

Antibrowning & Acrylamide Solutions for the Produce Processing Industry

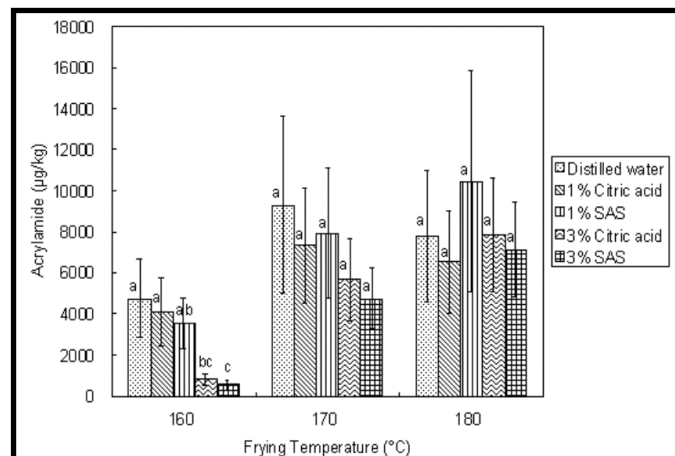
SAS represents both a performance & cost-effective approach for fruit & vegetable processors as an effective option to preserve optimal color



When is used at a 3% concentration, as an acidulant dip treatment, potatoes treated in an SAS solution maintained a significantly lower color (i.e. less "brown") and superior texture than those treated in a Citric Acid solution, over a 14 day period. (Calder et al)¹



A study in Journal of Food Science states Sodium Acid Sulfate, at 3% was shown to be the most effective treatment to inhibit enzymatic browning in fresh cut apples & proactively minimizes microbial food safety hazards.³



In French fried potato applications, potatoes dipped in an SAS solution, prior to frying, resulted in lower acrylamide formation.⁴

References:

1. Calder BL*, et al. 2011. Comparison of Sodium Acid Sulfate to Citric Acid to Inhibit Browning of Fresh-cut Potatoes. *J Food Sci.* 76(3):S164-9.
2. Fan, X., et al. 2009. Antibrowning and Antimicrobial Properties of Sodium Acid Sulfate in Apple Slices. *J Food Sci.* 74 (9): M485-492.
3. Kim, B., et al. 2009. Comparison of the Efficacy of Sodium Acid Sulfate and Citric Acid Treatments in Reducing Acrylamide Formation in French Fries. *Technical Bulletin 201, Maine Agricultural & Forest Experiment Station, University of Maine*

Benefits of pHase[®]

- Water soluble
- Sulfite-free and Allergen-free
- GMO free
- Gluten free
- Little flavor impact
- Delays oxidative & enzymatic browning
- Extends shelf life
- Maintains color, texture & quality of fresh produce



SAS could be used to reduce browning while inhibiting the microbial growth on apple slices, pears and avocados.²