuric chloride	7487-94-7
	HHDN	Organic	Aldrin	309-00-2
	HMX	Organic	HMX	2691-41-0
	Hoe 39866	Organic	Glufosinate-ammonium	77182-82-2
	HxCDD	Organic	Hexachlorodibenzo-p-dioxin	19408-74-3
	Hydrazine	Inorganic	Hydrazine	302-01-2
	Hydrazine sulfate	Inorganic	Hydrazine sulfate	10034-93-2
	Hydrazobenzene	Organic	1,2-Diphenylhydrazine	122-66-7
	Hydrogen cyanide	Inorganic	Cyanide	57-12-5
	Hydrogen phosphide	Inorganic	Phosphine	7803-51-2
	Hydrogen selenide	Inorganic	Hydrogen selenide	7783075
	Hydrogen sulfide	Inorganic	Hydrogen sulfide	7783064
	3-Hydroxybutyric acid	Organic	beta-Butyrolactone	96-48-0
	4-Hydroxy-4-methyl-2-pentanone	Organic	Diacetone alcohol	123-42-2
	Hyvar X or XL	Organic	Bromacil	314-40-9
I	I	Inorganic	Iodide	
	Imazalil	Organic	Imazalil	35554-44-0
	Imazaquin	Organic	Imazaquin	81335-37-7
	Imidamide	Organic	Amitraz	33089-61-1
	IMPA	Organic	Isopropyl methyl phosphonic acid	1832-54-8
	Indene	Organic	Indene	95-13-6
	Indeno(1,2,3-c,d)pyrene	Organic	Indeno(1,2,3-c,d)pyrene	193-39-5
	IN L5300	Organic	Express	101200-48-0
	Iodide	Inorganic	Iodide	
	Iodoform	Organic	Iodoform	75-47-8
	Iprodione	Organic	Iprodione	36734-19-7
	IQ	Organic	IQ	76180-96-6
	Iron	Inorganic	Iron	7439-89-6
	Isoamyl acetate	Organic	Isoamyl acetate	123-92-2
	Isoamyl alcohol	Organic	Isoamyl alcohol	123-51-3
	Isobutanol	Organic	Isobutyl alcohol	78-83-1
	Isobutyl acetate	Organic	Isobutyl acetate	110-19-0
	Isobutyl alcohol	Organic	Isobutyl alcohol	78-83-1
	Isobutyl carbinol	Organic	Isoamyl alcohol	123-51-3
	Isophorone	Organic	Isophorone	78-59-1
	Isopropalin	Organic	Isopropalin	33820-53-0
	Isopropanol	Organic	Isopropanol	67-63-0
	Isopropyl acetate	Organic	Isopropyl acetate	108-21-4
	Isopropyl alcohol	Organic	Isopropanol	67-63-0
	Isopropylamine	Organic	Isopropylamine	75-31-0
	Isopropyl benzene	Organic	Cumene	98-82-8
	Isopropyl-N-(3-chlorophenyl)carbamate	Organic	Chlorpropham	101-21-3
	Isopropyl ether	Organic	Isopropyl ether	108-20-3
	Isopropyl methylphosphonate	Organic	Isopropyl methylphosphonate	
	Isopropyl methyl phosphonic acid	Organic	Isopropyl methyl phosphonic acid	1832-54-8
	Isoxaben	Organic	Isoxaben	82558-50-7
K	Karate	Organic	Cyhalothrin	68085-85-8
	Karmex	Organic	Diuron	330-54-1
	Kepone	Organic	Kepone	143-50-0
	Kerb	Organic	Pronamide	23950-58-5
	Kerosene	Organic	Kerosene	8008-20-6
	Kerosine	Organic	Kerosene	8008-20-6
L	Lactofen	Organic	Lactofen	77501-63-4
	Lambast	Organic	Butachlor	23184-66-9
	Lanex	Organic	Fluometuron	2164-17-2
	Lannate	Organic	Methomyl	16752-77-5
	Lasiocarpine	Organic	Lasiocarpine	303-34-4
	Lasso	Organic	Alachlor	15972-60-8
	Lead	Inorganic	Lead	7439-92-1
	Lead acetate	Organic	Lead acetate	301-04-2
	Lead subacetate	Organic	Lead subacetate	1335-32-6
	Lead, tetraethyl-	Organic	Tetraethyl lead	78-00-2
	Lindane	Organic	gamma-BHC (Lindane)	58-89-9
	Linuron	Organic	Linuron	330-55-2
	Londax	Organic	Londax	83055-99-6
	Lorsban	Organic	Chlorpyrifos	2921-88-2
M	Malathion	Organic	Malathion	121-75-5
	Maleic anhydride	Organic	Maleic anhydride	108-31-6
	Maleic hydrazide	Organic	Maleic hydrazide	123-33-1
	Maneb	Organic	Maneb	12427-38-2
	Manganese	Inorganic	Manganese	7439-96-5
	Manzate	Organic	Maneb	12427-38-2
	Mavrik	Organic	Fluvalinate	69409-94-5
	MBAS	Organic	Foaming agents (MBAS)	

CROSS REFERENCE OF CHEMICAL NAMES

	CONSTITUENT	Category	See Listing(s) Under:	CAS No.
M	MCPA	Organic	MCPA	94-74-6
	MCPB	Organic	MCPB	94-81-5
	MCPP	Organic	MCPP	93-65-2
	MEA	Organic	Ethanolamine	141-43-5
	Me-A-alpha-C	Organic	Me-A-alpha-C	68006-83-7
	MeHg	Organic	Methyl mercury	22967-92-6
	MEK	Organic	Methyl ethyl ketone	78-93-3
	Melphalan	Organic	Melphalan	148-82-3
	Mepiquat chloride	Organic	Mepiquat chloride	24307-26-4
	Mercuric chloride	Inorganic	Mercuric chloride	7487-94-7
	Mercury, inorganic	Inorganic	Mercury, inorganic	7439-97-6
	Mercury, methyl	Organic	Methyl mercury	22967-92-6
	Merphos	Organic	Merphos	150-50-5
	Merphos oxide	Organic	Merphos oxide	78-48-8
	Mesityl oxide	Organic	Mesityl oxide	141-79-7
	Mesitylene	Organic	1,3,5-Trimethylbenzene	108-67-8
	Metalaxyl	Organic	Metalaxyl	57837-19-1
	Metasulfuron methyl ester	Organic	Ally	74223-64-6
	Methacrylonitrile	Organic	Methacrylonitrile	126-98-7
	Methallyl chloride	Organic	3-Amino-9-ethylcarbazole hydrochloride	6109-97-3
	Methamidophos	Organic	Methamidophos	10265-92-6
	Methanal	Organic	Formaldehyde	50-00-0
	Methanecarboxamide	Organic	Acetamide	60-35-5
	Methanes, halo-	Organic	Bromochloromethane	74-97-5
			Bromodichloromethane	75-27-4
			Bromoform	75-25-2
			Bromomethane	74-83-9
			Carbon tetrachloride	56-23-5
			Chloroform	67-66-3
			Chloromethane	74-87-3
			Dibromochloromethane	124-48-1
			Dichlorodifluoromethane	75-71-8
			Dichloromethane	75-09-2
			Halomethanes	
			Iodoform	75-47-8
			Trichlorofluoromethane	75-69-4
	Methanethiol	Organic	Methyl mercaptan	74-93-1
	Methanol	Organic	Methanol	67-56-1
	Methidathion	Organic	Methidathion	950-37-8
	Methomyl	Organic	Methomyl	16752-77-5
	o-Methoxyaniline	Organic	o-Anisidine	90-04-0
	4-Methoxy-1,3-benzenediamine	Organic	2,4-Diaminoanisole	615-05-4
	Methoxychlor	Organic	Methoxychlor	72-43-5
	Methoxyphenylenediamine	Organic	2,4-Diaminoanisole	615-05-4
	Methoxypropazine	Organic	Prometon	1610-18-0
	Methyl acetate	Organic	Methyl acetate	79-20-9
	beta-Methyl acrolein	Organic	trans-Crotonaldehyde	4170-30-3
	Methyl acrylate	Organic	Methyl acrylate	96-33-3
	Methyl acrylonitrile	Organic	Methyl acrylonitrile	126-98-7
	Methyl alcohol	Organic	Methanol	67-56-1
	Methylamine	Organic	Methylamine	74-89-5
	Methyl ((4-aminophenyl)sulfonyl)carbamate	Organic	Asulam	3337-71-1
	Methylamyl alcohol	Organic	Methyl isobutyl carbinol	108-11-2
	Methyl n-amyl ketone	Organic	Methyl n-amyl ketone	110-43-0
	N-Methylaniline	Organic	N-Methylaniline	100-61-8
	5-Methyl-o-anisidine	Organic	p-Cresidine	120-71-8
	2-Methyl-1-anthraquinonylamine	Organic	1-Amino-2-methylanthraquinone	82-28-0
	2-Methylaziridine	Organic	Propyleneimine	75-55-8
	Methylbenzene	Organic	Toluene	108-88-3
	Methyl bromide	Organic	Bromomethane	74-83-9
	3-Methyl-1-butanol	Organic	Isoamyl alcohol	123-51-3
	3-Methyl-2-butanone	Organic	Methyl isopropyl ketone	563-80-4
	Methyl t-butyl ether (MtBE)	Organic	Methyl t-butyl ether (MtBE)	1634-04-4
	Methyl n-butyl ketone	Organic	Methyl n-butyl ketone	591-78-6
	Methyl chloride	Organic	Chloromethane	74-87-3
	Methyl chloroform	Organic	1,1,1-Trichloroethane	71-55-6
	Methylchloromethyl ether	Organic	Chloromethyl methyl ether	107-30-2
	2-Methyl-4-chlorophenol	Organic	4-Chloro-o-cresol	1570-64-5
	3-Methyl-4-chlorophenol	Organic	4-Chloro-m-cresol	59-50-7
	3-Methyl-6-chlorophenol	Organic	6-Chloro-m-cresol	
	2-Methyl-4-chlorophenoxyacetic acid	Organic	MCPA	94-74-6
	4-(2-Methyl-4-chlorophenoxy)butyric acid	Organic	MCPB	94-81-5
	2-(2-Methyl-4-chlorophenoxy)propionic acid	Organic	MCPP	93-65-2
	3-Methylcholanthrene	Organic	3-Methylcholanthrene	56-49-5
	5-Methylchrysene	Organic	5-Methylchrysene	3697-24-3
	Methylcyclohexane	Organic	Methylcyclohexane	108-87-2
	cis-3-Methylcyclohexanol	Organic	cis-3-Methylcyclohexanol	25639-42-3
	2-Methyl-4,6-dinitrophenol	Organic	4,6-Dinitro-o-cresol	534-52-1
	4,4'-Methylenebis(2-chloroaniline)	Organic	4,4'-Methylenebis(2-chloroaniline)	101-14-4
	4,4'-Methylenebis(N,N-dimethyl)aniline	Organic	4,4'-Methylenebis(N,N-dimethyl)aniline	101-61-1
	4,4'-Methylenebis(N,N-dimethyl)benzeneamine	Organic	4,4'-Methylenebis(N,N-dimethyl)aniline	101-61-1

CROSS REFERENCE OF CHEMICAL NAMES

	CONSTITUENT	Category	See Listing(s) Under:	CAS No.
M	4,4'-Methylenebis(2-methylaniline)	Organic	4,4'-Methylenebis(2-methylaniline)	838-88-0
	Methylenebis(ortho-toluidine)	Organic	4,4'-Methylenebis(2-methylaniline)	838-88-0
	Methylene blue active substances	Organic	Foaming agents (MBAS)	
	Methylene chloride	Organic	Dichloromethane	75-09-2
	4,4'-Methylenedianiline	Organic	4,4'-Methylenedianiline	101-77-9
	4,4'-Methylenedianiline dihydrochloride	Organic	4,4'-Methylenedianiline dihydrochloride	13552-44-8
	1,2-(Methylenedioxy)-4-propylbenzene	Organic	Dihydrosafrole	94-58-6
	Methyl ethyl ketone	Organic	Methyl ethyl ketone	78-93-3
	Methyl ethyl nitrosamine	Organic	N-Nitrosomethylethylamine	10595-95-6
	Methyl formate	Organic	Methyl formate	107-31-3
	5-Methyl-3-heptanone	Organic	Ethyl n-amyl ketone	106-68-3
	5-Methyl-2-hexanone	Organic	Methyl isoamyl ketone	110-12-3
	Methylhydrazine	Organic	Methylhydrazine	60-34-4
	Methylhydrazine sulfate	Organic	Methylhydrazine sulfate	
	Methyl isoamyl ketone	Organic	Methyl isoamyl ketone	110-12-3
	Methyl isobutenyl ketone	Organic	Mesityl oxide	141-79-7
	Methyl isobutyl carbinol	Organic	Methyl isobutyl carbinol	108-11-2
	Methyl isobutyl ketone (MIBK)	Organic	Methyl isobutyl ketone (MIBK)	108-10-1
	1-Methyl-2-(p-(isopropylcarbamoyl)benzyl)hydrazine	Organic	Procarbazine	671-16-9
	Methyl isopropyl ketone	Organic	Methyl isopropyl ketone	563-80-4
	Methyl mercaptan	Organic	Methyl mercaptan	74-93-1
	Methyl mercury	Organic	Methyl mercury	22967-92-6
	Methyl methacrylate	Organic	Methyl methacrylate	80-62-6
	Methyl methanesulfonate	Organic	Methyl methanesulfonate	66-27-3
	2-Methyl-1-nitroanthraquinone	Organic	2-Methyl-1-nitroanthraquinone	129-15-7
	m-Methylnitrobenzene	Organic	m-Nitrotoluene	1321-12-6
	N-Methyl-N'-nitro-N-nitrosoguanidine	Organic	N-Methyl-N'-nitro-N-nitrosoguanidine	70-25-7
	Methylnitrosourea	Organic	N-Nitroso-N-methylurea	684-93-5
	Methylnitrosourethane	Organic	N-Nitroso-N-methylurethane	615-53-2
	N-Methylolacrylamide	Organic	N-Methylolacrylamide	924-42-5
	Methyl parathion	Organic	Methyl parathion	298-00-0
	4-Methyl-2-pentanol	Organic	Methyl isobutyl carbinol	108-11-2
	4-Methyl-2-pentanone	Organic	Methyl isobutyl ketone (MIBK)	108-10-1
	2-Methylphenol	Organic	o-Cresol	95-48-7
	3-Methylphenol	Organic	m-Cresol	108-39-4
	4-Methylphenol	Organic	p-Cresol	106-44-5
	Methyl n-propyl ketone	Organic	Methyl n-propyl ketone	107-87-9
	Methyl styrene	Organic	Vinyl toluene	25013-15-4
	alpha-Methylstyrene	Organic	alpha-Methylstyrene	98-83-9
	1-Methyl-4-tert-butylbenzene	Organic	p-tert-Butyltoluene	98-51-1
	Methylthiofanate	Organic	Thiophanate-methyl	23564-05-8
	Methylthiouracil	Organic	Methylthiouracil	56-04-2
	Methyl vinyl nitrosamine	Organic	N-Nitrosomethylvinylamine	4549-40-0
	Methyl yellow	Organic	4-Dimethylaminoazobenzene	60-11-7
	2-Methyoxy-5-Methylaniline	Organic	p-Cresidine	120-71-8
	Metolachlor	Organic	Metolachlor	51218-45-2
	Metribuzin	Organic	Metribuzin	21087-64-9
	Metronidazole	Organic	Metronidazole	443-48-1
	MIAK	Organic	Methyl isoamyl ketone	110-12-3
	MIBC	Organic	Methyl isobutyl carbinol	108-11-2
	MIBK	Organic	Methyl isobutyl ketone (MIBK)	108-10-1
	Michler's ketone	Organic	Michler's ketone	90-94-8
	Michler's methane	Organic	4,4'-Methylenebis(N,N-dimethyl)aniline	101-61-1
	MIH	Organic	Procarbazine	671-16-9
	Milogard	Organic	Propazine	139-40-2
	Mirex	Organic	Mirex	2385-85-5
	Mitomycin C	Organic	Mitomycin C	50-07-7
	Mitoxan	Organic	Cyclophosphamide	50-18-0
	MMS	Organic	Methyl methanesulfonate	66-27-3
	Mn	Inorganic	Manganese	7439-96-5
	MNNG	Organic	N-Methyl-N'-nitro-N-nitrosoguanidine	70-25-7
	MNU	Organic	N-Nitroso-N-methylurea	684-93-5
	Mo	Inorganic	Molybdenum	7439-98-7
	Molinate	Organic	Molinate	2212-67-1
	Molybdenum	Inorganic	Molybdenum	7439-98-7
	Moncut	Organic	Flutolanil	66332-96-5
	Monitor	Organic	Methamidophos	10265-92-6
	Monochloramine	Inorganic	Chloramine	127-65-1
	Monochloroaceticacid	Organic	Chloroacetic acid	79-11-8
	Monochlorobenzene	Organic	Chlorobenzene	108-90-7
	Monocrotaline	Organic	Monocrotaline	315-22-0
	Monoethanolamine	Organic	Ethanolamine	141-43-5
	Mononitrophenols	Organic	Nitrophenol	25154-55-6
			2-Nitrophenol	25154-55-7
			4-Nitrophenol	25154-55-6
	5-(Morpholinomethyl)-3-[(5-nitrofurfurylidene)-amino]-2-oxalolidinone	Organic	5-(Morpholinomethyl)-3-[(5-nitrofurfurylidene)-amino]-2-oxalolidinone	139-91-3
	MPK	Organic	Methyl n-propyl ketone	107-87-9
	MtBE	Organic	Methyl t-butyl ether (MtBE)	1634-04-4
N	Na	Inorganic	Sodium	7440-23-5
	Naled	Organic	Naled	300-76-5

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CONSTITUENT	Category	See Listing(s) Under:	CAS No.
N Naphthalene	Organic	Naphthalene	91-20-3
Naphthalenes, chlorinated	Organic	Chlorinated naphthalenes	25586-43-0
		2-Chlorohaphthalene	25586-43-0
2-Naphthalenesulfonic acid	Organic	Direct Black 38	1937-37-7
2-Naphthylamine	Organic	2-Naphthylamine	91-59-8
beta-Naphthylamine	Organic	2-Naphthylamine	91-59-8
Napropamide	Organic	Napropamide	15299-99-7
NDMA	Organic	N-Nitrosodimethylamine	62-75-9
NDPA	Organic	N-Nitrosodiphenylamine	86-30-6
Nemacur	Organic	Fenamiphos	22224-92-6
Neocidol	Organic	Diazinon	333-41-5
NF 246	Organic	1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone	555-84-0
NFTA	Organic	N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide	531-82-8
NH_2Cl	Inorganic	Chloramine	127-65-1
NH_3	Inorganic	Ammonia	7664-41-7
NH_4^+ (ammonium)	Inorganic	Ammonia	7664-41-7
Ni	Inorganic	Nickel	7440-02-0
Nickel	Inorganic	Nickel	7440-02-0
Nickel carbonyl	Inorganic	Nickel carbonyl	13463-39-3
Nickel subsulfide	Inorganic	Nickel subsulfide	12035-72-2
Nifuradene	Organic	1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone	555-84-0
Nifurthiazole	Organic	2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole	3570-75-0
Nitralin	Organic	Nitralin	4726-14-1
Nitrate	Inorganic	Nitrate	14797-55-8
Nitrilotriacetate, trisodium monohydrate	Organic	Nitrilotriacetate, trisodium monohydrate	18662-53-8
Nitrilotriacetic acid	Organic	Nitrilotriacetic acid	139-13-9
Nitrite	Inorganic	Nitrite	14797-65-0
5-Nitroacenaphthene	Organic	5-Nitroacenaphthene	602-87-9
5-Nitro-o-anisidine	Organic	5-Nitro-o-anisidine	99-59-2
Nitrobenzene	Organic	Nitrobenzene	98-95-3
6-Nitrochrysene	Organic	6-Nitrochrysene	7496028
Nitroethane	Organic	Nitroethane	79-24-3
Nitrofen	Organic	Nitrofen	1836-75-5
Nitrofene	Organic	Nitrofen	1836-75-5
2-Nitrofluorene	Organic	2-Nitrofluorene	607-57-8
Nitrofurazone	Organic	Nitrofurazone	59-87-0
1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone	Organic	1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone	555-84-0
N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide	Organic	N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide	531-82-8
Nitroguanidine	Organic	Nitroguanidine	556-88-7
Nitromethane	Organic	Nitromethane	75-52-5
Nitrophenol	Organic	Nitrophenol	25154-55-6
		2-Nitrophenol	25154-55-7
		4-Nitrophenol	25154-55-8
2-Nitrophenol	Organic	2-Nitrophenol	25154-55-7
4-Nitrophenol	Organic	4-Nitrophenol	25154-55-8
o-Nitrophenol	Organic	2-Nitrophenol	25154-55-7
p-Nitrophenol	Organic	4-Nitrophenol	25154-55-8
Nitrophenols	Organic	4,6-Dinitro-o-cresol	534-52-1
		2,4-Dinitrophenol	51-28-5
		Dinitrophenols	25550-58-7
		Nitrophenol	25154-55-6
		2-Nitrophenol	25154-55-7
		4-Nitrophenol	25154-55-8
		Nitrophenols	
		Trinitrophenol	88-89-1
1-Nitropropane	Organic	1-Nitropropane	108-03-2
2-Nitropropane	Organic	2-Nitropropane	79-46-9
1-Nitropyrene	Organic	1-Nitropyrene	5522-43-0
4-Nitropyrene	Organic	4-Nitropyrene	57835-92-4
Nitrosamines	Organic	Nitrosamines	
		N-Nitrosodi-n-butylamine	924-16-3
		N-Nitrosodiethanolamine	1116-54-7
		N-Nitrosodiethylamine	55-18-5
		N-Nitrosodimethylamine	62-75-9
		N-Nitrosodiphenylamine	86-30-6
		p-Nitrosodiphenylamine	156-10-5
		N-Nitrosodipropylamine	621-64-7
		N-Nitrosomethylethylamine	10595-95-6
		N-Nitrosomethylvinylamine	4549-40-0
		N-Nitrosopyrrolidine	930-55-2
N-Nitrosodi-n-butylamine	Organic	N-Nitrosodi-n-butylamine	924-16-3
N-Nitrosodiethanolamine	Organic	N-Nitrosodiethanolamine	1116-54-7
N-Nitrosodiethylamine	Organic	N-Nitrosodiethylamine	55-18-5
N-Nitrosodimethylamine	Organic	N-Nitrosodimethylamine	62-75-9
N-Nitrosodiphenylamine	Organic	N-Nitrosodiphenylamine	86-30-6
p-Nitrosodiphenylamine	Organic	p-Nitrosodiphenylamine	156-10-5
N-Nitrosodipropylamine	Organic	N-Nitrosodipropylamine	621-64-7
N-Nitrosodi-n-propylamine	Organic	N-Nitrosodipropylamine	621-64-7
N-Nitroso-N-ethylurea	Organic	N-Nitroso-N-ethylurea	759-73-9
N-Nitrosomethylethylamine	Organic	N-Nitrosomethylethylamine	10595-95-6
N-Nitroso-N-methylethylamine	Organic	N-Nitrosomethylethylamine	10595-95-6

CROSS REFERENCE OF CHEMICAL NAMES

	CONSTITUENT	Category	See Listing(s) Under:	CAS No.
N	N-Nitroso-N-methylurea	Organic	N-Nitroso-N-methylurea	684-93-5
	N-Nitroso-N-methylurea	Organic	N-Nitroso-N-methylurea	684-93-5
	N-Nitroso-N-methylurethane	Organic	N-Nitroso-N-methylurethane	615-53-2
	N-Nitrosomethylvinylamine	Organic	N-Nitrosomethylvinylamine	4549-40-0
	N-Nitrosomorpholine	Organic	N-Nitrosomorpholine	59-89-2
	N-Nitrosonornicotine	Organic	N-Nitrosonornicotine	16543-55-8
	N-Nitrosopiperidine	Organic	N-Nitrosopiperidine	100-75-4
	N-Nitrosopyrrolidine	Organic	N-Nitrosopyrrolidine	930-55-2
	N-Nitrososarcosine	Organic	N-Nitrososarcosine	13256-22-9
	m-Nitrotoluene	Organic	m-Nitrotoluene	1321-12-6
	NO_2^-	Inorganic	Nitrite	14797-65-0
	NO_3^-	Inorganic	Nitrate	14797-55-8
	Nonachlor	Organic	trans-Nonachlor	39765-80-5
	trans-Nonachlor	Organic	trans-Nonachlor	39765-80-5
	Nonane	Organic	Nonane	111-84-2
	Nonylphenol	Organic	Nonylphenol	104405; 136834
	Norflurazon	Organic	Norflurazon	27314-13-2
	NPN	Organic	n-Propyl nitrate	627-13-4
	NTA	Organic	Nitrilotriacetic acid	139-13-9
	NTA	Organic	Nitrilotriacetate, trisodium monohydrate	18662-53-8
	NuStar	Organic	NuStar	85509-19-9
O	O_2	Inorganic	Oxygen, dissolved	7782447
	O_3	Inorganic	Ozone	10028-15-6
	Ochratoxin A	Organic	Ochratoxin A	303-47-9
	Octabromodiphenyl ether	Organic	Octabromodiphenyl ether	32536-52-0
	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Organic	HMX	2691-41-0
	Octane	Organic	Octane	111-65-9
	Odor	Inorganic	Odor	
	Oil	Organic	Oil & grease	
	Oil & grease	Organic	Oil & grease	
	Omite	Organic	Propargite	2312-35-8
	Ordram	Organic	Molinate	2212-67-1
	Orthocide	Organic	Captan	133-06-2
	Ortho paraquat	Organic	Paraquat	1910-42-5
	Oryzalin	Organic	Oryzalin	19044-88-3
	Osmium tetroxide	Inorganic	Osmium tetroxide	20816-12-0
	OsO_4	Inorganic	Osmium tetroxide	20816-12-0
	Oxadiazon	Organic	Oxadiazon	19666-30-9
	Oxamyl	Organic	Oxamyl	23135-22-0
	Oxirane	Organic	Ethylene oxide (ETO)	75-21-8
	2,2'-Oxybis(1-chloropropane)	Organic	Bis(2-chloroisopropyl) ether	39638-32-9
	Oxychlordane	Organic	Oxychlordane	27304-13-8
	4,4'-Oxydianiline	Organic	4,4'-Diaminodiphenyl ether	101-80-4
	Oxyfluorfen	Organic	Oxyfluorfen	42874-03-3
	Oxygen, dissolved	Inorganic	Oxygen, dissolved	7782447
	Ozone	Inorganic	Ozone	10028-15-6
P	P	Inorganic	Phosphorus	7723-14-0
	Paclobutrazol	Organic	Paclobutrazol	76738-62-0
	PAHs	Organic	Acenaphthene	83-32-9
			Acenaphthylene	208-96-8
			Anthracene	120-12-7
			Benz(a)anthracene	56-55-3
			Benzo(b)fluoranthene	205-99-2
			Benzo(j)fluoranthene	205-82-3
			Benzo(k)fluoranthene	207-08-9
			Benzo(g,h,i)perylene	191-24-2
			Benzo(a)pyrene	50-32-8
			Chrysene	218-01-9
			Dibenz(a,h)anthracene	53-70-3
			7H-Dibenzo(c,g)carbazole	194-59-2
			Dibenzo(a,e)pyrene	192-65-4
			Dibenzo(a,h)pyrene	189-64-0
			Dibenzo(a,i)pyrene	189-55-9
			Dibenzo(a,l)pyrene	191-30-0
			7,12-Dimethylbenz(a)anthracene	57-97-6
			Fluoranthene	206-44-0
			Fluorene	86-73-7
			Indeno(1,2,3-c,d)pyrene	193-39-5
			PAHs	
			Phenanthrene	85-01-8
			Pyrene	129-00-0
	Paraffins, chlorinated	Organic	Chlorinated paraffins	
	Paraquat	Organic	Paraquat	1910-42-5
	Parathion	Organic	Parathion	56-38-2
	Parathion-methyl	Organic	Methyl parathion	298-00-0
	Pb	Inorganic	Lead	7439-92-1
	PBBs	Organic	Polybrominated biphenyls	
	PCBs	Organic	Polychlorinated biphenyls	1336-36-3
	PCE	Organic	Tetrachloroethylene (PCE)	127-18-4

CROSS REFERENCE OF CHEMICAL NAMES

	CONSTITUENT	Category	See Listing(s) Under:	CAS No.
P	PCNB	Organic	Pentachloronitrobenzene	82-68-8
	PCP	Organic	Pentachlorophenol	87-86-5
	PDB	Organic	1,4-Dichlorobenzene	106-46-7
	Pendimethalin	Organic	Pendimethalin	40487-42-1
	Penta	Organic	Pentachlorophenol	87-86-5
	Pentabromodiphenyl ether	Organic	Pentabromodiphenyl ether	32534-81-9
	Pentachlorobenzene	Organic	Pentachlorobenzene	608-93-5
	Pentachloroethane	Organic	Pentachloroethane	76-01-7
	Pentachloronitrobenzene	Organic	Pentachloronitrobenzene	82-68-8
	Pentachlorophenol	Organic	Pentachlorophenol	87-86-5
	Pentanal	Organic	n-Valeraldehyde	110-62-3
	Pentane	Organic	Pentane	109-66-0
	2-Pentanone	Organic	Methyl n-propyl ketone	107-87-9
	3-Pentanone	Organic	Diethyl ketone	96-22-0
	Perchlorate	Inorganic	Perchlorate	
	Perchlorobenzene	Organic	Hexachlorobenzene	118-74-1
	Perchlorobutadiene	Organic	Hexachlorobutadiene	87-68-3
	Perchloroethane	Organic	Hexachloroethane	67-72-1
	Perchloroethylene	Organic	Tetrachloroethylene (PCE)	127-18-4
	Perflan	Organic	Tebuthiuron	34014-18-1
	Permethrin	Organic	Permethrin	52645-53-1
	Petroleum hydrocarbons	Organic	Diesel Oil	68476-34-6
			Gasoline	8006-61-9
			Kerosene	8008-20-6
	pH	Inorganic	pH	
	Phenacetin	Organic	Phenacetin	62-44-2
	Phenamiphos	Organic	Fenamiphos	22224-92-6
	Phenanthrene	Organic	Phenanthrene	85-01-8
	Phenazopyridine	Organic	Phenazopyridine	94-78-0
	Phenazopyridine hydrochloride	Organic	Phenazopyridine hydrochloride	136-40-3
	Phenesterin	Organic	Phenesterin	3546109
	Phenmedipham	Organic	Phenmedipham	13684-63-4
	Phenobarbital	Organic	Phenobarbital	50-06-6
	Phenol	Organic	Phenol	108-95-2
	Phenols, chlorinated	Organic	Chlorinated phenols	
			4-Chloro-m-cresol	59-50-7
			4-Chloro-o-cresol	1570-64-5
			6-Chloro-m-cresol	
			2-Chlorophenol	95-57-8
			3-Chlorophenol	108-43-0
			4-Chlorophenol	106-48-9
			2,3-Dichlorophenol	576-24-9
			2,4-Dichlorophenol	120-83-2
			2,5-Dichlorophenol	583-78-8
			2,6-Dichlorophenol	87-65-0
			3,4-Dichlorophenol	95-77-2
			Pentachlorophenol	87-86-5
			2,3,4,6-Tetrachlorophenol	58-90-2
			2,3,5,6-Tetrachlorophenol	935-95-5
			2,4,5-Trichlorophenol	95-95-4
			2,4,6-Trichlorophenol	88-06-2
	Phenols, nitro-	Organic	4,6-Dinitro-o-cresol	534-52-1
			2,4-Dinitrophenol	51-28-5
			Dinitrophenols	25550-58-7
			Nitrophenol	25154-55-6
			2-Nitrophenol	25154-55-7
			4-Nitrophenol	25154-55-8
			Nitrophenols	
			Trinitrophenol	88-89-1
	Phenols, non-chlorinated	Organic	Phenols, non-chlorinated	
			Catechol	120-80-9
			m-Cresol	108-39-4
			o-Cresol	95-48-7
			p-Cresol	106-44-5
			2,4-Dimethylphenol	105-67-9
			2,6-Dimethylphenol	576-26-1
			3,4-Dimethylphenol	95-65-8
			4,6-Dinitro-o-cresol	534-52-1
			4,6-Dinitro-o-cyclohexyl phenol	131-89-5
			2,4-Dinitrophenol	51-28-5
			Dinitrophenols	25550-58-7
			Nitrophenol	25154-55-6
			2-Nitrophenol	25154-55-7
			4-Nitrophenol	25154-55-8
			Nitrophenols	
			Nonylphenol	104405; 136834
			Phenol	108-95-2
			Resorcinol	108-46-3
			Trinitrophenol	88-89-1
	Phenoxybenzamine	Organic	Phenoxybenzamine	59-96-1
	Phenoxybenzamine hydrochloride	Organic	Phenoxybenzamine hydrochloride	63-92-3

CROSS REFERENCE OF CHEMICAL NAMES

CONSTITUENT	Category	See Listing(s) Under:	CAS No.
Phenylamine	Organic	Aniline	62-53-3
Phenylbenzene	Organic	1,1-Biphenyl	92-52-4
1-Phenylbutane	Organic	n-Butylbenzene	104-51-8
m-Phenylenediamine	Organic	m-Phenylenediamine	108-45-2
Phenylethane	Organic	Ethylbenzene	100-41-4
Phenyl ether	Organic	Phenyl ether	101-84-8
Phenyl glycidyl ether	Organic	Phenyl glycidyl ether	122-60-1
Phenylhydrazine	Organic	Phenylhydrazine	100-63-0
Phenylhydrazine hydrochloride	Organic	Phenylhydrazine hydrochloride	59-88-1
Phenyl mercaptan	Organic	Phenyl mercaptan	108-98-5
Phenylmercuric acetate	Organic	Phenylmercuric acetate	62-38-4
Phenylmethylketone	Organic	Acetophenone	98-86-2
o-Phenylphenate, sodium	Organic	o-Phenylphenate, sodium	132-27-4
2-Phenylpropane	Organic	Cumene	98-82-8
Phorate	Organic	Phorate	298-02-2
Phosmet	Organic	Phosmet	732-11-6
Phosphate phosphorus	Inorganic	Phosphate phosphorus	
Phosphine	Inorganic	Phosphine	7803-51-2
Phosphorus	Inorganic	Phosphorus	7723-14-0
Phostoxin	Inorganic	Aluminum phosphide	20859-73-8
Phthalate acid esters (PAEs)	Organic	n-Butyl benzyl phthalate	85-68-7
		Butylphthalyl butylglycolate	85-70-1
		Dibutyl phthalate	84-74-2
		Di(2-ethylhexyl)phthalate	117-81-7
		Diethyl phthalate	84-66-2
		Dimethyl phthalate	131-11-3
		Dimethyl terephthalate	131-11-3
		Di(n-octyl) phthalate	117-84-0
		Ethylphthalyl ethylglycolate	84-72-0
		Phthalate esters	
Phthalate esters	Organic	n-Butyl benzyl phthalate	85-68-7
		Butylphthalyl butylglycolate	85-70-1
		Dibutyl phthalate	84-74-2
		Di(2-ethylhexyl)phthalate	117-81-7
		Diethyl phthalate	84-66-2
		Dimethyl phthalate	131-11-3
		Dimethyl terephthalate	120-61-6
		Di(n-octyl) phthalate	117-84-0
		Ethylphthalyl ethylglycolate	84-72-0
		Phthalate esters	
Phthalates	Organic	n-Butyl benzyl phthalate	85-68-7
		Butylphthalyl butylglycolate	85-70-1
		Dibutyl phthalate	84-74-2
		Di(2-ethylhexyl)phthalate	117-81-7
		Diethyl phthalate	84-66-2
		Dimethyl phthalate	131-11-3
		Dimethyl terephthalate	120-61-6
		Di(n-octyl) phthalate	117-84-0
		Ethylphthalyl ethylglycolate	84-72-0
		Phthalate esters	
Phthalic anhydride	Organic	Phthalic anhydride	85-44-9
Picloram	Organic	Picloram	1918021
Picric acid	Organic	Trinitrophenol	88-89-1
Pirimiphos-methyl	Organic	Pirimiphos-methyl	29232-93-7
Planavin	Organic	Nitralin	4726-14-1
PNAs	Organic	Acenaphthene	83-32-9
		Acenaphthylene	208-96-8
		Anthracene	120-12-7
		Benz(a)anthracene	56-55-3
		Benzo(b)fluoranthene	205-99-2
		Benzo(j)fluoranthene	205-82-3
		Benzo(k)fluoranthene	207-08-9
		Benzo(g,h,i)perylene	191-24-2
		Benzo(a)pyrene	50-32-8
		Chrysene	218-01-9
		Dibenz(a,h)anthracene	53-70-3
		7H-Dibenzo(c,g)carbazole	194-59-2
		Dibenzo(a,e)pyrene	192-65-4
		Dibenzo(a,h)pyrene	189-64-0
		Dibenzo(a,i)pyrene	189-55-9
		Dibenzo(a,l)pyrene	191-30-0
		7,12-Dimethylbenz(a)anthracene	57-97-6
		Fluoranthene	206-44-0
		Fluorene	86-73-7
		Indeno(1,2,3-c,d)pyrene	193-39-5
		PAHs	
		Phenanthrene	85-01-8
		Pyrene	129-00-0
Poast	Organic	Sethoxydim	74051-80-2
Poligeenan	Organic	Poligeenan	53973981
Polybrominated biphenyls	Organic	Polybrominated biphenyls	

CROSS REFERENCE OF CHEMICAL NAMES

CONSTITUENT	Category	See Listing(s) Under:	CAS No.
P Polychlorinated biphenyls	Organic	Polychlorinated biphenyls	1336-36-3
Polynuclear aromatic hydrocarbons	Organic	Acenaphthene	83-32-9
		Acenaphthylene	208-96-8
		Anthracene	120-12-7
		Benz(a)anthracene	56-55-3
		Benzo(b)fluoranthene	205-99-2
		Benzo(j)fluoranthene	205-82-3
		Benzo(k)fluoranthene	207-08-9
		Benzo(g,h,i)perylene	191-24-2
		Benzo(a)pyrene	50-32-8
		Chrysene	218-01-9
		Dibenz(a,h)anthracene	53-70-3
		7H-Dibenzo(c,g)carbazole	194-59-2
		Dibenzo(a,e)pyrene	192-65-4
		Dibenzo(a,h)pyrene	189-64-0
		Dibenzo(a,i)pyrene	189-55-9
		Dibenzo(a,l)pyrene	191-30-0
		7,12-Dimethylbenz(a)anthracene	57-97-6
		Fluoranthene	206-44-0
		Fluorene	86-73-7
		Indeno(1,2,3-c,d)pyrene	193-39-5
		PAHs	
		Phenanthrene	85-01-8
		Pyrene	129-00-0
Ponceau MC	Organic	Ponceau MC	3761-53-3
Ponceau MX	Organic	Ponceau MC	3761-53-3
Ponceau 3R	Organic	Ponceau 3R	3564098
Potassium bromate	Inorganic	Potassium bromate	7758012
Potassium cyanide	Inorganic	Potassium cyanide	151-50-8
Potassium silver cyanide	Inorganic	Potassium silver cyanide	506-61-6
PPTC	Organic	Vernem	1929-77-7
Pramitol	Organic	Prometon	1610-18-0
Princep	Organic	Simazine	122-34-9
Procarbazine	Organic	Procarbazine	671-16-9
Procarbazine hydrochloride	Organic	Procarbazine hydrochloride	366-70-1
Prochloraz	Organic	Prochloraz	67747-09-5
Profam	Organic	Propham	122-42-9
Prometon	Organic	Prometon	1610-18-0
Prometryn	Organic	Prometryn	7287-19-6
Pronamide	Organic	Pronamide	23950-58-5
Propachlor	Organic	Propachlor	1918-16-7
Propane	Organic	Propane	74-98-6
Propanes, dichloro-	Organic	1,2-Dichloropropane	78-87-5
		Dichloropropanes	26638-19-7
1,3-Propane sultone	Organic	1,3-Propane sultone	1120-71-4
Propanil	Organic	Propanil	709-98-8
Propanoic acid	Organic	Propionic acid	93-65-2
1-Propanol	Organic	n-Propyl alcohol	71-23-8
Propargite	Organic	Propargite	2312-35-8
Propargyl alcohol	Organic	Propargyl alcohol	107-19-7
Propazine	Organic	Propazine	139-40-2
Propene	Organic	Propylene	115-07-1
2-Propeneamide	Organic	Acrylamide	79-06-1
2-Propenenitrile	Organic	Acrylonitrile	107-13-1
Propenes, dichloro-	Organic	1,3-Dichloropropene	542-75-6
		Dichloropropenes	
2-Propenoic acid	Organic	Acrylic acid	79-10-7
Propenyl alcohol	Organic	Allyl alcohol	107-18-6
2-propenyl chloride	Organic	3-Chloropropene	107-05-1
Propham	Organic	Propham	122-42-9
Prophos	Organic	Propham	122-42-9
Propiconazole	Organic	Propiconazole	60207-90-1
beta-Propiolactone	Organic	beta-Propiolactone	57-57-8
Propionic acid	Organic	Propionic acid	93-65-2
Propoxur	Organic	Baygon	114-26-1
n-Propyl acetate	Organic	n-Propyl acetate	109-60-4
n-Propyl alcohol	Organic	n-Propyl alcohol	71-23-8
Propylene	Organic	Propylene	115-07-1
Propylene dichloride	Organic	1,2-Dichloropropane	78-87-5
Propyleneimine	Organic	Propyleneimine	75-55-8
Propylene oxide	Organic	Propylene oxide	75-56-9
n-Propyl nitrate	Organic	n-Propyl nitrate	627-13-4
Propylthiouracil	Organic	Propylthiouracil	51-52-5
2-Propynol	Organic	Propargyl alcohol	107-19-7
Propyzamide	Organic	Pronamide	23950-58-5
Prowl	Organic	Pendimethalin	40487-42-1
Prussite	Organic	Cyanogen	460-19-5
Pursuit	Organic	Pursuit	81335-77-5
Pydrin	Organic	Pydrin	51630-58-1
Pyrene	Organic	Pyrene	129-00-0
Pyridine	Organic	Pyridine	110-86-1

