



Monochloramine Levels

The water used in the hemodialyzer removes the unwanted toxic substances out of the blood stream of the patient via the semi permeable membrane. The water used to produce dialysate must not contain chemical and microbial contaminants that are unsafe for the patient. It is essential that monochloramine levels are maintained below 0.1 mg/L in water used for dialysate. This condition can be easily satisfied with Haycarb activated carbon as it meets the optimal Iodine number required for effective chlorine/chloramines removal. As water is a carrier of many minerals and bacteria, the challenge is to provide water treatment that removes most, if not all, of the minerals and bacteria from the water supply being fed in to the dialysate and dialyzer. To overcome this challenge, water has to be treated first with acid washed activated carbon. This is done to ensure that the water is free from any unwanted substances to protect the membrane as well as ensure that the pH of the water is near neutral, which prevents any substance getting in to the blood stream.

Effective pH Levels

An important function of activated carbon when used in dialysis systems is the removal of chlorine and chloramines to prevent hemolysis, which is the rupturing of the blood cells in dialysis patients. To achieve this, that carbon must exhibit a near neutral effluent pH and removal of organics by activated carbon is more effective at pH levels less than 7. Any activated carbon that is not acid-washed usually produces an initial effluent with a pH greater than 7. The actual rise in pH depends on several factors such as the ash content of the starting material, total dissolved solids (TDS), specifically anions such as sulfate, of the influent water, and pH of the influent water. Baiyun's acid washed carbon offers the customer a product where the pH is reduced to below 7 and .