



CALGON CARBON CORPORATION

Making Water and Air Safer and Cleaner



For more than 40 years, Calgon Carbon Corporation has been at the forefront of municipal drinking water treatment. From the use of granular activated carbon (GAC) for taste and odor removal in the early 1960's, to the development of ultraviolet light technology for pathogen control in the late 1990's, to the application of ion exchange technology for removing perchlorate starting in the year 2000, Calgon Carbon has been a pioneer in making drinking water safer and cleaner.

Today, we employ a "total solutions" approach by combining media, equipment, and services while expertly applying activated carbon, UV, and ion exchange technologies to a variety of drinking water challenges.



The increased challenges that municipal water providers will face in the future include:

- New and more stringent regulations
- Balancing the cost of water treatment with capital requirements for infrastructure upgrades
- Improved analytical methods which detect waterborne contaminants at lower and lower concentration levels
- Heightened public awareness of water quality issues.

At Calgon Carbon, we pledge to work with our customers and partners in the drinking water industry to meet these emerging challenges. Whether it's improving the aesthetics of drinking water or complying with new regulatory limits, Calgon Carbon has a solution for you.

Our extensive product line treats numerous contaminants, some of which are highlighted on the applications table. We also offer a full line of treatment solutions for municipal wastewater. If you have a drinking water or wastewater treatment challenge, please contact your local Technical Sales Representative or our Inside Sales group for an evaluation of your application and treatment recommendations.

Activated Carbon Products

Starting with the very first drinking water installation of granular activated carbon (GAC) in 1962, municipal drinking water systems have turned to Calgon Carbon for their GAC needs. Over the past 40+ years, we have installed over 300 million pounds of GAC for drinking water treatment worldwide. No one else has as much experience.

Our products include:

- Filtrasorb® Series premium bituminous coal-based carbons
- Centaur® Series catalytic/adsorptive carbons
- WPH® and WPH-M® virgin grade powdered carbons

Ultraviolet Disinfection

Calgon Carbon Corporation's Sentinel® drinking water ultraviolet equipment has been selected by dozens of communities for the protection of their drinking water patrons. The Sentinel® system is selected over competing equipment because:

- Sentinel® reactors have been validated with exacting adherence to the U.S. EPA's protocol. This provides the highest confidence available that drinking water supplies will be well protected and that local regulations will be met.
- Sentinel® equipment costs, building costs, and operation and maintenance costs are significantly lower than our competitors' much larger and more complicated offerings.
- Sentinel® reactors are unrivaled in their tolerance to line voltage variations which eliminates the need for expensive uninterruptible power supplies.
- Sentinel® power supplies are so much more robust than our competitors' that we routinely offer warranties that are four times longer on key components.

Activated Carbon and UV Oxidation

Our combined technologies of activated carbon and UV oxidation provide effective solutions for taste and odor removal. Backed by years of experience and extensive research and development, Calgon Carbon can recommend the best solution for your taste and odor problem, whether it's activated carbon, UV oxidation, or both. We even have a low cost, non-chemical solution for quenching excess peroxide after our advanced oxidation processes. With our total solutions approach of sophisticated technologies, state-of-the-art equipment and unparalleled technical service, Calgon Carbon can knock out any taste and odor issues for you or your customer.

CalSolutions™ Technologies

Calgon Carbon's CalSolutions program offers a total package of media, equipment, and services that allow for the economic removal of perchlorate to below treatment standards with safe, reliable performance. Our CalRes™ ion exchange resins are specifically designed to remove perchlorate. Both CalRes™ 2103, a kinetically superior and durable resin, and CalRes™ 2109, an extended life resin, continue to drive down treatment costs, providing municipalities with an economical method to treat perchlorate contamination.

Engineered Equipment Systems

Having the right media is just one component of a complete drinking water treatment solution. To ensure optimal media performance, Calgon Carbon has developed a complete line of standardized, pre-engineered systems which can treat flows ranging from 1 gpm to over 1,400 gpm. These standard systems include fixed bed designs using steel pressure vessels (our Model 6 through Model 12 systems) and fiberglass vessels (our CalSystems™ line of equipment).

Municipal Drinking Water Applications		
	Products	Applications
Activated Carbon	<ul style="list-style-type: none"> Filtrisorb® Centaur® WPH®/WPH-M® 	<ul style="list-style-type: none"> Taste & Odor Removal TOC DBPs VOCs Pesticides MTBE H₂S Chloramine
UV	<ul style="list-style-type: none"> Sentinel® <ul style="list-style-type: none"> Sentinel® 12, Flow 4.8 MGD (15 MLD) Sentinel® 18, Flow 10 MGD (38 MLD) Sentinel® 24, Flow 20 MGD (75 MLD) Sentinel® 36, Flow 27 MGD (100 MLD) Sentinel® 48, Flow 40 MGD (150 MLD) 	<ul style="list-style-type: none"> <i>Cryptosporidium</i> <i>Giardia</i> Bacteria Viruses MIB Geosmin NDMA Rayox® Organics
CalSolutions™	<ul style="list-style-type: none"> CalRes™ Ion Exchange 	<ul style="list-style-type: none"> Perchlorate
Carbon Equipment	<ul style="list-style-type: none"> Steel Pressure Vessels <ul style="list-style-type: none"> Model 6, Flow 50-250 GPM Model 8, Flow 100-500 GPM Model 10, Flow 300-800 GPM Model 12, Flow 300-800 GPM Ion Exchange <ul style="list-style-type: none"> Fixed Bed Ion Exchange 	<ul style="list-style-type: none"> Taste & Odor DBPs Filtration Ion Exchange



Customer Service

Calgon Carbon backs its media and equipment solutions with an industry-leading service program. From pre-sale technical support to installation and start-up through ongoing maintenance, we help make your job easier through services such as:

Media Disposal

- Reactivation
- Incineration
- Landfill

Technical Services

- Lab Testing
- Computer Modeling
- On-site Pilot Testing

Field Services

- GAC Exchange
- Turnkey Projects

Financial Services

- Monthly Financing Options On Services

About Calgon Carbon Corporation

Calgon Carbon Corporation (NYSE: CCC) has been a global leader in services and solutions for making water and air safer and cleaner and for purifying food, beverage, and industrial process streams.

Headquartered in Pittsburgh, Pennsylvania, Calgon Carbon maintains 15 carbon manufacturing, reactivation, and equipment fabrication facilities and 20 sales and service centers. Calgon Carbon is known as Chemviron Carbon in Europe, the Middle East, and Africa. Calgon Carbon serves thousands of customers around the world. In 2006, the company's sales totaled \$316 million.

Calgon Carbon's expertise spans many fields, including activated carbon, UV technology, continuous ion exchange, and chromatography. For any application, from drinking water purification to pharmaceutical manufacturing, Calgon Carbon technologies are designed to enhance production efficiencies, minimize waste, and remove pollutants – in short, making the world a cleaner, safer place.



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