

# BUILDING RESISTANCE TO COVID-19 INFECTION

**PRESENTER:** COLE STANTON, DIR. EDUCATION & AED SPECIFICATION

DATE: 11-5-20

Prepared for/presented to: Property Insurance & Restoration Conference

Presented by: Innovative Chemical Products

Building Solutions Group

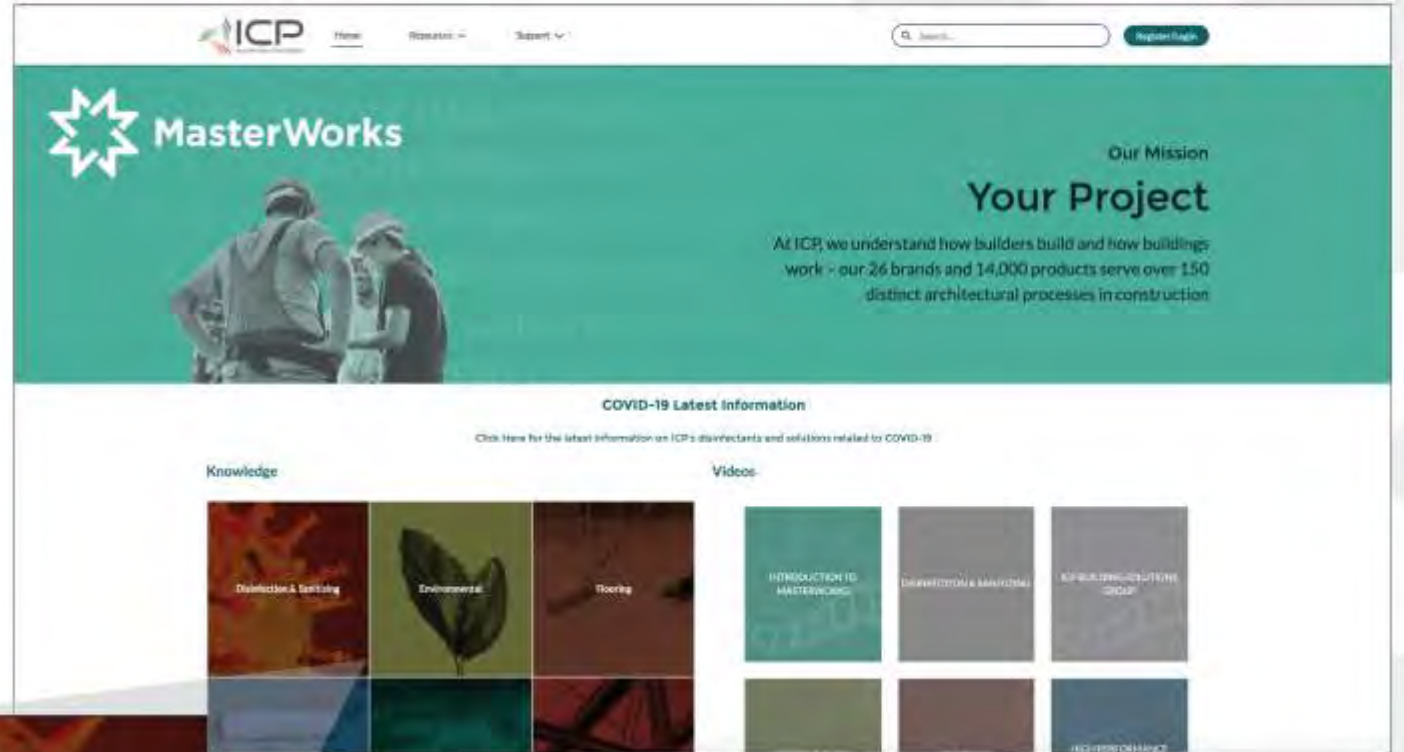
[www.icpmasterworkscommunity.com](http://www.icpmasterworkscommunity.com)





# MasterWorks

TO ACCESS THIS RECORDING AND MORE VISIT  
[WWW.ICPMASTERWORKSCOMMUNITY.COM](http://WWW.ICPMASTERWORKSCOMMUNITY.COM)



