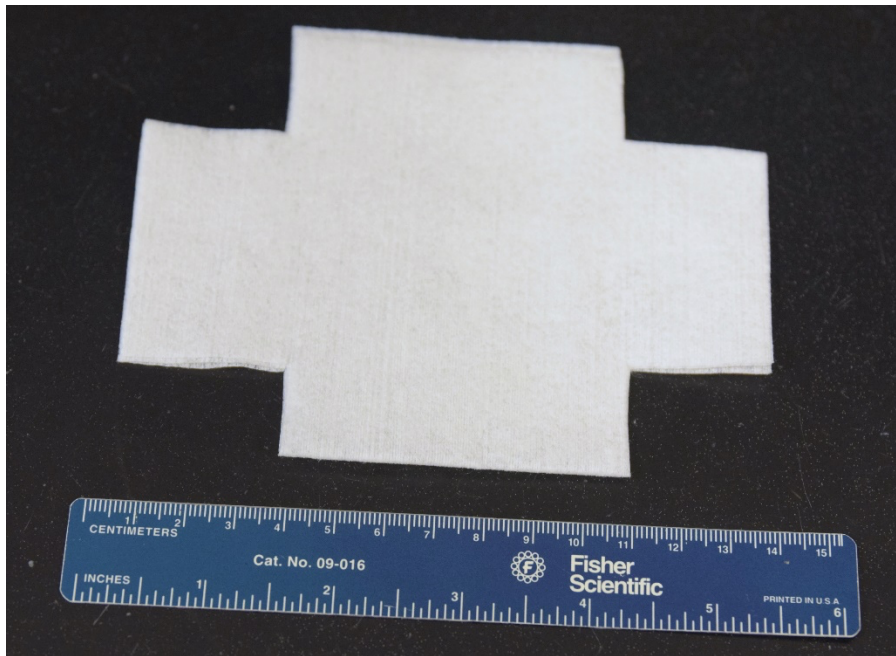


1

2 **Supplementary Figure 1.** Image of acrylic insert placed into tray of the wiping machine. For
3 demonstration purposes, a blank coupon is shown in the recessed slot on the left side.