CROSS REFERENCE OF CHEMICAL NAMES

	CONSTITUENT	Category	See Listing(s) Under:	CAS No.
Q	Quinalphos	Organic	Quinalphos	13593-03-8
	Quinofop-ethyl	Organic	Assure	76578-14-8
	Quinone	Organic	Quinone	106-51-4
	Quintozine	Organic	Pentachloronitrobenzene	82-68-8
R	226Ra	Inorganic	Radium-226 + Radium-228	7440-14-4
	228Ra	Inorganic	Radium-226 + Radium-228	7440-14-4
	Radioactivity, Gross Alpha	Inorganic	Radioactivity, Gross Alpha	
	Radioactivity, Gross Beta	Inorganic	Radioactivity, Gross Beta	
	Radium-226 + Radium-228	Inorganic	Radium-226 + Radium-228	7440-14-4
	Radon	Inorganic	Radon	14859-67-7
	Rally	Organic	Systhane	88671-89-0
	Ramrod	Organic	Propachlor	1918-16-7
	RDX (Cyclonite)	Organic	RDX (Cyclonite)	121-82-4
	Redax	Organic	N-Nitrosodiphenylamine	86-30-6
	Reglone	Organic	Diquat	85-00-7
	Reserpine	Organic	Reserpine	50-55-5
	Resmethrin	Organic	Resmethrin	10453-86-8
	Resorcinol	Organic	Resorcinol	108-46-3
	Retard	Organic	Maleic hydrazide	123-33-1
	Rn	Inorganic	Radon	14859-67-7
	Ronilan	Organic	Vinclozolin	50471-44-8
	Rotenone	Organic	Rotenone	83-79-4
	Roundup	Organic	Glyphosate	1071-83-6
	Rovral	Organic	Iprodione	36734-19-7
	RU 25474	Organic	Tralomethrin	66841-25-6
S	Saccharin	Organic	Saccharin	81-07-2
	Safrole	Organic	Safrole	94-59-7
	Savey	Organic	Savey	78587-05-0
	Sb	Inorganic	Antimony	7440-36-0
	SBP-1382	Organic	Resmethrin	10453-86-8
	Scepter	Organic	Imazaquin	81335-37-7
	Se	Inorganic	Selenium	7782-49-2
	Selenium	Inorganic	Selenium	7782-49-2
	Sethoxydim	Organic	Sethoxydim	74051-80-2
	Settleable solids	Inorganic	Settleable solids	
	Sevin	Organic	Carbaryl	63-25-2
	Silver	Inorganic	Silver	7440-22-4
	Silver cyanide	Inorganic	Silver cyanide	506-64-9
	Silver potassium cyanide	Inorganic	Potassium silver cyanide	506-61-6
	Silvex	Organic	2,4,5-TP (Silvex)	93-76-5
	Simazine	Organic	Simazine	122-34-9
	Sinbar	Organic	Terbacil	5902-51-2
	$SO_4^{=}$	Inorganic	Sulfate	
	Sodium	Inorganic	Sodium	7440-23-5
	Sodium azide	Inorganic	Sodium azide	26628-22-8
	Sodium cyanide	Inorganic	Sodium cyanide	143-33-9
	Sodium diethyldithiocarbamate	Organic	Sodium diethyldithiocarbamate	148-18-5
	Sodium fluoroacetate	Organic	Sodium fluoroacetate	62-74-8
	Sodium o-phenylphenate	Organic	o-Phenylphenate, sodium	132-27-4
	Sonar	Organic	Fluridone	59756-60-4
	Specific conductance (EC)	Inorganic	Specific conductance (EC)	
	Spike	Organic	Tebuthiuron	34014-18-1
	Sr	Inorganic	Strontium	7440-24-6
	90Sr	Inorganic	Strontium-90	
	Sterigmatocystin	Organic	Sterigmatocystin	10048-13-2
	Steri-Seal	Organic	o-Phenylphenate, sodium	132-27-4
	Stockade	Organic	Cypermethrin	52315-07-8
	Stop Mold	Organic	o-Phenylphenate, sodium	132-27-4
	Streptozocin	Organic	Streptozotocin	18883-66-4
	Streptozotocin	Organic	Streptozotocin	18883-66-4
	Strontium	Inorganic	Strontium	7440-24-6
			Strontium-90	
	Strychnine	Organic	Strychnine	57-24-9
	Styrene	Organic	Styrene	100-42-5
	Styrene oxide	Organic	Styrene oxide	96-09-3
	Subdue	Organic	Metalaxyl	57837-19-1
	Sugar of lead	Organic	Lead acetate	301-04-2
	Sulfallate	Organic	Sulfallate	95-06-7
	Sulfate	Inorganic	Sulfate	
	Sulfonamide	Organic	Chlorsulfuron	64902-72-3
	Sulfonimide	Organic	Captafol	2425061
	Sulfur dioxide	Inorganic	Sulfur dioxide	7446095
	Sutan	Organic	Butylate	2008-41-5
	Systhane	Organic	Systhane	88671-89-0
	Systox	Organic	Demeton	8065-48-3
T	2,4,5-T	Organic	2,4,5-T	93-76-5
	Talstar	Organic	Biphenthrin	82657-04-3
	Tandem	Organic	Tridiphane	58138-08-2

CROSS REFERENCE OF CHEMICAL NAMES

CONSTITUENT	Category	See Listing(s) Under:	CAS No.
TBA	Organic	tert-Butyl alcohol	75-65-0
TBT	Organic	Tributyltin	688-73-3
1,1,1-TCA	Organic	1,1,1-Trichloroethane	71-55-6
1,1,2-TCA	Organic	1,1,2-Trichloroethane	79-00-5
2,3,7,8-TCDD (Dioxin)	Organic	2,3,7,8-TCDD (Dioxin)	1746-01-6
TCE	Organic	Trichloroethylene (TCE)	79-01-6
TDS	Inorganic	Total dissolved solids (TDS)	
Tebuthiuron	Organic	Tebuthiuron	34014-18-1
TEDP	Organic	Tetraethyldithiopyrophosphate	3689-24-5
TEL	Organic	Tetraethyl lead	78-00-2
Telone	Organic	1,3-Dichloropropene	542-75-6
		1,2-Dichloropropane	78-87-5
Temik	Organic	Aldicarb	116-06-3
Terbacil	Organic	Terbacil	5902-51-2
Terbufos	Organic	Terbufos	13071-79-9
Terbutryn	Organic	Terbutryn	886-50-0
Terraclor	Organic	Pentachloronitrobenzene	82-68-8
1,2,4,5-Tetrachlorobenzene	Organic	1,2,4,5-Tetrachlorobenzene	95-94-3
2,3,7,8-Tetrachlorodibenzo-p-dioxin	Organic	2,3,7,8-TCDD (Dioxin)	1746-01-6
1,1,1,2-Tetrachloroethane	Organic	1,1,1,2-Tetrachloroethane	630-20-6
1,1,2,2-Tetrachloroethane	Organic	1,1,2,2-Tetrachloroethane	79-34-5
Tetrachloroethene	Organic	Tetrachloroethylene (PCE)	127-18-4
Tetrachloroethylene (PCE)	Organic	Tetrachloroethylene (PCE)	127-18-4
Tetrachloromethane	Organic	Carbon tetrachloride	56-23-5
2,3,4,6-Tetrachlorophenol	Organic	2,3,4,6-Tetrachlorophenol	58-90-2
2,3,5,6-Tetrachlorophenol	Organic	2,3,5,6-Tetrachlorophenol	935-95-5
Tetrachlorovinphos	Organic	Tetrachlorovinphos	961-11-5
Tetrachlorvinphos	Organic	Tetrachlorovinphos	961-11-5
Tetraethyldithiopyrophosphate	Organic	Tetraethyldithiopyrophosphate	3689-24-5
Tetraethyl lead	Organic	Tetraethyl lead	78-00-2
Tetramethyldiaminobenzophenone	Organic	Michler's ketone	90-94-8
1,4,5,8-Tetraminoanthraquinone	Organic	Disperse Blue 1	2475-45-8
Tetranitromethane	Organic	Tetranitromethane	509-14-8
Th	Inorganic	Thallium	7440-28-0
Thallium	Inorganic	Thallium	7440-28-0
Thimet	Organic	Phorate	298-02-2
Thioacetamide	Organic	Thioacetamide	62-55-5
Thiobencarb	Organic	Thiobencarb	28249-77-6
Thiocarb	Organic	Sodium diethyldithiocarbamate	148-18-5
Thiodan	Organic	Endosulfan	115-29-7
4,4'-Thiodianiline	Organic	4,4'-Thiodianiline	139-65-1
Thiophanate-methyl	Organic	Thiophanate-methyl	23564-05-8
Thiophenol	Organic	Phenyl mercaptan	108-98-5
Thiophos	Organic	Parathion	56-38-2
Thiotepa	Organic	Tris(1-azindinyl)phosphine sulfide	52-24-4
Thiourea	Organic	Thiourea	62-56-6
Thiram	Organic	Thiram	137-26-8
THMs	Organic	Bromodichloromethane	74-97-5
		Bromoform	75-25-2
		Chloroform	67-66-3
		Dibromochloromethane	124-48-1
Thriafur	Organic	2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole	712-68-5
Tin, tributyl-	Organic	Tributyltin	688-73-3
TNT	Organic	Trinitrotoluene (TNT)	612-82-8
o-Tolidine	Organic	3,3'-Dimethylbenzidine	119-96-7
o-Tolidine hydrochloride	Organic	3,3'-Dimethylbenzidine dihydrochloride	119-93-7
Toluene	Organic	Toluene	108-88-3
2,4-Toluenediamine	Organic	2,4-Diaminotoluene	95-80-7
Toluene diisocyanate	Organic	Toluene diisocyanate	26471-62-5
Toluenes, dinitro-	Organic	2,4-Dinitrotoluene	121-14-2
		2,6-Dinitrotoluene	606-20-2
		Dinitrotoluenes	25321-14-6
o-Toluidine hydrochloride	Organic	o-Toluidine hydrochloride	636-21-5
o-Toluidine	Organic	o-Toluidine	95-53-4
Tolyl chloride	Organic	Benzyl chloride	100-44-7
Tordon	Organic	Picloram	1918021
Total dissolved solids (TDS)	Inorganic	Total dissolved solids (TDS)	
Toxaphene	Organic	Toxaphene	8001-35-2
2,4,5-TP (Silvex)	Organic	2,4,5-TP (Silvex)	93-76-5
Tralomethrin	Organic	Tralomethrin	66841-25-6
Treflan	Organic	Trifluralin	1582-09-8
Triallate	Organic	Triallate	2303-17-5
Triasulfuron	Organic	Triasulfuron	82097-50-5
1,2,4-Tribromobenzene	Organic	1,2,4-Tribromobenzene	615-54-3
Tribromomethane	Organic	Bromoform	75-25-2
Tribufos	Organic	Merphos	150-50-5
Tributyltin	Organic	Tributyltin	688-73-3
Trichlorfon	Organic	Trichlorfon	52-68-6
Trichloroacetaldehyde	Organic	Chloral	75-87-6
Trichloroacetaldehyde, hydrated	Organic	Chloral hydrate	302-17-0
Trichloroacetic acid	Organic	Trichloroacetic acid	76-03-9

CROSS REFERENCE OF CHEMICAL NAMES

	CONSTITUENT	Category	See Listing(s) Under:	CAS No.
T	Trichloroacetonitrile	Organic	Trichloroacetonitrile	545-06-02
	1,2,4-Trichlorobenzene	Organic	1,2,4-Trichlorobenzene	120-82-1
	1,3,5-Trichlorobenzene	Organic	1,3,5-Trichlorobenzene	108-70-3
	Trichlorobenzenes	Organic	1,2,4-Trichlorobenzene	120-82-1
			1,3,5-Trichlorobenzene	108-70-3
			Trichlorobenzenes	12002-48-1
	unsymmetrical-Trichlorobenzene	Organic	1,2,4-Trichlorobenzene	120-82-1
	1,1,1-Trichloroethane	Organic	1,1,1-Trichloroethane	71-55-6
	1,1,2-Trichloroethane	Organic	1,1,2-Trichloroethane	79-00-5
	1,1,1-Trichloro-2,2-ethanediol	Organic	Chloral hydrate	302-17-0
	Trichloroethene	Organic	Trichloroethylene (TCE)	79-01-6
	Trichloroethylene (TCE)	Organic	Trichloroethylene (TCE)	79-01-6
	Trichloroethylidene ghycol	Organic	Chloral hydrate	302-17-0
	Trichlorofluoromethane	Organic	Trichlorofluoromethane	75-69-4
	Trichloromethane	Organic	Chloroform	67-66-3
	(Trichloromethyl)benzene	Organic	Benzotrichloride	98-07-7
	N-Trichloromethylmercapto-tetrahydrophthalimide	Organic	Captan	133-06-2
	2,4,5-Trichlorophenol	Organic	2,4,5-Trichlorophenol	95-95-4
	2,4,6-Trichlorophenol	Organic	2,4,6-Trichlorophenol	88-06-2
	2,4,5-Trichlorophenoxyacetic acid	Organic	2,4,5-T	93-76-5
	2,4,5-Trichlorophenoxypropionic acid	Organic	2,4,5-TP (Silvex)	93-76-5
	1,1,2-Trichloropropane	Organic	1,1,2-Trichloropropane	598-77-6
	1,2,3-Trichloropropane	Organic	1,2,3-Trichloropropane	96-18-4
	alpha,alpha,alpha-Trichlorotoluene	Organic	Benzotrichloride	98-07-7
	Trichlorotrifluoroethane	Organic	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1
	1,1,2-Trichloro-1,2,2-trifluoroethane	Organic	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1
	Trichlorphon	Organic	Trichlorfon	52-68-6
	Tridiphane	Organic	Tridiphane	58138-08-2
	Triethylamine	Organic	Triethylamine	121-44-8
	Trifluralin	Organic	Trifluralin	1582-09-8
	Triglycine	Organic	Nitrilotriacetic acid	139-13-9
	Trihalomethanes	Organic	Bromodichloromethane	75-27-4
			Bromoform	75-25-2
			Chloroform	67-66-3
			Dibromochloromethane	124-48-1
	Triiodomethane	Organic	Iodoform	75-47-8
	Trimethylamine	Organic	Trimethylamine	75-50-3
	1,3,5-Trimethylbenzene	Organic	1,3,5-Trimethylbenzene	108-67-8
	symmetrical-Trimethylbenzene	Organic	1,3,5-Trimethylbenzene	108-67-8
	1,3,5-Trinitrobenzene	Organic	1,3,5-Trinitrobenzene	99-35-4
	Trinitroglycerol	Organic	Trinitroglycerol	
	Trinitrophenol	Organic	Trinitrophenol	88-89-1
	Trinitrotoluene (TNT)	Organic	Trinitrotoluene (TNT)	118-96-7
	Tris(1-aziridinyl)phosphine sulfide	Organic	Tris(1-aziridinyl)phosphine sulfide	52-24-4
	Tris(2,3-dibromopropyl)phosphate	Organic	Tris(2,3-dibromopropyl)phosphate	126-72-7
	Trisodium nitrilotriacetate	Organic	Nitrilotriacetate, trisodium monohydrate	18662-53-8
	Trithion	Organic	Trithion	786-19-6
	Tritium	Inorganic	Tritium	10028-17-8
	Trp-P-1	Organic	Tryptophan-P-1	62450-06-0
	Trp-P-2	Organic	Tryptophan-P-2	62450-07-1
	Tryptophan-P-1	Organic	Tryptophan-P-1	62450-06-0
	Tryptophan-P-2	Organic	Tryptophan-P-2	62450-07-1
	Turbacil	Organic	Terbacil	5902-51-2
	Turbidity	Inorganic	Turbidity	
U	U	Inorganic	Uranium	7440-61-1
	UDMH	Organic	1,1-Dimethylhydrazine	57-14-7
	Uranium	Inorganic	Uranium	7440-61-1
	Urethane	Organic	Urethane	51-79-6
	Urox	Organic	Bromacil	314-40-9
V	V	Inorganic	Vanadium	7440-62-2
	n-Valeraldehyde	Organic	n-Valeraldehyde	110-62-3
	Vanadium	Inorganic	Vanadium	7440-62-2
	VC	Organic	Vinyl chloride	75-01-4
	Vegadex	Organic	Sulfallate	95-06-7
	Velpar	Organic	Hexazinone	51235-04-2
	Verdict	Organic	Haloxyfop-methyl	69806-40-2
	Vernem	Organic	Vernem	1929-77-7
	Vernolate	Organic	Vernem	1929-77-7
	Vinclozolin	Organic	Vinclozolin	50471-44-8
	Vinyl acetate	Organic	Vinyl acetate	108-05-4
	Vinylbenzene	Organic	Styrene	100-42-5
	Vinyl bromide	Organic	Vinyl bromide	593-60-2
	Vinyl chloride	Organic	Vinyl chloride	75-01-4
	Vinyl cyanide	Organic	Acrylonitrile	107-13-1
	Vinylethylene	Organic	1,3-Butadiene	106-99-0
	Vinylidene chloride	Organic	1,1-Dichloroethylene	75-35-4
	Vinyl toluene	Organic	Vinyl toluene	25013-15-4
	Vinyl trichoride	Organic	1,1,2-Trichloroethane	79-00-5
	Vitavax	Organic	Carboxin	5234-68-4

CROSS REFERENCE OF CHEMICAL NAMES

	CONSTITUENT	Category	See Listing(s) Under:	CAS No.
V	Vydate	Organic	Oxamyl	23135-22-0
W	Warfarin	Organic	Warfarin	81-81-2
	Waxes, chlorinated	Organic	Chlorinated paraffins	
X	m-Xylene	Organic	Xylene(s)	1330-20-7
	o-Xylene	Organic	Xylene(s)	1330-20-7
	p-Xylene	Organic	Xylene(s)	1330-20-7
	Xylene(s)	Organic	Xylene(s)	1330-20-7
	asymmetrical-m-Xylenol	Organic	2,4-Dimethylphenol	105-67-9
	2,4-Xylidine	Organic	2,4-Xylidine	1300-73-8
	2,6-Xylidine	Organic	2,6-Xylidine	87-62-7
Z	Zinc	Inorganic	Zinc	7440-66-6
	Zinc cyanide	Inorganic	Zinc cyanide	557-21-1
	Zinc phosphide	Inorganic	Zinc phosphide	1314-84-7
	Zineb	Organic	Zineb	12122-67-7
	Ziram	Organic	Ziram	137-30-4
	Zn	Inorganic	Zinc	7440-66-6

WATER QUALITY GOALS
FOR
INORGANIC CONSTITUENTS

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS in ug/l (ppb) unless noted

INORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
Alkalinity									
Aluminum	1000	200		50 to 200		60 (100)			
Aluminum phosphide									
Ammonia									500 (146)
Ammonium sulfamate									
Antimony	6		6		6	20			
Arsenic	50		50 / 5 (100)		zero (100)				
Arsine									0.35 (126)
Asbestos	7 MFL (101)		7 MFL (101)		7 MFL (101)				
Barium	1000		2000		2000				
Beryllium	4		4		4				
Beryllium oxide									
Beryllium sulfate									
Boron							1000		
Bromate	10 (100)		10 (147)		zero (147)				
Bromide									
Bromine									6.3 (126)
Cadmium	5		5		5	0.07			
Carbon disulfide									0.39 (126)
Chloramine	4000 (66,100)		4000 (66)		4000 (66)				
Chlorate									
Chloride		250,000 (73)		250,000					
Chlorine	4000 (66,100)		4000 (66)		4000 (66)				2 (126)
Chlorine dioxide	800 (67,100)		800 (67)		300 (67)				670 (126)
Chlorite	1000 (100)		1000 (147)		800 (147)				
Chromium (III)						200,000			
Chromium (VI)						0.2			
Chromium (total)	50		100		100	2.5 (134)			
Cobalt									
Color		15 units		15 units					
Copper	1300 (111)	1000	1300 (111)	1000	1300	170			
Copper cyanide									
Corrosivity		Non-corrosive		Non-corrosive					
Cyanide	200 / 150 (100)		200 (137)		200 (137)	150			170 (126)
Cyanogen bromide									
Cyanogen chloride									
Fluoride	2000 (109)		4000	2000	4000	1000			
Hydrazine									160,000 (126)
Hydrazine sulfate									
Hydrogen selenide									2.1 (126)
Hydrogen sulfide									0.029 (126)
Iodide									
Iron		300		300					
Lead	15 (111)		15 (111)		zero	2			
Manganese		50		50					
Mercuric chloride									
Mercury, inorganic	2		2		2	1.2			
Molybdenum									
Nickel	100					1 (100)			
Nickel carbonyl									0.072 (126)
Nickel subsulfide									
Nitrate	45,000 (72)		10,000 (103)		10,000 (89)	10,000 (103)			

older - use as last resort.

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS in ug/l (ppb) unless noted

INORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
Alkalinity									
Aluminum			5000 (7-day)						5000
Aluminum phosphide	2.8								
Ammonia		30,000 (68)				(D,68)			
Ammonium sulfamate	1400	2000				(D)			
Antimony	2.8	6				(D)			
Arsenic	2.1			0.023	0.02 (A)	0.02 (A,68)		5 #R	100
Arsine									
Asbestos				(15)	(A)	7 MFL (A,101)		# (15)	
Barium	490	2000 (68)	4700		(D)	(D,68)			
Beryllium	14	30,000 (10-day)			(B1,119)			# (15)	100
Beryllium oxide				0.005	(B2)			(15)	
Beryllium sulfate				0.000012				(15)	
Boron	630	600 (68)				(D,68)			700 / 750 (91)
Bromate		200 (24-hr)			0.05 (B2)	0.05 (B2,68)			
Bromide			2300						
Bromine									
Cadmium	3.5	5	5	0.092 (153)	(B1,119)	(D)		#R (15)	10
Carbon disulfide	700							300 R (5,68)	
Chloramine	700	3000 (68)	166 / 581 (7)		(D)				
Chlorate		(D)	7 / 24 (7)						
Chloride									106,000
Chlorine	700	4000 (68)				(D,68)			
Chlorine dioxide		800 (68)	60 / 210 (7)		(D)	(D,68)			
Chlorite	21	800 (68)	7 / 24 (7)		(D)	(D,68)			
Chromium (III)					10,500 (D)				
Chromium (VI)	21			0.18	(A / D,155)			# (15)	100
Chromium (total)		1000 (10-day)				(D)			
Cobalt									50
Color									
Copper					(D)	(D,68)			200
Copper cyanide	35								
Corrosivity									
Cyanide	140	200			(D)	(D)			
Cyanogen bromide	630								
Cyanogen chloride	350	50 (10-day)				(D)			
Fluoride	420								1000
Hydrazine				0.012	0.01 (B2)			0.02 #	
Hydrazine sulfate				0.012	0.01 (B2)			0.1 #	
Hydrogen selenide									
Hydrogen sulfide	21								
Iodide			1190						
Iron									5000
Lead				4.1	(B2)	(B2)		0.25 #R (5)	5000
Manganese	330				(D)				200
Mercuric chloride	0.2				(C)			R	
Mercury, inorganic		2			(D)	(D)		R	
Molybdenum	35	40 (68)				(D,68)			10
Nickel	140	100		(15)				# (15)	200
Nickel carbonyl					(B2)			#R	
Nickel subsulfide				0.021	(A)			# (15)	
Nitrate	11,000 (89)	10,000 (10-day,89)							

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS in ug/l (ppb) unless noted

INORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria										
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection					
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria					
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Toxicity Information (Lowest Observed Effect Level) Acute	Chronic	Other
Alkalinity						≥20,000 (9,51)						
Aluminum						87 (2,62)		750 (2,62)				
Aluminum phosphide												
Ammonia						see page 13		see page 13				
Ammonium sulfamate												
Antimony	14 (2)	4300 (2)								9000	1600	610 (38)
Arsenic			0.018 (2,94)	0.14 (2,94)		150 (1)		340 (1)				
Arsine												
Asbestos			7 MFL (101)									
Barium	1000 (51)											
Beryllium										130	5.3	
Beryllium oxide												
Beryllium sulfate												
Boron												
Bromate												
Bromide												
Bromine												
Cadmium						see page 15 (1)		see page 15 (1)				
Carbon disulfide												
Chloramine												
Chlorate												
Chloride						230,000 (4)		860,000 (4)				
Chlorine						11 (98)		19 (98)				
Chlorine dioxide												
Chlorite												
Chromium (III)						see page 17 (1)		see page 17 (1)				
Chromium (VI)						11 (1)		16 (1)				
Chromium (total)												
Cobalt												
Color					(51,130)				(51,131)			
Copper	1300				1000	see page 18 (1)		see page 18 (1)				
Copper cyanide												
Corrosivity												
Cyanide	700	220,000				5.2 (137)		22 (137)				
Cyanogen bromide												
Cyanogen chloride												
Fluoride												
Hydrazine												
Hydrazine sulfate												
Hydrogen selenide												
Hydrogen sulfide									2 (51)			
Iodide												
Iron					300 (51)				1000 (51)			
Lead						see page 19 (1)		see page 19 (1)				
Manganese		100 (51,127)			50 (51)							
Mercuric chloride												
Mercury, inorganic	0.050 (2)	0.051 (2)				0.77 (1,140)		1.4 (1,140)				
Molybdenum												
Nickel	610 (2)	4600 (2)				see page 20 (1)		see page 20 (1)				
Nickel carbonyl												
Nickel subsulfide												
Nitrate	10,000 (51,89)											

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS in ug/l (ppb) unless noted

INORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum	(30-day Average) aquatic organism consumption only	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
Alkalinity									
Aluminum									
Aluminum phosphide									
Ammonia									
Ammonium sulfamate									
Antimony	14 (2)	4300 (2)				4300 (2)			
Arsenic			150 (1,142)	340 (1,142)			36 (1,142)	69 (1,142)	
Arsine									
Asbestos	7 MFL (101,143)								
Barium									
Beryllium									
Beryllium oxide									
Beryllium sulfate									
Boron									
Bromate									
Bromide									
Bromine									
Cadmium			see page 15 (1,142)	see page 15 (1,142)			9.3 (1,142)	42 (1,142)	
Carbon disulfide									
Chloramine									
Chlorate									
Chloride									
Chlorine									
Chlorine dioxide									
Chlorite									
Chromium (III)			see page 16 (1,143)	see page 16 (1,143)					
Chromium (VI)			11 (1,142)	16 (1,142)			50 (1,142)	1100 (1,142)	
Chromium (total)									
Cobalt									
Color									
Copper	1300 (2,142)		see page 18 (1,142)	see page 18 (1,142)			3.1 (1,142)	4.8 (1,142)	
Copper cyanide									
Corrosivity									
Cyanide	700 (142)	220,000 (142)	5.2 (142,143)	22 (142,143)		220,000 (142)	1 (142,143)	1 (142,143)	
Cyanogen bromide									
Cyanogen chloride									
Fluoride									
Hydrazine									
Hydrazine sulfate									
Hydrogen selenide									
Hydrogen sulfide									
Iodide									
Iron									
Lead			see page 19 (1,142)	see page 19 (1,142)			8.1 (1,142)	210 (1,142)	
Manganese									
Mercuric chloride									
Mercury, inorganic	0.05 (2,142)	0.051 (2,142)				0.051 (2,142)			
Molybdenum									
Nickel	610 (2,142)	4600 (2,142)	see page 20 (1,142)	see page 20 (1,142)		4600 (2,142)	8.2 (1,142)	74 (1,142)	
Nickel carbonyl									
Nickel subsulfide									
Nitrate									

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS in ug/l (ppb) unless noted

INORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average)	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	aquatic organism consumption only	6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Alkalinity													
Aluminum													
Aluminum phosphide													
Ammonia		600 (89)			2400 (89)	6000 (89)	35 (112)		233 (112)				
Ammonium sulfamate													
Antimony	1200												
Arsenic		8			32	80	36 (1)		69 (1)				
Arsine													
Asbestos													
Barium													
Beryllium	0.033 #												
Beryllium oxide													
Beryllium sulfate													
Boron													
Bromate													
Bromide													
Bromine													
Cadmium		1			4	10	9.3 (1)		42 (1)				
Carbon disulfide													
Chloramine													
Chlorate													
Chloride													
Chlorine		2 (90)			8 (90)	60 (90)	7.5 (99)		13 (99)				
Chlorine dioxide													
Chlorite													
Chromium (III)	190,000										10,300 (96)		
Chromium (VI)		2 (12)			8 (12)	20 (12)	50 (1)		1100 (1)				
Chromium (total)		2 (12)			8 (12)	20 (12)							
Cobalt													
Color										(51,131)			
Copper		3			12	30	3.1 (1)		4.8 (1)				
Copper cyanide													
Corrosivity													
Cyanide		1			4	10	1 (137)		1 (137)				
Cyanogen bromide													
Cyanogen chloride													
Fluoride													
Hydrazine													
Hydrazine sulfate													
Hydrogen selenide													
Hydrogen sulfide										2 (51)			
Iodide													
Iron													
Lead		2			8	20	8.1 (1)		210 (1)				
Manganese													
Mercuric chloride													
Mercury, inorganic		0.04			0.16	0.4	0.94 (1,140)		1.8 (1,140)				
Molybdenum													
Nickel		5			20	50	8.2 (1)		74 (1)				
Nickel carbonyl													
Nickel subsulfide													
Nitrate													

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS in ug/l (ppb) unless noted

INORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
Alkalinity				
Aluminum	7429-90-5	Al		
Aluminum phosphide	20859-73-8	Celphos	Phostoxin	
Ammonia	7664-41-7	NH3	NH4+ (ammonium)	
Ammonium sulfamate	7773-06-0			
Antimony	7440-36-0	Sb		
Arsenic	7440-38-2	As		
Arsine	7784-42-1	AsH3		
Asbestos	1332-21-4			
Barium	7440-39-3	Ba		
Beryllium	7440-41-7	Be		
Beryllium oxide	1304-56-9			
Beryllium sulfate	13510-49-1			
Boron	7440-42-8	B		
Bromate	15541-45-4			
Bromide		Br-		
Bromine	7726-95-6			
Cadmium	7440-43-9	Cd		
Carbon disulfide	75-15-0	Carbon bisulfide	CS2	
Chloramine	127-65-1	NH2Cl	Monochloramine	
Chlorate		ClO3-		
Chloride	16887-00-6	Cl-		
Chlorine	7782-50-5	Cl2		
Chlorine dioxide	10049-04-4	ClO2		
Chlorite	7758-19-2	ClO2-		
Chromium (III)	16065-83-1	Cr (III)	Chromium, trivalent	
Chromium (VI)	7440-47-3	Cr (VI)	Chromium, hexavalent	
Chromium (total)	7440-47-3	Cr		
Cobalt	7440-48-4	Co		
Color				
Copper	7440-50-8	Cu		
Copper cyanide	544-92-3	Cupricin	Cuprous cyanide	Cyanide, copper
Corrosivity				
Cyanide	57-12-5	CN-	HCN	Hydrogen cyanide
Cyanogen bromide	506-68-3	Bromine cyanide		
Cyanogen chloride	506-77-4	Chlorine cyanide		
Fluoride	7782-41-4	F-	Fluorine, soluble	
Hydrazine	302-01-2	H2NNH2	Diamine	
Hydrazine sulfate	10034-93-2			
Hydrogen selenide	7783075	H2Se		
Hydrogen sulfide	7783064	H2S		
Iodide		I-		
Iron	7439-89-6	Fe		
Lead	7439-92-1	Pb		
Manganese	7439-96-5	Mn		
Mercuric chloride	7487-94-7	HgCl2		
Mercury, inorganic	7439-97-6	Hg		
Molybdenum	7439-98-7	Mo		
Nickel	7440-02-0	Ni		
Nickel carbonyl	13463-39-3			
Nickel subsulfide	12035-72-2			
Nitrate	14797-55-8	NO3-		

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS in ug/l (ppb) unless noted

INORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
Nitrite	1000 (103)		1000 (103)		1000 (89)	1000 (103)			
Odor		3 threshold units		3 threshold units					
Osmium tetroxide									12 (126)
Oxygen, dissolved									
Ozone									0.28 (126)
Perchlorate							18		
pH				6.5 to 8.5 units					
Phosphate phosphorus									
Phosphine									0.2 (126)
Phosphorus									
Potassium bromate									
Potassium cyanide									
Potassium silver cyanide									
Radioactivity, Gross Alpha	15 pCi/L (110)		15 pCi/L (110)		zero (100)				
Radioactivity, Gross Beta	50 pCi/L		4 mrem/yr		zero (100)				
Radium-226 + Radium-228	5 pCi/L		5 pCi/L		zero (100)				
Radon			300 pCi/L (100)		zero (100)				
Selenium	50		50		50				
Settleable solids									
Silver		100		100					
Silver cyanide									
Sodium									
Sodium azide									
Sodium cyanide									
Specific conductance (EC)		900 umhos/cm (74)							
Strontium									
Strontium-90	8 pCi/L								
Sulfate		250,000 (73)	500,000 (100)	250,000	500,000 (100)				
Sulfur dioxide									110 (126)
Thallium	2		2		0.5	0.1			
Total dissolved solids (TDS)		500,000 (75)		500,000					
Tritium	20,000 pCi/L								
Turbidity		5 units	1.0/0.5/0.3 NTU (84)						
Uranium	20 pCi/L		20ug/L = 30pCi/L (100)		zero (100)	0.2ug/L = 0.2pCi/L (100)			
Vanadium									
Zinc		5000		5000					
Zinc cyanide									
Zinc phosphide									

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS in ug/l (ppb) unless noted

INORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
Nitrite	700	1000 (10-day,89)							
Odor									
Osmium tetroxide									
Oxygen, dissolved									
Ozone									
Perchlorate		20 - 40 (68)							
pH									
Phosphate phosphorus									
Phosphine	2				(D)				
Phosphorus	0.14 (40)	0.1 (40)			(D)	(D)			
Potassium bromate				0.071				0.5 #	
Potassium cyanide	350								
Potassium silver cyanide	1400								
Radioactivity, Gross Alpha						0.15 pCi/L (A,110)			
Radioactivity, Gross Beta						0.04 mrem/yr (A)			
Radium-226 + Radium-228						(A)			
Radon						1.5 pCi/L (A)			
Selenium	35	50			(D)	(D)			20
Settleable solids									
Silver	35	100			(D)	(D)			
Silver cyanide	700								
Sodium		2000 (57)							
Sodium azide	28								
Sodium cyanide	280								
Specific conductance (EC)									700 µmhos/cm
Strontium	4200	4000 (68)	8400 (7-day)			(D,68)			
Strontium-90						(A)			
Sulfate									
Sulfur dioxide									
Thallium	0.6	0.5			(D)				
Total dissolved solids (TDS)									450,000
Tritium						(A)		#	
Turbidity									
Uranium	21		35			(A)		#	
Vanadium	63 (123)					(D)			100
Zinc	2100	2000 (68)			(D)	(D,68)			2000
Zinc cyanide	350								
Zinc phosphide	2								

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS in ug/l (ppb) unless noted

INORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Nitrite												
Odor												
Osmium tetroxide												
Oxygen, dissolved						see page 21	see page 21					
Ozone												
Perchlorate												
pH					5 to 9 units (51)				6.5 to 9.0 units (51)			
Phosphate phosphorus						(141)						
Phosphine												
Phosphorus												
Potassium bromate												
Potassium cyanide												
Potassium silver cyanide												
Radioactivity, Gross Alpha												
Radioactivity, Gross Beta												
Radium-226 + Radium-228												
Radon												
Selenium	170 (2)	11,000 (2)				5.0 (135)		(135,136)				
Settleable solids									(51,131)			
Silver									see page 22 (1)			
Silver cyanide												
Sodium												
Sodium azide												
Sodium cyanide												
Specific conductance (EC)												
Strontium												
Strontium-90												
Sulfate					250,000 (51,133)							
Sulfur dioxide												
Thallium	1.7 (2)	6.3 (2)								1400	40	20 (16)
Total dissolved solids (TDS)					250,000 (51,133)							
Tritium												
Turbidity									(51,131)			
Uranium												
Vanadium												
Zinc	9100 (2)	69,000 (2)			5000	see page 23 (1)		see page 23 (1)				
Zinc cyanide												
Zinc phosphide												

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS in ug/l (ppb) unless noted

INORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health (30-day Average)	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum	aquatic organism consumption only	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
Nitrite									
Odor									
Osmium tetroxide									
Oxygen, dissolved									
Ozone									
Perchlorate									
pH									
Phosphate phosphorus									
Phosphine									
Phosphorus									
Potassium bromate									
Potassium cyanide									
Potassium silver cyanide									
Radioactivity, Gross Alpha									
Radioactivity, Gross Beta									
Radium-226 + Radium-228									
Radon									
Selenium			5.0 (97,142)	20 (85,142)			71 (1,142)	290 (1,142)	
Settleable solids									
Silver				see page 22 (1,142)				1.9 (1,142)	
Silver cyanide									
Sodium									
Sodium azide									
Sodium cyanide									
Specific conductance (EC)									
Strontium									
Strontium-90									
Sulfate									
Sulfur dioxide									
Thallium	1.7 (2,143)	6.3 (2,143)				6.3 (2,143)			
Total dissolved solids (TDS)									
Tritium									
Turbidity									
Uranium									
Vanadium									
Zinc			see page 23 (1,142)	see page 23 (1,142)			81 (1,142)	90 (1,142)	
Zinc cyanide									
Zinc phosphide									

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS in ug/l (ppb) unless noted

INORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average)	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	aquatic organism consumption only	6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Nitrite													
Odor													
Osmium tetroxide													
Oxygen, dissolved													
Ozone													
Perchlorate													
pH						6.0 to 9.0 units (117)				6.5 to 8.5 units (51,132)			
Phosphate phosphorus							(141)						
Phosphine													
Phosphorus										0.1 (51,79)			
Potassium bromate													
Potassium cyanide													
Potassium silver cyanide													
Radioactivity, Gross Alpha													
Radioactivity, Gross Beta													
Radium-226 + Radium-228													
Radon													
Selenium		15			60	150	71 (1)		290 (1)				
Settleable solids			1000 (117)	1500 (117)		3000 (117)							
Silver		0.7			2.8	7				1.9 (1)			
Silver cyanide													
Sodium													
Sodium azide													
Sodium cyanide													
Specific conductance (EC)													
Strontium													
Strontium-90													
Sulfate													
Sulfur dioxide													
Thallium	14										2130		
Total dissolved solids (TDS)													
Tritium													
Turbidity			75 NTU (117)	100 NTU (117)		225 NTU (117)							
Uranium													
Vanadium													
Zinc		20			80	200	81 (1)		90 (1)				
Zinc cyanide													
Zinc phosphide													

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS in ug/l (ppb) unless noted

INORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
Nitrite	14797-65-0	NO2-		
Odor				
Osmium tetroxide	20816-12-0	OsO4		
Oxygen, dissolved	7782447	Dissolved Oxygen	O2	DO
Ozone	10028-15-6	O3		
Perchlorate		ClO4-		
pH		negative log of H+ concentration		
Phosphate phosphorus				
Phosphine	7803-51-2	Hydrogen phosphide		
Phosphorus	7723-14-0	P		
Potassium bromate	7758012			
Potassium cyanide	151-50-8	Cyanide, potassium		
Potassium silver cyanide	506-61-6	Silver potassium cyanide		
Radioactivity, Gross Alpha		Gross Alpha radioactivity		
Radioactivity, Gross Beta		Gross Beta radioactivity		
Radium-226 + Radium-228	7440-14-4	226Ra + 228Ra		
Radon	14859-67-7	Rn		
Selenium	7782-49-2	Se		
Settleable solids				
Silver	7440-22-4	Ag		
Silver cyanide	506-64-9	Cyanide, silver		
Sodium	7440-23-5	Na		
Sodium azide	26628-22-8	Azide, sodium		
Sodium cyanide	143-33-9	Cyanide, sodium		
Specific conductance (EC)		Electrical Conductivity	Conductivity	EC
Strontium	7440-24-6	Sr		
Strontium-90		^{90}Sr		
Sulfate		SO4=		
Sulfur dioxide	7446095			
Thallium	7440-28-0	Th		
Total dissolved solids (TDS)		TDS		
Tritium	10028-17-8	^{3}H		
Turbidity				
Uranium	7440-61-1	U		
Vanadium	7440-62-2	V		
Zinc	7440-66-6	Zn		
Zinc cyanide	557-21-1	Cyanide, zinc		
Zinc phosphide	1314-84-7			

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS
FRESHWATER AQUATIC LIFE - AMMONIA

USEPA National Ambient Water Quality Criteria to Protect Freshwater Aquatic Life

Total Ammonia Nitrogen

Continuous Concentration, 30-day Avg. (mg N/L)‡

pH	Fish Early Life Stages Present — Temperature, C									
	0	14	16	18	20	22	24	26	28	30
6.5	6.67	6.67	6.06	5.33	4.68	4.12	3.62	3.18	2.80	2.46
6.6	6.57	6.57	5.97	5.25	4.61	4.05	3.56	3.13	2.75	2.42
6.7	6.44	6.44	5.86	5.15	4.52	3.98	3.50	3.07	2.70	2.37
6.8	6.29	6.29	5.72	5.03	4.42	3.89	3.42	3.00	2.64	2.32
6.9	6.12	6.12	5.56	4.89	4.30	3.78	3.32	2.92	2.57	2.25
7.0	5.91	5.91	5.37	4.72	4.15	3.65	3.21	2.82	2.48	2.18
7.1	5.67	5.67	5.15	4.53	3.98	3.50	3.08	2.70	2.38	2.09
7.2	5.39	5.39	4.90	4.31	3.78	3.33	2.92	2.57	2.26	1.99
7.3	5.08	5.08	4.61	4.06	3.57	3.13	2.76	2.42	2.13	1.87
7.4	4.73	4.73	4.30	3.78	3.32	2.92	2.57	2.26	1.98	1.74
7.5	4.36	4.36	3.97	3.49	3.06	2.69	2.37	2.08	1.83	1.61
7.6	3.98	3.98	3.61	3.18	2.79	2.45	2.16	1.90	1.67	1.47
7.7	3.58	3.58	3.25	2.86	2.51	2.21	1.94	1.71	1.50	1.32
7.8	3.18	3.18	2.89	2.54	2.23	1.96	1.73	1.52	1.33	1.17
7.9	2.80	2.80	2.54	2.24	1.96	1.73	1.52	1.33	1.17	1.03
8.0	2.43	2.43	2.21	1.94	1.71	1.50	1.32	1.16	1.02	0.897
8.1	2.10	2.10	1.91	1.68	1.47	1.29	1.14	1.00	0.879	0.773
8.2	1.79	1.79	1.63	1.43	1.26	1.11	0.973	0.855	0.752	0.661
8.3	1.52	1.52	1.39	1.22	1.07	0.941	0.827	0.727	0.639	0.562
8.4	1.29	1.29	1.17	1.03	0.906	0.796	0.700	0.615	0.541	0.475
8.5	1.09	1.09	0.990	0.870	0.765	0.672	0.591	0.520	0.457	0.401
8.6	0.920	0.920	0.836	0.735	0.646	0.568	0.499	0.439	0.386	0.339
8.7	0.778	0.778	0.707	0.622	0.547	0.480	0.422	0.371	0.326	0.287
8.8	0.661	0.661	0.601	0.528	0.464	0.408	0.359	0.315	0.277	0.244
8.9	0.565	0.565	0.513	0.451	0.397	0.349	0.306	0.269	0.237	0.208
9.0	0.486	0.486	0.442	0.389	0.342	0.300	0.264	0.232	0.204	0.179

pH	Fish Early Life Stages Absent — Temperature, C									
	0 - 7	8	9	10	11	12	13	14	15 †	16 †
6.5	10.8	10.1	9.51	8.92	8.36	7.84	7.35	6.89	6.46	6.06
6.6	10.7	9.99	9.37	8.79	8.24	7.72	7.24	6.79	6.36	5.97
6.7	10.5	9.81	9.20	8.62	8.08	7.58	7.11	6.66	6.25	5.86
6.8	10.2	9.58	8.98	8.42	7.90	7.40	6.94	6.51	6.10	5.72
6.9	9.93	9.31	8.73	8.19	7.68	7.20	6.75	6.33	5.93	5.56
7.0	9.60	9.00	8.43	7.91	7.41	6.95	6.52	6.11	5.73	5.37
7.1	9.20	8.63	8.09	7.58	7.11	6.67	6.25	5.86	5.49	5.15
7.2	8.75	8.20	7.69	7.21	6.76	6.34	5.94	5.57	5.22	4.90
7.3	8.24	7.73	7.25	6.79	6.37	5.97	5.60	5.25	4.92	4.61
7.4	7.69	7.21	6.76	6.33	5.94	5.57	5.22	4.89	4.59	4.30
7.5	7.09	6.64	6.23	5.84	5.48	5.13	4.81	4.51	4.23	3.97
7.6	6.46	6.05	5.67	5.32	4.99	4.68	4.38	4.11	3.85	3.61
7.7	5.81	5.45	5.11	4.79	4.49	4.21	3.95	3.70	3.47	3.25
7.8	5.17	4.84	4.54	4.26	3.99	3.74	3.51	3.29	3.09	2.89
7.9	4.54	4.26	3.99	3.74	3.51	3.29	3.09	2.89	2.71	2.54
8.0	3.95	3.70	3.47	3.26	3.05	2.86	2.68	2.52	2.36	2.21
8.1	3.41	3.19	2.99	2.81	2.63	2.47	2.31	2.17	2.03	1.91
8.2	2.91	2.73	2.56	2.40	2.25	2.11	1.98	1.85	1.74	1.63
8.3	2.47	2.32	2.18	2.04	1.91	1.79	1.68	1.58	1.48	1.39
8.4	2.09	1.96	1.84	1.73	1.62	1.52	1.42	1.33	1.25	1.17
8.5	1.77	1.66	1.55	1.46	1.37	1.28	1.20	1.13	1.06	0.990
8.6	1.49	1.40	1.31	1.23	1.15	1.08	1.01	0.951	0.892	0.836
8.7	1.26	1.18	1.11	1.04	0.976	0.915	0.858	0.805	0.754	0.707
8.8	1.07	1.01	0.944	0.885	0.829	0.778	0.729	0.684	0.641	0.601
8.9	0.917	0.860	0.806	0.756	0.709	0.664	0.623	0.584	0.548	0.513
9.0	0.790	0.740	0.694	0.651	0.610	0.572	0.536	0.503	0.471	0.442

pH	Maximum Concentration 1-hour Avg. (mg N/L)	
	Salmonids Present	Salmonids Absent
6.5	32.6	48.8
6.6	31.3	46.8
6.7	29.8	44.6
6.8	28.0	42.0
6.9	26.2	39.2
7.0	24.1	36.1
7.1	21.9	32.9
7.2	19.7	29.5
7.3	17.5	26.2
7.4	15.3	23.0
7.5	13.3	19.9
7.6	11.4	17.0
7.7	9.64	14.4
7.8	8.11	12.1
7.9	6.77	10.1
8.0	5.62	8.41
8.1	4.64	6.95
8.2	3.83	5.73
8.3	3.15	4.71
8.4	2.59	3.88
8.5	2.14	3.20
8.6	1.77	2.65
8.7	1.47	2.20
8.8	1.23	1.84
8.9	1.04	1.56
9.0	0.885	1.32

Notes:

† At 15 C and above, the criterion for fish early life stages absent is the same as the criterion for fish early life stages present.

