

Table 1 - Virus Reduction 10µM Methylene Blue vs. 75°C Dry Heat

Condition	Mask type	MHV		PRCV		SARS-CoV-2 (Lab 1)		SARS-CoV-2 (Lab 2)		SARS-CoV-2 avg.		Overall avg.	
		Log reduction	% reduction	Log reduction	% reduction	Log reduction	% reduction	Log reduction	% reduction	Log reduction	% reduction	Log reduction	% reduction
10µM MB (w/ 30 min light)	RH	4.4	> 99.9%	5.5	> 99.9%	2.2	> 99.4%	4.3	> 99.9%	3.2	99.6%	4.1	99.8%
10µM MB (w/ 30 min light)	RM	3.5	> 99.9%	2.7	99.8%	2.8	> 99.8%	4.0	> 99.9%	3.4	99.9%	3.2	99.9%
10µM MB (w/ 30 min light)	*R3	5.1	> 99.9%	5.0	> 99.9%	3.3	> 99.9%	3.1	> 99.9%	3.2	> 99.9%	4.1	> 99.9%
10µM MB (w/ 30 min light)	*FW	5.8	> 99.9%	5.5	> 99.9%	3.6	> 99.9%	3.1	> 99.9%	3.4	> 99.9%	4.5	> 99.9%
10µM MB (w/ 30 min light)	FH	3.8	> 99.9%	5.1	> 99.9%	3.1	> 99.9%	4.2	> 99.9%	3.6	> 99.9%	4.0	> 99.9%
10µM MB (w/ 30 min light)	CM	3.2	> 99.9%	0.4	60.5%	1.3	> 94.6%	2.7	> 99.9%	2.0	97.3%	1.9	88.7%
75°C DH (60 min)	RH	1.6	97.5%	5.4	> 99.9%	2.4	> 99.6%	2.9	99.8%	2.6	99.7%	3.1	99.2%
75°C DH (60 min)	RM	1.4	95.8%	4.7	> 99.9%	1.1	91.8%	3.4	99.8%	2.2	95.8%	2.6	96.8%
75°C DH (60 min)	*R3	1.8	98.6%	5.3	> 99.9%	2.3	99.5%	3.7	> 99.9%	3.0	99.7%	3.3	99.5%
75°C DH (60 min)	*FW	2.1	99.2%	5.5	> 99.9%	2.0	> 99.1%	3.9	> 99.9%	3.0	99.5%	3.4	99.5%
75°C DH (60 min)	FH	1.7	98.0%	5.1	> 99.9%	1.0	> 90.6%	3.0	99.6%	2.0	95.1%	2.7	97.0%
75°C DH (60 min)	CM	3.1	99.9%	5.0	> 99.9%	0.9	> 88.8%	2.0	> 99.9%	1.5	94.3%	2.8	97.1%

Note:

* Data extracted from inactivation curve (Except for PRCV, SARS-CoV-2 (Lab 2), and MHV 10µM MB)

† Light source for testing MB on PRCV = 12500 LUX red light; Light source for testing MB on all other virus types = 50000 LUX white light

‡ Due to the limit of detection of the assays used to titer the virus, the highest % reduction is indicated as >99.9%

§ RH = Halyard duckbill respirator (Fluidshield-46727), RM = 3M half-sphere respirator (1860), R3 = 3M Panel respirator (1870+), FW = Type II EN 14683 generic face mask, FH = Type IIR ASTM F2100 Level 2 Halyard face mask, CM = Community mask

¶ MB = Methylene Blue, DH = Dry Heat