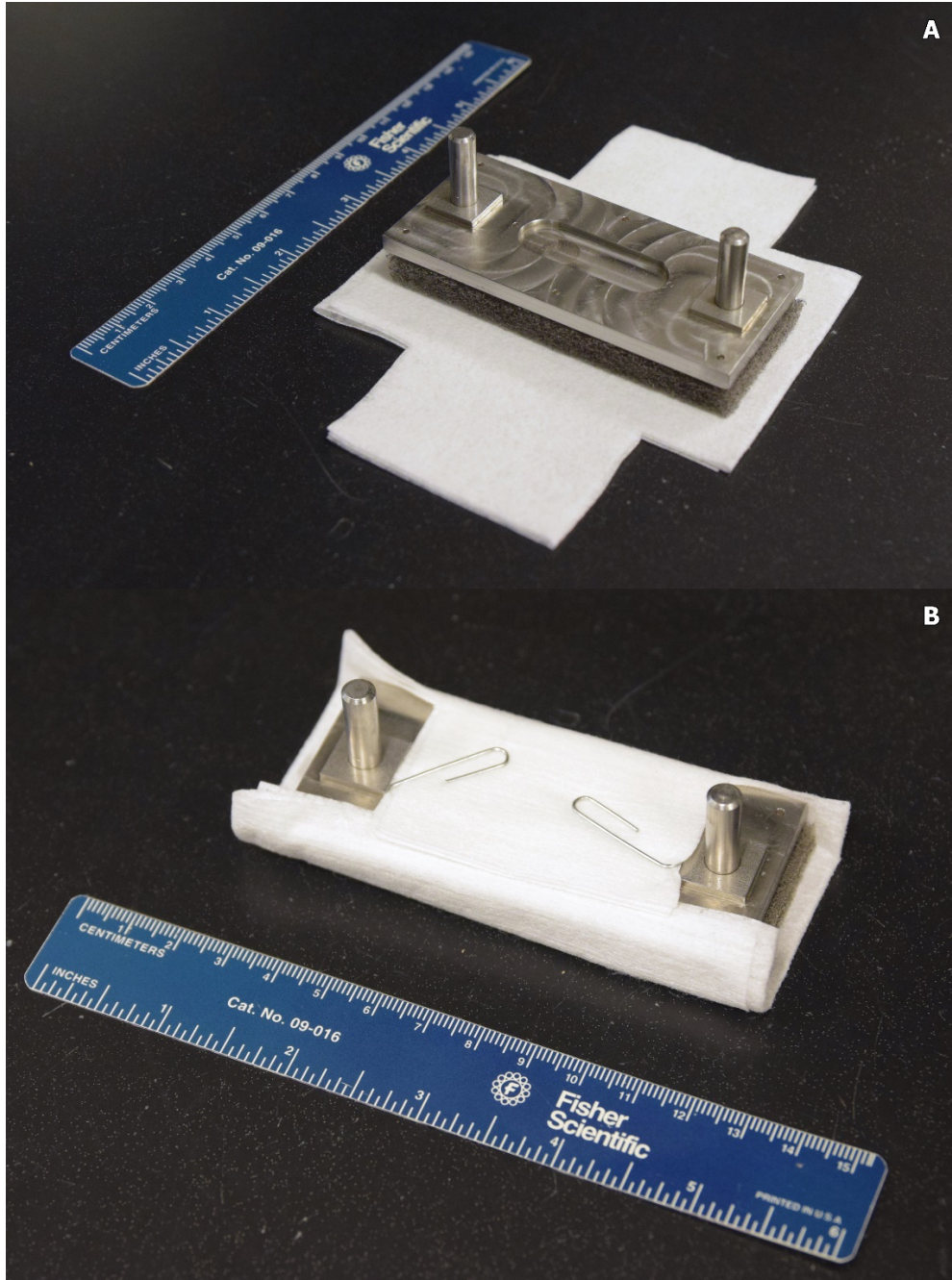
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7 **Supplementary Figure 2.** Image of prepared paper towel used in wiping experiments.