‡ In addition, the highest four-day average within the 30-day period should not exceed 2.5 times the Criteria Continuous Concentration shown in the above table.

Criteria Continuous Concentration

30-day average total ammonia nitrogen (in mg N/L) ‡

when fish early life stages are present:

$$CCC = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) \times MIN\left(2.85, 1.45\times 10^{0.028\times(25-T)}\right)$$

when fish early life stages are absent:

$$CCC = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) \times 1.45\times 10^{0.028\times(25-MAX(T,7))}$$

where T = temperature in degrees C

Criteria Maximum Concentration

1-hour average total ammonia nitrogen (in mg N/L)

where salmonid fish are present:

$$CMC = \frac{0.275}{1+10^{7.204-pH}} + \frac{39.0}{1+10^{pH-7.204}}$$

where salmonid fish are not present:

$$CMC = \frac{0.411}{1+10^{7.204-pH}} + \frac{58.4}{1+10^{pH-7.204}}$$

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS
SALTWATER AQUATIC LIFE - AMMONIA

USEPA National Ambient Water Quality Criteria to Protect Saltwater Aquatic Life
Total Ammonia

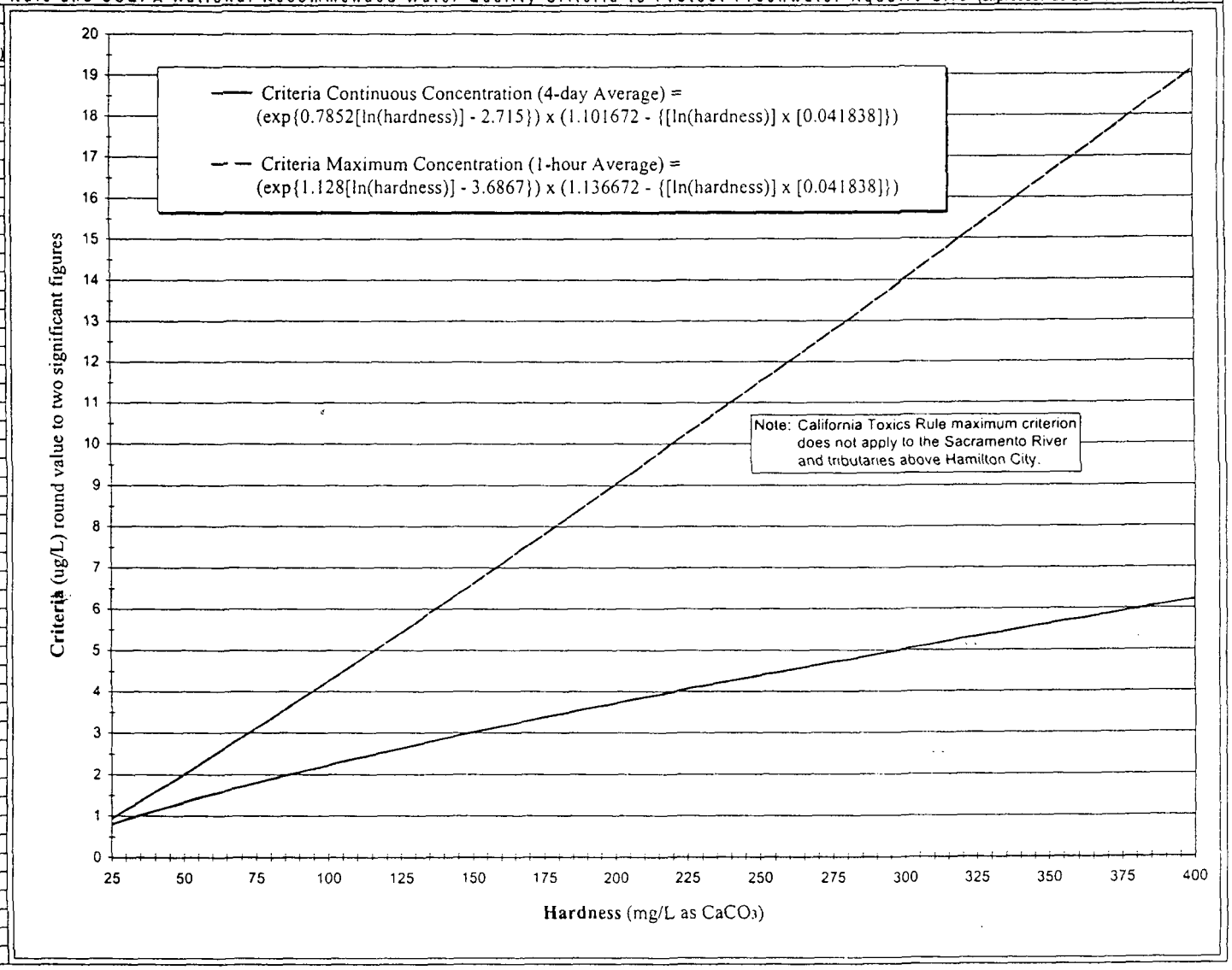
pH	Criteria Continuous Concentrations, 4-day Avg. (mg/L) Temperature, C								Criteria Maximum Concentrations, 1-hour Avg. (mg/L) Temperature, C								pH
	0	5	10	15	20	25	30	35	0	5	10	15	20	25	30	35	
	Salinity = 10 g/kg								**Salinity = 10 g/kg**								
7.0	41	29	20	14	9.4	6.6	4.4	3.1	270	191	131	92	62	44	29	21	7.0
7.2	26	18	12	8.7	5.9	4.1	2.8	2.0	175	121	83	58	40	27	19	13	7.2
7.4	17	12	7.8	5.3	3.7	2.6	1.8	1.2	110	77	52	35	25	14	12	8.3	7.4
7.6	10	7.2	5.0	3.4	2.4	1.7	1.2	0.84	69	48	33	23	16	11	7.7	5.6	7.6
7.8	6.6	4.7	3.1	2.2	1.5	1.1	0.75	0.53	44	31	21	15	10	7.1	5.0	3.5	7.8
8.0	4.1	2.9	2.0	1.40	0.97	0.69	0.47	0.34	27	19	13	9.4	6.4	4.6	3.1	2.3	8.0
8.2	2.7	1.8	1.3	0.87	0.62	0.44	0.31	0.23	18	12	8.5	5.8	4.2	2.9	2.1	1.5	8.2
8.4	1.7	1.2	0.81	0.56	0.41	0.29	0.21	0.16	11	7.9	5.4	3.7	2.7	1.9	1.4	1.0	8.4
8.6	1.1	0.75	0.53	0.37	0.27	0.20	0.15	0.11	7.3	5.0	3.5	2.5	1.8	1.3	0.98	0.75	8.6
8.8	0.69	0.50	0.34	0.25	0.18	0.14	0.11	0.08	4.6	3.3	2.3	1.7	1.2	0.92	0.71	0.56	8.8
9.0	0.44	0.31	0.23	0.17	0.13	0.10	0.08	0.07	2.9	2.1	1.5	1.1	0.85	0.67	0.52	0.44	9.0
	Salinity = 20 g/kg								**Salinity = 20 g/kg**								
7.0	44	30	21	14	9.7	6.6	4.7	3.1	291	200	137	96	64	44	31	21	7.0
7.2	27	19	13	9.0	6.2	4.4	3.0	2.1	183	125	87	60	42	29	20	14	7.2
7.4	18	12	8.1	5.6	4.1	2.7	1.9	1.3	116	79	54	37	27	18	12	8.7	7.4
7.6	11	7.5	5.3	3.4	2.5	1.7	1.2	0.84	73	50	35	23	17	11	7.9	5.6	7.6
7.8	6.9	4.7	3.4	2.3	1.6	1.1	0.78	0.53	46	31	23	15	11	7.5	5.2	3.5	7.8
8.0	4.4	3.0	2.1	1.5	1.0	0.72	0.50	0.34	29	20	14	9.8	6.7	4.8	3.3	2.3	8.0
8.2	2.8	1.9	1.3	0.94	0.66	0.47	0.31	0.24	19	13	8.9	6.2	4.4	3.1	2.1	1.6	8.2
8.4	1.8	1.2	0.84	0.59	0.44	0.30	0.22	0.16	12	8.1	5.6	4.0	2.9	2.0	1.5	1.1	8.4
8.6	1.1	0.78	0.56	0.41	0.28	0.20	0.15	0.12	7.5	5.2	3.7	2.7	1.9	1.4	1.0	0.77	8.6
8.8	0.72	0.50	0.37	0.26	0.19	0.14	0.11	0.08	4.8	3.3	2.5	1.7	1.3	0.94	0.73	0.56	8.8
9.0	0.47	0.34	0.24	0.18	0.13	0.10	0.08	0.07	3.1	2.3	1.6	1.2	0.87	0.69	0.54	0.44	9.0
	Salinity = 30 g/kg								**Salinity = 30 g/kg**								
7.0	47	31	22	15	11	7.2	5.0	3.4	312	208	148	102	71	48	33	23	7.0
7.2	29	20	14	9.7	6.6	4.7	3.1	2.2	196	135	94	64	44	31	21	15	7.2
7.4	19	13	8.7	5.6	4.1	2.9	2.0	1.4	125	85	58	40	27	19	13	9.4	7.4
7.6	12	8.1	5.6	3.7	3.1	1.8	1.3	0.90	79	54	37	25	21	12	8.5	6.0	7.6
7.8	7.5	5.0	3.4	2.4	1.7	1.2	0.81	0.56	50	33	23	16	11	7.9	5.4	3.7	7.8
8.0	4.7	3.1	2.2	1.6	1.1	0.75	0.53	0.37	31	21	15	10	7.3	5.0	3.5	2.5	8.0
8.2	3.0	2.1	1.4	1.0	0.69	0.50	0.34	0.25	20	14	9.6	6.7	4.6	3.3	2.3	1.7	8.2
8.4	1.9	1.3	0.90	0.62	0.44	0.31	0.23	0.17	12.7	8.7	6.0	4.2	2.9	2.1	1.6	1.1	8.4
8.6	1.2	0.84	0.59	0.41	0.30	0.22	0.16	0.12	8.1	5.6	4.0	2.7	2.0	1.4	1.1	0.81	8.6
8.8	0.78	0.53	0.37	0.27	0.20	0.15	0.11	0.09	5.2	3.5	2.5	1.8	1.3	1.0	0.75	0.58	8.8
9.0	0.50	0.34	0.26	0.19	0.14	0.11	0.08	0.07	3.3	2.3	1.7	1.2	0.94	0.71	0.56	0.46	9.0

metals - less toxicity if complexed happens when hardness is higher

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS
FRESHWATER AQUATIC LIFE - CADMIUM

California Toxics Rule and USEPA National Recommended Water Quality Criteria to Protect Freshwater Aquatic Life (expressed as dissolved metal)

Hardness (mg/L as $CaCO_3$)	Cadmium	
	Continuous Conc. 4-day Avg. (ug/L)	Maximum Conc. 1-hour Avg. (ug/L)
< 25	use formula	use formula
25	0.80	0.95
30	0.92	1.2
35	1.0	1.4
40	1.1	1.6
45	1.2	1.8
50	1.3	2.0
55	1.4	2.2
60	1.5	2.5
65	1.6	2.7
70	1.7	2.9
75	1.8	3.1
80	1.9	3.3
85	2.0	3.6
90	2.1	3.8
95	2.2	4.0
100	2.2	4.3
110	2.4	4.7
120	2.6	5.2
130	2.7	5.7
140	2.9	6.1
150	3.0	6.6
160	3.2	7.1
170	3.3	7.6
180	3.5	8.1
190	3.6	8.5
200	3.7	9.0
210	3.9	9.5
220	4.0	10
230	4.1	11
240	4.3	11
250	4.4	12
260	4.5	12
270	4.7	12
280	4.8	13
290	4.9	14
300	5.0	14
310	5.2	15
320	5.3	15
330	5.4	16
340	5.5	16
350	5.6	17
360	5.8	17
370	5.9	18
380	6.0	18
390	6.1	19
400	6.2	19
> 400	6.2	19

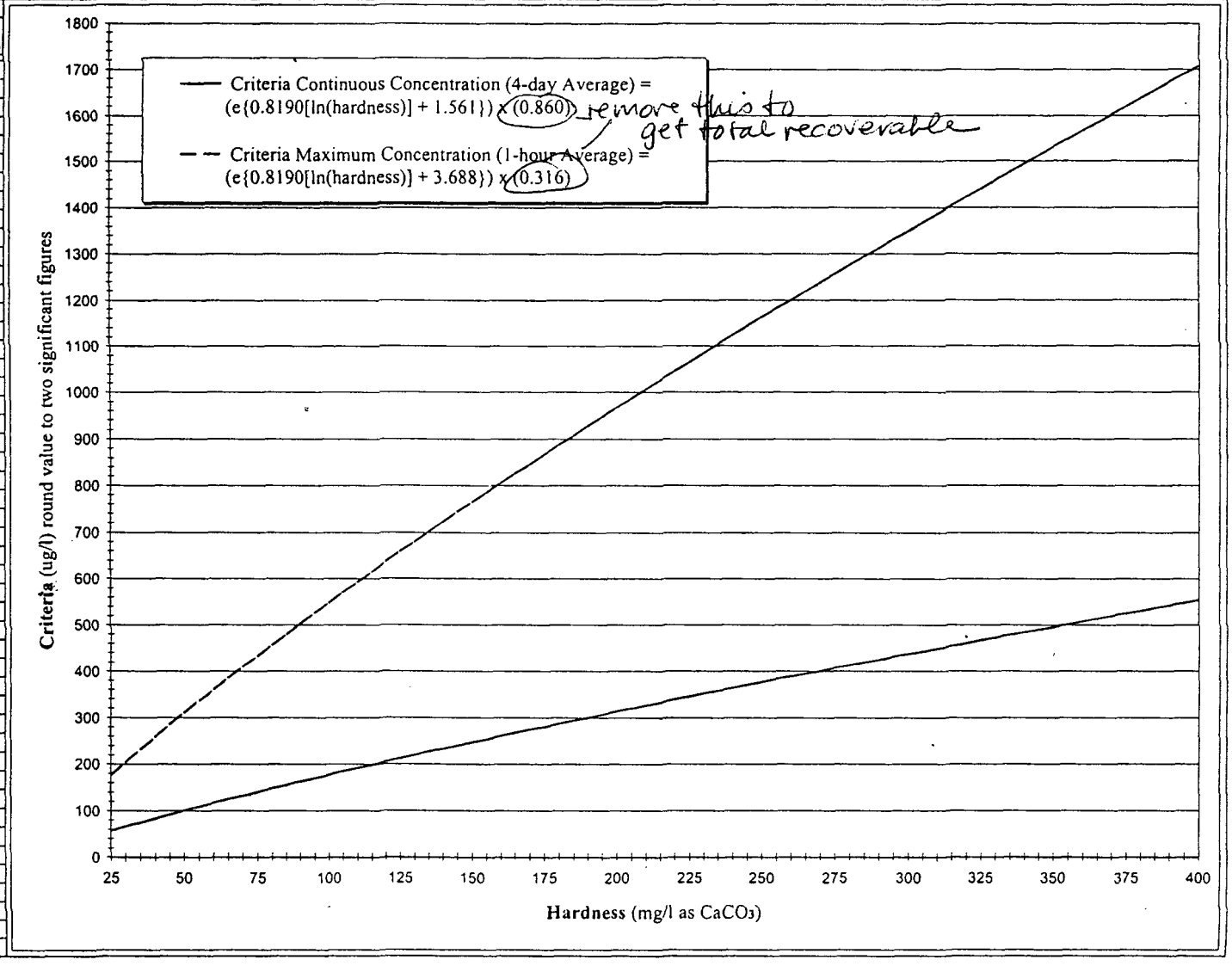


promulgated

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS
FRESHWATER AQUATIC LIFE - CHROMIUM (III)

National Toxics Rule Criteria to Protect Freshwater Aquatic Life in California Waters (expressed as dissolved metal)

Hardness (mg/l as CaCO3)	Chromium (III) Continuous Conc. 4-day Avg. (ug/l)	Chromium (III) Maximum Conc. 1-hour Avg. (ug/l)
< 25	use formula	use formula
25	57	180
30	66	200
35	75	230
40	84	260
45	93	290
50	100	310
55	110	340
60	120	360
65	130	390
70	130	410
75	140	430
80	150	460
85	160	480
90	160	500
95	170	530
100	180	550
110	190	590
120	210	640
130	220	680
140	230	720
150	250	760
160	260	810
170	270	850
180	290	890
190	300	930
200	310	970
210	330	1000
220	340	1000
230	350	1100
240	360	1100
250	380	1200
260	390	1200
270	400	1200
280	410	1300
290	430	1300
300	440	1300
310	450	1400
320	460	1400
330	470	1500
340	480	1500
350	500	1500
360	510	1600
370	520	1600
380	530	1600
390	540	1700
400	550	1700
> 400	550	1700

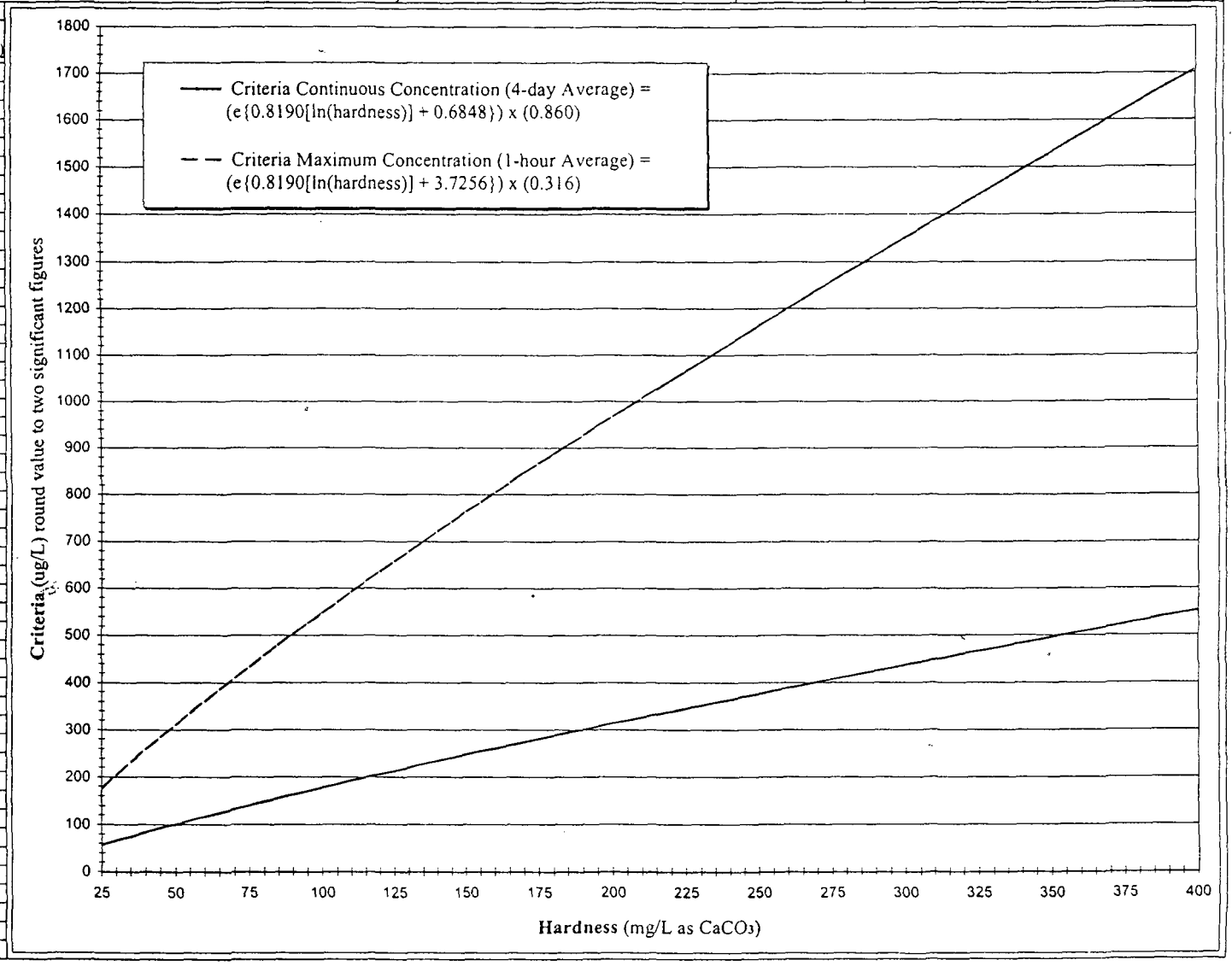


Now recommended

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS
FRESHWATER AQUATIC LIFE - CHROMIUM (III)

USEPA National Recommended Water Quality Criteria to Protect Freshwater Aquatic Life (expressed as dissolved metal)

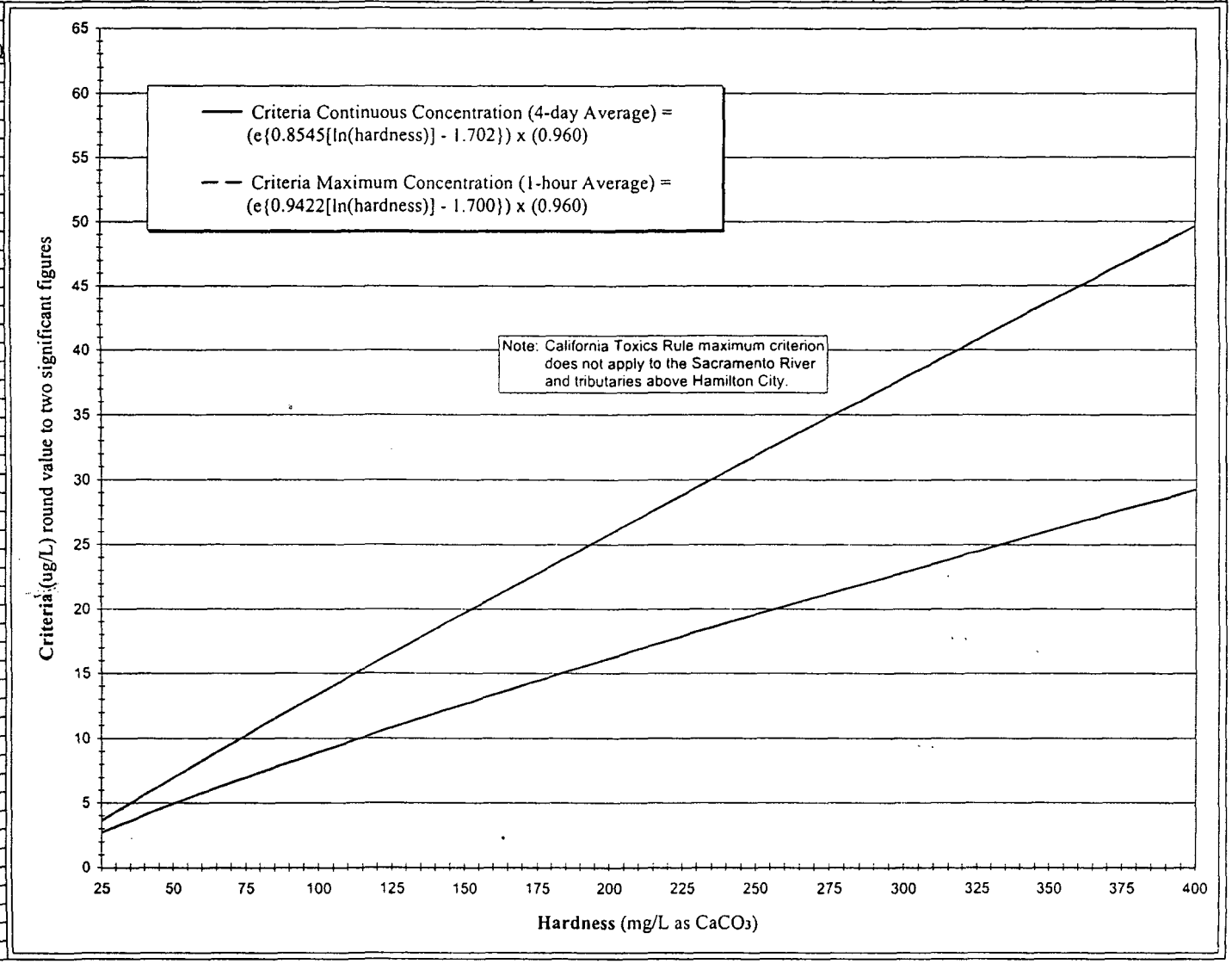
Hardness (mg/L as $CaCO_3$)	Chromium (III) Continuous Conc. 4-day Avg. (ug/L)	Chromium (III) Maximum Conc. 1-hour Avg. (ug/L)
< 25	use formula	use formula
25	24	180
30	28	210
35	31	240
40	35	270
45	39	300
50	42	320
55	45	350
60	49	370
65	52	400
70	55	430
75	59	450
80	62	470
85	65	500
90	68	520
95	71	550
100	74	570
110	80	620
120	86	660
130	92	710
140	98	750
150	100	790
160	110	840
170	110	880
180	120	920
190	130	960
200	130	1000
210	140	1000
220	140	1100
230	150	1100
240	150	1200
250	160	1200
260	160	1200
270	170	1300
280	170	1300
290	180	1400
300	180	1400
310	190	1400
320	190	1500
330	200	1500
340	200	1600
350	210	1600
360	210	1600
370	220	1700
380	220	1700
390	230	1700
400	230	1800
> 400	230	1800



WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS
FRESHWATER AQUATIC LIFE - COPPER

California Toxics Rule and USEPA National Recommended Water Quality Criteria to Protect Freshwater Aquatic Life (expressed as dissolved metal)

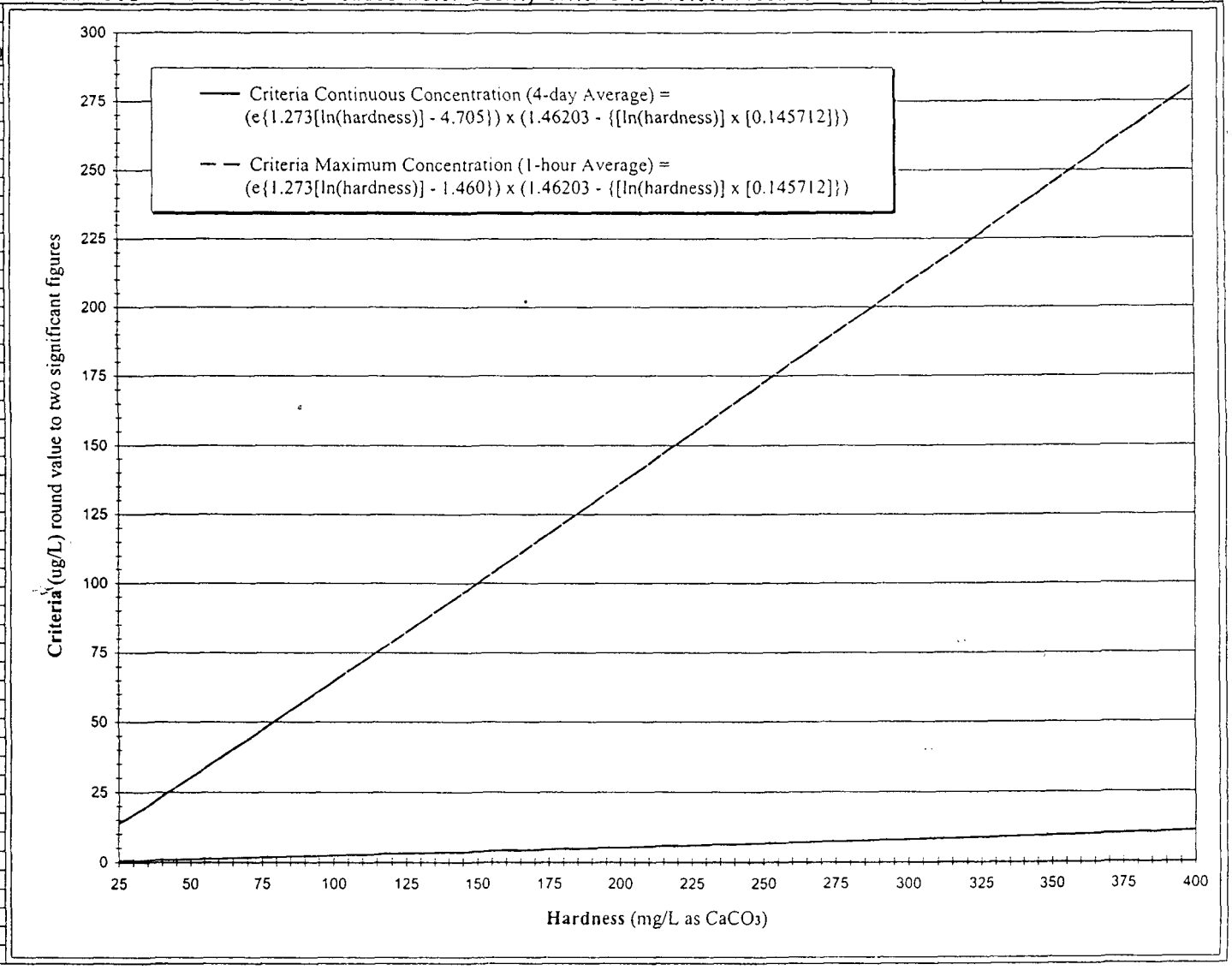
Hardness (mg/L as CaCO3)	Copper	
	Continuous Conc. 4-day Avg. (ug/L)	Maximum Conc. 1-hour Avg. (ug/L)
< 25	use formula	use formula
25	2.7	3.6
30	3.2	4.3
35	3.7	5.0
40	4.1	5.7
45	4.5	6.3
50	5.0	7.0
55	5.4	7.7
60	5.8	8.3
65	6.2	9.0
70	6.6	9.6
75	7.0	10
80	7.4	11
85	7.8	12
90	8.2	12
95	8.6	13
100	9.0	13
110	9.7	15
120	11	16
130	11	17
140	12	19
150	13	20
160	13	21
170	14	22
180	15	23
190	16	25
200	16	26
210	17	27
220	18	28
230	18	30
240	19	31
250	20	32
260	20	33
270	21	34
280	22	36
290	22	37
300	23	38
310	24	39
320	24	40
330	25	41
340	26	43
350	26	44
360	27	45
370	27	46
380	28	47
390	29	48
400	29	50
> 400	29	50



WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS
FRESHWATER AQUATIC LIFE - LEAD

California Toxics Rule and USEPA National Recommended Water Quality Criteria to Protect Freshwater Aquatic Life (expressed as dissolved metal)

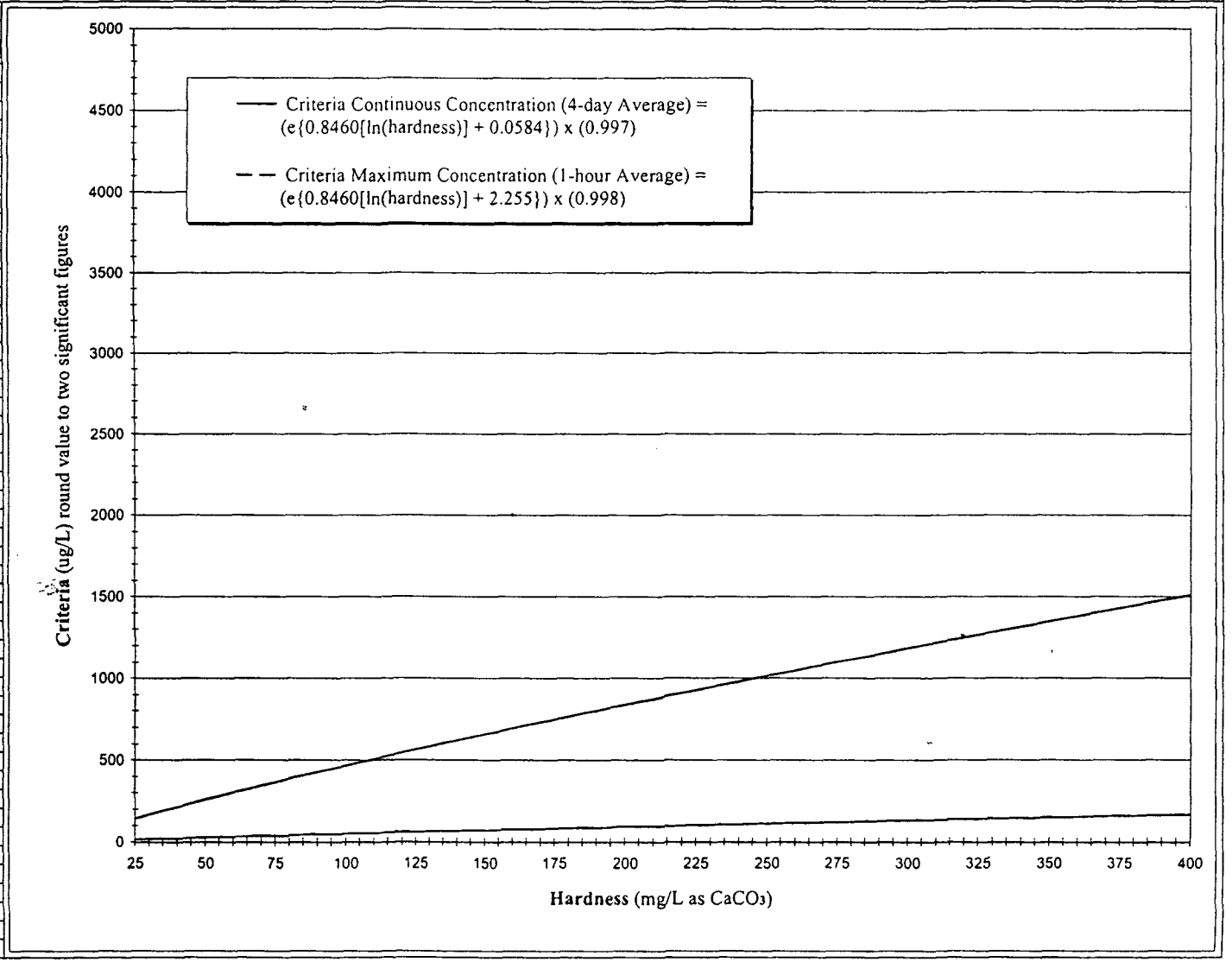
Hardness (mg/L as $CaCO_3$)	Lead	
	Continuous Conc. 4-day Avg. (ug/L)	Maximum Conc. 1-hour Avg. (ug/L)
< 25	use formula	use formula
25	0.54	14
30	0.66	17
35	0.79	20
40	0.92	24
45	1.0	27
50	1.2	30
55	1.3	33
60	1.4	37
65	1.6	40
70	1.7	44
75	1.8	47
80	2.0	51
85	2.1	54
90	2.2	58
95	2.4	61
100	2.5	65
110	2.8	72
120	3.1	79
130	3.3	86
140	3.6	93
150	3.9	100
160	4.2	110
170	4.5	110
180	4.7	120
190	5.0	130
200	5.3	140
210	5.6	140
220	5.9	150
230	6.2	160
240	6.4	170
250	6.7	170
260	7.0	180
270	7.3	190
280	7.6	190
290	7.8	200
300	8.1	210
310	8.4	220
320	8.7	220
330	9.0	230
340	9.3	240
350	9.5	240
360	9.8	250
370	10	260
380	10	270
390	11	270
400	11	280
> 400	11	280



WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS
FRESHWATER AQUATIC LIFE - NICKEL

California Toxics Rule and USEPA National Recommended Water Quality Criteria to Protect Freshwater Aquatic Life (expressed as dissolved metal)

Hardness (mg/L as $CaCO_3$)	Nickel	
	Continuous Conc. 4-day Avg. (ug/L)	Maximum Conc. 1-hour Avg. (ug/L)
< 25	use formula	use formula
25	16	140
30	19	170
35	21	190
40	24	220
45	26	240
50	29	260
55	31	280
60	34	300
65	36	330
70	38	350
75	41	370
80	43	390
85	45	410
90	48	430
95	50	450
100	52	470
110	56	510
120	61	550
130	65	580
140	69	620
150	73	660
160	77	700
170	81	730
180	86	770
190	90	810
200	93	840
210	97	880
220	100	910
230	110	950
240	110	980
250	110	1000
260	120	1100
270	120	1100
280	120	1100
290	130	1200
300	130	1200
310	140	1200
320	140	1300
330	140	1300
340	150	1300
350	150	1400
360	150	1400
370	160	1400
380	160	1400
390	160	1500
400	170	1500
> 400	170	1500



WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS
FRESHWATER AQUATIC LIFE - OXYGEN, DISSOLVED

	USEPA National Ambient Water Quality Criteria to Protect Freshwater Aquatic Life — Dissolved Oxygen (mg/L)				
	Coldwater Criteria			Warmwater Criteria	
	Early Life Stages (a,b)		Other Life Stages	Early Life Stages (b)	Other Life Stages
	Water Column	Intergravel			
30-Day Mean	Not Applicable	Not Applicable	6.5	Not Applicable	5.5
7-Day Mean	9.5	6.5	Not Applicable	6.0	Not Applicable
7-Day Mean Minimum	Not Applicable	Not Applicable	5.0	Not Applicable	4.0
1-Day Minimum (c)	8.0	5.0	3.0	5.0	3.0

Notes:

(a) The water column concentrations are recommended to achieve the required intergravel dissolved oxygen concentrations. For species that have early life stages exposed directly to the water column, the intergravel concentrations apply.

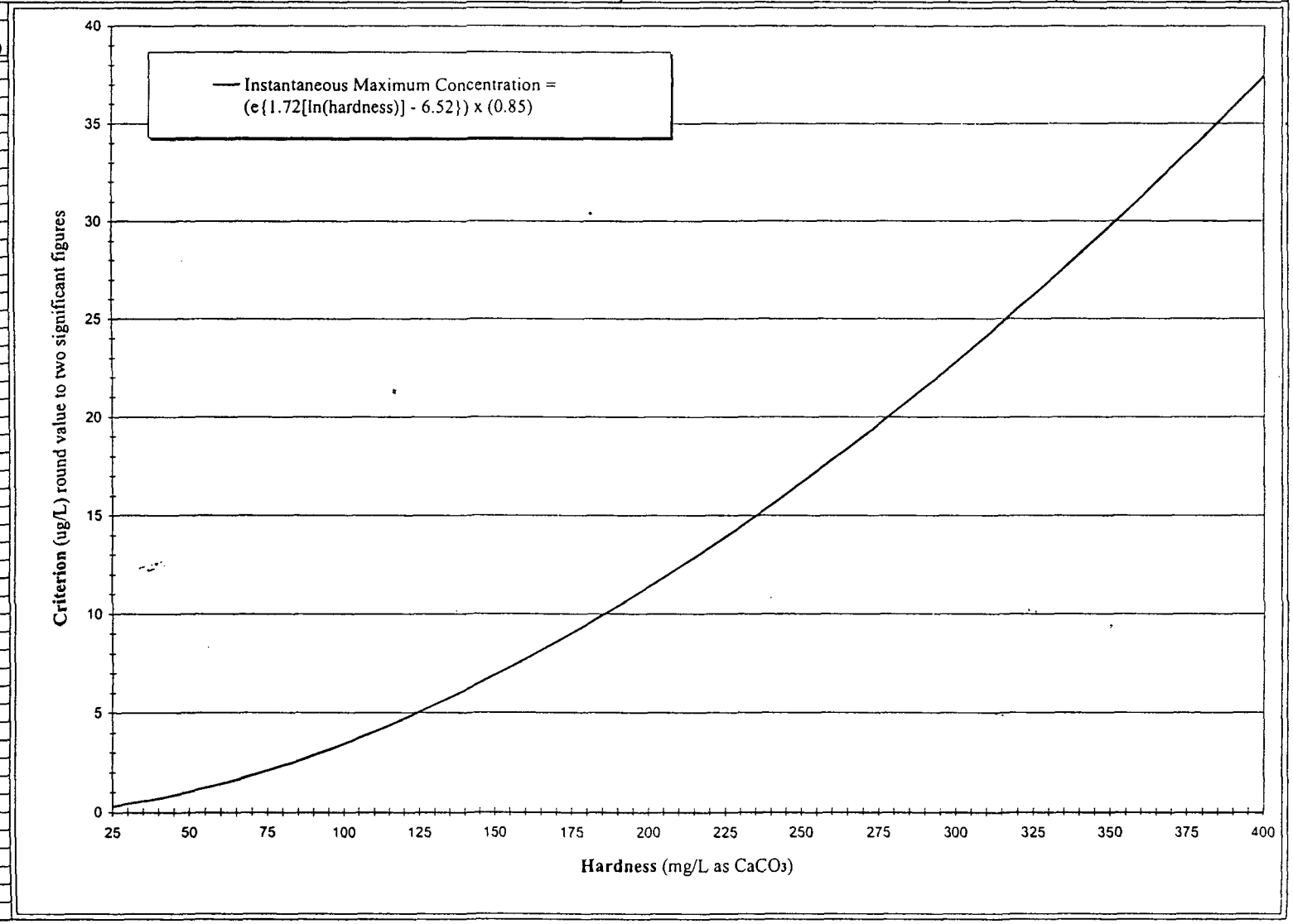
(b) Includes all embryonic and larval stages and all juvenile forms to 30-days following hatching.

(c) For reservoirs or other manipulable discharges, the application of the one day minimum criterion must limit either the frequency of occurrence of values below the acceptable 7-day mean minimum or must impose further limits on the extent of excursions below the 7-day mean minimum. For such controlled discharges, it is recommended that the occurrence of the daily minima below the acceptable 7-day mean mimimum be limited to 3 weeks per year or that the acceptable one-day minimum be increased to 4.0 mg/L for coldwater fish and 3.5 mg/L for warmwater fish.

WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS
FRESHWATER AQUATIC LIFE - SILVER

California Toxics Rule and USEPA National Recommended Water Quality Criteria to Protect Freshwater Aquatic Life (expressed as dissolved metal)

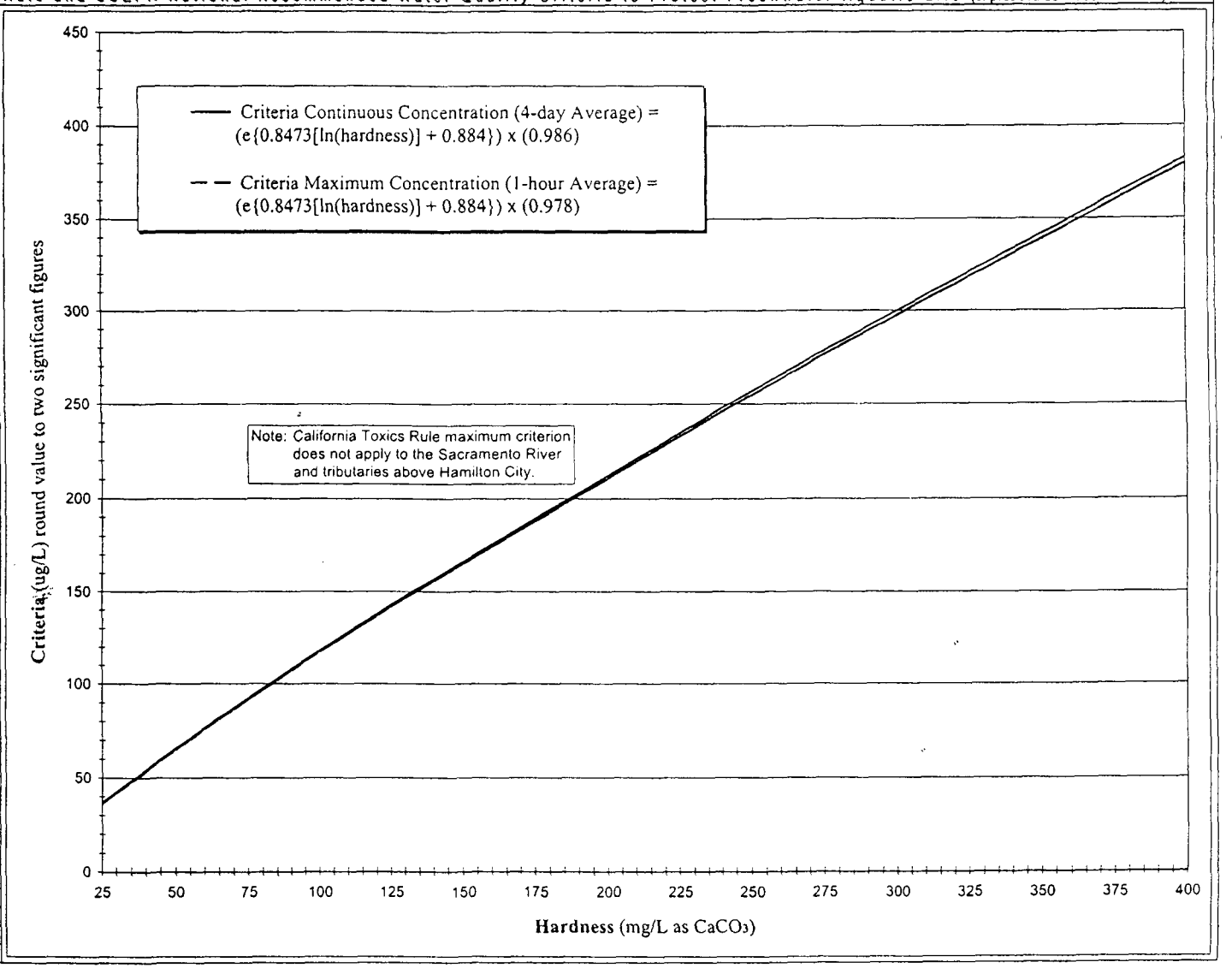
Hardness (mg/L as $CaCO_3$)	Silver Instantaneous Maximum (ug/L)
< 25	use formula
25	0.32
30	0.43
35	0.57
40	0.71
45	0.87
50	1.0
55	1.2
60	1.4
65	1.6
70	1.9
75	2.1
80	2.4
85	2.6
90	2.9
95	3.2
100	3.4
110	4.1
120	4.7
130	5.4
140	6.2
150	6.9
160	7.7
170	8.6
180	9.5
190	10
200	11
210	12
220	13
230	14
240	16
250	17
260	18
270	19
280	20
290	22
300	23
310	24
320	26
330	27
340	28
350	30
360	31
370	33
380	34
390	36
400	37
> 400	37



WATER QUALITY GOALS FOR INORGANIC CONSTITUENTS
FRESHWATER AQUATIC LIFE - ZINC

California Toxics Rule and USEPA National Recommended Water Quality Criteria to Protect Freshwater Aquatic Life (expressed as dissolved metal)

Hardness (mg/L as CaCO3)	Zinc	
	Continuous Conc. 4-day Avg. (ug/L)	Maximum Conc. 1-hour Avg. (ug/L)
< 25	use formula	use formula
25	36	36
30	43	42
35	49	48
40	54	54
45	60	60
50	66	65
55	71	71
60	77	76
65	82	81
70	87	87
75	93	92
80	98	97
85	100	100
90	110	110
95	110	110
100	120	120
110	130	130
120	140	140
130	150	150
140	160	160
150	170	170
160	180	170
170	190	180
180	190	190
190	200	200
200	210	210
210	220	220
220	230	230
230	240	240
240	250	250
250	260	250
260	270	260
270	270	270
280	280	280
290	290	290
300	300	300
310	310	310
320	320	310
330	320	320
340	330	330
350	340	340
360	350	350
370	360	360
380	370	360
390	370	370
400	380	380
> 400	380	380



WATER QUALITY GOALS
FOR
ORGANIC CONSTITUENTS

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
A-alpha-C									
Acenaphthene									
Acenaphthylene									
Acephate									
Acetaldehyde									34 (126)
Acetamide									
Acetic acid									97,000 (126)
Acetochlor									
Acetone									20,000 (126)
Acetonitrile									300,000 (126)
Acetophenone									
2-Acetylaminofluorene									
Acetylene									670 (126)
Acifluorfen					zero (68)				
Acrolein									110 (126)
Acrylamide			(105)		zero				
Acrylic acid									
Acrylonitrile									9100 (126)
Actinomycin D									
AF-2									
Aflatoxins									
Alachlor	2		2		zero	4			
Aldicarb			7 (148)		7 (148)		7		
Aldicarb sulfone			7 (148)		7 (148)				
Aldicarb sulfoxide			7 (148)		7 (148)				
Aldrin							0.002 #		
Allyl									
Allyl alcohol									14,000 (126)
Amdro									
Ametryn									
2-Aminoanthraquinone									
o-Aminoazotoluene									
4-Aminobiphenyl									
3-Amino-9-ethylcarbazole hydrochloride									
1-Amino-2-methylanthraquinone									
2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole									
Amitraz									
Amitrole									
n-Amyl acetate									37 (126)
Aniline									65,000 (126)
o-Anisidine									
o-Anisidine hydrochloride									
Anthracene									
Apollo									
Aramite									
Assure									
Asulam									
Atrazine	3 / 1 (100)		3		3	0.15			
Auramine									
Avermectin B1									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
A-alpha-C				0.088				1 #	
Acenaphthene	420								
Acenaphthylene					(D)				
Acephate	2.8				4 (C)				
Acetaldehyde	280 (68)				(B2)			#	
Acetamide				0.5				5 #	
Acetic acid									
Acetochlor	140							35 # (68)	
Acetone	700				(D)				
Acetonitrile					(D)				
Acetophenone	700				(D)				
2-Acetylaminofluorene				0.0092				0.1 #	
Acetylene									
Acifluorfen	91	2000 (10-day)				1 (B2)		10 # (68)	
Acrolein					(C)				
Acrylamide	1.4	300 (10-day)		0.0078	0.008 (B2)	0.01 (B2)	0.024	0.1 #	
Acrylic acid	3500								
Acrylonitrile		20 (10-day)		0.035	0.06 (B1)	0.06 (B1)	0.38	0.35 #	
Actinomycin D				0.000004				0.00004 #R	
AF-2				0.15				1.5 #	
Aflatoxins								0.01 # (68)	
Alachlor	70	100 (10-day)	700	0.63		0.4 (B2)		4.5 # (68)	
Aldicarb	7	7	0.2 / 0.7 (7)		(D)	(D)	2.3 (21)		
Aldicarb sulfone	7	7			(D)	(D)			
Aldicarb sulfoxide		7				(D)			
Aldrin		0.3 (10-day)		0.0021	0.002 (B2)	0.002 (B2)	0.003	0.02 #	
Ally	1750								
Allyl alcohol	35			1.7	(C)				
Amdro	2.1								
Ametryn	63	60				(D)			
2-Aminoanthraquinone				1.1				10 #	
o-Aminoazotoluene				0.0092				0.1 #	
4-Aminobiphenyl				0.0017				0.015 #	
3-Amino-9-ethylcarbazole hydrochloride				0.45				4.5 #	
1-Amino-2-methylanthraquinone				0.23				2.5 #	
2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole				0.0022				0.02 #	
Amitraz	18							R	
Amitrole				0.037				0.35 #	
n-Amyl acetate									
Aniline				6.1	6 (B2)			50 #	
o-Anisidine				0.25				2.5 #	
o-Anisidine hydrochloride				0.32				3.5 #	
Anthracene	2100				(D)	(D)			
Apollo	9.1				(C)				
Aramite				1.2	1 (B2)			10 #	
Assure	63				(D)				
Asulam	350								
Atrazine	25	20	150	0.15		(C)			
Auramine				0.04				0.4 #	
Avermectin B1	2.8								

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
A-alpha-C												
Acenaphthene	1200	2700			20					1700		520 (38)
Acenaphthylene												
Acephate												
Acetaldehyde												
Acetamide												
Acetic acid												
Acetochlor												
Acetone												
Acetonitrile												
Acetophenone												
2-Acetylaminofluorene												
Acetylene												
Acifluorfen												
Acrolein	320	780								68	21	
Acrylamide												
Acrylic acid												
Acrylonitrile			0.059 / 0.055 (68)	0.66 / 4.0 (68)						7550		2600 (17)
Actinomycin D												
AF-2												
Aflatoxins												
Alachlor									76 (8)			
Aldicarb												
Aldicarb sulfone												
Aldicarb sulfoxide												
Aldrin			0.00013	0.00014					3			
Ally												
Allyl alcohol												
Amdro												
Ametryn												
2-Aminoanthraquinone												
o-Aminoazotoluene												
4-Aminobiphenyl												
3-Amino-9-ethylcarbazole hydrochloride												
1-Amino-2-methylanthraquinone												
2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole												
Amitraz												
Amitrole												
n-Amyl acetate												
Aniline						14 (68)		28 (68)				
o-Anisidine												
o-Anisidine hydrochloride												
Anthracene	9600	110,000										
Apollo												
Aramite												
Assure												
Asulam												
Atrazine						12 (68)		330 (68)	1.0 (8)			
Auramine												
Avermectin B1												

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health (30-day Average)	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum	aquatic organism consumption only	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
A-alpha-C									
Acenaphthene	1200	2700				2700			
Acenaphthylene									
Acephate									
Acetaldehyde									
Acetamide									
Acetic acid									
Acetochlor									
Acetone									
Acetonitrile									
Acetophenone									
2-Acetylaminofluorene									
Acetylene									
Acifluorfen									
Acrolein	320 (143)	780 (143)				780 (143)			
Acrylamide									
Acrylic acid									
Acrylonitrile	0.059 (113,143)	0.66 (113,143)				0.66 (113,143)			
Actinomycin D									
AF-2									
Aflatoxins									
Alachlor									
Aldicarb									
Aldicarb sulfone									
Aldicarb sulfoxide									
Aldrin	0.00013 (113)	0.00014 (113)			3	0.00014 (113)			1.3
Ally									
Allyl alcohol									
Amdro									
Ametryn									
2-Aminoanthraquinone									
o-Aminoazotoluene									
4-Aminobiphenyl									
3-Amino-9-ethylcarbazole hydrochloride									
1-Amino-2-methylanthraquinone									
2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole									
Amitraz									
Amitrole									
n-Amyl acetate									
Aniline									
o-Anisidine									
o-Anisidine hydrochloride									
Anthracene	9600	110,000				110,000			
Apollo									
Aramite									
Assure									
Asulam									
Atrazine									
Auramine									
Avermectin B1									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average)	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	aquatic organism consumption only	6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
A-alpha-C													
Acenaphthene											970	710	500 (38)
Acenaphthylene	0.0088 # (33)										300 (52)		
Acephate													
Acetaldehyde													
Acetamide													
Acetic acid													
Acetochlor													
Acetone													
Acetonitrile													
Acetophenone													
2-Acetylaminofluorene													
Acetylene													
Acifluorfen													
Acrolein	220										55		
Acrylamide													
Acrylic acid													
Acrylonitrile	0.10 #												
Actinomycin D													
AF-2													
Aflatoxins													
Alachlor													
Aldicarb													
Aldicarb sulfone													
Aldicarb sulfoxide													
Aldrin	0.000022 #									1.3			
Ally													
Allyl alcohol													
Amdro													
Ametryn													
2-Aminoanthraquinone													
o-Aminoazotoluene													
4-Aminobiphenyl													
3-Amino-9-ethylcarbazole hydrochloride													
1-Amino-2-methylanthraquinone													
2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole													
Amitraz													
Amitrole													
n-Amyl acetate													
Aniline							37 (68)		77 (68)				
o-Anisidine													
o-Anisidine hydrochloride													
Anthracene	0.0088 # (33)										300 (52)		
Apollo													
Aramite													
Assure													
Asulam													
Atrazine							11 (68)		310 (68)				
Auramine													
Avermectin B1													

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
A-alpha-C	26148-68-5	2-Amino-9H-pyrido(2,3-b)indole	2-Amino-alpha-carboline	Glob-P-2
Acenaphthene	83-32-9	1,2-Dihydroacenaphthylene		a polynuclear aromatic hydrocarbon
Acenaphthylene	208-96-8			a polynuclear aromatic hydrocarbon
Acephate	30560-19-1			
Acetaldehyde	75-07-0	Ethanal		
Acetamide	60-35-5	Acetic acid amide	Ethanamide	Methanecarboxamide
Acetic acid	64-19-7			
Acetochlor	34256-82-1			
Acetone	67-64-1	Dimethylketone		
Acetonitrile	75-05-8	Ethyl nitrile	Cyanomethane	
Acetophenone	98-86-2	Phenylmethylketone		
2-Acetylaminofluorene	53-96-3	2-AAF	2-Acetaminofluorene	2-Fluorenylacetamide
Acetylene	74-86-2	Ethyne		
Acifluorfen	62476-59-9	Blazer		
Acrolein	107-02-8			
Acrylamide	79-06-1	2-Propeneamide		
Acrylic acid	79-10-7	2-Propenoic acid		
Acrylonitrile	107-13-1	2-Propenenitrile	Vinyl cyanide	Cyanoethylene
Actinomycin D	50-76-0	Dactinomycin		
AF-2	3688-53-7	2-(2-Furyl)-3-(5-nitro-2-furyl)acrylamide	Furylamide	
Aflatoxins	1402-68-2			
Alachlor	15972-60-8	Alochlor	Lasso	Alanex
Aldicarb	116-06-3	Temik		
Aldicarb sulfone	1646-88-4			
Aldicarb sulfoxide				
Aldrin	309-00-2	1,4:5,8-Dimethanonaphthalene	Aldrosol	HHDN
Ally	74223-64-6	DPX 6376	Metasulfuron methyl ester	
Allyl alcohol	107-18-6	Propenyl alcohol		
Amdro	67485-29-4			
Ametryn	834-12-8	Ametrex		
2-Aminoanthraquinone	117-79-3			
o-Aminoazotoluene	97-56-3	4'-Amino-2,3-dimethylazobenzene		
4-Aminobiphenyl	92-67-1	4-Aminodiphenyl	4-Biphenylamine	
3-Amino-9-ethylcarbazole hydrochloride	6109-97-3	Methallyl chloride		
1-Amino-2-methylanthraquinone	82-28-0	C.I. disperse orange 11	2-Methyl-1-anthraquinonylamine	
2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole	712-68-5	Furidiazine	Thriafur	
Amitraz	33089-61-1	Imidamide		
Amitrole	61-82-5	3-Amino-1,2,4-triazole		
n-Amyl acetate	628-63-7			
Aniline	62-53-3	Aminobenzene	Benzamine	Phenylamine
o-Anisidine	90-04-0	o-Methoxyaniline	o-Amino-anisole	
o-Anisidine hydrochloride	134-29-2	o-Aminoanisole hydrochloride		
Anthracene	120-12-7			a polynuclear aromatic hydrocarbon
Apollo	74115-24-5	Bisclofentezine	Clofentezine	
Aramite	140-57-8	2-P(butylphenoxy)-1-methylethyl-2-chloroethyl sulfite	Aracide	
Assure	76578-14-8	Quinofop-ethyl		
Asulam	3337-71-1	Methyl ((4-aminophenyl)sulfonyl)carbamate		
Atrazine	1912-24-9	Aatrex	Atranex	Crisazina
Auramine	492-80-8	4,4-Dimethylaminobenzo-phenonimide		
Avermectin B1	65195-55-3	Abamectin		

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
Azaserine									
Azathioprine									
Azinphos-methyl									
Azobenzene									
Baygon							30		
Bayleton									
Baythroid									
Benefin									
Benomyl									
Bentazon	18					200			
Benzaldehyde									
Benz(a)anthracene			0.1 (100)		zero (100)				
Benzene	1		5		zero	0.14 (100)			170 (126)
Benzidine									
Benzo(b)fluoranthene									
Benzo(j)fluoranthene									
Benzo(k)fluoranthene									
Benzofuran									
Benzoic adic									
Benzo(g,h,i)perylene									
Benzo(a)pyrene	0.2		0.2		zero	0.004			
Benzotrichloride									
Benzyl chloride									12 (126)
Benzyl violet 4B									
alpha-BHC							0.015 #		
beta-BHC							0.025 #		
gamma-BHC (Lindane)	0.2		0.2		0.2	0.032			
delta-BHC									
technical-BHC									
Bidrin									
Biphenthrin									
1,1-Biphenyl									0.5 (126)
Bis(2-chloroethoxy) methane									
Bis(2-chloroethyl) ether									360 (126)
Bis(2-chloroisopropyl) ether									
Bis(chloromethyl) ether									
Bisphenol A									
Bromacil									
Bromoacetic acid	60 (100,106)		60 (106,147)						
Bromobenzene									
Bromochloromethane									34,000 (126)
Bromodichloromethane	100 / 80 (19,100)		100 / 80 (19,149)		zero				
Bromoform	100 / 80 (19,100)		100 / 80 (19,149)		zero				510 (126)
Bromomethane									
4-Bromophenyl phenyl ether									
Bromoxynil									
Bromoxynil octanoate									
Butachlor									
1,3-Butadiene									1.4 (126)
Butane									170 (126)
n-Butanol									7100 (126)
n-Butylbenzene							70		

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
Azaserine				0.0032				0.03 #	
Azathioprine				0.019				0.2 #R	
Azinphos-methyl			87.5						
Azobenzene				0.32	0.3 (B2)			3 #	
Baygon	2.8	3				(C)			
Bayleton	210								
Baythroid	180								
Benefin	2100		700						
Benomyl	350							R	
Bentazon	210	200			(E)	(E)			
Benzaldehyde	700								
Benz(a)anthracene				0.029 (93)	(B2)	(B2)		0.02 # (68)	
Benzene		200 (10-day)		0.35	1 to 10 (A)	1 (A)		3.5 #R	
Benzidine				0.00007	0.0002 (A)			0.0005 #	
Benzo(b)fluoranthene				0.029 (93)	(B2)	(B2)		0.02 # (68)	
Benzo(j)fluoranthene				0.029 (93)				0.045 # (68)	
Benzo(k)fluoranthene				0.029 (93)	(B2)	(B2)		#	
Benzofuran								0.5 # (68)	
Benzoic adic	28,000				(D)				
Benzo(g,h,i)perylene					(D)	(D)			
Benzo(a)pyrene				0.0029	0.005 (B2)	0.02 (B2)		0.03 #	
Benzotrichloride					0.003 (B2)			0.0001 / 0.025 # (68)	
Benzyl chloride				0.21	0.2 (B2)			2 #	
Benzyl violet 4B				1.8				15 #	
alpha-BHC			500 (7-day,43)	0.013	0.006 (B2)		0.33	0.15 #	
beta-BHC			500 (7-day,43)	0.023	0.02 (C)		0.12	0.25 #	
gamma-BHC (Lindane)	0.2	0.2	500 (7-day,43)	0.032		(C)	0.054	0.3 #	
delta-BHC			500 (7-day,43)		(D)			#	
technical-BHC			500 (7-day)	0.0088	0.02 (B2)			0.1 #	
Bidrin	0.7								
Biphenthrin	100								
1,1-Biphenyl	350				(D)				
Bis(2-chloroethoxy) methane					(D)				
Bis(2-chloroethyl) ether				0.014	0.03 (B2)		0.42	0.15 #	
Bis(2-chloroisopropyl) ether	280	300				(D)			
Bis(chloromethyl) ether				0.00076	0.00016 (A)			0.01 #	
Bisphenol A	350								
Bromacil		90	87.5			(C)		R (150)	
Bromoacetic acid									
Bromobenzene		4000 (10-day,68)				(D,68)			
Bromochloromethane		90			(D)	(D)			
Bromodichloromethane	140	6000 (10-day,68)		0.27	0.6 (B2)	0.6 (B2,68)		2.5 #	
Bromoform	140	2 (10-day,68)			4 (B2)	4 (B2,68)		45 # (68)	
Bromomethane	9.8	10 (68)			(D)	(D,68)		500 R (5,68)	
4-Bromophenyl phenyl ether					(D)				
Bromoxynil	140							R	
Bromoxynil octanoate	140							R	
Butachlor			70						
1,3-Butadiene				0.010	(B2)			0.2 #	
Butane									
n-Butanol	700				(D)				
n-Butylbenzene									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Azaserine												
Azathioprine												
Azinphos-methyl									0.01 (51)			
Azobenzene												
Baygon												
Bayleton												
Baythroid												
Benefin												
Benomyl								8.8 (152)				
Bentazon												
Benzaldehyde												
Benz(a)anthracene			0.0044 (41)	0.049 (41)								
Benzene			1.2	71						5300		
Benzidine			0.00012	0.00054						2500		
Benzo(b)fluoranthene			0.0044 (41)	0.049 (41)								
Benzo(j)fluoranthene												
Benzo(k)fluoranthene			0.0044 (41)	0.049 (41)								
Benzofuran												
Benzoic adic												
Benzo(g,h,i)perylene												
Benzo(a)pyrene			0.0044 (41)	0.049 (41)								
Benzotrichloride												
Benzyl chloride												
Benzyl violet 4B												
alpha-BHC			0.0039	0.013								
beta-BHC			0.014	0.046								
gamma-BHC (Lindane)			0.019	0.063		0.08 (114)		0.95				
delta-BHC												
technical-BHC			0.0123	0.0414						100		
Bidrin												
Biphenthrin												
1,1-Biphenyl												
Bis(2-chloroethoxy) methane												
Bis(2-chloroethyl) ether			0.031	1.4						238,000 (46)	122 (58)	
Bis(2-chloroisopropyl) ether	1400	170,000								238,000 (46)	122 (58)	
Bis(chloromethyl) ether			0.00013	0.00078						238,000 (46)	122 (58)	
Bisphenol A												
Bromacil												
Bromoacetic acid												
Bromobenzene												
Bromochloromethane										11,000 (20)		
Bromodichloromethane			0.56	46						11,000 (20)		
Bromoform			4.3	360						11,000 (20)		
Bromomethane	48	4000								11,000 (20)		
4-Bromophenyl phenyl ether										360 (58)	122 (58)	
Bromoxynil												
Bromoxynil octanoate												
Butachlor												
1,3-Butadiene												
Butane												
n-Butanol												
n-Butylbenzene												

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health (30-day Average) aquatic organism consumption only	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum		Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
Azaserine									
Azathioprine									
Azinphos-methyl									
Azobenzene									
Baygon									
Bayleton									
Baythroid									
Benefin									
Benomyl									
Bentazon									
Benzaldehyde									
Benz(a)anthracene	0.0044 (113)	0.049 (113)				0.049 (113)			
Benzene	1.2 (113)	71 (113)				71 (113)			
Benzidine	0.00012 (113,143)	0.00054 (113,143)				0.00054 (113,143)			
Benzo(b)fluoranthene	0.0044 (113)	0.049 (113)				0.049 (113)			
Benzo(j)fluoranthene									
Benzo(k)fluoranthene	0.0044 (113)	0.049 (113)				0.049 (113)			
Benzofuran									
Benzoic adic									
Benzo(g,h,i)perylene									
Benzo(a)pyrene	0.0044	0.049				0.049			
Benzotrichloride									
Benzyl chloride									
Benzyl violet 4B									
alpha-BHC	0.0039 (113)	0.013 (113)				0.013 (113)			
beta-BHC	0.014 (113)	0.046 (113)				0.046 (113)			
gamma-BHC (Lindane)	0.019 (113)	0.063 (113)		0.95		0.063 (113)			0.16
delta-BHC									
technical-BHC									
Bidrin									
Biphenthrin									
1,1-Biphenyl									
Bis(2-chloroethoxy) methane									
Bis(2-chloroethyl) ether	0.031 (113,143)	1.4 (113,143)				1.4 (113,143)			
Bis(2-chloroisopropyl) ether	1400	170,000 (143)				170,000 (143)			
Bis(chloromethyl) ether									
Bisphenol A									
Bromacil									
Bromoacetic acid									
Bromobenzene									
Bromochloromethane									
Bromodichloromethane	0.56 (113)	46 (113)				46 (113)			
Bromoform	4.3 (113)	360 (113)				360 (113)			
Bromomethane	48	4000				4000			
4-Bromophenyl phenyl ether									
Bromoxynil									
Bromoxynil octanoate									
Butachlor									
1,3-Butadiene									
Butane									
n-Butanol									
n-Butylbenzene									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average) aquatic organism consumption only	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
		6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Azaserine													
Azathioprine													
Azinphos-methyl										0.01 (51)			
Azobenzene													
Baygon													
Bayleton													
Baythroid													
Benefin													
Benomyl													
Bentazon													
Benzaldehyde													
Benz(a)anthracene	0.0088 # (33)										300 (52)		
Benzene	5.9 #										5100		700 (83)
Benzidine	0.000069 #												
Benzo(b)fluoranthene	0.0088 # (33)										300 (52)		
Benzo(j)fluoranthene											300 (52)		
Benzo(k)fluoranthene	0.0088 # (33)										300 (52)		
Benzofuran													
Benzoic adic													
Benzo(g,h,i)perylene	0.0088 # (33)										300 (52)		
Benzo(a)pyrene	0.0088 # (33)										300 (52)		
Benzotrichloride													
Benzyl chloride													
Benzyl violet 4B													
alpha-BHC		0.004 (43)			0.008 (43)	0.012 (43)							
beta-BHC		0.004 (43)			0.008 (43)	0.012 (43)							
gamma-BHC (Lindane)		0.004 (43)			0.008 (43)	0.012 (43)				0.16			
delta-BHC		0.004 (43)			0.008 (43)	0.012 (43)							
technical-BHC		0.004 (43)			0.008 (43)	0.012 (43)					0.34		
Bidrin													
Biphenthrin													
1,1-Biphenyl													
Bis(2-chloroethoxy) methane	4.4												
Bis(2-chloroethyl) ether	0.045 #												
Bis(2-chloroisopropyl) ether	1200												
Bis(chloromethyl) ether													
Bisphenol A													
Bromacil													
Bromoacetic acid													
Bromobenzene													
Bromochloromethane											12,000 (20)	6400 (20)	11,500 (20,82)
Bromodichloromethane	130 # (13)										12,000 (20)	6400 (20)	11,500 (20,82)
Bromoform	130 # (13)										12,000 (20)	6400 (20)	11,500 (20,82)
Bromomethane	130 # (13)										12,000 (20)	6400 (20)	11,500 (20,82)
4-Bromophenyl phenyl ether													
Bromoxynil													
Bromoxynil octanoate													
Butachlor													
1,3-Butadiene													
Butane													
n-Butanol													
n-Butylbenzene													

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
Azaserine	115-02-6			
Azathioprine	446-86-6	Diphenyldiimide	Diphenyldiazene	Diazobenzene
Azinphos-methyl	86-50-0	Guthion		
Azobenzene	103-33-3	Diphenyldiimide		
Baygon	114-26-1	Propoxur		
Bayleton	43121-43-3			
Baythroid	68359-37-5	Cyfluthrin		
Benefin	1861-40-1	Balan	Benfluralin	
Benomyl	17804-35-2	Benlate	Arilate	
Bentazon	25057-89-0	Basagran		
Benzaldehyde	100-52-7			
Benz(a)anthracene	56-55-3	1,2-Benzanthracene	Benzo(a)anthracene	a polynuclear aromatic hydrocarbon
Benzene	71-43-2			
Benzidine	92-87-5	p-Diaminodiphenyl		
Benzo(b)fluoranthene	205-99-2	3,4-Benzofluoranthene		a polynuclear aromatic hydrocarbon
Benzo(j)fluoranthene	205-82-3	10,11-Benzofluoranthene		a polynuclear aromatic hydrocarbon
Benzo(k)fluoranthene	207-08-9	8,9-Benzofluoranthene		a polynuclear aromatic hydrocarbon
Benzofuran	271-89-6			
Benzoic adic	65-85-0	Carboxybenzene		
Benzo(g,h,i)perylene	191-24-2	1,12-Benzoperylene		a polynuclear aromatic hydrocarbon
Benzo(a)pyrene	50-32-8	BaP	3,4-Benzopyrene	a polynuclear aromatic hydrocarbon
Benzotrichloride	98-07-7	(Trichloromethyl)benzene	alpha,alpha,alpha-Trichlorotoluene	
Benzyl chloride	100-44-7	alpha-Chlorotoluene	Chlorophenylmethane	Tolyl chloride
Benzyl violet 4B	1694-09-3			
alpha-BHC	319-84-6	alpha-Benzene hexachloride	alpha-Hexachlorocyclohexane	alpha-HCH
beta-BHC	319-85-7	beta-Benzene hexachloride	beta-Hexachlorocyclohexane	beta-HCH
gamma-BHC (Lindane)	58-89-9	Lindane	gamma-Benzene hexachloride	gamma-Hexachlorocyclohexane
delta-BHC	319-86-8	delta-Benzene hexachloride	delta-Hexachlorocyclohexane	delta-HCH
technical-BHC	608-73-1	technical-Benzene hexachloride	technical-Hexachlorocyclohexane	
Bidrin	141-66-2	Dicrotophos		
Biphenthrin	82657-04-3	Brigade	Talstar	
1,1-Biphenyl	92-52-4	Diphenyl	Phenylbenzene	
Bis(2-chloroethoxy) methane	111-91-1	Dichloroethyl formal	Dichlorodiethyl formal	
Bis(2-chloroethyl) ether	111-44-4	BCEE	2,2'-Dichlorodiethyl ether	symmetrical-Dichloroethyl ether
Bis(2-chloroisopropyl) ether	39638-32-9	Bis(2-chloro-1-methylethyl) ether	2,2'-Oxybis(1-chloropropane)	BCIE
Bis(chloromethyl) ether	542-88-1	BCME	Dichlorodimethyl ether	Chloromethyl ether
Bisphenol A	80-05-7	Bis(4-hydroxyphenyl)propane		
Bromacil	314-40-9	Hyvar X or XL	Urox	
Bromoacetic acid	79-08-3	A haloacetic acid		
Bromobenzene	108-86-1			
Bromochloromethane	74-97-5	Chlorobromomethane		
Bromodichloromethane	75-27-4	Dichlorobromomethane	BDCM	a trihalomethane (THM)
Bromoform	75-25-2	Tribromomethane		a trihalomethane (THM)
Bromomethane	74-83-9	Methyl bromide		
4-Bromophenyl phenyl ether	101-55-3	p-Bromodiphenyl ether		
Bromoxynil	1689-84-5	2,6-Dibromo-4-cyanophenol	3,5-Dibromo-4-hydroxybenzonitrile	
Bromoxynil octanoate	1689-99-2			
Butachlor	23184-66-9	Butanex	Lambast	
1,3-Butadiene	106-99-0	Vinylethylene	Bivinyl	Divinyl
Butane	106-97-8			
n-Butanol	71-36-3	n-Butyl alcohol		
n-Butylbenzene	104-51-8	1-Phenylbutane		

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
n-Butyl acetate									170 (126)
n-Butyl acrylate									7.8 (126)
sec-Butyl alcohol									19,000 (126)
tert-Butyl alcohol							12 #		290,000 (126)
n-Butylamine									6200 (126)
Butylate									
Butylated hydroxyanisole									
n-Butyl benzyl phthalate									
n-Butyl lactate									520,000 (126)
n-Butyl mercaptan									0.012 (126)
Butylphthalyl butylglycolate									
p-tert-Butyltoluene									32 (126)
beta-Butyrolactone									
Camphor									1000 (126)
Caprolactam									
Captafol									
Captan							1.5 #		
Carbaryl							700		
Carbofuran	18		40		40	1.7 (100)			
Carbon tetrachloride	0.5		5		zero	0.1 (100)			520 (125,126)
Carbosulfan									
Carboxin									
Catechol									
Chloral									
Chloral hydrate					40				
Chloramben									
Chlorambucil									
Chlordane	0.1		2		zero	0.03			
Chlordimeform									
Chlorendic acid									
Chlorimuron-ethyl									
Chlorinated paraffins									
Chlorinated benzenes									
Chlorinated naphthalenes									
Chlorinated phenols									
Chloroacetic acid	60 (100,106)		60 (106,147)						
Chloroalkyl ethers									
p-Chloroaniline									
Chlorobenzene	70		100		100				50 (126)
4-Chloro-m-cresol									
4-Chloro-o-cresol									
6-Chloro-m-cresol									
Chloroethane									16 (126)
Chloroform	100 / 80 (19,100)		100 / 80 (19,149)						2400 (126)
Chloromethane									
Chloromethyl methyl ether									
3-Chloro-2-methylpropene									
2-Chloronaphthalene									
2-Chlorophenol									
3-Chlorophenol									
4-Chlorophenol									
4-Chloro-o-phenylenediamine									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
n-Butyl acetate									
n-Butyl acrylate									
sec-Butyl alcohol									
tert-Butyl alcohol									
n-Butylamine									
Butylate	350	400				(D)			
Butylated hydroxyanisole				180				2000 #	
n-Butyl benzyl phthalate	140				(C)	(C)			
n-Butyl lactate									
n-Butyl mercaptan									
Butylphthalyl butylglycolate	7000								
p-tert-Butyltoluene									
beta-Butyrolactone				0.035				0.35 #	
Camphor									
Caprolactam	3500								
Captafol	1.4			0.23		(C)		2.5 #	
Captan	910		350	15				150 #	
Carbaryl	700	700	574			(D)			
Carbofuran	35	40				(E)			
Carbon tetrachloride	4.9	200 (10-day)	200 (7-day)	0.23	0.3 (B2)	0.3 (B2)	4.5	2.5 #	
Carbosulfan	70								
Carboxin	700	700				(D)			
Catechol			2200 (24-hr)						
Chloral	14								
Chloral hydrate		60				(C)			
Chloramben	110	100	1750			(D)			
Chlorambucil				15				0.001 #R	
Chlordane	0.42	60 (10-day)		0.027	0.03 (B2)	0.01 (B2)	0.028	0.25 #	
Chlordimeform								0.25 # (68)	
Chlorendic acid				0.38				4 #	
Chlorimuron-ethyl	140								
Chlorinated paraffins				0.39 (63)				4 (63)	
Chlorinated benzenes									
Chlorinated naphthalenes									
Chlorinated phenols									
Chloroacetic acid									
Chloroalkyl ethers									
p-Chloroaniline	28							#	
Chlorobenzene	140	100			(D)	(D)	2.3 (21)		
4-Chloro-m-cresol									
4-Chloro-o-cresol									
6-Chloro-m-cresol									
Chloroethane						(B)		100 # (68)	
Chloroform		4000 (10-day,68)		1.1	6 (B2)	6 (B2,68)	0.26 / 5.6 (44)	10 #	
Chloromethane		3			(D,68)	(C)			
Chloromethyl methyl ether				0.015 (65)	(A)			0.15 # (65)	
3-Chloro-2-methylpropene				0.25				2.5 #	
2-Chloronaphthalene	560								
2-Chlorophenol	35	40 (68)				(D,68)			
3-Chlorophenol									
4-Chlorophenol									
4-Chloro-o-phenylenediamine				2.2				20 #	

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
n-Butyl acetate												
n-Butyl acrylate												
sec-Butyl alcohol												
tert-Butyl alcohol												
n-Butylamine												
Butylate												
Butylated hydroxyanisole												
n-Butyl benzyl phthalate	3000	5200								940 (45)	3 (45)	
n-Butyl lactate												
n-Butyl mercaptan												
Butylphthalyl butylglycolate	16,800 (68)	32,400 (68)								940 (45)	3 (45)	
p-tert-Butyltoluene												
beta-Butyrolactone												
Camphor												
Caprolactam												
Captafol												
Captan												
Carbaryl						2.53 (151)		2.53 (151)	0.02 (54)			
Carbofuran									0.5 (152)			
Carbon tetrachloride			0.25	4.4 #						35,200		
Carbosulfan												
Carboxin												
Catechol												
Chloral												
Chloral hydrate												
Chloramben												
Chlorambucil												
Chlordane			0.0021	0.0022		0.0043 (114)			2.4			
Chlordimeform												
Chlorendic acid												
Chlorimuron-ethyl												
Chlorinated paraffins												
Chlorinated benzenes										.. 250		50 (23)
Chlorinated naphthalenes										1600		
Chlorinated phenols												
Chloroacetic acid												
Chloroalkyl ethers										238,000	122 (58)	
p-Chloroaniline												
Chlorobenzene	680	21,000			20					.. 250 (22)		50 (22,23)
4-Chloro-m-cresol					3000					30		
4-Chloro-o-cresol					1800							
6-Chloro-m-cresol					20							
Chloroethane												
Chloroform			5.7	470						28,900	1240	
Chloromethane										11,000 (20)		
Chloromethyl methyl ether										238,000 (46)	122 (58)	
3-Chloro-2-methylpropene												
2-Chloronaphthalene	1700	4300								1600 (48)		
2-Chlorophenol	120	400			0.1					4380		2000 (34)
3-Chlorophenol					0.1							
4-Chlorophenol					0.1							
4-Chloro-o-phenylenediamine												

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health (30-day Average) aquatic organism consumption only	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum		Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
n-Butyl acetate									
n-Butyl acrylate									
sec-Butyl alcohol									
tert-Butyl alcohol									
n-Butylamine									
Butylate									
Butylated hydroxyanisole									
n-Butyl benzyl phthalate	3000	5200				5200			
n-Butyl lactate									
n-Butyl mercaptan									
Butylphthalyl butylglycolate									
p-tert-Butyltoluene									
beta-Butyrolactone									
Camphor									
Caprolactam									
Captafol									
Captan									
Carbaryl									
Carbofuran									
Carbon tetrachloride	0.25 (113,143)	4.4 (113,143)				4.4 (113,143)			
Carbosulfan									
Carboxin									
Catechol									
Chloral									
Chloral hydrate									
Chloramben									
Chlorambucil									
Chlordane	0.00057 (113)	0.00059 (113)	0.0043 (114)		2.4	0.00059 (113)	0.004 (114)		0.09
Chlordimeform									
Chlorendic acid									
Chlorimuron-ethyl									
Chlorinated paraffins									
Chlorinated benzenes									
Chlorinated naphthalenes									
Chlorinated phenols									
Chloroacetic acid									
Chloroalkyl ethers									
p-Chloroaniline									
Chlorobenzene	680 (143)	21,000 (143)				21,000 (143)			
4-Chloro-m-cresol									
4-Chloro-o-cresol									
6-Chloro-m-cresol									
Chloroethane									
Chloroform									
Chloromethane									
Chloromethyl methyl ether									
3-Chloro-2-methylpropene									
2-Chloronaphthalene	1700	4300				4300			
2-Chlorophenol	120	400				400			
3-Chlorophenol									
4-Chlorophenol									
4-Chloro-o-phenylenediamine									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average)	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	aquatic organism consumption only	6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
n-Butyl acetate													
n-Butyl acrylate													
sec-Butyl alcohol													
tert-Butyl alcohol													
n-Butylamine													
Butylate													
Butylated hydroxyanisole													
n-Butyl benzyl phthalate											2944 (45)		3.4 (38,45)
n-Butyl lactate													
n-Butyl mercaptan													
Butylphthalyl butylglycolate											2944 (45)		3.4 (38,45)
p-tert-Butyltoluene													
beta-Butyrolactone													
Camphor													
Caprolactam													
Captafol													
Captan													
Carbaryl							0.81 (151)		0.81 (151)				
Carbofuran													
Carbon tetrachloride	0.90 #										50,000	6400 (20)	11,500 (20,82)
Carbosulfan													
Carboxin													
Catechol		30 (86)			120 (86)	300 (86)							
Chloral													
Chloral hydrate													
Chloramben													
Chlorambucil													
Chlordane	0.000023 # (81)						0.004 (114)			0.09			
Chlordimeform													
Chlorendic acid													
Chlorimuron-ethyl													
Chlorinated paraffins													
Chlorinated benzenes											160	129	
Chlorinated naphthalenes											7.5		
Chlorinated phenols		1			4	10							
Chloroacetic acid													
Chloroalkyl ethers													
p-Chloroaniline													
Chlorobenzene	570										160 (22)	129 (22)	
4-Chloro-m-cresol		1 (87)			4 (87)	10 (87)							
4-Chloro-o-cresol		1 (87)			4 (87)	10 (87)							
6-Chloro-m-cresol		1 (87)			4 (87)	10 (87)							
Chloroethane													
Chloroform	130 #										12,000 (20)	6400 (20)	11,500 (20,82)
Chloromethane	130 # (13)										12,000 (20)	6400 (20)	11,500 (20,82)
Chloromethyl methyl ether													
3-Chloro-2-methylpropene													
2-Chloronaphthalene											7.5 (48)		
2-Chlorophenol		1 (87)			4 (87)	10 (87)							
3-Chlorophenol		1 (87)			4 (87)	10 (87)							
4-Chlorophenol		1 (87)			4 (87)	10 (87)					29,700		
4-Chloro-o-phenylenediamine													

