DECALCIFICATION USING CITRIC ACID IN BICARBONATE SYSTEMS

This Tech Note pertains to all MCB, SDS, and PSDS Bicarbonate Mix and Delivery Systems.

Due to the nature of bicarbonate concentrate, precipitates (or salt build-up) can occur anywhere within the mix and distribution system. This is a naturally occurring event and is not considered a risk to patient safety. However, this can negatively impact the operation of the bicarbonate system, such as damaging pumps, flow switches, and/or impeding flow throughout the system.

To prevent possible damage to key components and to keep the bicarbonate mix and delivery system running efficiently, we recommend cleaning the system with a 1:20 solution of 5% acetic acid (e.g., distilled white vinegar). This is still an acceptable solution.

Alternatively, a 2% up to 5% citric acid solution may be used instead of the acetic acid. To achieve an approximate 2% mixing ratio per weight, use 5 lbs. of citric acid for every 25 gallons of purified* water. Either decalcification solution will need to be rinsed clear from the system using purified* water.

Follow the recommended procedures for decalcification as outlined in each individual system's Operating and Maintenance Manual.

Please note: the latest requirement is for quarterly system decalcification on MCB units. This replaces other recommendations (i.e., weekly) as stated in older, but still relevant, MCB Operation and Maintenance Manuals.

Since a majority of the components used on current MCB models is similar to the older designs, going to a longer period between decalcification will be acceptable.

* Examples of purified water include RO Permeate, Deionized (DI) water, etc.