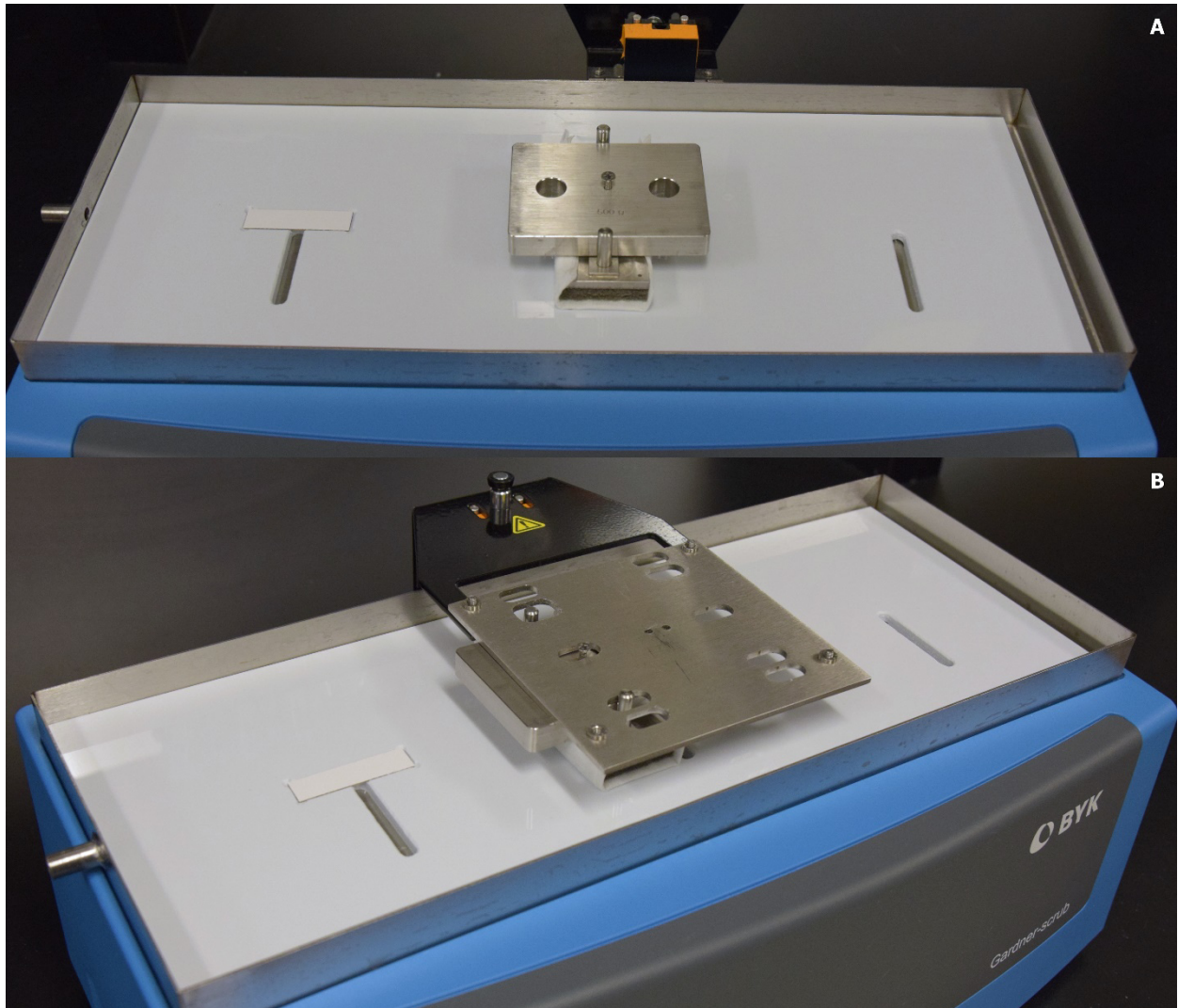


8

9 **Supplementary Figure 3.** Image of wipe assembly head used in wiping experiments. The
10 Scotch-Brite™ pad is placed between the paper towel and pad holder (A), and the paper towel is
11 wrapped around the pad holder and secured with paper clips (B).