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
n-Butyl acetate	123-86-4			
n-Butyl acrylate	141-32-2			
sec-Butyl alcohol	78-92-2	sec-Butanol	2-Butanol	
tert-Butyl alcohol	75-65-0	t-Butyl alcohol	t-Butanol	TBA
n-Butylamine	109-73-9	1-Aminobutane		
Butylate	2008-41-5	Sutan		
Butylated hydroxyanisole	25013-16-5	BHA	Antioxyne B	
n-Butyl benzyl phthalate	85-68-7	Benzyl butyl phthalate	A phthalate acid ester (PAE)	
n-Butyl lactate	138-22-7			
n-Butyl mercaptan	109-79-5	1-Butanethiol		
Butylphthalyl butylglycolate	85-70-1	BPBG	Butyl glycolyl butyl phthalate	A phthalate acid ester (PAE)
p-tert-Butyltoluene	98-51-1	1-Methyl-4-tert-butylbenzene		
beta-Butyrolactone	96-48-0	3-Hydroxybutyric acid		
Camphor	464-49-3	2-Camphanone		
Caprolactam	105-60-2	1,6-Hexolactam		
Captafol	2425061	Difolatan	Sulfonimide	
Captan	133-06-2	Orthocide	N-Trichloromethylmercapto-tetrahydrophthalimide	
Carbaryl	63-25-2	Sevin		
Carbofuran	1563-66-2	Furadan		
Carbon tetrachloride	56-23-5	Tetrachloromethane	Freon 10	
Carbosulfan	55285-14-8	Advantage		
Carboxin	5234-68-4	Carboxine	Carbathiin	Vitavax
Catechol	120-80-9			
Chloral	75-87-6	Trichloroacetaldehyde		
Chloral hydrate	302-17-0	Trichloroacetaldehyde, hydrated	Trichloroethylidene ghycol	1,1,1-Trichloro-2,2-ethanediol
Chloramben	133-90-4	Amiben		
Chlorambucil	305-03-3			
Chlordane	57-74-9	Chlordan		
Chlordimeform	6164-98-3			
Chlorendic acid	115-28-6			
Chlorimuron-ethyl	90982-32-4			
Chlorinated paraffins		Paraffins, chlorinated	Chlorinated waxes	Waxes, chlorinated
Chlorinated benzenes	68411-45-0	Benzenes, chlorinated		
Chlorinated naphthalenes	25586-43-0	Naphthalenes, chlorinated		
Chlorinated phenols		Phenols, chlorinated		
Chloroacetic acid	79-11-8	Monochloroaceticacid	A haloacetic acid	
Chloroalkyl ethers		Ethers, chloroalkyl-		
p-Chloroaniline	106-47-8	1-Amino-4-chlorobenzene		
Chlorobenzene	108-90-7	Monochlorobenzene		
4-Chloro-m-cresol	59-50-7	4-Chloro-3-methylphenol	p-Chloro-m-cresol	3-Methyl-4-chlorophenol
4-Chloro-o-cresol	1570-64-5	4-Chloro-2-methylphenol	p-Chloro-o-cresol	2-Methyl-4-chlorophenol
6-Chloro-m-cresol		6-Chloro-3-methylphenol	3-Methyl-6-chlorophenol	
Chloroethane	75-00-3	Ethyl chloride		
Chloroform	67-66-3	Trichloromethane	Freon 20	a trihalomethane (THM)
Chloromethane	74-87-3	Methyl chloride		
Chloromethyl methyl ether	107-30-2	CMME	Methylchloromethyl ether	Chloromethoxymethane
3-Chloro-2-methylpropene	563-47-3	3-Chloroisobutylene		
2-Chloronaphthalene	91587	beta-Chloronaphthalene		
2-Chlorophenol	95-57-8	o-Chlorophenol		
3-Chlorophenol	108-43-0	m-Chlorophenol		
4-Chlorophenol	106-48-9	p-Chlorophenol		
4-Chloro-o-phenylenediamine	95-83-0	1-Chloro-3,4-diaminobenzene		

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
Chloropicrin							50	37	37 (126)
beta-Chloroprene									24 (126)
3-Chloropropene									8.9 (126)
Chlorothalonil									
2-Chlorotoluene							140		6.9 (126)
4-Chlorotoluene							140		
p-Chloro-o-toluidine									
Chlorozotocin									
Chlorpropham							350		
Chlorpyrifos									
Chlorsulfuron									
Chrysene									
C. I. Basic Red 9 monohydrochloride									
Cinnamyl anthranilate									
p-Cresidine									
m-Cresol									37 (126)
o-Cresol									
p-Cresol									
trans-Crotonaldehyde									420 (126)
Cumene									0.8 (126)
Cupferron									
Cyanazine									
Cyanogen									
Cyclohexane									11 (126)
Cyclohexanol									2800 (126)
Cyclohexanone									8300 (126)
Cyclohexene									0.39 (126)
Cyclohexylamine									25,000 (126)
Cyclopentadiene									6 (126)
Cyclophosphamide									
Cyhalothrin									
Cypermethrin									
Cyromazine									
2,4-D	70		70		70	70			
Dacarbazine									
Dacthal (DCPA)									
Dalapon	200		200		200	790			
Daminozide									
Danitol									
Dantron									
D&C Red No. 9									
DDD									
DDE									
DDT									
Decabromodiphenyl ether									
Demeton									
Diacetone alcohol									64,000 (126)
2,4-Diaminoanisole									
2,4-Diaminoanisole sulfate									
4,4'-Diaminodiphenyl ether									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
Chloropicrin			12 / 40 (7)						
beta-Chloroprene								#	
3-Chloropropene				1.7	(C)			15	
Chlorothalonil		2 (10-day)		11		1.5 (B2)		100 / 30 # (68)	
2-Chlorotoluene	140	100				(D)			
4-Chlorotoluene		100				(D)			
p-Chloro-o-toluidine				0.13				1.5 #	
Chlorozotocin				0.00015				0.0015 #	
Chlorpropham	1400								
Chlorpyrifos	21	20				(D)			
Chlorsulfuron	350							R	
Chrysene				0.29 (93)	(B2)	(B2)		0.1 # (68)	
C. I. Basic Red 9 monohydrochloride				0.00015				1.5 #	
Cinnamyl anthranilate				7.6				100 #	
p-Cresidine				0.23				2.5 #	
m-Cresol	35				(C)				
o-Cresol	35				(C)				
p-Cresol					(C)				
trans-Crotonaldehyde					(C)				
Cumene	700	11,000 (10-day,68)			(D)	(D,68)			
Cupferron				0.16				1.5 #	
Cyanazine		1 (68)				(C,68)		R	
Cyanogen	280								
Cyclohexane									
Cyclohexanol								R	
Cyclohexanone	35,000								
Cyclohexene									
Cyclohexylamine	1400								
Cyclopentadiene									
Cyclophosphamide				0.061				0.5 #R	
Cyhalothrin	35								
Cypermethrin	70								
Cyromazine	53								
2,4-D	70	70	87.5			(D)			
Dacarbazine				0.00071				0.005 #R	
Dacthal (DCPA)	70	70				(D)			
Dalapon	210	200				(D)			
Daminozide	1050			1.9				20 / 40 # (68)	
Danitol	180								
Dantron				0.46				4.5 #	
D&C Red No. 9				6.6				50 #	
DDD				0.15	0.1 (B2)			1 # (50)	
DDE				0.1	0.1 (B2)			1 # (50)	
DDT	3.5			0.1	0.1 (B2)		0.042	1 #R (50)	
Decabromodiphenyl ether	7				(C)				
Demeton	0.3								
Diacetone alcohol									
2,4-Diaminoanisole				1.5				15 #	
2,4-Diaminoanisole sulfate				2.7				25 #	
4,4'-Diaminodiphenyl ether				0.25				2.5 #	

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Chloropicrin												
beta-Chloroprene												
3-Chloropropene												
Chlorothalonil												
2-Chlorotoluene												
4-Chlorotoluene												
p-Chloro-o-toluidine												
Chlorozotocin												
Chlorpropham												
Chlorpyrifos						0.014 / 0.041 (151)		0.02 / 0.083 (151)				
Chlorsulfuron												
Chrysene			0.0044 (41)	0.049 (41)								
C. I. Basic Red 9 monohydrochloride												
Cinnamyl anthranilate												
p-Cresidine												
m-Cresol												
o-Cresol												
p-Cresol												
trans-Crotonaldehyde												
Cumene												
Cupferron												
Cyanazine												
Cyanogen												
Cyclohexane												
Cyclohexanol												
Cyclohexanone												
Cyclohexene												
Cyclohexylamine												
Cyclopentadiene												
Cyclophosphamide												
Cyhalothrin												
Cypermethrin												
Cyromazine												
2,4-D	100 (51)											
Dacarbazine												
Dacthal (DCPA)			0.008 (8)						14,300 (8)			
Dalapon									110 (54)			
Daminozide												
Danitol												
Dantron												
D&C Red No. 9												
DDD			0.00083	0.00084						0.6		
DDE			0.00059	0.00059						1050		
DDT			0.00059	0.00059		0.001 (114)			1.1			
Decabromodiphenyl ether										360 (58)	122 (58)	
Demeton									0.1 (51)			
Diacetone alcohol												
2,4-Diaminoanisole												
2,4-Diaminoanisole sulfate												
4,4'-Diaminodiphenyl ether												

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health (30-day Average) aquatic organism consumption only	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum		Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
Chloropicrin									
beta-Chloroprene									
3-Chloropropene									
Chlorothalonil									
2-Chlorotoluene									
4-Chlorotoluene									
p-Chloro-o-toluidine									
Chlorozotocin									
Chlorpropham									
Chlorpyrifos									
Chlorsulfuron									
Chrysene	0.0044 (113)	0.049 (113)				0.049 (113)			
C. I. Basic Red 9 monohydrochloride									
Cinnamyl anthranilate									
p-Cresidine									
m-Cresol									
o-Cresol									
p-Cresol									
trans-Crotonaldehyde									
Cumene									
Cupferron									
Cyanazine									
Cyanogen									
Cyclohexane									
Cyclohexanol									
Cyclohexanone									
Cyclohexene									
Cyclohexylamine									
Cyclopentadiene									
Cyclophosphamide									
Cyhalothrin									
Cypermethrin									
Cyromazine									
2,4-D									
Dacarbazine									
Dacthal (DCPA)									
Dalapon									
Daminozide									
Danitol									
Dantron									
D&C Red No. 9									
DDD	0.00083 (113)	0.00084 (113)				0.00084 (113)			
DDE	0.00059 (113)	0.00059 (113)				0.00059 (113)			
DDT	0.00059 (113)	0.00059 (113)	0.001 (114)		1.1	0.00059 (113)	0.001 (114)		0.13
Decabromodiphenyl ether									
Demeton									
Diacetone alcohol									
2,4-Diaminoanisole									
2,4-Diaminoanisole sulfate									
4,4'-Diaminodiphenyl ether									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average)	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	aquatic organism consumption only	6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Chloropicrin													
beta-Chloroprene													
3-Chloropropene													
Chlorothalonil													
2-Chlorotoluene													
4-Chlorotoluene													
p-Chloro-o-toluidine													
Chlorozotocin													
Chlorpropham													
Chlorpyrifos							0.009 / 0.0056 (151)		0.02 / 0.011 (151)				
Chlorsulfuron													
Chrysene	0.0088 # (33)										300 (52)		
C. I. Basic Red 9 monohydrochloride													
Cinnamyl anthranilate													
p-Cresidine													
m-Cresol		30 (86)			120 (86)	300 (86)							
o-Cresol		30 (86)			120 (86)	300 (86)							
p-Cresol		30 (86)			120 (86)	300 (86)							
trans-Crotonaldehyde													
Cumene													
Cupferron													
Cyanazine													
Cyanogen													
Cyclohexane													
Cyclohexanol													
Cyclohexanone													
Cyclohexene													
Cyclohexylamine													
Cyclopentadiene													
Cyclophosphamide													
Cyhalothrin													
Cypermethrin													
Cyromazine													
2,4-D													
Dacarbazine													
Dacthal (DCPA)													
Dalapon													
Daminozide													
Danitol													
Dantron													
D&C Red No. 9													
DDD	0.00017 # (50)										3.6		
DDE	0.00017 # (50)										14		
DDT	0.00017 # (50)						0.001 (114)			0.13			
Decabromodiphenyl ether													
Demeton										0.1 (51)			
Diacetone alcohol													
2,4-Diaminoanisole													
2,4-Diaminoanisole sulfate													
4,4'-Diaminodiphenyl ether													

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
Chloropicrin	76-06-2			
beta-Chloroprene	126998	2-Chlorobutadiene-1,3		
3-Chloropropene	107-05-1	Allyl chloride	2-propenyl chloride	
Chlorothalonil	1897-45-6	Bravo	Daconil	
2-Chlorotoluene	95-49-8	o-Chlorotoluene		
4-Chlorotoluene	106-43-4	p-Chlorotoluene		
p-Chloro-o-toluidine	95-69-2			
Chlorozotocin	54749-90-5	Glucopyranose		
Chlorpropham	101-21-3	CIPC	Chloro-IPC	Isopropyl-N-(3-chlorophenyl)carbamate
Chlorpyrifos	2921-88-2	Dursban	Lorsban	
Chlorsulfuron	64902-72-3	Sulfonamide		
Chrysene	218-01-9			a polynuclear aromatic hydrocarbon
C. I. Basic Red 9 monohydrochloride	569-61-9	Basic parafuchsine		
Cinnamyl anthranilate	87-29-6			
p-Cresidine	120-71-8	2-Methyoxy-5-Methylaniline	5-Methyl-o-anisidine	
m-Cresol	108-39-4	3-Methylphenol		
o-Cresol	95-48-7	2-Methylphenol		
p-Cresol	106-44-5	4-Methylphenol		
trans-Crotonaldehyde	4170-30-3	2-Butenal	beta-Methyl acrolein	
Cumene	98-82-8	Isopropyl benzene	2-Phenylpropane	
Cupferron	135-20-6	Ammonium nitroso-beta-phenylhydroxylamine		
Cyanazine	21725-46-2	Bladex		
Cyanogen	460-19-5	Ethanedinitrile	Prussite	
Cyclohexane	110-82-7			
Cyclohexanol	108-93-0			
Cyclohexanone	108-94-1			
Cyclohexene	110-83-8			
Cyclohexylamine	108-91-8	Aminocyclohexane		
Cyclopentadiene	542-92-7			
Cyclophosphamide	50-18-0	Endoxan monohydrate	Genoxal	Mitoxan
Cyhalothrin	68085-85-8	Karate		
Cypermethrin	52315-07-8	Stockade		
Cyromazine	66215-27-8	Azimethiphos		
2,4-D	94-75-7	2,4-Dichlorophenoxyacetic acid		
Dacarbazine	4342034			
Dacthal (DCPA)	1861-32-1	DCPA		
Dalapon	75-99-0	Dowpon	2,2-Dichloropropionic acid	
Daminozide	1596-84-5	Dazide	Alar	Butanedioic acid mono(2,2-dimethyl hydrazide)
Danitol	39515-41-8	Fenpropathrin	Fenpropanate	
Dantron	117-10-2	Chrysazin	1,8-Dihydroxyanthraquinone	
D&C Red No. 9	2092-56-0			
DDD	72-54-8	4,4'-DDD	Dichlorodiphenyldichloroethane	1,1-Dichloro-2,2-bis(p-chlorophenyl)ethane
DDE	72-55-9	4,4'-DDE	Dichlorodiphenyldichloroethylene	
DDT	50-29-3	4,4'-DDT	Dichlorodiphenyltrichloroethane	
Decabromodiphenyl ether	1163-19-5	DBDPE	Bis(pentabromophenyl) ether	
Demeton	8065-48-3	Systox		
Diacetone alcohol	123-42-2	4-Hydroxy-4-methyl-2-pentanone		
2,4-Diaminoanisole	615-05-4	Methoxyphenylenediamine	4-Methoxy-1,3-benzenediamine	
2,4-Diaminoanisole sulfate	39156-41-7			
4,4'-Diaminodiphenyl ether	101-80-4	4,4'-Oxydianiline	Bis(4-aminophenyl)ether	

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
2,4-Diaminotoluene									
Diazinon							6		
Dibenz(a,h)acridine									
Dibenz(a,j)acridine									
Dibenz(a,h)anthracene									
7H-Dibenzo(c,g)carbazole									
Dibenzo(a,e)pyrene									
Dibenzo(a,h)pyrene									
Dibenzo(a,i)pyrene									
Dibenzo(a,l)pyrene									
Dibromoacetic acid	60 (100,106)		60 (106,147)						
Dibromoacetonitrile									
1,4-Dibromobenzene									
Dibromochloromethane	100 / 80 (19,100)		100 / 80 (19,149)		60				
Dibromochloropropane (DBCP)	0.2		0.2		zero	0.0017			10 (125)
1,2-Dibromoethane	0.05		0.05		zero				
Dibutyl phthalate									
Dicamba									
Dichloroacetic acid	60 (100,106)		60 (106,147)		zero				
Dichloroacetonitrile									
1,2-Dichlorobenzene	600		600	10 (100)	600	600	600 (77)	10 (77)	24 (126)
1,3-Dichlorobenzene							600 (77)	10 (77)	
1,4-Dichlorobenzene	5		75	5 (100)	75	6			11 (126)
Dichlorobenzenes									
3,3'-Dichlorobenzidine									
Dichlorodifluoromethane							1000		
1,1-Dichloroethane	5								
1,2-Dichloroethane	0.5		5		zero	0.4			7000 (126)
1,1-Dichloroethylene	6		7		7	10			1500 (126)
cis-1,2-Dichloroethylene	6		70		70				
trans-1,2-Dichloroethylene	10		100		100				260 (126)
Dichloroethylenes									
Dichloromethane	5		5		zero	0.13 (100)			9100 (126)
2,3-Dichlorophenol									
2,4-Dichlorophenol									
2,5-Dichlorophenol									
2,6-Dichlorophenol									
3,4-Dichlorophenol									
4-(2,4-Dichlorophenoxy)butyric acid									
1,2-Dichloropropane	5		5		zero	0.5			10 (126)
Dichloropropanes									
1,3-Dichloropropene	0.5					0.2			
Dichloropropenes									
Dichlorvos									
Dieldrin							0.002 #		
Diesel Oil									100 (49)
Diethanolamine									22,000,000 (126)
Diethylamine									470 (126)
Di(2-ethylhexyl) adipate	400		400		400				
Di(2-ethylhexyl)phthalate	4		6		zero	12			
Diethyl ketone									4700 (126)
Diethyl phthalate									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
2,4-Diaminotoluene				0.0092				0.1 #	
Diazinon		0.6	14			(E)			
Dibenz(a,h)acridine				0.029 (93)				#	
Dibenz(a,j)acridine				0.029 (93)				#	
Dibenz(a,h)anthracene				0.0085	(B2)			0.1 #	
7H-Dibenzo(c,g)carbazole				0.0029 (93)				0.00045 # (68)	
Dibenzo(a,e)pyrene				0.0029 (93)				#	
Dibenzo(a,h)pyrene				0.00029 (93)				0.001 # (68)	
Dibenzo(a,i)pyrene				0.00029 (93)				0.001 # (68)	
Dibenzo(a,l)pyrene				0.00029 (93)				#	
Dibromoacetic acid									
Dibromoacetonitrile		20	23 / 161 (7)			(C)			
1,4-Dibromobenzene	70								
Dibromochloromethane		60 (68)	18,000 (24-hr)	0.37		0.4 (C,68)	0.6	3.5	
Dibromochloropropane (DBCP)		50 (10-day)		0.005		0.03 (B2)	0.051	0.05 / 2.5 #R (5,68)	
1,2-Dibromoethane		8 (10-day)		0.0097	0.0004 (B2)	0.0005 (B2)	0.055	0.1 #R	
Dibutyl phthalate	700		770		(D)	(D)			
Dicamba	210	200	8.75			(D)			
Dichloroacetic acid		5000 (10-day,68)	175 / 420 (7)		(B2)	(B2,68)		#	
Dichloroacetonitrile		6				(C)			
1,2-Dichlorobenzene	630	600	300 (25)		(D)	(D)			
1,3-Dichlorobenzene		600			(D)	(D)			
1,4-Dichlorobenzene		75	94 (25)	6.5		(C)		10 #	
Dichlorobenzenes									
3,3'-Dichlorobenzidine				0.029	0.08 (B2)			0.3 #	
Dichlorodifluoromethane	1400	1000	5600 (7-day)			(D)			
1,1-Dichloroethane				6.1	(C)			50 #	
1,2-Dichloroethane		7 (10-day)		0.74	0.4 (B2)	0.4 (B2)	0.71	5 #	
1,1-Dichloroethylene	6	7	100		0.06 (C)	(C)			
cis-1,2-Dichloroethylene		70			(D)	(D)			
trans-1,2-Dichloroethylene	140	100				(D)			
Dichloroethylenes									
Dichloromethane	420	2000 (10-day,68)	5000 (7-day)	2.5	5 (B2)	5 (B2,68)		25 #	
2,3-Dichlorophenol	21								
2,4-Dichlorophenol	21	20 (68)	2000 / 7000 (7)			(E,68)			
2,5-Dichlorophenol									
2,6-Dichlorophenol									
3,4-Dichlorophenol									
4-(2,4-Dichlorophenoxy)butyric acid	56							R	
1,2-Dichloropropane		90 (10-day)		0.97		0.6 (B2)		#	
Dichloropropanes									
1,3-Dichloropropene	210	3 (10-day)		0.38	0.4 / 0.7 / 0.8 (B2)	0.4 (B2)	0.45	2 # (68)	
Dichloropropenes									
Dichlorvos				0.085	0.1 (B2)			1 #	
Dieldrin		0.5 (10-day)		0.0022	0.002 (B2)	0.002 (B2)	0.0019	0.02 #	
Diesel Oil		100 (10-day,49)							
Diethanolamine									
Diethylamine									
Di(2-ethylhexyl) adipate	420	400			30 (C)	30 (C)			
Di(2-ethylhexyl)phthalate			4200	12	3 (B2)	3 (B2)	2.4	40 #	
Diethyl ketone									
Diethyl phthalate	5600				(D)	(D)			

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
2,4-Diaminotoluene												
Diazinon						0.05 (151)		0.08 / 0.09 (151,68)	0.009 (54)			
Dibenz(a,h)acridine												
Dibenz(a,j)acridine												
Dibenz(a,h)anthracene			0.0044 (41)	0.049 (41)								
7H-Dibenzo(c,g)carbazole												
Dibenzo(a,e)pyrene												
Dibenzo(a,h)pyrene												
Dibenzo(a,i)pyrene												
Dibenzo(a,l)pyrene												
Dibromoacetic acid												
Dibromoacetonitrile												
1,4-Dibromobenzene												
Dibromochloromethane			0.41	34						11,000 (20)		
Dibromochloropropane (DBCP)												
1,2-Dibromoethane												
Dibutyl phthalate	2700	12,000								940 (45)	3 (45)	
Dicamba									200 (54)			
Dichloroacetic acid												
Dichloroacetonitrile												
1,2-Dichlorobenzene	2700	17,000								1120 (24)	763 (24)	
1,3-Dichlorobenzene	400	2600								1120 (24)	763 (24)	
1,4-Dichlorobenzene	400	2600								1120 (24)	763 (24)	
Dichlorobenzenes										1120	763	
3,3'-Dichlorobenzidine			0.04	0.077								
Dichlorodifluoromethane			0.19							11,000 (20)		
1,1-Dichloroethane												
1,2-Dichloroethane			0.38	99						118,000	20,000	
1,1-Dichloroethylene			0.057	3.2						11,600 (27)		
cis-1,2-Dichloroethylene										11,600 (27)		
trans-1,2-Dichloroethylene	700	140,000								11,600 (27)		
Dichloroethylenes										11,600		
Dichloromethane			4.7	1600						11,000 (20)		
2,3-Dichlorophenol					0.04							
2,4-Dichlorophenol	93	790			0.3					2020	365	70 (35)
2,5-Dichlorophenol					0.5							
2,6-Dichlorophenol					0.2							
3,4-Dichlorophenol					0.3							
4-(2,4-Dichlorophenoxy)butyric acid												
1,2-Dichloropropane			0.52	39						23,000 (28)	5700 (28)	
Dichloropropanes										23,000	5700	
1,3-Dichloropropene	10	1700	0.34 (68)	14 (68)						6060 (29)	244 (29)	
Dichloropropenes	87	14,100								6060	244	
Dichlorvos												
Dieldrin			0.00014	0.00014		0.056 (139)		0.24				
Diesel Oil												
Diethanolamine												
Diethylamine												
Di(2-ethylhexyl) adipate												
Di(2-ethylhexyl)phthalate			1.8	5.9		(138)						
Diethyl ketone												
Diethyl phthalate	23,000	120,000								940 (45)	3 (45)	

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health (30-day Average)	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum	aquatic organism consumption only	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
2,4-Diaminotoluene									
Diazinon									
Dibenz(a,h)acridine									
Dibenz(a,j)acridine									
Dibenz(a,h)anthracene	0.0044 (113)	0.049 (113)				0.049 (113)			
7H-Dibenzo(c,g)carbazole									
Dibenzo(a,e)pyrene									
Dibenzo(a,h)pyrene									
Dibenzo(a,i)pyrene									
Dibenzo(a,l)pyrene									
Dibromoacetic acid									
Dibromoacetonitrile									
1,4-Dibromobenzene									
Dibromochloromethane	0.41 (113)	34 (113)				34 (113)			
Dibromochloropropane (DBCP)									
1,2-Dibromoethane									
Dibutyl phthalate	2700 (143)	12,000 (143)				12,000 (143)			
Dicamba									
Dichloroacetic acid									
Dichloroacetonitrile									
1,2-Dichlorobenzene	2700	17,000				17,000			
1,3-Dichlorobenzene	400	2600				2600			
1,4-Dichlorobenzene	400	2600				2600			
Dichlorobenzenes									
3,3'-Dichlorobenzidine	0.04 (113,143)	0.077 (113,143)				0.077 (113,143)			
Dichlorodifluoromethane									
1,1-Dichloroethane									
1,2-Dichloroethane	0.38 (113,143)	99 (113,143)				99 (113,143)			
1,1-Dichloroethylene	0.057 (113,143)	3.2 (113,143)				3.2 (113,143)			
cis-1,2-Dichloroethylene									
trans-1,2-Dichloroethylene	700	140,000				140,000			
Dichloroethylenes									
Dichloromethane	4.7 (113)	1600 (113)				1600 (113)			
2,3-Dichlorophenol									
2,4-Dichlorophenol	93 (143)	790 (143)				790 (143)			
2,5-Dichlorophenol									
2,6-Dichlorophenol									
3,4-Dichlorophenol									
4-(2,4-Dichlorophenoxy)butyric acid									
1,2-Dichloropropane	0.52	39				39			
Dichloropropanes									
1,3-Dichloropropene	10 (143)	1700 (143)				1700 (143)			
Dichloropropenes									
Dichlorvos									
Dieldrin	0.00014 (113)	0.00014 (113)	0.056	0.24		0.00014 (113)	0.0019 (114)		0.71
Diesel Oil									
Diethanolamine									
Diethylamine									
Di(2-ethylhexyl) adipate									
Di(2-ethylhexyl)phthalate	1.8 (113,143)	5.9 (113,143)				5.9 (113,143)			
Diethyl ketone									
Diethyl phthalate	23,000 (143)	120,000 (143)				120,000 (143)			

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average)	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	aquatic organism consumption only	6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
2,4-Diaminotoluene													
Diazinon									0.82 (68)				
Dibenz(a,h)acridine													
Dibenz(a,j)acridine													
Dibenz(a,h)anthracene	0.0088 # (33)										300 (52)		
7H-Dibenzo(c,g)carbazole											300 (52)		
Dibenzo(a,e)pyrene											300 (52)		
Dibenzo(a,h)pyrene											300 (52)		
Dibenzo(a,i)pyrene											300 (52)		
Dibenzo(a,l)pyrene											300 (52)		
Dibromoacetic acid													
Dibromoacetonitrile													
1,4-Dibromobenzene													
Dibromochloromethane	130 # (13)										12,000 (20)	6400 (20)	11,500 (20,82)
Dibromochloropropane (DBCP)													
1,2-Dibromoethane													
Dibutyl phthalate	3500										2944 (45)		3.4 (38,45)
Dicamba													
Dichloroacetic acid													
Dichloroacetonitrile													
1,2-Dichlorobenzene	5100 (77)										1970 (24)	129 (22)	
1,3-Dichlorobenzene	5100 (77)										1970 (24)	129 (22)	
1,4-Dichlorobenzene	18 #										1970 (24)	129 (22)	
Dichlorobenzenes	5100 (77)										1970	129 (22)	
3,3'-Dichlorobenzidine	0.0081 #												
Dichlorodifluoromethane											12,000 (20)	6400 (20)	11,500 (20,82)
1,1-Dichloroethane													
1,2-Dichloroethane	130 #										113,000		
1,1-Dichloroethylene	7100										224,000 (27)		
cis-1,2-Dichloroethylene											224,000 (27)		
trans-1,2-Dichloroethylene											224,000 (27)		
Dichloroethylenes											224,000		
Dichloromethane	450 #										12,000 (20)	6400 (20)	11,500 (20,82)
2,3-Dichlorophenol		1 (87)			4 (87)	10 (87)							
2,4-Dichlorophenol		1 (87)			4 (87)	10 (87)							
2,5-Dichlorophenol		1 (87)			4 (87)	10 (87)							
2,6-Dichlorophenol		1 (87)			4 (87)	10 (87)							
3,4-Dichlorophenol		1 (87)			4 (87)	10 (87)							
4-(2,4-Dichlorophenoxy)butyric acid													
1,2-Dichloropropane											10,300 (28)	3040 (28)	
Dichloropropanes											10,300	3040	
1,3-Dichloropropene	8.9 #										790 (29)		
Dichloropropenes											790		
Dichlorvos													
Dieldrin	0.00004 #						0.0019 (114)			0.71			
Diesel Oil													
Diethanolamine													
Diethylamine													
Di(2-ethylhexyl) adipate													
Di(2-ethythexyl)phthalate	3.5 #						(138)						
Diethyl ketone													
Diethyl phthalate	33,000										2944 (45)		3.4 (38,45)

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
2,4-Diaminotoluene	95-80-7	2,4-Toluenediamine		
Diazinon	333-41-5	Basudin	Neocidol	
Dibenz(a,h)acridine	226-36-8			
Dibenz(a,j)acridine	224-42-0			
Dibenz(a,h)anthracene	53-70-3	1,2;5,6-Dibenzanthracene	Dibenzo(a,h)anthracene	a polynuclear aromatic hydrocarbon
7H-Dibenzo(c,g)carbazole	194-59-2			a polynuclear aromatic hydrocarbon
Dibenzo(a,e)pyrene	192-65-4			a polynuclear aromatic hydrocarbon
Dibenzo(a,h)pyrene	189-64-0			a polynuclear aromatic hydrocarbon
Dibenzo(a,i)pyrene	189-55-9			a polynuclear aromatic hydrocarbon
Dibenzo(a,l)pyrene	191-30-0			a polynuclear aromatic hydrocarbon
Dibromoacetic acid		A haloacetic acid		
Dibromoacetonitrile	3252-43-5			
1,4-Dibromobenzene	106-37-6			
Dibromochloromethane	124-48-1	Chlorodibromomethane		a trihalomethane (THM)
Dibromochloropropane (DBCP)	96-12-8	1,2-Dibromo-3-chloropropane	DBCP	
1,2-Dibromoethane	106-93-4	Ethylene dibromide	EDB	
Dibutyl phthalate	84-74-2	Bis-butyl phthalate	Di-n-butylphthalate	A phthalate acid ester (PAE)
Dicamba	1918-00-9	Banvel		
Dichloroacetic acid	79-43-6	A haloacetic acid		
Dichloroacetonitrile	3018-12-0			
1,2-Dichlorobenzene	95-50-1	o-Dichlorobenzene	o-DCB	
1,3-Dichlorobenzene	541-73-1	m-Dichlorobenzene		
1,4-Dichlorobenzene	106-46-7	p-Dichlorobenzene	PDB	p-DCB
Dichlorobenzenes	25321-22-6	Benzenes, dichloro-		
3,3'-Dichlorobenzidine	91-94-1	DCB		
Dichlorodifluoromethane	75-71-8	Difluorodichloromethane	Freon 12	
1,1-Dichloroethane	75-34-3	1,1-DCA		
1,2-Dichloroethane	107-06-2	1,2-DCA	Ethylene dichloride	Freon 150
1,1-Dichloroethylene	75-35-4	1,1-Dichloroethene	1,1-DCE	Vinylidene chloride
cis-1,2-Dichloroethylene	156-59-2	cis-1,2-Dichloroethene	cis-1,2-DCE	
trans-1,2-Dichloroethylene	156-60-5	trans-1,2-Dichloroethene	trans-1,2-DCE	
Dichloroethylenes		Ethylenes, dichloro-	Dichloroethenes	
Dichloromethane	75-09-2	Methylene chloride		
2,3-Dichlorophenol	576-24-9			
2,4-Dichlorophenol	120-83-2			
2,5-Dichlorophenol	583-78-8			
2,6-Dichlorophenol	87-65-0			
3,4-Dichlorophenol	95-77-2			
4-(2,4-Dichlorophenoxy)butyric acid	94-82-6	2,4-D butyric acid		
1,2-Dichloropropane	78-87-5	Propylene dichloride	component of D-D	minor component of Telone
Dichloropropanes	26638-19-7	Propanes, dichloro-		
1,3-Dichloropropene	542-75-6	1,3-Dichloropropylene	component of D-D	major component of Telone
Dichloropropenes		Propenes, dichloro-		
Dichlorvos	62-73-7	DDVP	Dichlorodimethylvinylphosphate	
Dieldrin	60-57-1			
Diesel Oil	68476-34-6	Fuel oil #2		a petroleum hydrocarbon
Diethanolamine	111-42-2	DEA		
Diethylamine	109-89-7			
Di(2-ethylhexyl) adipate	103-23-1			
Di(2-ethylhexyl)phthalate	117-81-7	Bis(2-ethylhexyl) phthalate	DEHP	A phthalate acid ester (PAE)
Diethyl ketone	96-22-0	3-Pentanone		
Diethyl phthalate	84-66-2	Bis-ethyl phthalate	A phthalate acid ester (PAE)	

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
Diethylstilbestrol									
Diethyl sulfate									
Difenzoquat									
Diflubenzuron									
Diglycidyl resorcinol ether									
Dihydrosafrole									
Diisobutyl ketone									14 (126)
Diisopropylamine									1300 (126)
Diisopropyl methyl phosphonate									
Dimethipin									
Dimethoate							1		
3,3'-Dimethoxybenzidine									
3,3'-Dimethoxybenzidine hydrochloride									
Dimethrin									
Dimethylamine									290 (126)
4-Dimethylaminoazobenzene									
[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-									
N,N-Dimethylaniline									25 (126)
7,12-Dimethylbenz(a)anthracene									
3,3'-Dimethylbenzidine									
3,3'-Dimethylbenzidine dihydrochloride									
Dimethylcarbamoyl chloride									
N,N-Dimethylformamide									50,000 (126)
1,1-Dimethylhydrazine									
1,2-Dimethylhydrazine									
Dimethyl methyl phosphonate									
2,4-Dimethylphenol							100		
2,6-Dimethylphenol									
3,4-Dimethylphenol									
Dimethyl phthalate									
Dimethyl sulfate									
Dimethyl terephthalate									
Dimethylvinylchloride									
1,3-Dinitrobenzene									
4,6-Dinitro-o-cresol									
4,6-Dinitro-o-cyclohexyl phenol									
2,4-Dinitrophenol									
Dinitrophenols									
1,6-Dinitropyrene									
1,8-Dinitropyrene									
2,4-Dinitrotoluene									
2,6-Dinitrotoluene									
Dinitrotoluenes									
Dinoseb	7		7		7	14			
Di(n-octyl) phthalate									
1,4-Dioxane							3 #		230,000 (126)
Diphenamid(e)							200		
Diphenylamine									
1,2-Diphenylhydrazine									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
Diethylstilbestrol				0.0001				0.001 #	
Diethyl sulfate								0.35 # (68)	
Difenzoquat	560								
Diflubenzuron	140								
Diglycidyl resorcinol ether				0.021				0.2 #	
Dihydrosafrole				0.8				10 #	
Diisobutyl ketone									
Diisopropylamine									
Diisopropyl methyl phosphonate	560	600			(D)	(D)			
Dimethipin	14				(C)				
Dimethoate	1.4								
3,3'-Dimethoxybenzidine								0.05 # (68)	
3,3'-Dimethoxybenzidine hydrochloride								0.1 # (68)	
Dimethrin		2000				(D)			
Dimethylamine									
4-Dimethylaminoazobenzene				0.0076				0.1 #	
[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-				0.08				1 #	
N,N-Dimethylaniline	14								
7,12-Dimethylbenz(a)anthracene				0.00014				0.0015 #	
3,3'-Dimethylbenzidine								0.0045 # (68)	
3,3'-Dimethylbenzidine dihydrochloride								0.005 # (68)	
Dimethylcarbamoyl chloride				0.0027				0.025 #	
N,N-Dimethylformamide									
1,1-Dimethylhydrazine								0.15 # (68)	
1,2-Dimethylhydrazine				0.000064				0.0005 #	
Dimethyl methyl phosphonate		100				7 (C)			
2,4-Dimethylphenol	140								
2,6-Dimethylphenol	4								
3,4-Dimethylphenol	7								
Dimethyl phthalate					(D)	(D)			
Dimethyl sulfate					(B2)			0.025 # (68)	
Dimethyl terephthalate	700								
Dimethylvinylchloride				0.78				10 #	
1,3-Dinitrobenzene	0.7	1			(D)	(D)		40 R (5,68)	
4,6-Dinitro-o-cresol			110 (11)						
4,6-Dinitro-o-cyclohexyl phenol	14								
2,4-Dinitrophenol	14		110 (11)						
Dinitrophenols			110						
1,6-Dinitropyrene				0.00029 (93)				0.01 # (68)	
1,8-Dinitropyrene				0.0029 (93)				0.005 # (68)	
2,4-Dinitrotoluene	14	500 (10-day)		0.11	0.05 (B2,65)	0.05 (B2,65)		1 #R	
2,6-Dinitrotoluene		400 (10-day)			0.05 (B2,65)	0.05 (B2,65)		#R	
Dinitrotoluenes									
Dinoseb	7	7	39		(D)	(D)		R	
Di(n-octyl) phthalate									
1,4-Dioxane		400 (10-day)		1.3	3 (B2)	3 (B2)		15 #	
Diphenamid(e)	210	200				(D)			
Diphenylamine	180	200				(D)			
1,2-Diphenylhydrazine				0.04	0.05 (B2)			0.4 #	

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Diethylstilbestrol												
Diethyl sulfate												
Difenzoquat												
Diflubenzuron												
Diglycidyl resorcinol ether												
Dihydrosafrole												
Diisobutyl ketone												
Diisopropylamine												
Diisopropyl methyl phosphonate												
Dimethipin												
Dimethoate												
3,3'-Dimethoxybenzidine												
3,3'-Dimethoxybenzidine hydrochloride												
Dimethrin												
Dimethylamine												
4-Dimethylaminoazobenzene												
[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-												
N,N-Dimethylaniline												
7,12-Dimethylbenz(a)anthracene												
3,3'-Dimethylbenzidine												
3,3'-Dimethylbenzidine dihydrochloride												
Dimethylcarbamoyl chloride												
N,N-Dimethylformamide												
1,1-Dimethylhydrazine												
1,2-Dimethylhydrazine												
Dimethyl methyl phosphonate												
2,4-Dimethylphenol	540	2300			400					2120		
2,6-Dimethylphenol												
3,4-Dimethylphenol												
Dimethyl phthalate	313,000	2,900,000								940 (45)	3 (45)	
Dimethyl sulfate												
Dimethyl terephthalate										940 (45)	3 (45)	
Dimethylvinylchloride												
1,3-Dinitrobenzene												
4,6-Dinitro-o-cresol	13.4	765								230 (88)		150 (38.88)
4,6-Dinitro-o-cyclohexyl phenol												
2,4-Dinitrophenol	70	14,000								230 (88)		150 (38.88)
Dinitrophenols	70	14,300								230 (88)		150 (38.88)
1,6-Dinitropyrene												
1,8-Dinitropyrene												
2,4-Dinitrotoluene			0.11	9.1						330 (53)	230 (53)	
2,6-Dinitrotoluene										330 (53)	230 (53)	
Dinitrotoluenes										330	230	
Dinoseb												
Di(n-octyl) phthalate										940 (45)	3 (45)	
1,4-Dioxane												
Diphenamid(e)												
Diphenylamine												
1,2-Diphenylhydrazine			0.040	0.54						270		

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum	(30-day Average) aquatic organism consumption only	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
Diethylstilbestrol									
Diethyl sulfate									
Difenzoquat									
Diflubenzuron									
Diglycidyl resorcinol ether									
Dihydrosafrole									
Diisobutyl ketone									
Diisopropylamine									
Diisopropyl methyl phosphonate									
Dimethipin									
Dimethoate									
3,3'-Dimethoxybenzidine									
3,3'-Dimethoxybenzidine hydrochloride									
Dimethrin									
Dimethylamine									
4-Dimethylaminoazobenzene									
[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-									
N,N-Dimethylaniline									
7,12-Dimethylbenz(a)anthracene									
3,3'-Dimethylbenzidine									
3,3'-Dimethylbenzidine dihydrochloride									
Dimethylcarbamoyl chloride									
N,N-Dimethylformamide									
1,1-Dimethylhydrazine									
1,2-Dimethylhydrazine									
Dimethyl methyl phosphonate									
2,4-Dimethylphenol	540	2300				2300			
2,6-Dimethylphenol									
3,4-Dimethylphenol									
Dimethyl phthalate	313,000 (143)	2,900,000 (143)				2,900,000 (143)			
Dimethyl sulfate									
Dimethyl terephthalate									
Dimethylvinylchloride									
1,3-Dinitrobenzene									
4,6-Dinitro-o-cresol	13.4 (143)	765 (143)				765 (143)			
4,6-Dinitro-o-cyclohexyl phenol									
2,4-Dinitrophenol	70 (143)	14,000 (143)				14,000 (143)			
Dinitrophenols									
1,6-Dinitropyrene									
1,8-Dinitropyrene									
2,4-Dinitrotoluene	0.11 (113,143)	9.1 (113,143)				9.1 (113,143)			
2,6-Dinitrotoluene									
Dinitrotoluenes									
Dinoseb									
Di(n-octyl) phthalate									
1,4-Dioxane									
Diphenamid(e)									
Diphenylamine									
1,2-Diphenylhydrazine	0.040 (113,143)	0.54 (113,143)				0.54 (113,143)			

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average)	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	aquatic organism consumption only	6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Diethylstilbestrol													
Diethyl sulfate													
Difenzoquat													
Diflubenzuron													
Diglycidyl resorcinol ether													
Dihydrosafrole													
Diisobutyl ketone													
Diisopropylamine													
Diisopropyl methyl phosphonate													
Dimethipin													
Dimethoate													
3,3'-Dimethoxybenzidine													
3,3'-Dimethoxybenzidine hydrochloride													
Dimethrin													
Dimethylamine													
4-Dimethylaminoazobenzene													
[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-													
N,N-Dimethylaniline													
7,12-Dimethylbenz(a)anthracene											300 (52)		
3,3'-Dimethylbenzidine													
3,3'-Dimethylbenzidine dihydrochloride													
Dimethylcarbamoyl chloride													
N,N-Dimethylformamide													
1,1-Dimethylhydrazine													
1,2-Dimethylhydrazine													
Dimethyl methyl phosphonate													
2,4-Dimethylphenol		30 (86)			120 (86)	300 (86)							
2,6-Dimethylphenol													
3,4-Dimethylphenol													
Dimethyl phthalate	820,000										2944 (45)		3.4 (38,45)
Dimethyl sulfate													
Dimethyl terephthalate											2944 (45)		3.4 (38,45)
Dimethylvinylchloride													
1,3-Dinitrobenzene													
4,6-Dinitro-o-cresol	220	30 (86)			120 (86)	300 (86)					4850 (88)		
4,6-Dinitro-o-cyclohexyl phenol		30 (86)			120 (86)	300 (86)							
2,4-Dinitrophenol	4.0	30 (86)			120 (86)	300 (86)					4850 (88)		
Dinitrophenols		30 (86)			120 (86)	300 (86)					4850 (88)		
1,6-Dinitropyrene													
1,8-Dinitropyrene													
2,4-Dinitrotoluene	2.6 #										590 (53)		370 (53,82)
2,6-Dinitrotoluene											590 (53)		370 (53,82)
Dinitrotoluenes											590		370 (82)
Dinoseb													
Di(n-octyl) phthalate											2944 (45)		3.4 (38,45)
1,4-Dioxane													
Diphenamid(e)													
Diphenylamine													
1,2-Diphenylhydrazine	0.16 #												

