

SOP for Exceeding Maximum Concentration of Peracetic Acid in Produce Processing

Enviro Tech's Food Contact Notification (FCN) 1738 and EPA-registration allows for use of Perasan A, BioSide HS 15%, Perasan MP-2 and Perasan MP-2C in process water to control microbial growth in wash water that contacts fruits and vegetables that are not raw agricultural commodities. FCN 1738 limits the maximum concentration of peracetic acid (PAA) to 500 mg/L (ppm). In order to prevent exceeding the maximum allowed PAA concentration, the level of PAA in the process water should be monitored using either the Masters Company Peracetic Acid Drop Test Kit or Kemio electronic PAA analyzer. If the concentration of PAA in the process water exceeds 500 ppm confirmation and correction actions should be taken. Since PAA solutions have a very short half-life on produce it is very rare indeed to detect PAA on the surface of post-treated fruit and vegetables products. However, it is important to note that if process water is suspected of containing PAA concentrations >500 ppm, a minimum of 3 different process water samples should be taken to verify results prior to taking corrective actions. Separate samples must be collected from the process area to avoid operator or sampling errors. If process water has been verified to have a PAA concentration >500 ppm the following corrective actions should be taken:

- Step 1.)** Shut down product pump ceasing the addition of PAA into the process water.
- Step 2.)** Identify all produce products that came into contact with process water.
- Step 3.)** Check a minimum of 5 isolated produce products for PAA residual using any standard peracetic acid-specific test strip. To check the concentration of PAA on the surface, lightly press the PAA test strip to the treated surface of the produce for 5 seconds then interpret results.
- Step 4.)** Correct pump settings and verify that fresh process water is dosed with the proper concentration of PAA.
- Step 5.)** If the concentration of PAA on the treated produce surfaces is <500 ppm return to process line and continue. If the PAA concentration on the treated surface is >80 ppm, store the product for several hours until the surface of the produce returns to levels of PAA that are acceptable. In lieu of holding product, it may be rinsed with potable water.
- Step 6.)** Once all isolated produce products are within FDA or EPA limitations, commence processing. Document incident as well as the corrective actions.



Joseph Donabed
R&D Chemist/Microbiologist
Direct: (209) 232-2201
JDonabed@envirotech.com