

US EPA ARCHIVE DOCUMENT

Consumer Factsheet on: DIQUAT

[List of Contaminants](#)

As part of the Drinking Water and Health pages, this fact sheet is part of a larger publication:
National Primary Drinking Water Regulations

This is a factsheet about a chemical that may be found in some public or private drinking water supplies. It may cause health problems if found in amounts greater than the health standard set by the United States Environmental Protection Agency (EPA).

What is Diquat and how is it used?

Diquat is an organic solid of colorless or yellow crystals. A water solution is dark red-brown. Diquat is a herbicide that has been used extensively in the US since the late 1950s to control both crop and aquatic weeds. It is used on potatoes; as an aid in harvesting cotton, rapeseed and other oil seed crops; to wilt and dry out silage, standing hay, etc. for storage; a plant growth regulator and sugar cane-flowering suppressant.

The list of trade names given below may help you find out whether you are using this chemical at home or work.

Trade Names and Synonyms:

Reglone

Why is Diquat being Regulated?

In 1974, Congress passed the Safe Drinking Water Act. This law requires EPA to determine safe levels of chemicals in drinking water which do or may cause health problems. These non-enforceable levels, based solely on possible health risks and exposure, are called Maximum Contaminant Level Goals.

The MCLG for diquat has been set at 20 parts per billion (ppb) because EPA believes this level of protection would not cause any of the potential health problems described below.

Based on this MCLG, EPA has set an enforceable standard called a Maximum Contaminant Level (MCL). MCLs are set as close to the MCLGs as possible, considering the ability of public water systems to detect and remove contaminants using suitable treatment technologies.

The MCL has been set at 20 ppb because EPA believes, given present technology and resources, this is the lowest level to which water systems can reasonably be required to remove this contaminant should it occur in drinking water.

These drinking water standards and the regulations for ensuring these standards are met, are called National Primary Drinking Water Regulations. All public water supplies must abide by these regulations.

What are the Health Effects?

Short-term: EPA has found diquat to potentially cause the following health effects when people are exposed to it at levels above the MCL for relatively short periods of time: dehydration.

Long-term: Diquat has the potential to cause the following effects from a lifetime exposure at levels above the MCL: cataracts.

How much Diquat is produced and released to the environment?

Diquat usage in 1980 was estimated to be 200,000 lbs. of active ingredient. 1982 data indicates that diquat was not produced domestically, but imports were nearly 835,000 lbs. Diquat is released into the environment during its use as a contact herbicide, aquatic weed control agent, harvesting aid, or plant growth regulator. It may also be released into wastewater or in spills during its manufacture, transport and storage.

What happens to Diquat when it is released to the environment?

Diquat rapidly adheres to soil particles. Though it is resistant to breakdown by microbes or other means, this binding to soil serves to deactivate it.

Diquat is removed rapidly from water, disappearing in 2-4 weeks. It has little or no tendency to accumulate in fish.

How will Diquat be Detected in and Removed from My Drinking Water?

The regulation for diquat became effective in 1994. Between 1993 and 1995, EPA required your water supplier to collect water samples every 3 months for one year and analyze them to find out if diquat is present above 0.4 ppb. If it is present above this level, the system must continue to monitor this contaminant.

If contaminant levels are found to be consistently above the MCL, your water supplier must take steps to reduce the amount of diquat so that it is consistently below that level. The following treatment methods have been approved by EPA for removing diquat: Granular activated charcoal.

How will I know if Diquat is in my drinking water?

If the levels of diquat exceed the MCL, 20 ppb, the system must notify the public via newspapers, radio, TV and other means. Additional actions, such as providing alternative drinking water supplies, may be required to prevent serious risks to public health.

Drinking Water Standards:

Mclg: 20 ppb

Mcl: 20 ppb

Learn more about your drinking water!

EPA strongly encourages people to learn more about their drinking water, and to support local efforts to protect and upgrade the supply of safe drinking water. Your water bill or telephone book's government listings are a good starting point.

Your local water supplier can give you a list of the chemicals they test for in your water, as well as how your water is treated.

Your state Department of Health/Environment is also a valuable source of information.

For help in locating these agencies or for information on drinking water in general, call: EPA's Safe Drinking Water Hotline: (800) 426-4791.

For additional information on the uses and releases of chemicals in your state, contact the: Community Right-to-Know Hotline: (800) 424-9346