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Global Cleantech Initiative

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To whom it concerns

Application of Carbotect™ system to validate cleaning efficiency

Extensive studies were undertaken in collaboration with SABMiller by Dr Robin Kirkpatrick to develop a real-time CIP validation method for the detection of residual organics in final CIP rinse water.

The Carbotect™ system fills a unique niche not covered by existing rapid validation technologies. Classical micro plating techniques are the most cost effective, allows for quantification but require trained microbiologists and extensive incubation periods. Carbotect™ and ATP are priced similarly per analysis, both offer immediate results, require low skill levels but do not allow for identification or quantification. However, the Carbotect™ system has the advantage over the ATP system since no initial capital equipment layout is required.

PCR allows for rapid identification (within 4 hr.) up to species level and therefore does not allow for immediate validation of CIP. Additionally the cost/analysis is high and skilled analysts are required. It follows that the different microbial tests have different functions they fulfil with Carbotect™ offering immediate validation of CIP rinse waters by operators at a competitive price.

The validation of filler CIP rinse water using Carbotect™ is recommended based on its ability to immediately detect presence of organic soils at a competitive price. This practice has since been introduced in SAB on a trial basis.

Based on the essential need for a rapid validation system and the current promising results, further development of this technology is recommended.

Yours sincerely

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