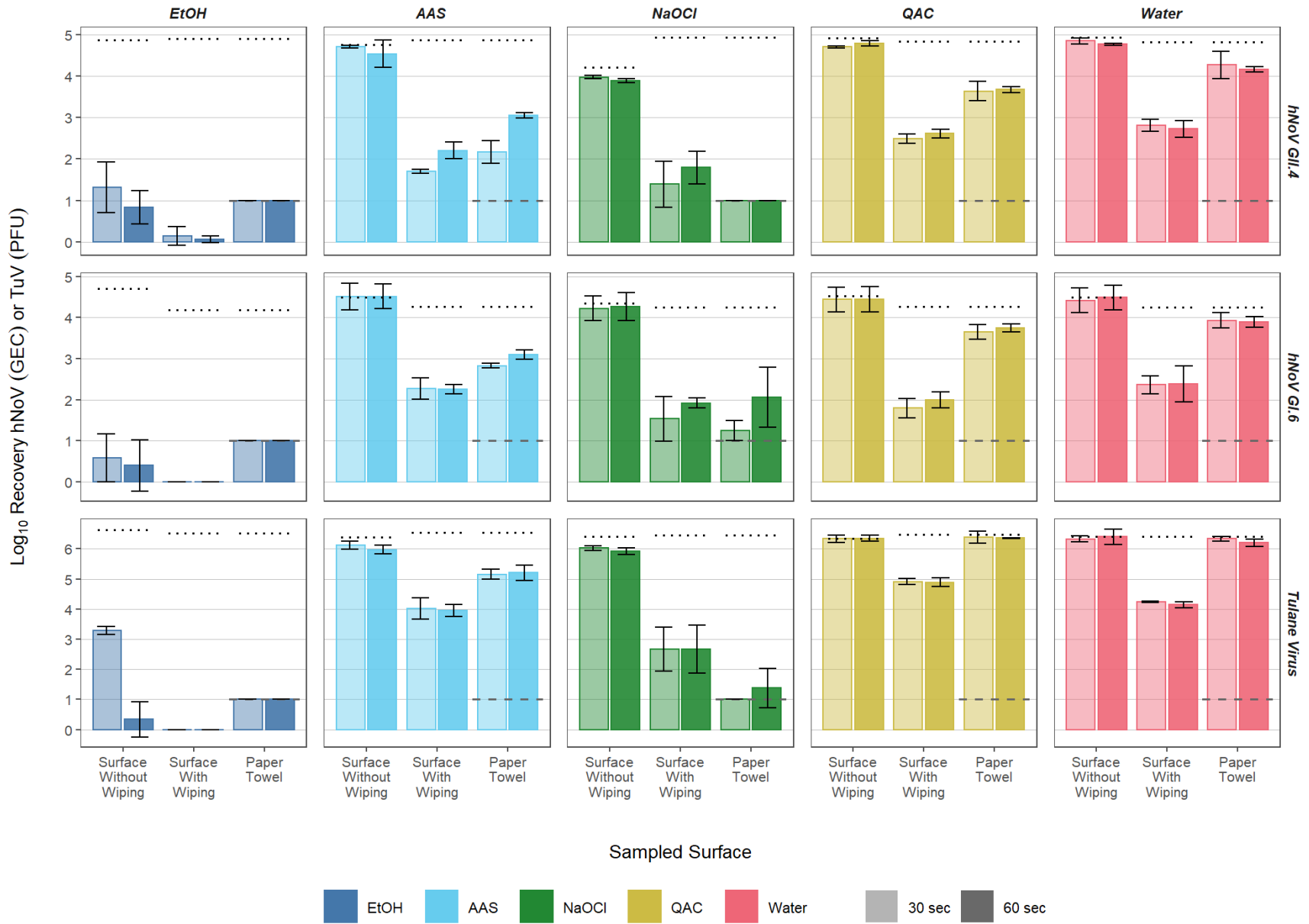
12

13



14
15 **Supplementary Figure 4.** Image of wiping machine experimental setup used for spray and
16 wiping experiments. The wiping head assembly is placed on the acrylic insert with a 500g mass
17 placed on top (A), and the rods of the pad holder are positioned in the slots of the wiping arm
18 (B).

19



22 **Supplementary Figure 5.** Log₁₀ recoveries of GII.4 hNoV GEC (top row), GI.6 hNoV GEC
23 (middle row) and TuV PFU (bottom row) from coupons with and without wiping, and from
24 paper towels following treatment of virus-laden Formica® surfaces with various disinfectants by
25 spray application. The dotted line represents the quantity of virus recovered from the neutralized
26 control for each respective experiment, while the dashed line represents the limit of detection for
27 virus recovered from paper towels. Bars are the mean of 3 replicates, with error bars
28 representing standard deviation.

