

STUDY TITLE: Germicidal and Detergent Sanitizing Action of Disinfectants
PROJECT NUMBER: A11304

PATHOGEN TESTED: “Super Bug” - Carbapenem Resistant *Klebsiella pneumoniae* – CRKP (ATCC BAA-1705)



Infection with carbapenem-resistant Enterobacteriaceae (CRE) or carbapenemase-producing Enterobacteriaceae is emerging as an important challenge in health-care settings. One of many carbapenem resistant Enterobacteriaceae (CRE) is Carbapenem Resistant *Klebsiella pneumoniae* - CRKP. Over the past 15 years, a progressive increase in CRKP has been seen worldwide; however, this new emerging nosocomial pathogen made major news as a “Super Bug” during an outbreak in Los Angeles, California in 2010 when over 350 cases were reported in less than 6 months. In the USA CRKP has been identified in 35 states and is recovered routinely in certain hospitals in New York and New Jersey. It is now the most common CRE species encountered within the United States.

ANALYSIS

Enagic Super 501 Strong Acidic Water 2.5 pH, Machine 1 (Serial #: 87100333) Lot # 1 and Machine 2 (Serial #: 87100339) Lot # 2 with pre-filter C-1000, demonstrated a >99.999 percent reduction of Carbapenem Resistant *Klebsiella pneumoniae* – CRKP following a 30 second exposure time at room temperature (20.0°C) in the presence of a 5% fetal bovine serum organic soil load.

SUMMARY OF RESULTS

Test Substance: Enagic Super 501 Strong Acidic Water 2.5 pH, Machine 1 (Serial #: 87100333) Lot # 1 and Machine (Serial #: 87100339) Lot # 2 with pre-filter C-1000

Test Organisms: Carbapenem Resistant *Klebsiella pneumoniae* – CRKP (ATCC BAA-1705)

Exposure Time: 30 seconds

Exposure Temperature: Room temperature (20.0°C)

Organic Soil Load: 5% fetal bovine serum

EFFICACY RESULTS

Enagic Super 501 Strong Acidic Water 2.5 pH demonstrated efficacy of two lots against Carbapenem Resistant *Klebsiella pneumoniae* – CRKP, and therefore, meets the requirements set forth by the U.S. EPA for sanitizer label claims following a 30 second exposure time at room temperature (20.0°C) in the presence of a 5% fetal bovine serum organic soil load.