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
Diethylstilbestrol	56-53-1	DES		
Diethyl sulfate	64-67-5			
Difenzoquat	43222-48-6	Avenge		
Diflubenzuron	35367-38-5			
Diglycidyl resorcinol ether	101-90-6	DGRE		
Dihydrosafrole	94-58-6	1,2-(Methylenedioxy)-4-propylbenzene	1,3-Benzodioxole	
Diisobutyl ketone	108-83-8	2,6-Dimethyl-4-heptanone		
Diisopropylamine	108-18-9			
Diisopropyl methyl phosphonate	1445-75-6	DIMP		
Dimethipin	55290-64-7	Harvade		
Dimethoate	60-51-5	De-Fend	Cygon	Fosfamid
3,3'-Dimethoxybenzidine	119-90-4	o-Dianisidine		
3,3'-Dimethoxybenzidine hydrochloride	20325-40-0	o-Dianisidine dihydrochloride		
Dimethrin	70-38-2	2,4-Dimethylbenzylester	Chrysanthemumic acid	
Dimethylamine	124-40-3	DMA		
4-Dimethylaminoazobenzene	60-11-7	Methyl yellow	Butter yellow	
[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-	55738-54-0			
N,N-Dimethylaniline	121-69-7			
7,12-Dimethylbenz(a)anthracene	57-97-6	DMBA		a polynuclear aromatic hydrocarbon
3,3'-Dimethylbenzidine	119-93-7	o-Tolidine		
3,3'-Dimethylbenzidine dihydrochloride	612-82-8	o-Tolidine hydrochloride		
Dimethylcarbamoyl chloride	79-44-7	Dimethylcarbamyl chloride		
N,N-Dimethylformamide	68-12-2	DMF		
1,1-Dimethylhydrazine	57-14-7	UDMH	unsymmetrical-Dimethylhydrazine	
1,2-Dimethylhydrazine	540-73-8	symmetrical-Dimethylhydrazine		
Dimethyl methyl phosphonate				
2,4-Dimethylphenol	105-67-9	asymmetrical-m-Xylenol	2,4-DMP	
2,6-Dimethylphenol	576-26-1			
3,4-Dimethylphenol	95-65-8			
Dimethyl phthalate	131-11-3	Bis-methyl phthalate	A phthalate acid ester (PAE)	
Dimethyl sulfate	77-78-1			
Dimethyl terephthalate	120-61-6	DMT	Dimethyl p-phthalate	
Dimethylvinylchloride	513-37-1	1-Chloro-2-methylpropene	1-Chloroisobutene	
1,3-Dinitrobenzene	99-65-0	m-Dinitrobenzene		
4,6-Dinitro-o-cresol	534-52-1	2-Methyl-4,6-dinitrophenol	4,6-Dinitro-2-methylphenol	
4,6-Dinitro-o-cyclohexyl phenol	131-89-5	DNOHP		
2,4-Dinitrophenol	51-28-5			
Dinitrophenols	25550-58-7			
1,6-Dinitropyrene	42397-64-8			
1,8-Dinitropyrene	42397-65-9			
2,4-Dinitrotoluene	121-14-2			
2,6-Dinitrotoluene	606-20-2			
Dinitrotoluenes	25321-14-6	Toluenes, dinitro-		
Dinoseb	88-85-7	DNBP		
Di(n-octyl) phthalate	117-84-0	Bis-n-octyl phthalate	A phthalate acid ester (PAE)	
1,4-Dioxane	123-91-1	p-Dioxane	Diethylene ether	
Diphenamid(e)	957-51-7	Diphenamide		
Diphenylamine	122-39-4			
1,2-Diphenylhydrazine	122-66-7	Hydrazobenzene		

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
Diquat	20		20		20	15 (100)			
Direct Black 38									
Direct Blue 6									
Direct Brown 95									
Disperse Blue 1									
Disyston									
1,4-Dithiane									
Diuron									
Dodine									
Endosulfan									
Endosulfan sulfate									
Endothal	100		100		100	580			
Endrin	2		2		2	1.8			
Epichlorohydrin			(145)		zero				500 to 1000 / 3000 (125,126)
Estradiol 17B									
Ethane									7500 (126)
Ethanol									760,000 (126)
Ethanolamine									20,000,000 (126)
Ethephon									
Ethion							4		
2-Ethoxyethanol									190,000 (126)
2-Ethoxyethyl acetate									5000 (126)
Ethyl acetate									2600 (126)
Ethyl acrylate									0.38 (126)
Ethylamine									4300 (126)
Ethyl n-amyl ketone									2500 (126)
Ethylbenzene	700 / 300 (100)		700	30 (100)	700	300			29 (26,125)
Ethyl bromide									46 (126)
Ethyl-4,4'-dichlorobenzilate									
S-Ethyl dipropylthiocarbamate									
Ethylene									39 (126)
Ethylenediamine									16,000,000 (126)
Ethylene glycol									
Ethylene glycol monobutyl ether									
Ethyleneimine									170,000 (126)
Ethylene oxide (ETO)									140,000 (126)
Ethylene thiourea (ETU)									
Ethyl ether									750 (126)
Ethyl formate									11,000 (126)
Ethyl mercaptan									0.0075 (126)
Ethyl p-nitrophenyl phenylphosphorothioate									
Ethylphthalyl ethylglycolate									
Express									
Fenamiphos									
Ferbam									
Fluometuron									
Fluoranthene									
Fluorene									
Fluridone									
Flurprimidol									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
Diquat	16					(D)			
Direct Black 38				0.0047 (65)				0.045 # (65)	
Direct Blue 6				0.0047 (65)				0.045 # (65)	
Direct Brown 95				0.0052 (65)				0.05 # (65)	
Disperse Blue 1				7.8 (65)				100 #	
Disyston	0.3	0.3	0.7			(E)			
1,4-Dithiane	70	80			(D)	(D)			
Diuron	14	10				(D)			
Dodine	28								
Endosulfan	42								
Endosulfan sulfate									
Endothal	140	100				(D)			
Endrin	2	2			(D)	(D)		#R	
Epichlorohydrin		100 (10-day)	530 (7-day)	0.44	3 (B2)	4 (B2)		4.5 #R	
Estradiol 17B				0.0009				0.01 #	
Ethane									
Ethanol									
Ethanolamine									
Ethephon	35								
Ethion	3.5								
2-Ethoxyethanol								R	
2-Ethoxyethyl acetate								R	
Ethyl acetate	6300								
Ethyl acrylate								#	
Ethylamine									
Ethyl n-amyl ketone									
Ethylbenzene	700	700			(D)	(D)			
Ethyl bromide									
Ethyl-4,4'-dichlorobenzilate	140			0.32				3.5 #	
S-Ethyl dipropylthiocarbamate	180								
Ethylene									
Ethylenediamine									
Ethylene glycol	14,000	14,000				(D)			
Ethylene glycol monobutyl ether	350				(C)				
Ethyleneimine				0.00054				0.005 #	
Ethylene oxide (ETO)				0.11				1 / 10 #R (5)	
Ethylene thiourea (ETU)	0.6	300 (10-day)		0.78		0.2 (B2)	0.23	10 / 3 #R (68)	
Ethyl ether	1400								
Ethyl formate									
Ethyl mercaptan									
Ethyl p-nitrophenyl phenylphosphorothioate	0.07								
Ethylphthalyl ethylglycolate	21,000								
Express	56								
Fenamiphos	1.8	2				(D)			
Ferbam			87.5						
Fluometuron	91	90				(D)			
Fluoranthene	280				(D)				
Fluorene	280				(D)	(D)			
Fluridone	560								
Flurprimidol	140								

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Diquat									0.5 (54)			
Direct Black 38												
Direct Blue 6												
Direct Brown 95												
Disperse Blue 1												
Disyston									0.05 (54)			
1,4-Dithiane												
Diuron												
Dodine												
Endosulfan	110 (115)	240 (115)				0.056 (114,115)			0.22 (115)			
Endosulfan sulfate	110	240					0.056 (104)					
Endothal												
Endrin	0.76 (18)	0.81 (18)				0.036,139		0.086				
Epichlorohydrin												
Estradiol 17B												
Ethane												
Ethanol												
Ethanolamine												
Ethephon												
Ethion									0.02 (54)			
2-Ethoxyethanol												
2-Ethoxyethyl acetate												
Ethyl acetate												
Ethyl acrylate												
Ethylamine												
Ethyl n-amyl ketone												
Ethylbenzene	3100	29,000								32,000		
Ethyl bromide												
Ethyl-4,4'-dichlorobenzilate												
S-Ethyl dipropylthiocarbamate												
Ethylene												
Ethylenediamine												
Ethylene glycol												
Ethylene glycol monobutyl ether												
Ethyleneimine												
Ethylene oxide (ETO)												
Ethylene thiourea (ETU)												
Ethyl ether												
Ethyl formate												
Ethyl mercaptan												
Ethyl p-nitrophenyl phenylphosphorothioate												
Ethylphthalyl ethylglycolate	86,000 (68)	5,080,000 (68)								940 (45)	3 (45)	
Express												
Fenamiphos												
Ferbam												
Fluometuron												
Fluoranthene	300	370								3980		
Fluorene	1300	14,000										
Fluridone												
Flurprimidol												

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health (30-day Average)	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum	aquatic organism consumption only	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
Diquat									
Direct Black 38									
Direct Blue 6									
Direct Brown 95									
Disperse Blue 1									
Disyston									
1,4-Dithiane									
Diuron									
Dodine									
Endosulfan	110 (115)	240 (115)	0.056 (114,115)		0.22 (115)	240 (115)	0.0087 (114,115)		0.034 (115)
Endosulfan sulfate	110	240				240			
Endothal									
Endrin	0.76 (18)	0.81 (18)	0.036	0.086		0.81 (18)	0.0023 (114)		0.037
Epichlorohydrin									
Estradiol 17B									
Ethane									
Ethanol									
Ethanolamine									
Ethephon									
Ethion									
2-Ethoxyethanol									
2-Ethoxyethyl acetate									
Ethyl acetate									
Ethyl acrylate									
Ethylamine									
Ethyl n-amyl ketone									
Ethylbenzene	3100 (143)	29,000 (143)				29,000 (143)			
Ethyl bromide									
Ethyl-4,4'-dichlorobenzilate									
S-Ethyl dipropylthiocarbamate									
Ethylene									
Ethylenediamine									
Ethylene glycol									
Ethylene glycol monobutyl ether									
Ethyleneimine									
Ethylene oxide (ETO)									
Ethylene thiourea (ETU)									
Ethyl ether									
Ethyl formate									
Ethyl mercaptan									
Ethyl p-nitrophenyl phenylphosphorothioate									
Ethylphthalyl ethylglycolate									
Express									
Fenamiphos									
Ferbam									
Fluometuron									
Fluoranthene	300	370				370			
Fluorene	1300	14,000				14,000			
Fluridone									
Flurprimidol									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average) aquatic organism consumption only	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
		6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Diquat													
Direct Black 38													
Direct Blue 6													
Direct Brown 95													
Disperse Blue 1													
Disyston													
1,4-Dithiane													
Diuron													
Dodine													
Endosulfan		0.009 (42)			0.018 (42)	0.027 (42)	0.0087 (114,115)			0.034 (115)			
Endosulfan sulfate		0.009 (42)			0.018 (42)	0.027 (42)		0.0087 (104)					
Endothal													
Endrin		0.002			0.004	0.006	0.0023 (114)			0.037			
Epichlorohydrin													
Estradiol 17B													
Ethane													
Ethanol													
Ethanolamine													
Ethephon													
Ethion													
2-Ethoxyethanol													
2-Ethoxyethyl acetate													
Ethyl acetate													
Ethyl acrylate													
Ethylamine													
Ethyl n-amyl ketone													
Ethylbenzene	4100										430		
Ethyl bromide													
Ethyl-4,4'-dichlorobenzilate													
S-Ethyl dipropylthiocarbamate													
Ethylene													
Ethylenediamine													
Ethylene glycol													
Ethylene glycol monobutyl ether													
Ethyleneimine													
Ethylene oxide (ETO)													
Ethylene thiourea (ETU)													
Ethyl ether													
Ethyl formate													
Ethyl mercaptan													
Ethyl p-nitrophenyl phenylphosphorothioate													
Ethylphthalyl ethylglycolate											2944 (45)		3.4 (38,45)
Express													
Fenamiphos													
Ferbam													
Fluometuron													
Fluoranthene	15										40	16	
Fluorene	0.0088 # (33)										300 (52)		
Fluridone													
Flurprimidol													

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
Diquat	85-00-7	Aquacide	Reglone	
Direct Black 38	1937-37-7	2-Naphthalenesulfonic acid		
Direct Blue 6	2602-46-2	Diazine blue		
Direct Brown 95	16071-86-6			
Disperse Blue 1	2475-45-8	1,4,5,8-Tetraminoanthraquinone		
Disyston	298-04-4	Disulfoton	Ethylthiodemeton	
1,4-Dithiane	505-29-3			
Diuron	330-54-1	Crisuron	Dialon	Karmex
Dodine	2439103	Dodecylguanidine acetate		
Endosulfan	115-29-7	Endosulfan I (alpha)	Endosulfan II (beta)	Thiodan
Endosulfan sulfate	1031-07-8			
Endothal	145-73-3	Endothall		
Endrin	72-20-8	Endrex	Hexadrin	
Epichlorohydrin	106-89-8	Chloropropylene	1-Chloro-2,3-epoxypropane	
Estradiol 17B	50-28-2	Altrad	Baridol	Femogen
Ethane	74-84-0			
Ethanol	64-17-5	Ethyl alcohol		
Ethanolamine	141-43-5	2-Aminoethanol	MEA	Monoethanolamine
Ethephon	16672-87-0	2-Chloroethylphosphonic acid		
Ethion	563-12-2	Diethion		
2-Ethoxyethanol	110-80-5	Ethylene glycol monoethyl ether		
2-Ethoxyethyl acetate	111-15-9	Ethylene glycol monoethyl ether acetate		
Ethyl acetate	141-78-6			
Ethyl acrylate	140-88-5			
Ethylamine	75-04-7	Aminoethane		
Ethyl n-amyl ketone	106-68-3	EAK	5-Methyl-3-heptanone	
Ethylbenzene	100-41-4	Phenylethane		
Ethyl bromide	74-96-4	Bromoethane		
Ethyl-4,4'-dichlorobenzilate	510-15-6	Chlorobenzilate		
S-Ethyl dipropylthiocarbamate	759-94-4	EPTC	Eptam	
Ethylene	74-85-1			
Ethylenediamine	107-15-3	1,2-Diaminoethane		
Ethylene glycol	107-21-1	1,2-Ethane diol		
Ethylene glycol monobutyl ether	111-76-2	2-Butoxy ethanol	Ethylene glycol butyl ether	EGBE
Ethyleneimine	151-56-4	Aziridine		
Ethylene oxide (ETO)	75-21-8	ETO	Epoxyethane	Oxirane
Ethylene thiourea (ETU)	96-45-7	ETU		
Ethyl ether	60-29-7			
Ethyl formate	109-94-4			
Ethyl mercaptan	75-08-1	Ethanethiol		
Ethyl p-nitrophenyl phenylphosphorothioate	2104-64-5	EPN		
Ethylphthalyl ethylglycolate	84-72-0	EPEG	Ethyl carbethoxymethyl phthalate	A phthalate acid ester (PAE)
Express	101200-48-0	IN L5300		
Fenamiphos	22224-92-6	Nemacur	Phenamiphos	
Ferbam	14484-64-1	Fermate		
Fluometuron	2164-17-2	Coloron	Cottonex	Lanex
Fluoranthene	206-44-0			a polynuclear aromatic hydrocarbon
Fluorene	86-73-7			a polynuclear aromatic hydrocarbon
Fluridone	59756-60-4	Sonar		
Flurprimidol	56425-91-3	Cutlass		

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
Flutolanil									
Fluvalinate									
Foaming agents (MBAS)		500		500					
Folpet									
Fomesafen									
Fonofos									
Formaldehyde							100		600 (126)
Formic acid									1,700,000 (126)
2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole									
Fosetyl-al									
Furan									
Furfural									3500 (126)
Furmecyclox									
Gasoline									5 (55)
Glufosinate-ammonium									
Glu-P-1									
Glu-P-2									
Glycidaldehyde									
Glycidol									
Glyphosate	700		700		700	1000			
Griseofluvin									
Gyromitrin									
Haloethers									
Halomethanes			100 / 80 (19,100)						
Halothane									290 (126)
Haloxyfop-methyl									
Harmony									
HC Blue 1									
Heptachlor	0.01		0.4		zero	0.008			
Heptachlor epoxide	0.01		0.2		zero	0.006			
Heptane									7.3 (126)
Hexabromobenzene									
Hexachlorobenzene	1		1		zero				
Hexachlorobutadiene									
Hexachlorocyclopentadiene	50		50	8 (100)	50	50			7.7 (126)
Hexachlorodibenzo-p-dioxin									
Hexachloroethane									10 (126)
Hexachlorophene									
Hexamethylphosphoramide									
n-Hexane									6.4 (126)
Hexazinone									
HMX									
Imazalil									
Imazaquin									
Indene									0.26 (126)
Indeno(1,2,3-c,d)pyrene									
Iodoform									11 (126)
Iprodione									
IQ									
Isoamyl acetate									17 (126)

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
Flutolanil	420								
Fluvalinate	70							R	
Foaming agents (MBAS)									
Folpet			1120		0.1 (B2)			100 #	
Fomesafen					0.2 (C)				
Fonofos	14	10				(D)			
Formaldehyde	1400	1000 (68)			(B1,119)	(B1,119)		20 # (124)	
Formic acid									
2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole				0.015				0.15 #	
Fosetyl-al	2100				(C)				
Furan	7							#	
Furfural	21								
Furmecyclox				1.2	1 (B2)			10 #	
Gasoline		5 (100,107)							
Glufosinate-ammonium	3								
Glu-P-1				0.0073				0.05 #	
Glu-P-2				0.025				0.25 #	
Glycidaldehyde	2.8				(B2)			#	
Glycidol								0.2 # (68)	
Glyphosate	700	700			(D)	(D)			
Griseofluvin								25 # (68)	
Gyromitrin				0.0035				0.035 #	
Haloethers									
Halomethanes									
Halothane								R	
Haloxyfop-methyl	0.35								
Harmony	91								
HC Blue 1				0.69				5 #	
Heptachlor		10 (10-day)		0.0085	0.008 (B2)	0.008 (B2)	0.012	0.1 #R	
Heptachlor epoxide		10 (24-hr)		0.0064	0.004 (B2)	0.004 (B2)		0.04 #	
Heptane					(D)				
Hexabromobenzene	14								
Hexachlorobenzene		50 (10-day)	30 (7-day)	0.019	0.02 (B2)	0.02 (B2)	0.017	0.2 #R	
Hexachlorobutadiene		1			0.5 (C)	0.5 (C)			
Hexachlorocyclopentadiene	49 / 42 (68)				(D / E, 68)	(D)			
Hexachlorodibenzo-p-dioxin				0.000011 (120)	0.000006 (B2)			0.0001 #	
Hexachloroethane	0.7	1		0.9	3 (C)	(C)		10 #	
Hexachlorophene	2		7						
Hexamethylphosphoramide								0.005 #R (68)	
n-Hexane		4000 (10-day)				(D)			
Hexazinone	230	400				(D)			
HMX	350	400			(D)	(D)			
Imazalil	91								
Imazaquin	1800								
Indene									
Indeno(1,2,3-c,d)pyrene				0.029 (93)	(B2)	(B2)		#	
Iodoform									
Iprodione	280							#	
IQ				0.025				0.25 #	
Isoamyl acetate									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Flutolanil												
Fluvalinate												
Foaming agents (MBAS)												
Folpet												
Fomesafen												
Fonofos												
Formaldehyde												
Formic acid												
2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole												
Fosetyl-al												
Furan												
Furfural												
Furmecyclox												
Gasoline												
Glufosinate-ammonium												
Glu-P-1												
Glu-P-2												
Glycidaldehyde												
Glycidol												
Glyphosate												
Griseofluvin												
Gyromitrin												
Haloethers										360	122	
Halomethanes										11,000		
Halothane												
Haloxyfop-methyl												
Harmony												
HC Blue 1												
Heptachlor			0.00021	0.00021		0.0038 (114)			0.52			
Heptachlor epoxide			0.00010	0.00011		0.0038 (114)			0.52			
Heptane												
Hexabromobenzene												
Hexachlorobenzene			0.00075	0.00077						250 (22)		50 (22,23)
Hexachlorobutadiene			0.44 / 0.11 / 0.046 (154)	50 / 0.12 / 0.049 (154)						90	9.3	
Hexachlorocyclopentadiene	240	17,000			1					7.0	5.2	
Hexachlorodibenzo-p-dioxin												
Hexachloroethane			1.9	8.9						980	540	
Hexachlorophene												
Hexamethylphosphoramide												
n-Hexane												
Hexazinone												
HMX												
Imazalil												
Imazaquin												
Indene												
Indeno(1,2,3-c,d)pyrene			0.0044 (41)	0.049 (41)								
Iodoform										11,000 (20)		
Iprodione												
IQ												
Isoamyl acetate												

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health (30-day Average) aquatic organism consumption only	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum		Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
Flutolanil									
Fluvalinate									
Foaming agents (MBAS)									
Folpet									
Fomesafen									
Fonofos									
Formaldehyde									
Formic acid									
2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole									
Fosetyl-al									
Furan									
Furfural									
Furmecyclox									
Gasoline									
Glufosinate-ammonium									
Glu-P-1									
Glu-P-2									
Glycidaldehyde									
Glycidol									
Glyphosate									
Griseofluvin									
Gyromitrin									
Haloethers									
Halomethanes									
Halothane									
Haloxyfop-methyl									
Harmony									
HC Blue 1									
Heptachlor	0.00021 (113)	0.00021 (113)	0.0038 (114)		0.52	0.00021 (113)	0.0036 (114)		0.053
Heptachlor epoxide	0.00010 (113)	0.00011 (113)	0.0038 (114)		0.52	0.00011 (113)	0.0036 (114)		0.053
Heptane									
Hexabromobenzene									
Hexachlorobenzene	0.00075 (113)	0.00077 (113)				0.00077 (113)			
Hexachlorobutadiene	0.44 (113,143)	50 (113,143)				50 (113,143)			
Hexachlorocyclopentadiene	240 (143)	17,000 (143)				17,000 (143)			
Hexachlorodibenzo-p-dioxin									
Hexachloroethane	1.9 (113,143)	8.9 (113,143)				8.9 (113,143)			
Hexachlorophene									
Hexamethylphosphoramide									
n-Hexane									
Hexazinone									
HMX									
Imazalil									
Imazaquin									
Indene									
Indeno(1,2,3-c,d)pyrene	0.0044 (113)	0.049 (113)				0.049 (113)			
Iodoform									
Iprodione									
IQ									
Isoamyl acetate									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average)	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	aquatic organism consumption only	6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Flutolanil													
Fluvalinate													
Foaming agents (MBAS)													
Folpet													
Fomesafen													
Fonofos													
Formaldehyde													
Formic acid													
2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole													
Fosetyl-al													
Furan													
Furfural													
Furmecyclox													
Gasoline													
Glufosinate-ammonium													
Glu-P-1													
Glu-P-2													
Glycidaldehyde													
Glycidol													
Glyphosate													
Griseofluvin													
Gyromitrin													
Haloethers													
Halomethanes	130 # (13)										12000	6400	11,500 (82)
Halothane													
Haloxyfop-methyl													
Harmony													
HC Blue 1													
Heptachlor	0.00072 # (30)						0.0036 (114)			0.053			
Heptachlor epoxide	0.00072 # (30)						0.0036 (114)			0.053			
Heptane													
Hexabromobenzene													
Hexachlorobenzene	0.00021 #										160 (22)	129 (22)	
Hexachlorobutadiene	14 #										32		
Hexachlorocyclopentadiene	58										7.0		
Hexachlorodibenzo-p-dioxin													
Hexachloroethane	2.5 #										940		
Hexachlorophene													
Hexamethylphosphoramide													
n-Hexane													
Hexazinone													
HMX													
Imazalil													
Imazaquin													
Indene													
Indeno(1,2,3-c,d)pyrene	0.0088 # (33)										300 (52)		
Iodoform											12000 (20)	6400 (20)	11,500 (20,82)
Iprodione													
IQ													
Isoamyl acetate													

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
Flutolanil	66332-96-5	Moncut		
Fluvalinate	69409-94-5	Mavrik		
Foaming agents (MBAS)		Methylene blue active substances	MBAS	
Folpet	133-07-3	Folpan		
Fomesafen	72178-02-0			
Fonofos	944-22-9	Difonate	Dyfonate	Dyphonate
Formaldehyde	50-00-0	Methanal		
Formic acid	64-18-6			
2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole	3570-75-0	Nifurthiazole	FNT	
Fosetyl-al	39148-24-8	Aliette		
Furan	110-00-9	Furfuran		
Furfural	98-01-1			
Furmecyclox	60568-05-0	Epic 500	Campogran	Furmetamide
Gasoline	8006-61-9			a petroleum hydrocarbon
Glufosinate-ammonium	77182-82-2	Hoe 39866	Basta	
Glu-P-1	67730-11-4	2-Amino-6-methyldipyrido[1,2-a:3',2'-d]-imidazole		
Glu-P-2	67730-10-3	2-Aminopyrido[1,2-a:3',2'-d]-imidazole		
Glycidaldehyde	765-34-4			
Glycidol	556-52-5			
Glyphosate	1071-83-6	Roundup	Glyphosate isopropylamine salt	
Griseofluvin	126-07-8			
Gyromitrin	16568-02-8	Acetaldehyde methylformylhydrazone		
Haloethers		Ethers, halo-		
Halomethanes		Methanes, halo-		
Halothane	151-67-7	2-Bromo-2-chloro-1,1,1-trifluoroethane		
Haloxyfop-methyl	69806-40-2	Verdict		
Harmony	79277-27-3	DPX-M6316		
HC Blue 1	2784-94-3			
Heptachlor	76-44-8			
Heptachlor epoxide	1024-57-3			
Heptane	142-82-5			
Hexabromobenzene	87-82-1			
Hexachlorobenzene	118-74-1	Perchlorobenzene	HCB	
Hexachlorobutadiene	87-68-3	Perchlorobutadiene	HCBD	
Hexachlorocyclopentadiene	77-47-4	HEX	HCCPD	
Hexachlorodibenzo-p-dioxin	19408-74-3	HxCDD		
Hexachloroethane	67-72-1	Perchloroethane		
Hexachlorophene	70-30-4			
Hexamethylphosphoramide	680-31-9			
n-Hexane	110-54-3			
Hexazinone	51235-04-2	Velpar		
HMX	2691-41-0	Cyclotetramethylene tetranitramine	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	
Imazalil	35554-44-0			
Imazaquin	81335-37-7	Scepter		
Indene	95-13-6			
Indeno(1,2,3-c,d)pyrene	193-39-5			a polynuclear aromatic hydrocarbon
Iodoform	75-47-8	Triiodomethane		
Iprodione	36734-19-7	Rovral		
IQ	76180-96-6	2-Amino-3-methylimidazo[4,5-f]quinoline		
Isoamyl acetate	123-92-2			

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
Isoamyl alcohol									270 (126)
Isobutyl acetate									150 (126)
Isobutyl alcohol									10,000 (126)
Isophorone									5400 (126)
Isopropalin									
Isopropanol									160,000 (126)
Isopropyl acetate									1000 (126)
Isopropylamine									4900 (126)
Isopropyl ether									0.8 (126)
Isopropyl methylphosphonate									
Isopropyl methyl phosphonic acid									
Isoxaben									
Kepone									
Kerosene									100 (49)
Lactofen									
Lasiocarpine									
Lead acetate									
Lead subacetate									
Linuron									
Londax									
Malathion							160		
Maleic anhydride									
Maleic hydrazide									
Maneb									
MCPA									
MCPB									
MCPP									
Me-A-alpha-C									
Melphalan									
Mepiquat chloride									
Merphos									
Merphos oxide									
Mesityl oxide									1000 (126)
Metalaxyl									
Methacrylonitrile									
Methamidophos									
Methanol									740,000 (126)
Methidathion									
Methomyl									
Methoxychlor	40 / 30 (100)		40		40	30			4700 (125)
Methyl acetate									3000 (126)
Methyl acrylate									2.1 (126)
Methyl acrylonitrile									2100 (126)
Methylamine									2400 (126)
Methyl n-amyl ketone									280 (126)
N-Methylaniline									18,000 (126)
Methyl t-butyl ether (MtBE)	13	5				13			15 to 95 (10)
Methyl n-butyl ketone									250 (126)
3-Methylcholanthrene									
5-Methylchrysene									
Methylcyclohexane									150 (126)
cis-3-Methylcyclohexanol									6,000,000 (126)

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
Isoamyl alcohol									
Isobutyl acetate									
Isobutyl alcohol	2100								
Isophorone	140	100			40 (C)	40 (C)			
Isopropalin	100								
Isopropanol									
Isopropyl acetate									
Isopropylamine									
Isopropyl ether									
Isopropyl methylphosphonate		700				(D)			
Isopropyl methyl phosphonic acid	700				(D)				
Isoxaben	35				(C)				
Kepone				0.0022			0.011	0.02 #R	
Kerosene		100 (10-day,49)							
Lactofen	14							2 # (68)	
Lasiocarpine				0.0045				0.045 #	
Lead acetate				0.13	(B2)			1.5 #	
Lead subacetate				0.92				10 #	
Linuron	1.4				(C)			R	
Londax	1400								
Malathion	140	100	160			(D)			
Maleic anhydride	700								
Maleic hydrazide	3500	4000				(D)			
Maneb	35		35					#	
MCPA	11	4	8.75			(D)			
MCPB	70								
MCPP	7								
Me-A-alpha-C				0.029				0.3 #	
Melphalan				0.00027				0.0025 #R	
Mepiquat chloride	210								
Merphos	0.2								
Merphos oxide	0.2								
Mesityl oxide									
Metalaxyl	420								
Methacrylonitrile	0.7								
Methamidophos	0.35								
Methanol	3500								
Methidathion	0.7				(C)				
Methomyl	180	200	175			(E)			
Methoxychlor	35	40	700		(D)	(D)			
Methyl acetate									
Methyl acrylate					(D)				
Methyl acrylonitrile									
Methylamine									
Methyl n-amyl ketone									
N-Methylaniline									
Methyl t-butyl ether (MtBE)		200		19					
Methyl n-butyl ketone									
3-Methylcholanthrene				0.0016				0.015 #	
5-Methylchrysene				0.0029 (93)				0.0025 # (68)	
Methylcyclohexane									
cis-3-Methylcyclohexanol									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Isoamyl alcohol												
Isobutyl acetate												
Isobutyl alcohol												
Isophorone			36	2600						117,000		
Isopropalin												
Isopropanol												
Isopropyl acetate												
Isopropylamine												
Isopropyl ether												
Isopropyl methylphosphonate												
Isopropyl methyl phosphonic acid												
Isoxaben												
Kepone												
Kerosene												
Lactofen												
Lasiocarpine												
Lead acetate												
Lead subacetate												
Linuron												
Londax												
Malathion								0.43 (151)	0.1 (51)			
Maleic anhydride												
Maleic hydrazide												
Maneb												
MCPA												
MCPB												
MCPP												
Me-A-alpha-C												
Melphalan												
Mepiqual chloride												
Merphos												
Merphos oxide												
Mesityl oxide												
Metalaxyl												
Methacrylonitrile												
Methamidophos												
Methanol												
Methidathion												
Methomyl						0.52 (151)		5.5 (151)				
Methoxychlor	100 (51)								0.03 (51)			
Methyl acetate												
Methyl acrylate												
Methyl acrylonitrile												
Methylamine												
Methyl n-amyl ketone												
N-Methylaniline												
Methyl t-butyl ether (MtBE)												
Methyl n-butyl ketone												
3-Methylcholanthrene												
5-Methylchrysene												
Methylcyclohexane												
cis-3-Methylcyclohexanol												

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health (30-day Average) aquatic organism consumption only	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum		Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
Isoamyl alcohol									
Isobutyl acetate									
Isobutyl alcohol									
Isophorone	8.4 (113,143)	600 (113,143)				600 (113,143)			
Isopropalin									
Isopropanol									
Isopropyl acetate									
Isopropylamine									
Isopropyl ether									
Isopropyl methylphosphonate									
Isopropyl methyl phosphonic acid									
Isoxaben									
Kepone									
Kerosene									
Lactofen									
Lasiocarpine									
Lead acetate									
Lead subacetate									
Linuron									
Londax									
Malathion									
Maleic anhydride									
Maleic hydrazide									
Maneb									
MCPA									
MCPB									
MCPP									
Me-A-alpha-C									
Melphalan									
Mepiquat chloride									
Merphos									
Merphos oxide									
Mesityl oxide									
Metalaxyl									
Methacrylonitrile									
Methamidophos									
Methanol									
Methidathion									
Methomyl									
Methoxychlor									
Methyl acetate									
Methyl acrylate									
Methyl acrylonitrile									
Methylamine									
Methyl n-amyl ketone									
N-Methylaniline									
Methyl t-butyl ether (MtBE)									
Methyl n-butyl ketone									
3-Methylcholanthrene									
5-Methylchrysene									
Methylcyclohexane									
cis-3-Methylcyclohexanol									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average)	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	aquatic organism consumption only	6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Isoamyl alcohol													
Isobutyl acetate													
Isobutyl alcohol													
Isophorone	150,000										12,900		
Isopropalin													
Isopropanol													
Isopropyl acetate													
Isopropylamine													
Isopropyl ether													
Isopropyl methylphosphonate													
Isopropyl methyl phosphonic acid													
Isoxaben													
Kepone													
Kerosene													
Lactofen													
Lasiocarpine													
Lead acetate													
Lead subacetate													
Linuron													
Londax													
Malathion									0.34 (152)	0.1 (51)			
Maleic anhydride													
Maleic hydrazide													
Maneb													
MCPA													
MCPB													
MCPP													
Me-A-alpha-C													
Melphalan													
Mepiquat chloride													
Merphos													
Merphos oxide													
Mesityl oxide													
Metalaxyl													
Methacrylonitrile													
Methamidophos													
Methanol													
Methidathion													
Methomyl													
Methoxychlor										0.03 (51)			
Methyl acetate													
Methyl acrylate													
Methyl acrylonitrile													
Methylamine													
Methyl n-amyl ketone													
N-Methylaniline													
Methyl t-butyl ether (MtBE)													
Methyl n-butyl ketone													
3-Methylcholanthrene													
5-Methylchrysene													
Methylcyclohexane													
cis-3-Methylcyclohexanol													

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
Isoamyl alcohol	123-51-3	3-Methyl-1-butanol	Isobutyl carbinol	
Isobutyl acetate	110-19-0			
Isobutyl alcohol	78-83-1	Isobutanol		
Isophorone	78-59-1			
Isopropalin	33820-53-0			
Isopropanol	67-63-0	Isopropyl alcohol		
Isopropyl acetate	108-21-4			
Isopropylamine	75-31-0	2-Aminopropane		
Isopropyl ether	108-20-3	Di-isopropyl ether	DIPE	
Isopropyl methylphosphonate				
Isopropyl methyl phosphonic acid	1832-54-8	IMPA		
Isoxaben	82558-50-7	EL-107		
Kepone	143-50-0	Chlordecone		
Kerosene	8008-20-6	Kerosine	Fuel oil #1	a petroleum hydrocarbon
Lactofen	77501-63-4	Cobra		
Lasiocarpine	303-34-4			
Lead acetate	301-04-2	Sugar of lead		
Lead subacetate	1335-32-6	Basic lead acetate	BLA	
Linuron	330-55-2			
Londax	83055-99-6	DPX-F5384		
Malathion	121-75-5	Cythion		
Maleic anhydride	108-31-6			
Maleic hydrazide	123-33-1	Antergon	Chemform	Retard
Maneb	12427-38-2	Dithane M-22	Manzate	
MCPA	94-74-6	2-Methyl-4-chlorophenoxyacetic acid		
MCPB	94-81-5	4-(2-Methyl-4-chlorophenoxy)butyric acid		
MCPP	93-65-2	2-(2-Methyl-4-chlorophenoxy)propionic acid		
Me-A-alpha-C	68006-83-7	2-Amino-3-methyl-9H-pyrido-[2,3-b]indole		
Melphalan	148-82-3	Alanine nitrogen mustard	Alkeran	
Mepiquat chloride	24307-26-4			
Merphos	150-50-5	Tribufos	Folex 6EC	
Merphos oxide	78-48-8	Butiphos		
Mesityl oxide	141-79-7	Methyl isobutenyl ketone		
Metalaxyl	57837-19-1	Subdue		
Methacrylonitrile	126-98-7	2-Cyanopropene		
Methamidophos	10265-92-6	Monitor		
Methanol	67-56-1	Methyl alcohol		
Methidathion	950-37-8			
Methomyl	16752-77-5	Lannate		
Methoxychlor	72-43-5			
Methyl acetate	79-20-9			
Methyl acrylate	96-33-3			
Methyl acrylonitrile	126-98-7			
Methylamine	74-89-5	Aminomethane		
Methyl n-amyl ketone	110-43-0	2-Heptanone		
N-Methylaniline	100-61-8			
Methyl t-butyl ether (MtBE)	1634-04-4	MtBE		
Methyl n-butyl ketone	591-78-6	2-Hexanone		
3-Methylcholanthrene	56-49-5			
5-Methylchrysene	3697-24-3			
Methylcyclohexane	108-87-2			
cis-3-Methylcyclohexanol	25639-42-3			

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
4,4'-Methylenebis(2-chloroaniline)									
4,4'-Methylenebis(N,N-dimethyl)aniline									
4,4'-Methylenebis(2-methylaniline)									
4,4'-Methylenedianiline									
4,4'-Methylenedianiline dihydrochloride									
Methyl ethyl ketone									8400 (126)
Methyl formate									150,000 (126)
Methylhydrazine									
Methylhydrazine sulfate									
Methyl isoamyl ketone									13 (126)
Methyl isobutyl carbinol									150 (126)
Methyl isobutyl ketone (MIBK)							120		1300 (126)
Methyl isopropyl ketone									3100 (126)
Methyl mercaptan									0.024 (126)
Methyl mercury									
Methyl methacrylate									25 (126)
Methyl methanesulfonate									
2-Methyl-1-nitroanthraquinone									
N-Methyl-N'-nitro-N-nitrosoguanidine									
N-Methylolacrylamide									
Methyl parathion							2		
Methyl n-propyl ketone									15,000 (126)
alpha-Methylstyrene									43 (126)
Methylthiouracil									
Metolachlor									
Metribuzin									
Metronidazole									
Michler's ketone									
Mirex									
Mitomycin C									
Molinate	20								
Monocrotaline									
nitrofurfurylidene)-amino]-2-oxalolidinone									
Naled									
Naphthalene							170		21 (126)
2-Naphthylamine									
Napropamide									
Nitralin									
Nitrilotriacetate, trisodium monohydrate									
Nitrilotriacetic acid									
5-Nitroacenaphthene									
5-Nitro-o-anisidine									
Nitrobenzene									110 (126)
6-Nitrochrysene									
Nitroethane									220 (126)
Nitrofen									
2-Nitrofluorene									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
4,4'-Methylenebis(2-chloroaniline)				0.023				0.25 #	
4,4'-Methylenebis(N,N-dimethyl)aniline				0.76	0.8 (B2)			10 #	
4,4'-Methylenebis(2-methylaniline)				0.038				0.4 #	
4,4'-Methylenedianiline				0.022				0.2 #	
4,4'-Methylenedianiline dihydrochloride				0.029				0.3 #	
Methyl ethyl ketone	4200	7500 (10-day)			(D)	(D)			
Methyl formate									
Methylhydrazine								0.3 # (68)	
Methylhydrazine sulfate								0.2 # (68)	
Methyl isoamyl ketone									
Methyl isobutyl carbinol									
Methyl isobutyl ketone (MIBK)									
Methyl isopropyl ketone									
Methyl mercaptan									
Methyl mercury	0.07				(C)			0.15 #R (5,68)	
Methyl methacrylate	9800		800		(E)				
Methyl methanesulfonate				0.35				3.5 #	
2-Methyl-1-nitroanthraquinone				0.0081				0.1 #	
N-Methyl-N'-nitro-N-nitrosoguanidine				0.0042				0.04 #	
N-Methylolacrylamide								1 # (68)	
Methyl parathion	1.8	2	30			(D)			
Methyl n-propyl ketone									
alpha-Methylstyrene									
Methylthiouracil				0.088				1 #	
Metolachlor	110	100			(C)	(C)			
Metribuzin	175	200			(D)	(D)			
Metronidazole								2 # (68)	
Michler's ketone				0.041				0.4 #	
Mirex	1.4			0.0019		0.0049 (8)		0.02 #	
Mitomycin C				0.0000043				0.000045 #	
Molinate	14								
Monocrotaline				0.0035				0.035 #	
nitrofurfurylidene)-amino)-2-oxalolidinone								0.1 # (68)	
Naled	14								
Naphthalene	14	100			(C)	(C)			
2-Naphthylamine				0.019				0.2 #	
Napropamide	700								
Nitralin			700						
Nitrilotriacetate, trisodium monohydrate				3.5				35 #	
Nitrilotriacetic acid				6.6				50 #	
5-Nitroacenaphthene				0.27				3 #	
5-Nitro-o-anisidine				0.71				5 #	
Nitrobenzene	3.5		5 (7-day)		(D)			#	
6-Nitrochrysene				0.00029 (93)				0.001 # (68)	
Nitroethane									
Nitrofen				0.43 (65)			0.0089	4.5 # (65)	
2-Nitrofluorene				0.29 (93)				0.045 # (68)	

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
4,4'-Methylenebis(2-chloroaniline)												
4,4'-Methylenebis(N,N-dimethyl)aniline												
4,4'-Methylenebis(2-methylaniline)												
4,4'-Methylenedianiline												
4,4'-Methylenedianiline dihydrochloride												
Methyl ethyl ketone												
Methyl formate												
Methylhydrazine												
Methylhydrazine sulfate												
Methyl isoamyl ketone												
Methyl isobutyl carbinol												
Methyl isobutyl ketone (MIBK)												
Methyl isopropyl ketone												
Methyl mercaptan												
Methyl mercury												
Methyl methacrylate												
Methyl methanesulfonate												
2-Methyl-1-nitroanthraquinone												
N-Methyl-N'-nitro-N-nitrosoguanidine												
N-Methylolacrylamide												
Methyl parathion									0.08 (152)			
Methyl n-propyl ketone												
alpha-Methylstyrene												
Methylthiouracil												
Metolachlor	44 (8)								100 (8)			
Metribuzin	5250 (8)								100 (8)			
Metronidazole												
Michler's ketone												
Mirex			0.000093 (8)	0.000097 (8)					0.001 (51)			
Mitomycin C												
Molinate									13 (151)			
Monocrotaline												
nitrofurfurylidene)-amino]-2-oxalolidinone												
Naled												
Naphthalene										2300	620	
2-Naphthylamine												
Napropamide												
Nitralin												
Nitrilotriacetate, trisodium monohydrate												
Nitrilotriacetic acid												
5-Nitroacenaphthene												
5-Nitro-o-anisidine												
Nitrobenzene	17	1900			30					27,000		
6-Nitrochrysene												
Nitroethane												
Nitrofen												
2-Nitrofluorene												