29

Characteristic	Sodium hypochlorite-based sanitizer (NaOCl)	Quaternary Ammonium Compound based sanitizer (QAC)	Acid and Anionic Surfactant based sanitizer (AAS)	Ethanol Based Sanitizer (EtOH)
EPA Toxicity Category, Signal Word, and Hazard Statements	As sold: Category 1 (Danger), Corrosive Causes serious eye damage Causes skin irritation	As sold: Category 1 (Danger), Corrosive Causes serious eye damage Causes skin irritation	As sold: Category 1 (Danger), Corrosive Causes serious eye damage Causes skin irritation	Category IV (No precautionary statements)
Personal Protective Equipment Requirements	As sold: protective gloves, protective eyewear, face protection	As sold: protective gloves, protective eyewear, face protection	As sold: protective gloves, protective eyewear, face protection	None
Additional Safety Considerations	Strong oxidizer, mixing with other chemicals may create toxic gases	-	May create toxic gas if mixed with chlorine containing chemicals	Combustible (do not store or use near open flame)
Additional microorganism claims at tested dilution	No additional microorganism kill claims at tested concentration indicated on EPA registered label	Escherichia coli (ATCC 11229) Staphylococcus aureus (ATCC 6538) Klebsiella pneumoniae (ATCC 4352) Listeria monocytogenes (ATCC 19117) Yersinia enterocolitica (ATCC 23715) Enterobacter sakazakii (ATCC12868) Escherichia coli O157:H7 (ATC 35150) Shigella sonnei (ATCC 11060) Salmonella enterica (ATCC 10708) Campylobacter jejuni (ATCC 33291)	<i>Bacteria</i> Staphylococcus aureus ATCC 6538 Escherichia coli ATCC 11229 Salmonella enterica ATCC 10708 Escherichia coli O157:H7 ATCC 35150 Listeria monocytogenes ATCC 19117 Campylobacter jejuni ATCC 33291 Shigella flexneri ATCC 29508 Shigella sonnei ATCC 11060 Yersinia enterocolitica ATCC 23715 Cronobacter sakazakii ATCC 12868 Staphylococcus aureus Community acquired Methicillin Resistant (MRSA) ATCC BAA-1683 <i>Viruses</i> Norovirus (Feline calicivirus surrogate) ATCC VR-782, Strain F-9 Influenza A H3N2 ATCC VR-544 Influenza A H1N1 ATCC VR-1736 Influenza B ATCC VR-1535 Rhinovirus ATCC VR-1607	<i>Bacteria</i> Acinetobacter baumannii ATCC 19606 Bordetella pertussis ATCC 12743 Campylobacter jejuni ATCC 43451 Escherichia coli ATCC 11229 Enterobacter aerogenes ATCC 13048 Enterococcus faecium ATCC 51559 Klebsiella pneumoniae ATCC 4352 Listeria monocytogenes ATCC 49594 Methicillin-resistant Staphylococcus aureus ATCC 33591 Mycobacterium bovis var. BCG (TB) Pseudomonas aeruginosa ATCC 15442 Salmonella enterica ATCC 10708 Staphylococcus aureus ATCC 6538 Streptococcus pneumoniae ATCC 6305 Streptococcus pyogenes ATCC 12344 Vancomycin Resistant Enterococcus faecalis ATCC 51575 Vibrio vulnificus ATCC 27562 Yersinia enterocolitica ATCC 9610 Staphylococcus aureus ATCC 6538

			<p>SARS – Related Coronavirus 2 (SARS-CoV-2) BEI Resources NR-52281, Strain Isolate USA-WA 1/2020 (15 seconds)</p>	<p>Pseudomonas aeruginosa ATCC 15442</p> <p>Yeast/Fungi Aspergillus niger ATCC 6275 Candida albicans ATCC 10231 Trichophyton interdigitale ATCC 9533</p> <p>Viruses 2009-H1N1 Influenza A/California/04/09 Avian Influenza H7N9 Strain wildtype A/Anhui/1/2013, CDC # 2013759189 Avian Influenza H5N1 Strain VN/5N1-PR8/CDC-RG, CDC #2006719965 Herpes simplex virus [type 1] ATCC VR-733, Strain F(1) Human Coronavirus [Strain 229E] ATCC VR-740 Mumps ATCC VR-1438, Strain Jones SARS-CoV-2 USA-WA1/2020 Canine Parvovirus ATCC VR-2017 Coxsackie virus type B3 ATCC VR-30, Strain Nancy Enterovirus type D68 ATCC VR-1825, Strain US/KY/14-18953 Murine norovirus MNV-G, Yale University Feline Calicivirus ATCC VR-782 Polio Type 1 [virus] ATCC VR-1562 Respiratory syncytial virus ATCC VR-26 Rhinovirus ATCC VR-284 Rotavirus ATCC VR-2018 Human Hepatitis B virus Grimaud Human Hepatitis C virus NADL Human immunodeficiency virus Type I Strain IIB</p>
Soft Surface Sanitization Claim	No	No	No	Yes