Competitive Product Profile Summary

ENVIROTECH

PERASAN[®] MP-2C

Highlights:

- Perasan MP-2C, a 22% PAA formulation, is the most concentrated PAA product available for meat and poultry processing as well as on further processed fruits and vegetables.
- Perasan MP-2C is approved for use on fruits and vegetables in accordance with FCN #447 and is approved for meat and poultry processing in accordance with FCN #887, #908, #1132 and #1419.
- Perasan MP-2C has the lowest ratio of hydrogen peroxide to PAA on the market (>40% lower H_2O_2 to PAA ratio than Perasan MP-2).
- Perasan MP-2C is a plug-n-play replacement for Perasan MP-2 or other 15% PAA formulations. No additional equipment is required in most cases.
- The amount of Perasan MP-2C dispensed is simply reduced by 32% when compared to 15% PAA formulations in order to yield the same target PAA concentration.
- Perasan MP-2C shelf life is the same as Perasan MP-2.
- Perasan MP-2C demonstrated equivalent efficacy to Perasan MP-2 against *Salmonella* Heidelberg. The lower hydrogen peroxide to PAA ratio in Perasan MP-2C has no impact on efficacy.
- Same PAA test method is used with a different conversion factor.

Economic Advantages:

- Pricing Perasan MP-2C at \$18.25/gallon is the same as pricing Perasan MP-2 or any other 15% PAA formulation at \$12.41/gallon resulting in a savings of \$5.84/gallon.
- Provides distributors with more flexibility to price product competitively.
- Reduced average freight costs by shipping more concentrated PAA product.

Lowest H₂O₂ to PAA Ratio:

- Perasan MP-2C H₂O₂ to PAA ratio is 0.215 which is lower than any other PAA product on the market including Perasan MP-2.
- Perasan MP-2C has the lowest risk of causing bleaching of poultry carcasses and/or blackening of wing tips due to the lowest available H₂O₂ concentration.
- The ratio of H₂O₂ to PAA in Perasan MP-2C is >40% lower than 15% PAA formulations including Perasan MP-2.

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Storage Stability Comparison:

- In an accelerated storage stability study conducted at 90F (32C) and 50% relative humidity for 90 days, both the H₂O₂ and PAA concentrations remained stable.
- Perasan MP-2C is equivalent to Perasan MP-2 in terms of storage stability. Both products have a shelf life of least 9-12 months if kept out of sunlight.

Efficacy Comparison:

- In a head-to-head efficacy comparison between Perasan MP-2 and Perasan MP-2C against *Salmonella* Heidelberg, a representative organism from the Enterobacteriaceae family, Perasan MP-2C performed equivalent to Perasan MP-2.
- Perasan MP-2 and Perasan MP-2C dosed at 30ppm PAA concentration for 30 seconds contact time provided a log₁₀ reduction of >6.50 CFU/mL (99.9999% reduction) against *Salmonella* Heidelberg.

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