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health (30-day Average) aquatic organism consumption only	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum		Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
4,4'-Methylenebis(2-chloroaniline)									
4,4'-Methylenebis(N,N-dimethyl)aniline									
4,4'-Methylenebis(2-methylaniline)									
4,4'-Methylenedianiline									
4,4'-Methylenedianiline dihydrochloride									
Methyl ethyl ketone									
Methyl formate									
Methylhydrazine									
Methylhydrazine sulfate									
Methyl isoamyl ketone									
Methyl isobutyl carbinol									
Methyl isobutyl ketone (MIBK)									
Methyl isopropyl ketone									
Methyl mercaptan									
Methyl mercury									
Methyl methacrylate									
Methyl methanesulfonate									
2-Methyl-1-nitroanthraquinone									
N-Methyl-N'-nitro-N-nitrosoguanidine									
N-Methylolacrylamide									
Methyl parathion									
Methyl n-propyl ketone									
alpha-Methylstyrene									
Methylthiouracil									
Metolachlor									
Metribuzin									
Metronidazole									
Michler's ketone									
Mirex									
Mitomycin C									
Molinate									
Monocrotaline									
nitrofurfurylidene)-amino]-2-oxalolidinone									
Naled									
Naphthalene									
2-Naphthylamine									
Napropamide									
Nitralin									
Nitrilotriacetate, trisodium monohydrate									
Nitrilotriacetic acid									
5-Nitroacenaphthene									
5-Nitro-o-anisidine									
Nitrobenzene	17 (143)	1900 (143)				1900 (143)			
6-Nitrochrysene									
Nitroethane									
Nitrofen									
2-Nitrofluorene									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average)	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	aquatic organism consumption only	6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
4,4'-Methylenebis(2-chloroaniline)													
4,4'-Methylenebis(N,N-dimethyl)aniline													
4,4'-Methylenebis(2-methylaniline)													
4,4'-Methylenedianiline													
4,4'-Methylenedianiline dihydrochloride													
Methyl ethyl ketone													
Methyl formate													
Methylhydrazine													
Methylhydrazine sulfate													
Methyl isoamyl ketone													
Methyl isobutyl carbinol													
Methyl isobutyl ketone (MIBK)													
Methyl isopropyl ketone													
Methyl mercaptan													
Methyl mercury													
Methyl methacrylate													
Methyl methanesulfonate													
2-Methyl-1-nitroanthraquinone													
N-Methyl-N'-nitro-N-nitrosoguanidine													
N-Methylolacrylamide													
Methyl parathion													
Methyl n-propyl ketone													
alpha-Methylstyrene													
Methylthiouracil													
Metolachlor													
Metribuzin													
Metronidazole													
Michler's ketone													
Mirex										0.001 (51)			
Mitomycin C													
Molinate													
Monocrotaline													
nitrofurfurylidene)-amino]-2-oxalolidinone													
Naled													
Naphthalene											2350		
2-Naphthylamine													
Napropamide													
Nitralin													
Nitrilotriacetate, trisodium monohydrate													
Nitrilotriacetic acid													
5-Nitroacenaphthene													
5-Nitro-o-anisidine													
Nitrobenzene	4.9										6680		
6-Nitrochrysene													
Nitroethane													
Nitrofen													
2-Nitrofluorene													

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
4,4'-Methylenebis(2-chloroaniline)	101-14-4			
4,4'-Methylenebis(N,N-dimethyl)aniline	101-61-1	4,4'-Methylenebis(N,N-dimethyl)benzeneamine	bis(p-(Dimethylanino)phenyl)methane	Michler's methane
4,4'-Methylenebis(2-methylaniline)	838-88-0	Methylenebis(ortho-toluidine)		
4,4'-Methylenedianiline	101-77-9			
4,4'-Methylenedianiline dihydrochloride	13552-44-8			
Methyl ethyl ketone	78-93-3	2-Butanone	MEK	
Methyl formate	107-31-3			
Methylhydrazine	60-34-4			
Methylhydrazine sulfate				
Methyl isoamyl ketone	110-12-3	MIAK	5-Methyl-2-hexanone	
Methyl isobutyl carbinol	108-11-2	Methylamyl alcohol	MIBC	4-Methyl-2-pentanol
Methyl isobutyl ketone (MIBK)	108-10-1	4-Methyl-2-pentanone	MIBK	
Methyl isopropyl ketone	563-80-4	3-Methyl-2-butanone		
Methyl mercaptan	74-93-1	Methanethiol		
Methyl mercury	22967-92-6	Mercury, methyl	MeHg	
Methyl methacrylate	80-62-6			
Methyl methanesulfonate	66-27-3	MMS		
2-Methyl-1-nitroanthraquinone	129-15-7	2-Aminonaphthalene		
N-Methyl-N'-nitro-N-nitrosoguanidine	70-25-7	MNNG		
N-Methylolacrylamide	924-42-5			
Methyl parathion	298-00-0	Parathion-methyl		
Methyl n-propyl ketone	107-87-9	MPK	Ethyl acetone	2-Pentanone
alpha-Methylstyrene	98-83-9			
Methylthiouracil	56-04-2			
Metolachlor	51218-45-2	Dual		
Metribuzin	21087-64-9			
Metronidazole	443-48-1			
Michler's ketone	90-94-8	Tetramethyldiaminobenzophenone		
Mirex	2385-85-5	Dechlorane		
Mitomycin C	50-07-7	Ametycine		
Molinate	2212-67-1	Ordram		
Monocrotaline	315-22-0	Crotaline		
nitrofurfurylidene)-amino}-2-oxalolidinone	139-91-3			
Naled	300-76-5	Dibrom		
Naphthalene	91-20-3			
2-Naphthylamine	91-59-8	beta-Naphthylamine		
Napropamide	15299-99-7	Devrinol		
Nitralin	4726-14-1	Planavin		
Nitrilotriacetate, trisodium monohydrate	18662-53-8	Trisodium nitrilotriacetate	NTA	
Nitrilotriacetic acid	139-13-9	NTA	Triglycine	
5-Nitroacenaphthene	602-87-9			
5-Nitro-o-anisidine	99-59-2	Azoamine scarlet		
Nitrobenzene	98-95-3			
6-Nitrochrysene	7496028			
Nitroethane	79-24-3			
Nitrofen	1836-75-5	Nitrofene	2,4-Dichloro-1-(4-nitrophenoxy)benzene	
2-Nitrofluorene	607-57-8			

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) In Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
Nitrofurazone									
1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone									
N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide									
Nitroguanidine									
Nitromethane									9100 (126)
Nitrophenol									
2-Nitrophenol									
4-Nitrophenol									
Nitrophenols									
1-Nitropropane									12,000 (126)
2-Nitropropane									53,000 (126)
1-Nitropyrene									
4-Nitropyrene									
Nitrosamines									
N-Nitrosodi-n-butylamine									
N-Nitrosodiethanolamine									
N-Nitrosodiethylamine									
N-Nitrosodimethylamine							0.02 #		
N-Nitrosodiphenylamine									
p-Nitrosodiphenylamine									
N-Nitrosodipropylamine									
N-Nitroso-N-ethylurea									
N-Nitrosomethylethylamine									
N-Nitroso-N-methylurea									
N-Nitroso-N-methylurethane									
N-Nitrosomethylvinylamine									
N-Nitrosomorpholine									
N-Nitrosonomicotine									
N-Nitrosopiperidine									
N-Nitrosopyrrolidine									
N-Nitrososarcosine									
m-Nitrotoluene									80 (126)
trans-Nonachlor									
Nonane									1.3 (126)
Nonylphenol									
Norflurazon									
NuStar									
Ochratoxin A									
Octabromodiphenyl ether									
Octane									1.7 (126)
Oil & grease									
Oryzalin									
Oxadiazon									
Oxamyl	200 / 50 (100)		200		200	50			
Oxychlordane									
Oxyfluorfen									
Paclobutrazol									
PAHs									
Paraquat									
Parathion							40		

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
Nitrofurazone				0.027				0.25 #	
1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone				0.019				0.2 #	
N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide				0.023				0.25 #	
Nitroguanidine	700	700			(D)	(D)			
Nitromethane									
Nitrophenol			290 (7-day)						
2-Nitrophenol			290 (7-day,37)						
4-Nitrophenol		60	290 (7-day,37)			(D)			
Nitrophenols									
1-Nitropropane									
2-Nitropropane								15 # (68)	
1-Nitropyrene				0.029 (93)				0.3 # (68)	
4-Nitropyrene				0.029 (93)				0.015 # (68)	
Nitrosamines									
N-Nitrosodi-n-butylamine				0.0032	0.006 (B2,121)	0.0064		0.03 #	
N-Nitrosodiethanolamine				0.013	0.01 (B2)			0.15 #	
N-Nitrosodiethylamine				0.00097	0.0002 (B2)			0.01 #	
N-Nitrosodimethylamine				0.0022	0.0007 (B2)			0.02 #	
N-Nitrosodiphenylamine				3.9	7 (B2)			40 #	
p-Nitrosodiphenylamine				1.6	(B2)			15 #	
N-Nitrosodipropylamine				0.005	0.005 (B2)			0.05 #	
N-Nitroso-N-ethylurea				0.0013				0.015 #	
N-Nitrosomethylethylamine				0.0016	0.002 (B2)			0.015 #	
N-Nitroso-N-methylurea				0.00029				0.003 #	
N-Nitroso-N-methylurethane				0.00032				0.003 #	
N-Nitrosomethylvinylamine								0.002 # (68)	
N-Nitrosomorpholine				0.0052				0.05 #	
N-Nitrosonornicotine				0.025				0.25 #	
N-Nitrosopiperidine				0.0037				0.035 #	
N-Nitrosopyrrolidine				0.017	0.02 (B2)			0.15 #	
N-Nitrososarcosine								2.5 # (68)	
m-Nitrotoluene									
trans-Nonachlor									
Nonane									
Nonylphenol									
Norflurazon	280								
NuStar	5								
Ochratoxin A								0.015 # (68)	
Octabromodiphenyl ether	21				(D)				
Octane									
Oil & grease									
Oryzalin	35				(C)				
Oxadiazon	35							#R	
Oxamyl	180	200				(E)			
Oxychlordane									
Oxyfluorfen	20								
Paclobutrazol	91								
PAHs									
Paraquat	32	30	59.5		(C)	(C)			
Parathion	4.2		30		(C)				

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Nitrofurazone												
1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone												
N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide												
Nitroguanidine												
Nitromethane												
Nitrophenol										230 (88)		150 (38,88)
2-Nitrophenol										230 (88)		150 (38,88)
4-Nitrophenol										230 (88)		150 (38,88)
Nitrophenols										230		150 (38)
1-Nitropropane												
2-Nitropropane												
1-Nitropyrene												
4-Nitropyrene												
Nitrosamines	0.0008	1.24								5850		
N-Nitrosodi-n-butylamine			0.0064 (51)	0.587 (51)						5850 (56)		
N-Nitrosodiethanolamine			0.0125 (68)	1060 (68)						5850 (56)		
N-Nitrosodiethylamine			0.0008 (51)	1.2 (51)						5850 (56)		
N-Nitrosodimethylamine			0.00069	8.1						5850 (56)		
N-Nitrosodiphenylamine			5.0	16						5850 (56)		
p-Nitrosodiphenylamine										5850 (56)		
N-Nitrosodipropylamine			0.005	1.4						5850 (56)		
N-Nitroso-N-ethylurea												
N-Nitrosomethylethylamine			0.0016 (68)	0.219 (68)						5850 (56)		
N-Nitroso-N-methylurea												
N-Nitroso-N-methylurethane												
N-Nitrosomethylvinylamine										5850 (56)		
N-Nitrosomorpholine												
N-Nitrosonornicotine												
N-Nitrosopiperidine												
N-Nitrosopyrrolidine			0.016	91.9						5850 (56)		
N-Nitrososarcosine												
m-Nitrotoluene												
trans-Nonachlor												
Nonane												
Nonylphenol						6.6 (68)		25.0 (68)				
Norflurazon												
NuStar												
Ochratoxin A												
Octabromodiphenyl ether										360 (58)	122 (58)	
Octane												
Oil & grease	(51,128)				(51,128)				(51,129)			
Oryzalin												
Oxadiazon												
Oxamyl												
Oxychlordane												
Oxyfluorfen												
Paclobutrazol												
PAHs			0.0044 (41)	0.049 (41)								
Paraquat												
Parathion						0.013		0.065				

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health (30-day Average)	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum	aquatic organism consumption only	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
Nitrofurazone									
1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone									
N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide									
Nitroguanidine									
Nitromethane									
Nitrophenol									
2-Nitrophenol									
4-Nitrophenol									
Nitrophenols									
1-Nitropropane									
2-Nitropropane									
1-Nitropyrene									
4-Nitropyrene									
Nitrosamines									
N-Nitrosodi-n-butylamine									
N-Nitrosodiethanolamine									
N-Nitrosodiethylamine									
N-Nitrosodimethylamine	0.00069 (113,143)	8.1 (113,143)				8.1 (113,143)			
N-Nitrosodiphenylamine	5.0 (113,143)	16 (113,143)				16 (113,143)			
p-Nitrosodiphenylamine									
N-Nitrosodipropylamine	0.005	1.4				1.4			
N-Nitroso-N-ethylurea									
N-Nitrosomethylethylamine									
N-Nitroso-N-methylurea									
N-Nitroso-N-methylurethane									
N-Nitrosomethylvinylamine									
N-Nitrosomorpholine									
N-Nitrosonornicotine									
N-Nitrosopiperidine									
N-Nitrosopyrrolidine									
N-Nitrososarcosine									
m-Nitrotoluene									
trans-Nonachlor									
Nonane									
Nonylphenol									
Norflurazon									
NuStar									
Ochratoxin A									
Octabromodiphenyl ether									
Octane									
Oil & grease									
Oryzalin									
Oxadiazon									
Oxamyl									
Oxychlordane									
Oxyfluorfen									
Paclobutrazol									
PAHs									
Paraquat									
Parathion									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average)	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	aquatic organism consumption only	6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Nitrofurazone													
1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone													
N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide													
Nitroguanidine													
Nitromethane													
Nitrophenol		30 (86)			120 (86)	300 (86)					4850 (88)		
2-Nitrophenol		30 (86)			120 (86)	300 (86)					4850 (88)		
4-Nitrophenol		30 (86)			120 (86)	300 (86)					4850 (88)		
Nitrophenols		30 (86)			120 (86)	300 (86)					4850		
1-Nitropropane													
2-Nitropropane													
1-Nitropyrene													
4-Nitropyrene													
Nitrosamines											3,300,000		
N-Nitrosodi-n-butylamine											3,300,000 (56)		
N-Nitrosodiethanolamine											3,300,000 (56)		
N-Nitrosodiethylamine											3,300,000 (56)		
N-Nitrosodimethylamine	7.3 #										3,300,000 (56)		
N-Nitrosodiphenylamine	2.5 #										3,300,000 (56)		
p-Nitrosodiphenylamine											3,300,000 (56)		
N-Nitrosodipropylamine											3,300,000 (56)		
N-Nitroso-N-ethylurea													
N-Nitrosomethylethylamine											3,300,000 (56)		
N-Nitroso-N-methylurea													
N-Nitroso-N-methylurethane													
N-Nitrosomethylvinylamine											3,300,000 (56)		
N-Nitrosomorpholine													
N-Nitrosonornicotine													
N-Nitrosopiperidine													
N-Nitrosopyrrolidine											3,300,000 (56)		
N-Nitrososarcosine													
m-Nitrotoluene													
trans-Nonachlor	0.000023 # (81)												
Nonane													
Nonylphenol							1.6 (68)		6.2 (68)				
Norflurazon													
NuStar													
Ochratoxin A													
Octabromodiphenyl ether													
Octane													
Oil & grease			25,000 (117)	40,000 (117)		75,000 (117)				(51,129)			
Oryzalin													
Oxadiazon													
Oxamyl													
Oxychlordane	0.000023 # (81)												
Oxyfluorfen													
Paclobutrazol													
PAHs	0.0088 # (33)										300		
Paraquat													
Parathion													

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
Nitrofurazone	59-87-0	Biofurcina	Coxistat	Dermofural
1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone	555-84-0	Nifuradene	NF 246	
N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide	531-82-8	Furathiazole	Furium	NFTA
Nitroguanidine	556-88-7			
Nitromethane	75-52-5			
Nitrophenol	25154-55-6	Mononitrophenols		
2-Nitrophenol	25154-55-7	o-Nitrophenol		
4-Nitrophenol	25154-55-8	p-Nitrophenol		
Nitrophenols		Phenols, nitro-		
1-Nitropropane	108-03-2			
2-Nitropropane	79-46-9			
1-Nitropyrene	5522-43-0			
4-Nitropyrene	57835-92-4			
Nitrosamines				
N-Nitrosodi-n-butylamine	924-16-3	Dibutylnitrosamine	DBNA	
N-Nitrosodiethanolamine	1116-54-7	Diethanolnitrosamine		
N-Nitrosodiethylamine	55-18-5	Diethylnitrosamine	DEN	
N-Nitrosodimethylamine	62-75-9	Dimethylnitrosamine	DMNA	NDMA
N-Nitrosodiphenylamine	86-30-6	Diphenylnitrosamine	Redax	NDPA
p-Nitrosodiphenylamine	156-10-5	Diphenylnitrosamine		
N-Nitrosodipropylamine	621-64-7	Dipropylnitrosamine	N-Nitrosodi-n-propylamine	DPNA
N-Nitroso-N-ethylurea	759-73-9	Ethylnitrosourea	ENU	
N-Nitrosomethylethylamine	10595-95-6	Methyl ethyl nitrosamine	N-Nitroso-N-methylethylamine	
N-Nitroso-N-methylurea	684-93-5	N-Nitroso-N-methylurea	Methylnitrosourea	MNU
N-Nitroso-N-methylurethane	615-53-2	Methylnitrosourethane		
N-Nitrosomethylvinylamine	4549-40-0	Methyl vinyl nitrosamine		
N-Nitrosomorpholine	59-89-2			
N-Nitrosonomicotine	16543-55-8			
N-Nitrosopiperidine	100-75-4			
N-Nitrosopyrrolidine	930-55-2			
N-Nitrososarcosine	13256-22-9			
m-Nitrotoluene	1321-12-6	m-Methylnitrobenzene		
trans-Nonachlor	39765-80-5	Nonachlor		
Nonane	111-84-2			
Nonylphenol	104405; 136834			
Norflurazon	27314-13-2	Azinone		
NuStar	85509-19-9	DPX-H6573		
Ochratoxin A	303-47-9			
Octabromodiphenyl ether	32536-52-0			
Octane	111-65-9			
Oil & grease		Oil	Grease	
Oryzalin	19044-88-3			
Oxadiazon	19666-30-9			
Oxamyl	23135-22-0	Vydate		
Oxychlordane	27304-13-8			
Oxyfluorfen	42874-03-3	Goal		
Paclobutrazol	76738-62-0			
PAHs		Polynuclear aromatic hydrocarbons	PNAs	
Paraquat	1910-42-5	Ortho paraquat		
Parathion	56-38-2	Ethyl parathion	Thiophos	

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
Pendimethalin									
Pentabromodiphenyl ether									
Pentachlorobenzene									
Pentachloroethane									
Pentachloronitrobenzene							20		
Pentachlorophenol	1		1		zero	0.4			30 (125)
Pentane									22 (126)
Permethrin									
Phenacetin									
Phenanthrene									
Phenazopyridine									
Phenazopyridine hydrochloride									
Phenesterin									
Phenmedipham									
Phenobarbital									
Phenol							4200	5 (39)	7900 (126)
Phenols, non-chlorinated									
Phenoxybenzamine									
Phenoxybenzamine hydrochloride									
m-Phenylenediamine									
Phenyl ether									180 (126)
Phenyl glycidyl ether									
Phenylhydrazine									
Phenylhydrazine hydrochloride									
Phenyl mercaptan									0.28 (126)
Phenylmercuric acetate									
o-Phenylphenate, sodium									
Phorate									
Phosmet									
Phthalate esters									
Phthalic anhydride									
Picloram	500		500		500	500			
Pirimiphos-methyl									
Polygeenan									
Polybrominated biphenyls									
Polychlorinated biphenyls	0.5		0.5		zero				
Ponceau MC									
Ponceau 3R									
Procarbazine									
Procarbazine hydrochloride									
Prochloraz									
Prometon									
Prometryn									
Pronamide									
Propachlor									
Propane									1000 (126)
1,3-Propane sultone									
Propanil									
Propargite									
Propargyl alcohol									
Propazine									
Propham									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
Pendimethalin	280								
Pentabromodiphenyl ether	14				(D)				
Pentachlorobenzene	6				(D)				
Pentachloroethane									
Pentachloronitrobenzene	21						3.6		
Pentachlorophenol		300 (10-day)	6 / 21 (7)	0.43	0.3 (B2)	0.3 (B2)		20 #	
Pentane									
Permethrin	350								
Phenacetin				16				150 #	
Phenanthrene					(D)	(D)			
Phenazopyridine				0.21				2 #	
Phenazopyridine hydrochloride				0.23				2.5 #	
Phenesterin				0.00023				0.0025 #	
Phenmedipham	1800								
Phenobarbital				0.076				1 #	
Phenol	4200	4000 (68)			(D)	(D,68)			
Phenols, non-chlorinated									
Phenoxybenzamine				0.011				0.1 #	
Phenoxybenzamine hydrochloride				0.013				0.15 #	
m-Phenylenediamine	42								
Phenyl ether									
Phenyl glycidyl ether								2.5 # (68)	
Phenylhydrazine								0.3 # (68)	
Phenylhydrazine hydrochloride								0.4 # (68)	
Phenyl mercaptan									
Phenylmercuric acetate	0.6								
o-Phenylphenate, sodium				12				100 #	
Phorate			0.7						
Phosmet	140								
Phthalate esters									
Phthalic anhydride	14,000								
Picloram	490	500	1050			(D)			
Pirimiphos-methyl	70								
Poligeenan								100 # (68)	
Polybrominated biphenyls				0.0012				0.01 #R	
Polychlorinated biphenyls			50 (7-day)	0.007	0.1 (B2)	0.1 (B2,68)	0.16 (69)	0.045 / 0.05 #R (68,108)	
Ponceau MC				7.8				100 #	
Ponceau 3R				2.2				20 #	
Procarbazine				0.0025				0.025 #	
Procarbazine hydrochloride				0.0029				0.03 #R	
Prochloraz	6.3				0.2 (C)				
Prometon	110	100				(D)			
Prometryn	28								
Pronamide	53	50				(C)		#	
Propachlor	91	90	700			(D)			
Propane									
1,3-Propane sultone				0.015				0.15 #	
Propanil	35		140						
Propargite	140							#R	
Propargyl alcohol	14								
Propazine	14	10	325			(C)			
Propham	140	100				(D)			

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Pendimethalin												
Pentabromodiphenyl ether										360 (58)	122 (58)	
Pentachlorobenzene	3.5	4.1								250 (22)		50 (22,23)
Pentachloroethane										7240	1100	
Pentachloronitrobenzene												
Pentachlorophenol			0.28	8.2	30	see page 91		see page 91				
Pentane												
Permethrin												
Phenacetin												
Phenanthrene												
Phenazopyridine												
Phenazopyridine hydrochloride												
Phenesterin												
Phenmedipham												
Phenobarbital												
Phenol	21,000	4,600,000			300					10,200	2560	
Phenols, non-chlorinated												
Phenoxybenzamine												
Phenoxybenzamine hydrochloride												
m-Phenylenediamine												
Phenyl ether												
Phenyl glycidyl ether												
Phenylhydrazine												
Phenylhydrazine hydrochloride												
Phenyl mercaptan												
Phenylmercuric acetate												
o-Phenylphenate, sodium												
Phorate												
Phosmet												
Phthalate esters										940	3	
Phthalic anhydride												
Picloram												
Pirimiphos-methyl												
Poligeenan												
Polybrominated biphenyls												
Polychlorinated biphenyls			0.00017 (118)	0.00017 (118)		0.014 (114,116)				2		
Ponceau MC												
Ponceau 3R												
Procarbazine												
Procarbazine hydrochloride												
Prochloraz												
Prometon												
Prometryn												
Pronamide												
Propachlor	466 (8)								8 (8)			
Propane												
1,3-Propane sultone												
Propanil												
Propargite												
Propargyl alcohol												
Propazine												
Propham												

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health (30-day Average) aquatic organism consumption only	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum		Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
Pendimethalin									
Pentabromodiphenyl ether									
Pentachlorobenzene									
Pentachloroethane									
Pentachloronitrobenzene									
Pentachlorophenol	0.28 (113)	8.2 (113)	see page 91	see page 91		8.2 (113)	7.9	13	
Pentane									
Permethrin									
Phenacetin									
Phenanthrene									
Phenazopyridine									
Phenazopyridine hydrochloride									
Phenesterin									
Phenmedipham									
Phenobarbital									
Phenol	21,000	4,600,000				4,600,000			
Phenols, non-chlorinated									
Phenoxybenzamine									
Phenoxybenzamine hydrochloride									
m-Phenylenediamine									
Phenyl ether									
Phenyl glycidyl ether									
Phenylhydrazine									
Phenylhydrazine hydrochloride									
Phenyl mercaptan									
Phenylmercuric acetate									
o-Phenylphenate, sodium									
Phorate									
Phosmet									
Phthalate esters									
Phthalic anhydride									
Picloram									
Pirimiphos-methyl									
Polygeenan									
Polybrominated biphenyls									
Polychlorinated biphenyls	0.00017 (113)	0.00017 (113)	0.014 (114,116)				0.03 (114,116)		
Ponceau MC									
Ponceau 3R									
Procarbazine									
Procarbazine hydrochloride									
Prochloraz									
Prometon									
Prometryn									
Pronamide									
Propachlor									
Propane									
1,3-Propane sultone									
Propanil									
Propargite									
Propargyl alcohol									
Propazine									
Propham									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average)	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	aquatic organism consumption only	6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Pendimethalin													
Pentabromodiphenyl ether													
Pentachlorobenzene											160 (22)	129 (22)	
Pentachloroethane											390	281	
Pentachloronitrobenzene													
Pentachlorophenol		1 (87)			4 (87)	10 (87)	7.9		13				
Pentane													
Permethrin													
Phenacetin													
Phenanthrene	0.0088 # (33)										300 (52)		
Phenazopyridine													
Phenazopyridine hydrochloride													
Phenesterin													
Phenmedipham													
Phenobarbital													
Phenol		30 (86)			120 (86)	300 (86)					5800		
Phenols, non-chlorinated		30			120	300							
Phenoxybenzamine													
Phenoxybenzamine hydrochloride													
m-Phenylenediamine													
Phenyl ether													
Phenyl glycidyl ether													
Phenylhydrazine													
Phenylhydrazine hydrochloride													
Phenyl mercaptan													
Phenylmercuric acetate													
o-Phenylphenate, sodium													
Phorate													
Phosmet													
Phthalate esters											2944		3.4 (38)
Phthalic anhydride													
Picloram													
Pirimiphos-methyl													
Polygeenan													
Polybrominated biphenyls													
Polychlorinated biphenyls	0.000019 # (118)						0.03 (114,116)				10		
Ponceau MC													
Ponceau 3R													
Procarbazine													
Procarbazine hydrochloride													
Prochloraz													
Prometon													
Prometryn													
Pronamide													
Propachlor													
Propane													
1,3-Propane sultone													
Propanil													
Propargite													
Propargyl alcohol													
Propazine													
Propham													

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
Pendimethalin	40487-42-1	Prowl		
Pentabromodiphenyl ether	32534-81-9			
Pentachlorobenzene	608-93-5			
Pentachloroethane	76-01-7			
Pentachloronitrobenzene	82-68-8	PCNB	Terraclor	Quintozine
Pentachlorophenol	87-86-5	PCP	Penta	
Pentane	109-66-0			
Permethrin	52645-53-1			
Phenacetin	62-44-2			
Phenanthrene	85-01-8			a polynuclear aromatic hydrocarbon
Phenazopyridine	94-78-0	2,6-Diamino-3-phenylazopyridine	Diridone	
Phenazopyridine hydrochloride	136-40-3	2,6-Diamino-3-phenylazopyridine hydrochloride		
Phenesterin	3546109	Chloroethylaminobenzeneacetate		
Phenmedipham	13684-63-4	Betanal		
Phenobarbital	50-06-6			
Phenol	108-95-2			
Phenols, non-chlorinated				
Phenoxybenzamine	59-96-1	Bensylyte		
Phenoxybenzamine hydrochloride	63-92-3	Dibenzyline hydrochloride		
m-Phenylenediamine	108-45-2	1,3-Diaminobenzene	Direct Brown BR	Direct Brown GG
Phenyl ether	101-84-8	Diphenyl ether		
Phenyl glycidyl ether	122-60-1			
Phenylhydrazine	100-63-0			
Phenylhydrazine hydrochloride	59-88-1			
Phenyl mercaptan	108-98-5	Thiophenol		
Phenylmercuric acetate	62-38-4			
o-Phenylphenate, sodium	132-27-4	Sodium o-phenylphenate	Stop Mold	Steri-Seal
Phorate	298-02-2	Thimet		
Phosmet	732-11-6			
Phthalate esters		Phthalates	Phthalate acid esters (PAEs)	
Phthalic anhydride	85-44-9			
Picloram	1918021	Tordon		
Pirimiphos-methyl	29232-93-7			
Poligeenan	53973981			
Polybrominated biphenyls		PBBs		
Polychlorinated biphenyls	1336-36-3	PCBs		
Ponceau MC	3761-53-3	D&C Red No. 5	Ponceau MX	
Ponceau 3R	3564098	FD&C Red No. 1		
Procarbazine	671-16-9	1-Methyl-2-(p-(isopropylcarbamoyl)benzyl)hydrazine	MIH	
Procarbazine hydrochloride	366-70-1			
Prochloraz	67747-09-5	BTS 40542		
Prometon	1610-18-0	Gesafram 50	Methoxypropazine	Pramitol
Prometryn	7287-19-6			
Pronamide	23950-58-5	Kerb	Propyzamide	
Propachlor	1918-16-7	Ramrod		
Propane	74-98-6			
1,3-Propane sultone	1120-71-4			
Propanil	709-98-8			
Propargite	2312-35-8	Omite		
Propargyl alcohol	107-19-7	2-Propynol		
Propazine	139-40-2	Milogard		
Propham	122-42-9	Profam	Prophos	

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
Propiconazole									
beta-Propiolactone									
Propionic acid									28,000 (126)
n-Propyl acetate									310 (126)
n-Propyl alcohol									23,000 (126)
Propylene									28 (126)
Propyleneimine									
Propylene oxide									31,000 (126)
n-Propyl nitrate									15,000 (126)
Propylthiouracil									
Pursuit									
Pydrin									
Pyrene									
Pyridine									950 (126)
Quinalphos									
Quinone									9300 (126)
RDX (Cyclonite)									
Reserpine									
Resmethrin									
Resorcinol									
Rotenone									
Saccharin									
Safrole									
Savey									
Sethoxydim									
Simazine	4		4		4	0.4 (100)			
Sodium diethyldithiocarbamate									
Sodium fluoroacetate									
Sterigmatocystin									
Streptozotocin									
Strychnine									
Styrene	100		100	10 (100)	100				11 (126)
Styrene oxide									
Sulfallate									
Systhane									
2,4,5-T									
2,3,7,8-TCDD (Dioxin)	0.00003		0.00003		zero				
Tebuthiuron									
Terbacil									
Terbufos									
Terbutryn									
1,2,4,5-Tetrachlorobenzene									
1,1,1,2-Tetrachloroethane									
1,1,2,2-Tetrachloroethane	1								500 (126)
Tetrachloroethylene (PCE)	5		5		zero	0.056 (100)			170 (126)
2,3,4,6-Tetrachlorophenol									
2,3,5,6-Tetrachlorophenol									
Tetrachlorovinphos									
Tetraethyldithiopyrophosphate									
Tetraethyl lead									
Tetranitromethane									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
Propiconazole	91								
beta-Propiolactone				0.0025				0.025 #	
Propionic acid									
n-Propyl acetate									
n-Propyl alcohol									
Propylene									
Propyleneimine								0.015 # (68)	
Propylene oxide				0.15	0.1 (B2)			1.5 # (68)	
n-Propyl nitrate									
Propylthiouracil				0.035				0.35 #R	
Pursuit	1750								
Pydrin	175								
Pyrene	210				(D)	(D)			
Pyridine	7								
Quinalphos	4								
Quinone									
RDX (Cyclonite)	2.1	2			0.3 (C)	0.3 (C)			
Reserpine				0.0032				0.03 #	
Resmethrin	210							R	
Resorcinol			500 (7-day)						
Rotenone	28		14						
Saccharin								1400 to 420,000 #	
Safrole				0.16				1.5 #	
Savey	175								
Sethoxydim	630								
Simazine	3.5	4	1505			(C)			
Sodium diethyldithiocarbamate	210								
Sodium fluoroacetate	0.14							R	
Sterigmatocystin				0.16				0.01 #	
Streptozotocin				0.00032				0.003 #R	
Strychnine	2								
Styrene	140	100	931			(C)			
Styrene oxide				0.22				2 #	
Sulfallate				0.18			0.31	2 #	
Systhane	180								
2,4,5-T	70	70	700			(D)			
2,3,7,8-TCDD (Dioxin)		0.0001 (10-day)	0.0007	0.00000027		0.0000002 (B2)		0.0000025 #R	
Tebuthiuron	490	500				(D)			
Terbacil	91	90				(E)		R	
Terbufos		0.9				(D)			
Terbutryn	7								
1,2,4,5-Tetrachlorobenzene	2								
1,1,1,2-Tetrachloroethane	21	70			1 (C)	1 (C)			
1,1,2,2-Tetrachloroethane		0.3		0.13	0.2 (C)	0.2 (C)		1.5 #	
Tetrachloroethylene (PCE)	70	10		0.69			3.6	7 #	
2,3,4,6-Tetrachlorophenol	210								
2,3,5,6-Tetrachlorophenol									
Tetrachlorovinphos	210								
Tetraethyldithiopyrophosphate	3.5								
Tetraethyl lead	0.0007								
Tetranitromethane								0.025 # (68)	

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Propiconazole												
beta-Propiolactone												
Propionic acid												
n-Propyl acetate												
n-Propyl alcohol												
Propylene												
Propyleneimine												
Propylene oxide												
n-Propyl nitrate												
Propylthiouracil												
Pursuit												
Pydrin												
Pyrene	960	11,000										
Pyridine												
Quinalphos												
Quinone												
RDX (Cyclonite)												
Reserpine												
Resmethrin												
Resorcinol												
Rotenone									10 (54)			
Saccharin												
Safrole												
Savey												
Sethoxydim												
Simazine									10 (54)			
Sodium diethyldithiocarbamate												
Sodium fluoroacetate												
Sterigmatocystin												
Streptozotocin												
Strychnine												
Styrene												
Styrene oxide												
Sulfallate												
Systhane												
2,4,5-T												
2,3,7,8-TCDD (Dioxin)			1.3 E-8	1.4 E-8						<0.01	<0.00001	
Tebuthiuron												
Terbacil												
Terbufos												
Terbutryn												
1,2,4,5-Tetrachlorobenzene	2.3	2.9								250 (22)		50 (22,23)
1,1,1,2-Tetrachloroethane										9320 (47)		
1,1,2,2-Tetrachloroethane			0.17	11						9320 (47)	2400	
Tetrachloroethylene (PCE)			0.8	8.85						5280	840	
2,3,4,6-Tetrachlorophenol	490 (68)	3130 (68)			1							
2,3,5,6-Tetrachlorophenol												
Tetrachlorovinphos												
Tetraethyldithiopyrophosphate												
Tetraethyl lead												
Tetranitromethane												

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health (30-day Average)	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum	aquatic organism consumption only	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
Propiconazole									
beta-Propiolactone									
Propionic acid									
n-Propyl acetate									
n-Propyl alcohol									
Propylene									
Propyleneimine									
Propylene oxide									
n-Propyl nitrate									
Propylthiouracil									
Pursuit									
Pydrin									
Pyrene	960	11,000				11,000			
Pyridine									
Quinalphos									
Quinone									
RDX (Cyclonite)									
Reserpine									
Resmethrin									
Resorcinol									
Rotenone									
Saccharin									
Safrole									
Savey									
Sethoxydim									
Simazine									
Sodium diethyldithiocarbamate									
Sodium fluoroacetate									
Sterigmatocystin									
Streptozotocin									
Strychnine									
Styrene									
Styrene oxide									
Sulfallate									
Systhane									
2,4,5-T									
2,3,7,8-TCDD (Dioxin)	0.000000013 (113,144)	0.000000014 (113,144)				0.000000014 (113,144)			
Tebuthiuron									
Terbacil									
Terbufos									
Terbutryn									
1,2,4,5-Tetrachlorobenzene									
1,1,1,2-Tetrachloroethane									
1,1,2,2-Tetrachloroethane	0.17 (113,143)	11 (113,143)				11 (113,143)			
Tetrachloroethylene (PCE)	0.8 (113,143)	8.85 (113,143)				8.85 (113,143)			
2,3,4,6-Tetrachlorophenol									
2,3,5,6-Tetrachlorophenol									
Tetrachlorovinphos									
Tetraethyldithiopyrophosphate									
Tetraethyl lead									
Tetranitromethane									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average)	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	aquatic organism consumption only	6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Propiconazole													
beta-Propiolactone													
Propionic acid													
n-Propyl acetate													
n-Propyl alcohol													
Propylene													
Propyleneimine													
Propylene oxide													
n-Propyl nitrate													
Propylthiouracil													
Pursuit													
Pydrin													
Pyrene	0.0088 # (33)										300 (52)		
Pyridine													
Quinalphos													
Quinone													
RDX (Cyclonite)													
Reserpine													
Resmethrin													
Resorcinol		30 (86)			120 (86)	300 (86)							
Rotenone													
Saccharin													
Safrole													
Savey													
Sethoxydim													
Simazine													
Sodium diethyldithiocarbamate													
Sodium fluoroacetate													
Sterigmatocystin													
Streptozotocin													
Strychnine													
Styrene													
Styrene oxide													
Sulfallate													
Systhane													
2,4,5-T													
2,3,7,8-TCDD (Dioxin)	0.0000000039 # (76)												
Tebuthiuron													
Terbacil													
Terbufos													
Terbutryn													
1,2,4,5-Tetrachlorobenzene											160 (22)	129 (22)	
1,1,1,2-Tetrachloroethane													
1,1,2,2-Tetrachloroethane	1200										9020		
Tetrachloroethylene (PCE)	99 #										10,200	450	
2,3,4,6-Tetrachlorophenol		1 (87)			4 (87)	10 (87)					440		
2,3,5,6-Tetrachlorophenol		1 (87)			4 (87)	10 (87)					440		
Tetrachlorovinphos													
Tetraethyldithiopyrophosphate													
Tetraethyl lead													
Tetranitromethane													

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
Propiconazole	60207-90-1	Banner		
beta-Propiolactone	57-57-8			
Propionic acid	93-65-2	Propanoic acid		
n-Propyl acetate	109-60-4			
n-Propyl alcohol	71-23-8	1-Propanol		
Propylene	115-07-1	Propene		
Propyleneimine	75-55-8	2-Methylaziridine		
Propylene oxide	75-56-9			
n-Propyl nitrate	627-13-4	NPN		
Propylthiouracil	51-52-5			
Pursuit	81335-77-5			
Pydrin	51630-58-1	Fenvalerate		
Pyrene	129-00-0			a polynuclear aromatic hydrocarbon
Pyridine	110-86-1			
Quinalphos	13593-03-8			
Quinone	106-51-4	1,4-Benzoquinone		
RDX (Cyclonite)	121-82-4	Cyclonite	Hexogen	Hexahydro-1,3,5-trinitro-1,3,5-triazine
Reserpine	50-55-5			
Resmethrin	10453-86-8	SBP-1382		
Resorcinol	108-46-3			
Rotenone	83-79-4			
Saccharin	81-07-2			
Safrole	94-59-7	4-Allyl-1,2-methylenedioxybenzene		
Savey	78587-05-0	DPX-Y5893		
Sethoxydim	74051-80-2	Poast		
Simazine	122-34-9	Princep		
Sodium diethyldithiocarbamate	148-18-5	Diethyldithiocarbamate, sodium	Dithiocarb	Thiocarb
Sodium fluoroacetate	62-74-8			
Sterigmatocystin	10048-13-2			
Streptozotocin	18883-66-4	Streptozocin		
Strychnine	57-24-9			
Styrene	100-42-5	Vinylbenzene		
Styrene oxide	96-09-3	1,2-Epoxyethylbenzene		
Sulfallate	95-06-7	2-Chloroallyl-diethyldithiocarbamate	CDEC	Vegadex
Systhane	88671-89-0	Rally		
2,4,5-T	93-76-5	2,4,5-Trichlorophenoxyacetic acid		
2,3,7,8-TCDD (Dioxin)	1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin	Dioxin	
Tebuthiuron	34014-18-1	Graslan	Perflan	Spike
Terbacil	5902-51-2	Turbacil	Sinbar	
Terbufos	13071-79-9	Contraven	Counter	
Terbutryn	886-50-0			
1,2,4,5-Tetrachlorobenzene	95-94-3			
1,1,1,2-Tetrachloroethane	630-20-6			
1,1,2,2-Tetrachloroethane	79-34-5			
Tetrachloroethylene (PCE)	127-18-4	Tetrachloroethene	Perchloroethylene	PCE
2,3,4,6-Tetrachlorophenol	58-90-2			
2,3,5,6-Tetrachlorophenol	935-95-5			
Tetrachlorovinphos	961-11-5	Tetrachlorvinphos		
Tetraethyldithiopyrophosphate	3689-24-5	TEDP		
Tetraethyl lead	78-00-2	Lead, tetraethyl-	TEL	
Tetranitromethane	509-14-8			

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
Thioacetamide									
Thiobencarb	70	1				70 (100)			
4,4'-Thiodianiline									
Thiophanate-methyl									
Thiourea									
Thiram									
Toluene	150		1000	40 (100)	1000	150			42 (26,125)
Toluene diisocyanate									
o-Toluidine									11,000 (126)
o-Toluidine hydrochloride									
Toxaphene	3		3		zero				140 (125)
2,4,5-TP (Silvex)	50		50		50				
Tralomethrin									
Triallate									
Triasulfuron									
1,2,4-Tribromobenzene									
Tributyltin									
Trichlorfon									
Trichloroacetic acid	60 (100,106)		60 (106,147)		300				
Trichloroacetonitrile									
1,2,4-Trichlorobenzene	70 / 5 (100)		70		70	5			3000 / 64 (125,126)
1,3,5-Trichlorobenzene									
Trichlorobenzenes									
1,1,1-Trichloroethane	200		200		200				970 (126)
1,1,2-Trichloroethane	5		5		3				
Trichloroethylene (TCE)	5		5		zero	0.8			310 (126)
Trichlorofluoromethane	150					700			
2,4,5-Trichlorophenol									
2,4,6-Trichlorophenol									
1,1,2-Trichloropropane									
1,2,3-Trichloropropane							0.005 #		
1,1,2-Trichloro-1,2,2-trifluoroethane	1200					4000			
Tridiphane									
Triethylamine									420 (126)
Trifluralin									
Trimethylamine									0.2 (126)
1,3,5-Trimethylbenzene									15 (126)
1,3,5-Trinitrobenzene									
Trinitroglycerol									
Trinitrophenol									
Trinitrotoluene (TNT)									
Tris(1-azinidinyl)phosphine sulfide									
Tris(2,3-dibromopropyl)phosphate									
Trithion							7		
Tryptophan-P-1									
Tryptophan-P-2									
Urethane									
n-Valeraldehyde									17 (126)
Vernem									
Vinclozolin									
Vinyl acetate									88 (126)
Vinyl bromide									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
Thioacetamide				0.0057				0.05 #	
Thiobencarb	70								
4,4'-Thiodianiline				0.0023				0.025 #	
Thiophanate-methyl	560							R	
Thiourea				0.49				5 #	
Thiram	35		35						
Toluene	1400	1000 (68)	340		(D)	(D,68)		3500 R (5)	
Toluene diisocyanate				0.9				10 #	
o-Toluidine				0.19				2 #	
o-Toluidine hydrochloride				0.27				2.5 #	
Toxaphene		4 (10-day)	8.75	0.029	0.03 (B2)	0.03 (B2)		0.3 #	
2,4,5-TP (Silvex)	53	50	5.25		(D)	(D)			
Tralomethrin	53								
Triallate	91								
Triasulfuron	70								
1,2,4-Tribromobenzene	35								
Tributyltin	2 (122)				(D,122)				
Trichlorfon			26 / 88 (7)						
Trichloroacetic acid		300 (68)	50 / 120 (7)		(C)	(C,68)			
Trichloroacetonitrile		50 (10-day,68)							
1,2,4-Trichlorobenzene	70	10		9.7	(D)	(D)			
1,3,5-Trichlorobenzene		40				(D)			
Trichlorobenzenes									
1,1,1-Trichloroethane		200	3800		(D)	(D)	17 (21)		
1,1,2-Trichloroethane	2.8	3		0.49	0.6 (C)	0.6 (C)		5 #	
Trichloroethylene (TCE)				2.3		2 (B2)	1.5 (21)	25 #	
Trichlorofluoromethane	2100	2000	8000 (7-day)			(D)			
2,4,5-Trichlorophenol	700								
2,4,6-Trichlorophenol		30 (10-day,68)	2500 (7-day)	0.5	3 (B2)	3 (B2,68)		5 #	
1,1,2-Trichloropropane	35								
1,2,3-Trichloropropane	42	40						#	
1,1,2-Trichloro-1,2,2-trifluoroethane	210,000								
Tridiphane	21								
Triethylamine									
Trifluralin	5.3	5	700		5 (C)	5 (C)			
Trimethylamine									
1,3,5-Trimethylbenzene		10,000 (24-hr,68)				(D,68)			
1,3,5-Trinitrobenzene	210								
Trinitroglycerol		5				2			
Trinitrophenol			200 (7-day)						
Trinitrotoluene (TNT)	0.35	2			1 (C)	1 (C)			
Tris(1-aziridinyl)phosphine sulfide				0.0029				0.03 #	
Tris(2,3-dibromopropyl)phosphate				0.015				0.15 #	
Trithion									
Tryptophan-P-1				0.0013				0.015 #	
Tryptophan-P-2				0.011				0.1 #	
Urethane				0.035				0.35 #R	
n-Valeraldehyde									
Vernem	7								
Vinclozolin	180							#R	
Vinyl acetate									
Vinyl bromide								0.5 # (68)	

