

Time Kill Study Final Report

Test Article: QMix / 130128
 EdgeMix/ 8172013
 Purchase Order: 19109
 Laboratory Number: 708992
 Study Received Date: 23 Aug 2013
 Test Procedure(s): Standard Test Protocol (STP) Number: STP0158 Rev 02
 Protocol Detail Sheet (PDS) Number: 201304412 Rev 01

Summary: This report describes the procedure for the evaluation of products for anti-microbial activity against selected organisms at representative contact times. Products are evaluated in a liquid matrix. The test organisms and contact times are chosen by the sponsor. This is a quantitative test that allows the determination of the amount of organism reduction at pre-determined intervals. All test method acceptance criteria were met.

Results: Values are considered approximate (~) when plate counts were outside of the statistically accurate range of 25-250 colony forming units (CFU)/plate for bacteria and yeast and 8-80 CFU/plate for mold. Less than symbols(<) are applied to recovery values where no CFU were observed on the plates. This denotes the limit of detection (LOD) for the test.

Test Article:

QMix/ 130128:

Organism	Exposure Intervals	Average Control Titer (CFU/mL)	Average Test Article Titer (CFU/mL)	Percent Reduction (%)	LOG ₁₀ Reduction
<i>Enterococcus faecalis</i> ATCC #4082	5 seconds	1.1 x 10 ⁷	<2.0 x 10 ²	>99.9982	>4.75
	10 seconds		<2.0 x 10 ²	>99.9982	>4.75
	30 seconds		<2.0 x 10 ²	>99.9982	>4.75
	1 minute		<2.0 x 10 ²	>99.9982	>4.75

EdgeMix/ 8172013:

Organism	Exposure Intervals	Average Control Titer (CFU/mL)	Average Test Article Titer (CFU/mL)	Percent Reduction (%)	LOG ₁₀ Reduction
<i>Enterococcus faecalis</i> ATCC #4082	5 seconds	1.1 x 10 ⁷	~2.7 x 10 ²	~99.9976	~4.62
	10 seconds		~2.0 x 10 ²	~99.9982	~4.75
	30 seconds		<2.0 x 10 ²	>99.9982	>4.75
	1 minute		<2.0 x 10 ²	>99.9982	>4.75



27 SEP 2013

Study Director

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Study Completion Date

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Controls:

Organism	Exposure Intervals	Average Control Titer (CFU/mL)	Average Test Article Titer (CFU/mL)	Percent Reduction (%)	LOG ₁₀ Reduction
<i>E. faecalis</i>	1 minute	1.1 x 10 ⁷	6.6 x 10 ⁶	41	0.23

Neutralization:

Test Article	Organism	Average Test Article Counts (CFU)	Average Control Counts (CFU)	Percent Neutralization (%)
QMix / 130128	<i>E. faecalis</i>	8	10	80
EdgeMix/ 8172013	<i>E. faecalis</i>	11	10	110