Fluoridation Chemicals

Shortages of some fluoridation chemicals, especially fluorosilicic acid (FSA), have been plaguing water utilities in recent years, according to the AWWA Fluoride Standards Committee.

FSA is mainly a co-product of the phosphate fertilizer industry, which has been undergoing changes that can affect production. FSA is distributed through various suppliers to the water treatment sector and other end markets.

Recommendations

The AWWA Fluoride Standards Committee recommends that communities consider the use of sodium fluorosilicate (SFS) if they have the capability to feed the dry chemical instead of FSA. In addition, communities ready to replace existing fluoridation equipment or initiating fluoridation should also consider the use of SFS.

If a community’s supplier is having difficulty providing FSA in a timely manner, the community is advised to seek alternative contracting or multiple sourcing with other suppliers. AWWA’s Water Fluoridation Principles and Practices (M4) and the US Centers for Disease Control and Prevention’s Engineering and Administrative Recommendations for Water Fluoridation both recommend that a fluoridating facility have a three-month supply of fluoridation chemical on-site.

The AWWA committee further recommends that fluoridating utilities verify their storage and ensure that the storage is full by June each year, after which the shortages of FSA typically occur. In addition, it may be necessary to increase FSA order lead times during the warmer months. If a water system anticipates that it will exhaust its supply of fluoride, utility officials should notify the state fluoridation program of the termination date and date of resumption.

Most important, utilities need to notify their customers of the situation. This will help customers understand what the utility is doing to ensure safe and healthy water for the community and help maintain good customer relations.

For a community that has been consistently fluoridating, a few days or even weeks should not result in an adverse oral health influence in a community as tooth decay develops slowly over time, according to the CDC. The CDC has a Fact Sheet on Fluoride Shortages.