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Thioacetamide												
Thiobencarb									3.1 (151)			
4,4'-Thiodianiline												
Thiophanate-methyl												
Thiourea												
Thiram												
Toluene	6800	200,000								17,500		
Toluene diisocyanate												
o-Toluidine												
o-Toluidine hydrochloride												
Toxaphene			0.00073	0.00075		0.0002		0.73				
2,4,5-TP (Silvex)	10 (51)											
Tralomethrin												
Triallate												
Triasulfuron												
1,2,4-Tribromobenzene												
Tributyltin						0.063		0.46				
Trichlorfon												
Trichloroacetic acid												
Trichloroacetonitrile												
1,2,4-Trichlorobenzene	260	940								250 (22)		50 (22,23)
1,3,5-Trichlorobenzene										250 (22)		50 (22,23)
Trichlorobenzenes										250 (22)		50 (22,23)
1,1,1-Trichloroethane										18,000		
1,1,2-Trichloroethane			0.60	42						18,000	9400	
Trichloroethylene (TCE)			2.7	81						45,000		21,900 (31)
Trichlorofluoromethane			0.19							11,000 (20)		
2,4,5-Trichlorophenol	2600	9800			1							
2,4,6-Trichlorophenol			2.1	6.5	2						970	
1,1,2-Trichloropropane												
1,2,3-Trichloropropane												
1,1,2-Trichloro-1,2,2-trifluoroethane												
Tridiphane												
Triethylamine												
Trifluralin												
Trimethylamine												
1,3,5-Trimethylbenzene												
1,3,5-Trinitrobenzene												
Trinitroglycerol												
Trinitrophenol										230 (88)		150 (38,88)
Trinitrotoluene (TNT)												
Tris(1-aziridinyl)phosphine sulfide												
Tris(2,3-dibromopropyl)phosphate												
Trithion												
Tryptophan-P-1												
Tryptophan-P-2												
Urethane												
n-Valeraldehyde												
Vernem												
Vinclozolin												
Vinyl acetate												
Vinyl bromide												

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum	(30-day Average) aquatic organism consumption only	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
Thioacetamide									
Thiobencarb									
4,4'-Thiodianiline									
Thiophanate-methyl									
Thiourea									
Thiram									
Toluene	6800	200,000				200,000			
Toluene diisocyanate									
o-Toluidine									
o-Toluidine hydrochloride									
Toxaphene	0.00073 (113)	0.00075 (113)	0.0002	0.73		0.00075 (113)	0.0002	0.21	
2,4,5-TP (Silvex)									
Tralomethrin									
Triallate									
Triasulfuron									
1,2,4-Tribromobenzene									
Tributyltin									
Trichlorfon									
Trichloroacetic acid									
Trichloroacetonitrile									
1,2,4-Trichlorobenzene									
1,3,5-Trichlorobenzene									
Trichlorobenzenes									
1,1,1-Trichloroethane									
1,1,2-Trichloroethane	0.60 (113,143)	42 (113,143)				42 (113,143)			
Trichloroethylene (TCE)	2.7 (113,143)	81 (113,143)				81 (113,143)			
Trichlorofluoromethane									
2,4,5-Trichlorophenol									
2,4,6-Trichlorophenol	2.1 (113)	6.5 (113)				6.5 (113)			
1,1,2-Trichloropropane									
1,2,3-Trichloropropane									
1,1,2-Trichloro-1,2,2-trifluoroethane									
Tridiphane									
Triethylamine									
Trifluralin									
Trimethylamine									
1,3,5-Trimethylbenzene									
1,3,5-Trinitrobenzene									
Trinitroglycerol									
Trinitrophenol									
Trinitrotoluene (TNT)									
Tris(1-aziridinyl)phosphine sulfide									
Tris(2,3-dibromopropyl)phosphate									
Trithion									
Tryptophan-P-1									
Tryptophan-P-2									
Urethane									
n-Valeraldehyde									
Vernem									
Vinclozolin									
Vinyl acetate									
Vinyl bromide									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average)	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	aquatic organism consumption only	6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Thioacetamide													
Thiobencarb													
4,4'-Thiodianiline													
Thiophanate-methyl													
Thiourea													
Thiram													
Toluene	85,000										6300	5000	
Toluene diisocyanate													
o-Toluidine													
o-Toluidine hydrochloride													
Toxaphene	0.00021 #						0.0002		0.21				
2,4,5-TP (Silvex)													
Tralomethrin													
Triallate													
Triasulfuron													
1,2,4-Tribromobenzene													
Tributyltin	0.0014						0.010		0.37				
Trichlorfon													
Trichloroacetic acid													
Trichloroacetonitrile													
1,2,4-Trichlorobenzene											160 (22)	129 (22)	
1,3,5-Trichlorobenzene											160 (22)	129 (22)	
Trichlorobenzenes											160 (22)	129 (22)	
1,1,1-Trichloroethane	540,000										31,200		
1,1,2-Trichloroethane	43,000												
Trichloroethylene (TCE)	27 #										2000		
Trichlorofluoromethane											12,000 (20)	6400 (20)	11,500 (20,82)
2,4,5-Trichlorophenol		1 (87)			4 (87)	10 (87)							
2,4,6-Trichlorophenol	0.29 #	1 (87)			4 (87)	10 (87)							
1,1,2-Trichloropropane													
1,2,3-Trichloropropane													
1,1,2-Trichloro-1,2,2-trifluoroethane													
Tridiphane													
Triethylamine													
Trifluralin													
Trimethylamine													
1,3,5-Trimethylbenzene													
1,3,5-Trinitrobenzene													
Trinitroglycerol													
Trinitrophenol		30 (86)			120 (86)	300 (86)					4850 (88)		
Trinitrotoluene (TNT)													
Tris(1-aziridinyl)phosphine sulfide													
Tris(2,3-dibromopropyl)phosphate													
Trithion													
Tryptophan-P-1													
Tryptophan-P-2													
Urethane													
n-Valeraldehyde													
Vernem													
Vinclozolin													
Vinyl acetate													
Vinyl bromide													

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
Thioacetamide	62-55-5			
Thiobencarb	28249-77-6	Benthiocarb	Bolero	
4,4'-Thiodianiline	139-65-1			
Thiophanate-methyl	23564-05-8	Methylthiofanate		
Thiourea	62-56-6			
Thiram	137-26-8			
Toluene	108-88-3	Methylbenzene		
Toluene diisocyanate	26471-62-5	Diisocyanatotoluene		
o-Toluidine	95-53-4	2-Aminotoluene		
o-Toluidine hydrochloride	636-21-5	2-Aminotoluene hydrochloride		
Toxaphene	8001-35-2	Camphechlor	Chlorocamphene	
2,4,5-TP (Silvex)	93-76-5	2,4,5-Trichlorophenoxypropionic acid	Silvex	
Tralomethrin	66841-25-6	RU 25474		
Triallate	2303-17-5			
Triasulfuron	82097-50-5	Amber		
1,2,4-Tribromobenzene	615-54-3			
Tributyltin	688-73-3	TBT	Tin, tributyl-	
Trichlorfon	52-68-6	Trichlorphon	Chlorofos	Dipterex
Trichloroacetic acid	76-03-9	A haloacetic acid		
Trichloroacetonitrile	545-06-02			
1,2,4-Trichlorobenzene	120-82-1	unsymmetrical-Trichlorobenzene		
1,3,5-Trichlorobenzene	108-70-3			
Trichlorobenzenes	12002-48-1	Benzenes, trichloro-		
1,1,1-Trichloroethane	71-55-6	1,1,1-TCA	Methyl chloroform	
1,1,2-Trichloroethane	79-00-5	1,1,2-TCA	Vinyl trichoride	
Trichloroethylene (TCE)	79-01-6	Trichloroethene	TCE	
Trichlorofluoromethane	75-69-4	Fluorotrichloromethane	Freon 11	
2,4,5-Trichlorophenol	95-95-4			
2,4,6-Trichlorophenol	88-06-2			
1,1,2-Trichloropropane	598-77-6			
1,2,3-Trichloropropane	96-18-4	Allyl trichloride		
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Trichlorotrifluoroethane	Freon 113	
Tridiphane	58138-08-2	Tandem		
Triethylamine	121-44-8			
Trifluralin	1582-09-8	Treflan		
Trimethylamine	75-50-3			
1,3,5-Trimethylbenzene	108-67-8	Mesitylene	symmetrical-Trimethylbenzene	
1,3,5-Trinitrobenzene	99-35-4			
Trinitroglycerol				
Trinitrophenol	88-89-1	Picric acid		
Trinitrotoluene (TNT)	118-96-7	TNT		
Tris(1-aziridinyl)phosphine sulfide	52-24-4	Thiotepa		
Tris(2,3-dibromopropyl)phosphate	126-72-7			
Trithion	786-19-6	Carbophenothion		
Tryptophan-P-1	62450-06-0	Trp-P-1		
Tryptophan-P-2	62450-07-1	Trp-P-2		
Urethane	51-79-6	Ethyl carbamate		
n-Valeraldehyde	110-62-3	Amyl aldehyde	Pentanal	
Vernem	1929-77-7	Vernolate	PPTC	
Vinclozolin	50471-44-8	Ronilan		
Vinyl acetate	108-05-4			
Vinyl bromide	593-60-2	Bromoethene	Bromoethylene	

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	Drinking Water Standards (California & Federal) Maximum Contaminant Levels (MCLs)					California Public Health Goal (PHG) in Drinking Water (Office of Environmental Health Hazard Assessment)	California State Action Levels (Department of Health Services)		Other Taste & Odor Thresholds
	California Dept. of Health Services		U.S. Environmental Protection Agency						
	Primary MCL	Secondary MCL	Primary MCL	Secondary MCL	MCL Goal		Toxicity	Taste & Odor	
Vinyl chloride	0.5		2		zero	0.043 (100)			3400 (126)
Vinyl toluene									420 (126)
Warfarin									
Xylene(s)	1750		10,000	20 (100)	10,000	1800			17 (26,126)
2,4-Xylidine									1800 (126)
2,6-Xylidine									
Zineb									
Ziram									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level (60)	Drinking Water Health Advisories or Suggested No-Adverse-Response Levels (SNARLs) for toxicity other than cancer risk		One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water				California Proposition 65 Regulatory Level as a Drinking Water Level (14)	Agricultural Water Quality Goals (78)
		USEPA	National Academy of Sciences (NAS)	Cal/EPA Cancer Potency Factor as a Drinking Water Level (102)	USEPA Integrated Risk Information System (IRIS)	USEPA Drinking Water Health Advisory or SNARL	National Academy of Sciences (NAS) *Drinking Water and Health*		
Vinyl chloride	21	3000 (10-day)		0.13	0.048 / 0.096 (156)	0.02 (A)	1.1	1.5 #	
Vinyl toluene									
Warfarin	2							R	
Xylene(s)	14,000	10,000 (68)			(D)	(D,68)			
2,4-Xylidine									
2,6-Xylidine								50 # (68)	
Zineb	350		35						
Ziram			87.5						

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	USEPA National Recommended Ambient Water Quality Criteria											
	Human Health and Welfare Protection					Freshwater Aquatic Life Protection						
	Non-Cancer Health Effects		One-in-a-Million Cancer Risk Estimate			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Sources of Drinking Water (water+organisms)	Other Waters (aquatic organism consumption only)	Taste & Odor or Welfare	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Vinyl chloride			2.0	525								
Vinyl toluene												
Warfarin												
Xylene(s)												
2,4-Xylidine												
2,6-Xylidine												
Zineb												
Ziram												

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Toxics Rule Criteria (USEPA)								
	Inland Surface Waters					Enclosed Bays & Estuaries			
	Human Health (30-day Average)		Freshwater Aquatic Life Protection			Human Health (30-day Average) aquatic organism consumption only	Saltwater Aquatic Life Protection		
	Drinking Water Sources (consumption of water and aquatic organisms)	Other Waters (aquatic organism consumption only)	Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum		Continuous Concentration (4-day Average)	Maximum Concentration (1-hour Average)	Instantaneous Maximum
Vinyl chloride	2 (113,143)	525 (113,143)				525 (113,143)			
Vinyl toluene									
Warfarin									
Xylene(s)									
2,4-Xylidine									
2,6-Xylidine									
Zineb									
Ziram									

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

ORGANIC CONSTITUENT	California Ocean Plan Numerical Water Quality Objectives						USEPA National Recommended Ambient Water Quality Criteria Saltwater Aquatic Life Protection						
	Human Health (30-day Average)	Marine Aquatic Life Protection					Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	aquatic organism consumption only	6-month Median	30-day Average	7-day Average	Daily Maximum	Instantaneous Maximum	Continuous Concentration (4-day Average)	24-hour Average	Maximum Concentration (1-hour Average)	Instantaneous Maximum	Acute	Chronic	Other
Vinyl chloride	36 #												
Vinyl toluene													
Warfarin													
Xylene(s)													
2,4-Xylidine													
2,6-Xylidine													
Zineb													
Ziram													

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS in ug/l (ppb) unless noted

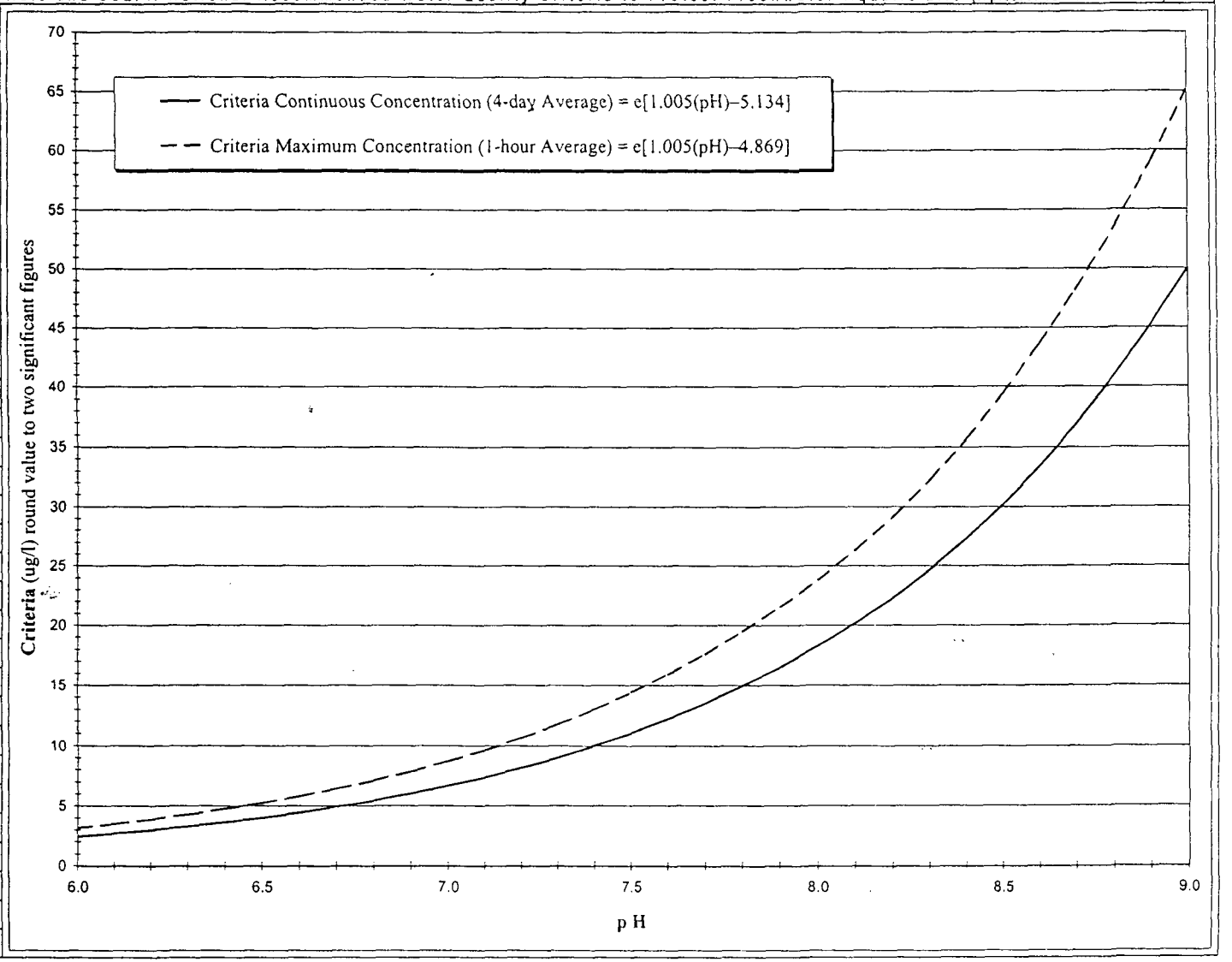
ORGANIC CONSTITUENT	Chemical Abstracts Service Registry Number	Synonyms and Abbreviations		
Vinyl chloride	75-01-4	VC	Chloroethene	Chloroethylene
Vinyl toluene	25013-15-4	Methyl styrene		
Warfarin	81-81-2	Coumadin	Coumafen	
Xylene(s)	1330-20-7	o-Xylene	m-Xylene	p-Xylene
2,4-Xylidine	1300-73-8	Amino-2,4-dimethylbenzene	2,4-Dimethylaniline	
2,6-Xylidine	87-62-7	2,6-Dimethylaniline	Amino-2,6-dimethylbenzene	
Zineb	12122-67-7	Dithane Z-78		
Ziram	137-30-4			

Priority pollutant can be ionized

WATER QUALITY GOALS FOR ORGANIC CONSTITUENTS
FRESHWATER AQUATIC LIFE - PENTACHLOROPHENOL

California Toxics Rule and USEPA National Recommended Water Quality Criteria to Protect Freshwater Aquatic Life (expressed as dissolved metal)

pH	Pentachlorophenol	
	Continuous Conc. 4-day Avg. (ug/l)	Maximum Conc. 1-hour Avg. (ug/l)
6.0	2.4	3.2
6.1	2.7	3.5
6.2	3.0	3.9
6.3	3.3	4.3
6.4	3.7	4.8
6.5	4.0	5.3
6.6	4.5	5.8
6.7	5.0	6.5
6.8	5.5	7.1
6.9	6.1	7.9
7.0	6.7	8.7
7.1	7.4	9.6
7.2	8.2	11
7.3	9.0	12
7.4	10	13
7.5	11	14
7.6	12	16
7.7	14	18
7.8	15	19
7.9	17	22
8.0	18	24
8.1	20	26
8.2	22	29
8.3	25	32
8.4	27	36
8.5	30	39
8.6	33	44
8.7	37	48
8.8	41	53
8.9	45	59
9.0	50	65



FOOTNOTES

FOOTNOTES

(7-day) For exposure of 7 days or less.
(10-day) For exposure of 10 days or less.
(24-hr) For exposure of 24 hours or less.

weight-of-evidence

(A) Known human carcinogen; sufficient epidemiologic evidence in humans. benzene, arsenic
(B) Probable human carcinogen.
(B1) Probable human carcinogen; limited epidemiologic evidence in humans.
(B2) Probable human carcinogen; sufficient evidence from animal studies; no or inadequate human data.
(C) Possible human carcinogen; limited evidence from animal studies; no human data.
(D) Not classified as to human carcinogenicity; no data or inadequate evidence.
(E) Evidence of non-carcinogenicity for humans.

(1) Expressed as dissolved.
(2) Expressed as total recoverable.
(3) Varies from 1.4 to 2.4 mg/L with air temperature; see Title 22, CCR, Section 64435, Table 4.
(4) For dissolved chloride associated with sodium; criterion probably will not be adequately protective when chloride is associated with potassium, calcium, or magnesium, rather than sodium.
(5) Based on reproductive toxicity; applies only to second value if more than one value is listed.
(6) Pentavalent arsenic [As(V)] effects on plants.
(7) Calculated for child / for adult.
(8) Advisory concentration; U.S. EPA Water Quality Advisory; Reference 13.
(9) As $CaCO_3$; minimum concentration except where natural concentrations are less.
(10) From Reference 11.
(11) For dinitrophenols.
(12) Value developed for chromium (VI); may be applied to total chromium if valence unknown.
(13) For sum of bromoform, bromomethane, chloromethane, dibromochloromethane, and bromodichloromethane.
(14) Regulatory dose level divided by 2 liters per day average consumption; represents a 1-in-100,000 incremental cancer risk estimate unless otherwise noted.
(15) Determined not to pose a risk of cancer through ingestion (Title 22, CCR, Section 12707).
(16) Toxicity to one species of fish after 2600 hours of exposure.
(17) Mortality in a fish species after 30 day exposure.
(18) Applies separately to endrin and endrin aldehyde.
(19) For total trihalomethanes (sum of bromoform, bromodichloromethane, chloroform and dibromochloromethane); based largely on technology and economics.
(20) For halomethanes.
(21) Based on limited evidence.
(22) For chlorinated benzenes.
(23) Toxicity to a fish species exposed for 7.5 days.
(24) For dichlorobenzenes.
(25) 1983 Suggested-No-Adverse-Response Level; to be reviewed in the future.
(26) From Reference 8.
(27) For dichloroethylenes.
(28) For dichloropropanes.
(29) For dichloropropenes.
(30) For heptachlor and heptachlor epoxde.
(31) Adverse behavioral effects occur to one species.
(32) As $CaCO_3$; minimum criterion except where natural concentrations are less.
(33) For sum of acenaphthylene, anthracene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluorene, indeno(1,2,3-c,d)pyrene, phenanthrene, and pyrene.
(34) Flavor impairment in a fish species occurs.
(35) Mortality to early life stages of a fish species occurs.
(36) Based on organoleptic considerations (taste, odor, color, laundry staining, etc.)
(37) For mononitrophenols.
(38) Toxicity to algae occurs.
(39) For chlorinated systems.
(40) For white phosphorus.
(41) For carcinogenic polynuclear aromatic hydrocarbons.
(42) For endosulfan-alpha, endosulfan-beta and endosulfan sulfate.
(43) For benzene hexachloride isomers.
(44) Calculated from corn oil gavage animal study / from drinking water animal study.
(45) For sum of phthalate esters.
(46) For chloroalkyl ethers.
(47) For tetrachloroethanes.
(48) For chlorinated naphthalenes.
(49) 1980 U.S. EPA Suggested-No-Adverse-Response Level.
(50) For DDT, DDD, and DDE.
(51) From Reference 9.
(52) For polynuclear aromatic hydrocarbons.
(53) For dinitrotoluenes.
(54) From Reference 20.
(55) From Reference 30.
(56) For nitrosamines.
(57) Guidance level assumes relative source contribution of 10% from drinking water; Reference 3.
(58) For haloethers.
(59) Chronic Suggested-No-Adverse-Response Level was estimated to be 100-fold lower than the listed 24-hour value in calculating this level.
(60) Assumes 70 kg body weight, 2 liters/day water consumption, and 20% relative source contribution from drinking water. An additional uncertainty factor of 10 is used for Class C carcinogens.
(61) 6-month median.
(62) For pH between 6.5 and 9.0.
(63) Average chain length, C12; approximately 60% chlorine by weight.
(64) Based on kepone.
(65) Value for the technical grade of chemical or mixture of isomers.
(66) As Cl; federal limit effective 12/17/01 for surface water systems serving >10,000 people; federal limit effective 12/17/03 for all other systems; maximum residual disinfectant level and goal; apply only if this disinfectant is used.
(67) As ClO2; federal limit effective 12/17/01 for surface water systems serving >10,000 people; federal limit effective 12/17/03 for all other systems; maximum residual disinfectant level and goal; apply only if this disinfectant is used.
(68) Draft / tentative / provisional; applies only to second value if more than one value listed.
(69) For Arochlor 1260.
(70) At pH 6.8, caused 50% reduction in growth of yearling sockeye salmon in 56-day test.
(71) May be present as a decomposition product in Ferbam, Maneb, Nabam, Thiram, Zineb, and Ziram.
(72) As NO3; in addition, MCL for total nitrate plus nitrite = 10,000 ug/L (as N).
(73) Recommended level; Upper level = 500 mg/L; Short-term level = 600 mg/L.
(74) Recommended level; Upper level = 1600 umhos/cm; Short-term level = 2200 umhos/cm.
(75) Recommended level; Upper level = 1000 mg/L; Short-term level = 1500 mg/L.
(76) For "TCDD equivalents" calculated as the sum of 2,3,7,8-chlorinated dibenzodioxin and dibenzofuran concentrations multiplied by their respecitve USEPA Toxicity Equivalency Factors.
(77) For 1,2- and 1-3-dichlorobenzenes.
(78) Unless otherwise noted, from Reference 19.
(79) For elemental phosphorus; marine or estuarine.
(80) Instantaneous maximum.
(81) For oxychlordane and alpha and gamma isomers of chlordane, chlordene and nonachlor.
(82) A decrease in the number of algal cells occurs.
(83) Adverse effects on a fish species exposed for 168 days.

FOOTNOTES

(84) At no time exceed 5 NTU; systems that filter must not exceed 1 NTU (0.5 NTU for conventional or direct filtration) in at least 95% of daily samples in any month. Effective December 2001, 0.3 NTU for conventional or direct filtration systems serving >10,000 people. Proposed 0.3 NTU 95th percentile and 1 NTU maximum for systems serving <10,000 people.

(85) Expressed as total recoverable; this National Toxics Rule criterion applies to SF Bay through Susuin Bay and Sacramento-San Joaquin Delta, Salt Slough, Mud Slough (north), and San Joaquin River,Sack Dam to mouth of Merced River; does not apply to San Joaquin River, mouth of Merced to Vernalis; see reference 23.

(86) For nonchlorinated phenolic compounds.

(87) For chlorinated phenolic compounds.

(88) For nitrophenols.

(89) Expressed as nitrogen.

(90) For total chlorine residual; for intermittent chlorine sources see Chapter IV, Table B of Reference 28.

(91) Second value from Reference 16.

(92) For 3,3'-Dichlorobenzidine and its salts.

(93) Based on toxicity of benzo(a)pyrene and Potency Equivalency Factors of Cal/EPA, OEHHA; see Reference 18.

(94) Criterion refers to the inorganic form only.

(95) For the pentavalent form.

(96) EC50 for eastern oyster embryos.

(97) Expressed as total recoverable; this National Toxics Rule criterion applies to SF Bay through Susuin Bay and Sacramento-San Joaquin Delta, Salt Slough, Mud Slough (north), and San Joaquin River,Sack Dam to mouth of Merced River; does not apply to Grassland Water District, San Luis National Wildlife Refuge, and Los Banos State Wildlife Refuge; see reference 23.

(98) For total residual chlorine.

(99) For sum of chlorine-produced oxidants.

(100) Proposed; applies only to second value if more than one value is listed.

(101) MFL = million fibers per liter; limited to fibers longer than 10 um.

(102) Assumes 70 kg body weight and 2 liters/day water consumption.

(103) As nitrogen (N); in addition, limit for total nitrate + nitrite = 10,000 ug/L (as N).

(104) Based on endosulfan; USEPA Water Quality Advisory; Reference 13.

(105) No more than 0.05% monomer when dosed at 1 mg/L for drinking water treatment; see Reference 2.

(106) For five haloacetic acids (sum of mono-, di-, and trichloroacetic acids and mono- and dibromoacetic acids).

(107) Unleaded; based on benzene.

(108) For molecules with 60% chlorine or greater by molecular weight; applies only to second value if more than one value listed.

(109) Optimal fluoride level and (range) vary with annual average of maximum daily air temperature; 50.0 to 53.7 degrees F - 1.2 (1.1 - 1.7) mg/L; 53.8 to 58.3 degrees F - 1.1 (1.0 - 1.7) mg/L; 58.4 to 63.8 degrees F - 1.0 (0.9 - 1.5) mg/L; 63.9 to 70.6 degrees F - 0.9 (0.8 - 1.4) mg/L; 70.7 to 79.2 degrees F - 0.8 (0.7 - 1.3) mg/L; 79.3 to 90.5 degrees F - 0.7 (0.6 - 1.2) mg/L.

(110) Picocuries per liter; including Radium-226 but excluding Radon and Uranium.

(111) MCL includes this "Action level" to be exceeded in no more than 10% of samples at the tap.

(112) Criterion expressed as unionized ammonia; criteria based on total ammonia are shown on Inorganics Page 14.

(113) Based on carcinogenicity at 1-in-a-million risk level.

(114) Developed as 24-hour average usinig 1980 USEPA Guidelines; but applied as 4-day average in the National Toxics Rule, reference 22.

(115) Criterion most appropriately applied to the sum of alpha-Endosulfan and beta-Endosulfan. Reference 26.

(116) Applies separately to Aroclors 1242, 1254, 1221, 1232, 1248, 1260, and 1016; based on carcinogenicity at 1-in-a-million risk level.

(117) Effluent limitation for wastes discharged to waters.

(118) For the sum of Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260.

(119) Cancer classification not supported by ingestion data.

(120) For isomers with chlorines in 2,3,7 and 8 positions.

(121) Cancer risk may not be linear with dose above 60 ug/L.

(122) For the oxide form.

(123) For the pentoxide form.

(124) For the gas phase.

(125) Applies to first value if more than one value listed. From Reference 7.

(126) Applies to second value if more than one value listed. Water-dilution odor threshold calculated from air odor threshold using equilibrium distributions. From Reference 29.

(127) For protection of consumers of marine moluscs.

(128) Virtually free from oil and grease, particularly from the tastes and odors that emanate from petroleum products.

(129) 0.01 of the lowest continuous flow 96-hour LC50 to several important freshwater and marine species, each having a demonstrated high susceptibility to oils and petrochemicals; surface waters shall be virtually free from floating nonpetroleum oils of vegetable or animal origin, as well as petroleum derived oils.

(130) Waters shall be virtually free from substances producing objectionable color for aesthetic purposes; the source of supply should not exceed 75 color units on the platinum-cobalt scale for domestic water supplies.

(131) Increased color, in combination with turbidity (suspended and settleable solids) should not reduce the depth of the compensation point for photosynthetic activity by more than 10% from the seasonally established norm for aquatic life.

(132) For open ocean waters where depth is substantially greater than euphotic zone, pH should not be changed > 0.2 units from naturally occurring variation or in any case outside of range 6.5 to 8.5. For shallow highly productive coastal and estuarine areas where naturally occurring pH variations approach the lethal limits of some species, change in pH should be avoided but in any case should not exceed limits for freshwater., i.e., 6.5 to 9.0.

(133) For chlorides and sulfates in domestic water supplies.

(134) Based on the assumption that 7.2% of Cr is Cr(VI).

(135) Expressed as total recoverable; may be converted to a value expressed as dissolved by multiplying by 0.922.

(136) The Maximum Concentration is equal to 1/ [(f1/185.9) + (f2/12.83)], where f1 and f2 are the fractions of total selenium that are treated as selenite and selenate, respectively.

(137) Expressed as free cyanide (as CN).

(138) Not toxic to aquatic organisms at or below the solubility limit of this chemical. Reference 26.

(139) The derivation of this criterion did not consider exposure through the diet, which is probably important for aquatic life occupying upper trophic levels. Reference 26.

(140) Criterion derived from data for inorganic mercury (II), but is applied to total mercury. It will probably be underprotective if a substantial portion of mercury in the water column is methylmercury. Derivation of criterion did not consider exposure through the diet, which is probably important for aquatic life occupying upper trophic levels. Reference 26.

(141) See Reference 16.

(142) Criteria do not apply to waters subject to water quality objectives in Tables III-2A and III-2B of the San Francisco Bay Regional Water Quality Control Board's 1986 Basin Plan. See Reference 17.

(143) These criteria were promulgated for specific California waters in the National Toxics Rule, Reference 23.

(144) Applies to "TCDD Equivalents" calculated from the concentrations of 2,3,7,8-chlorinated dibenzodioxins and 2,3,7,8-chlorinated dibenzofurans and their corresponding toxic equivalency factors (TEFs); see Reference 27.

(145) No more than 0.01% monomer when dosed at 20 mg/L for drinking water treatment; see Reference 2.

(146) From Reference 31.

(147) Effective 12/17/01 for surface water systems serving >10,000 people; effective 12/17/03 for all other systems.

(148) Effective date postponed.

(149) 100 ug/L TTHM MCL effective until 12/17/01 for systems serving >10,000 people, then 80 ug/L MCL is effective; effective date for 80 ug/L MCL is 12/17/03 for all other systems.

(150) Applies to the lithium salt.

(151) Criterion derived by the California Department of Fish and Game; not a national recommended criterion. Applies to first value if more than one value is listed. From Reference 32.

(152) Interim criterion derived by the California Department of Fish and Game; not a national recommended criterion. Applies to first value if more than one value is listed. From Reference 32.

(153) For the (+2) valence state.

(154) Second and third values are draft criteria. Second value derived using nonlinear approach assuming a relative source contribution. Third value derived using linear approach without a relative source contribution.

(155) A based on inhalation exposure data / D based on oral exposure data.

(156) Adult exposure / exposure from birth.

(157) Action Level temporarily at 1-in-100,000 risk level.

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REFERENCES

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California Enclosed Bays and Estuaries -- California Toxics Rule Criteria
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STATE OF CALIFORNIA — ENVIRONMENTAL PROTECTION AGENCY

STATE WATER RESOURCES CONTROL BOARD

1001 "I" Street, P.O. Box 100, Sacramento, CA 95812-0100

Legislative and Public Affairs: (916) 341-5250
Water Quality Information: (916) 341-5455
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REGIONAL WATER QUALITY CONTROL BOARDS

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5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403
(707) 576-2220

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1515 Clay Street, Suite 1400
Oakland, CA 94612
(510) 622-2300

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San Luis Obispo, CA 93401-5427
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CENTRAL VALLEY REGION (5S)
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(916) 255-3000

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3614 East Ashlan Avenue
Fresno, CA 93726
(559) 445-5116

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415 Knollcrest Drive, Suite 100
Redding, CA 96002
(530) 224-4845

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South Lake Tahoe, CA 96150
(530) 542-5400

Victorville Branch Office (6V)
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(760) 346-7491

SANTA ANA REGION (8)
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Riverside, CA 92501-3339
(909) 782-4130

SAN DIEGO REGION (9)
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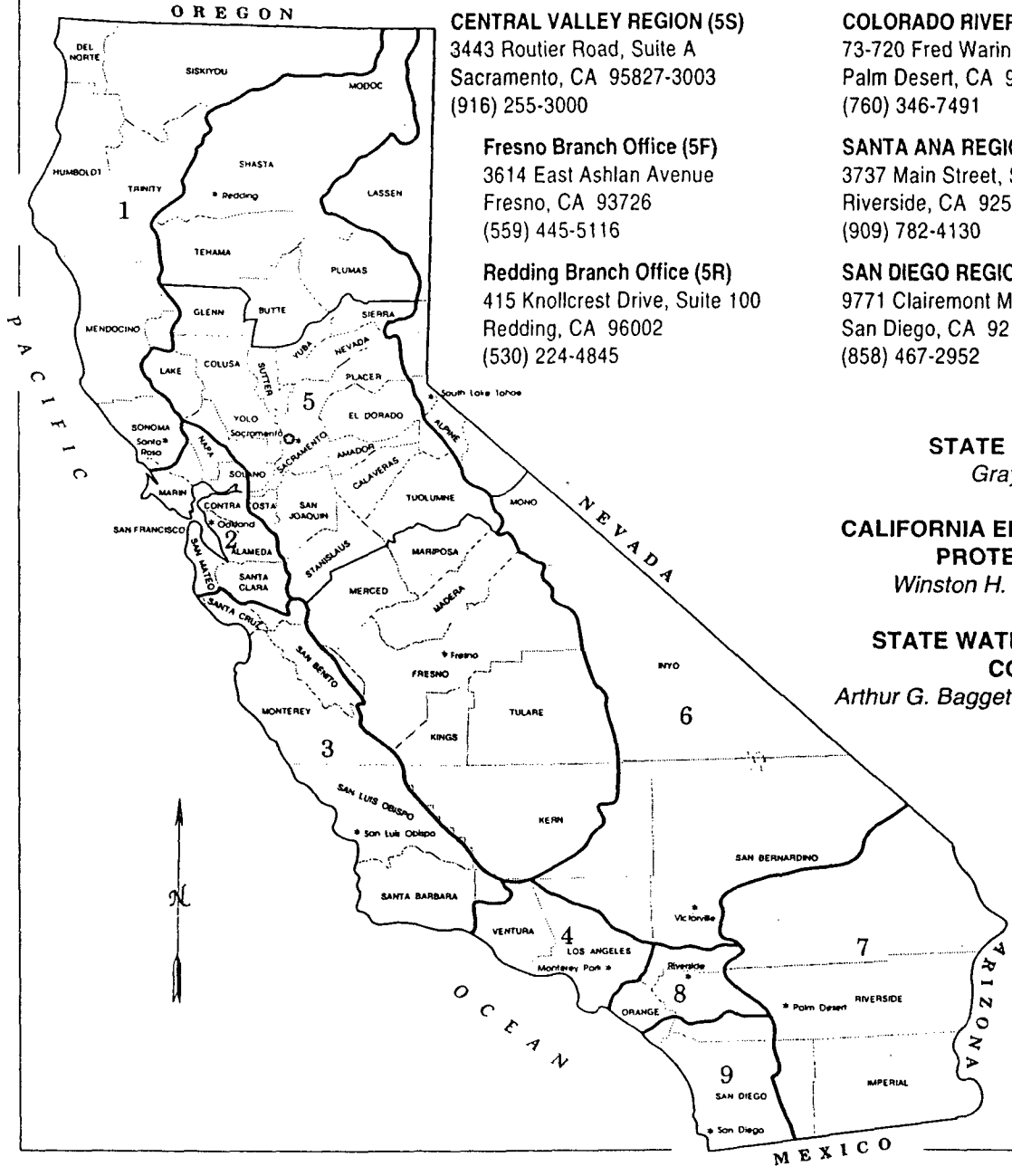
San Diego, CA 92124-1331
(858) 467-2952



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Gray Davis, Governor

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
Winston H. Hickox, Secretary

STATE WATER RESOURCES CONTROL BOARD
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December 2000

Table X. Summary of 7-day *Ceriodaphnia* toxicity test conducted on samples collected from the Calleguas Creek watershed on 2 December 1998.[2]

Treatment	Reproduction[1] (neonates/adult)		Mortality[1] (%)	Final pH at 24 hours
	x	se		
Laboratory Control	25.1[P]	1.3	10[P]	8.48
Station 3 - Arroyo Simi below HWY 118	27.3	0.7	0	8.68
Station 1 - Arroyo Simi above SVWQCP	25.9	0.8	0	8.36
Station 11 - Conejo Creek	*	*	100 (5)	8.63

P. The laboratory control met all EPA criteria for test acceptability. 90% of the daphnids had a third brood.

1. Highlighted cells indicate a significant reduction in reproduction or increase in mortality relative to the laboratory control water. The mortality endpoint was analyzed using Fisher's Exact Test. The reproductive endpoint was analyzed using Dunnett's Test ($p<0.05$).
2. This test was set up on 4 December 1998.

* Due to significant mortality observed in this sample, reproduction was not calculated.

(#) Number in parentheses represents days to 100% mortality.

Table X. Summary of 7-day *Pimephales* toxicity test conducted on samples collected from the Calleguas Creek watershed on 3 February 1999.[2]

Treatment	Growth[1] (mg/indiv)		Mortality (%)[1]		Final pH at 24 hours
	x	se	x	se	
Laboratory Control	0.380[P]	0.019	2.5[P]	3.0	8.14
Laboratory Control amended to pH 6.5	0.383	0.013	2.5	3.0	8.20
Station 3 - Arroyo Simi below HWY 118	*	*	100.0	0.0	8.52
Station 3 - Arroyo Simi below HWY 118 amended to pH 6.5	0.394	0.018	15.0	9.0	8.04
Station 1 - Arroyo Simi above SVWQCP	0.479	0.044	15.0	3.0	8.11
Station 11 - Conejo Creek	0.260	0.000	95.0	5.0	8.57
Station 11 - Conejo Creek amended to pH 6.5	0.433	0.009	7.5	3.0	8.14

Quality Assurance Samples

Treatment	Growth[1] (mg/indiv)		Mortality (%)[1]		Final pH at 24 hours
	x	se	x	se	
Station 3 - Arroyo Simi below HWY 118	*	*	100.0	0.0	8.52
Station 3 - Arroyo Simi below HWY 118 duplicate	*	*	100.0	0.0	8.61

P. The laboratory control met the criteria for test acceptability.

1. Highlighted areas indicate a significant increase in mortality or decrease in growth when compared to the laboratory control. The growth and mortality endpoints were analyzed with Dunnett's Test ($p<.05$).
2. The samples were collected on 3 February 1999. This test was set up on 5 February 1999.

Table X. Summary of 7-day *Ceriodaphnia* toxicity test conducted on samples collected from the Calleguas Creek watershed on 3 March 1999.[2]

Treatment	Reproduction[1] (neonates/adult)		Mortality[1] (%)	Final pH at 24 hours
	x	se		
Laboratory Control	23.5[P]	0.6	0[P]	8.33
Laboratory Control amended to 2000 µmhos/cm	21.2	1.1	0	8.24
Station 3 - Arroyo Simi below HWY 118	*	*	90	8.55
Station 1 - Arroyo Simi above SVWQCP	23.4	0.8	0	8.19
Station 11 - Conejo Creek	17.7	2.2	0	8.53

P. The laboratory control met all EPA criteria for test acceptability. 100% of the daphnids had a third brood.

1. Highlighted cells indicate a significant reduction in reproduction or increase in mortality relative to the laboratory control water. The mortality endpoint was analyzed using Fisher's Exact Test. The reproductive endpoint was analyzed using Dunnett's Test ($p<.05$).
2. This test was set up on 4 June 1999.

* Due to significant mortality observed in this sample, reproduction was not calculated.

Table X. Summary of water chemistry measurements on samples collected from the Calleguas Creek watershed on 7 April 1999.

Treatment	Field Temp (^{O}C)	Field pH	Field EC (µmhos/cm)	Lab pH	Lab EC (µmhos/cm)	Lab DO (mg/L)	Total Hardness (mg/L as $CaCO_3$)	Alkalinity (mg/L as $CaCO_3$)	Ammonia mg/L NH_4^+
Lab Control (EPAMH)				8.18	282	8.6	84	62	
Lab Control (SSEPAMH)				8.18	229	8.6	92	68	
Station 3 - Arroyo Simi below HWY 118	11.7	7.80	812	8.00	777	8.5	264	124	9.6
Station 1 - Arroyo Simi above SVWQCP	11.1	8.00	913	8.18	869	8.4	344	126	18
Station 11 - Conejo Creek	14.8	7.80	1097	8.12	949	8.7	308	182	0.2