## NEW Coronavirus Mitigation Specification





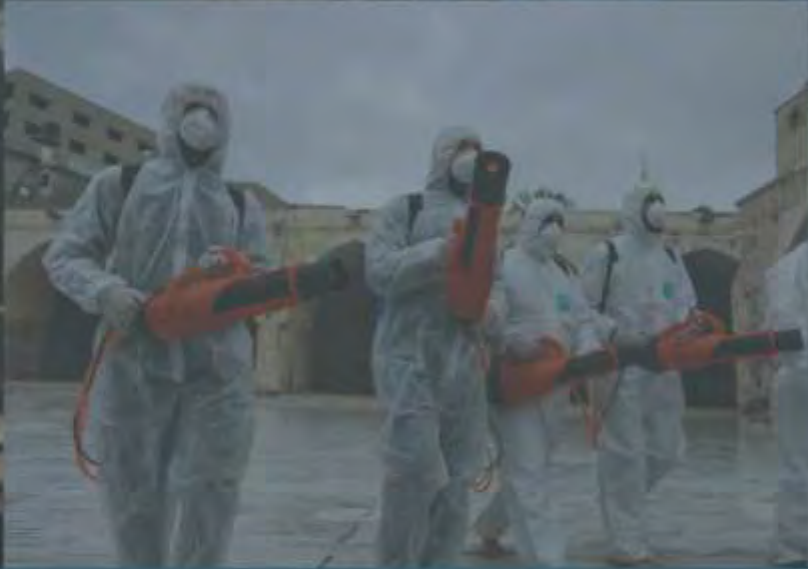
# THE COVID-19 RESPONSE

UPDATES TO DISINFECTION PROCESSES  
EPA LIST N CHANGES  
TRANSMISSION  
PROTOCOLS



A person wearing blue gloves is cleaning a light-colored surface with a white cloth. The scene is overlaid with a semi-transparent teal filter. The text 'DISINFECTANTS' is prominently displayed in white on the left side of the image.

# DISINFECTANTS



# THE LENS OF CHEMISTRY

- The choices of Chemistry, Delivery Method, and Owner Expectations related to pandemic surface hygiene impact:

HOW WE  
CLEAN

HOW WE  
DISINFECT

HOW WE  
PRIORITIZE  
OUR EFFORTS

HOW WE  
SET  
EXPECTATIONS

# PAST PANDEMICS & COVID 19

For COVID-19, the disaster response community can uniquely draw from our people and products honed by past large pandemic/epidemic events including:

- H5N1 Avian Influenza
- SARS (SARS-CoV-1)
- H1N1 Influenza
- Ebola
- EVD-68
- Norovirus
- H5N8 Avian Influenza
- Legionella



# DISINFECTANTS

## ■ Fundamentals

- Disinfectants are treatments for touchable surfaces in the indoor or outdoor built environment.
- Disinfectants kill targeted microorganisms.
- Disinfectants are infection control/public health tools integral to the control of disease.

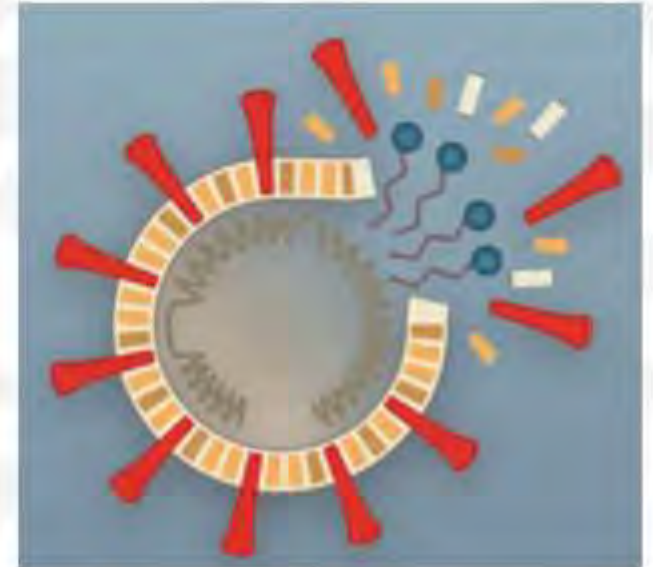




# DISINFECTANTS

## ■ Fundamentals

- Disinfectants work by destroying the cell wall of microbes or interfering with their metabolism, or both.
- A liquid, water-like form is best for a disinfectant to deliver the active ingredient to the target microbe, and disrupt the cell membrane and processes.
- MOTILITY is key to EFFICACY

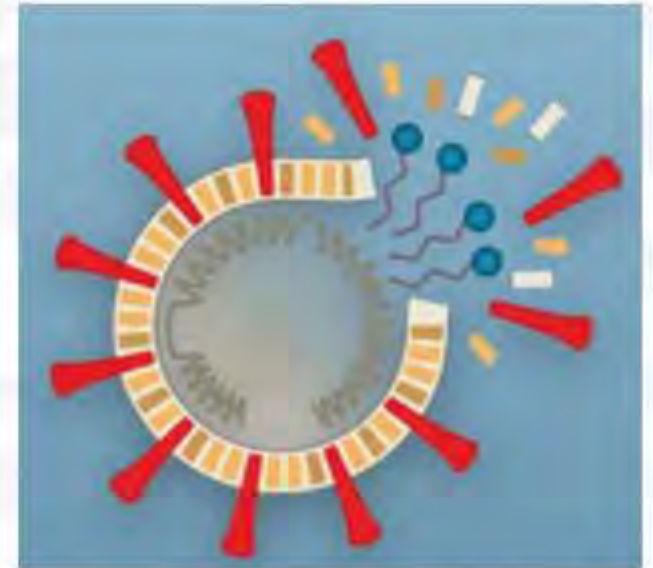


# DISINFECTANTS

## ■ Fundamentals

### ■ Cleaning & Contact Time

- Kill requires contact between the active ingredient and target microbe.
- Interference (dirt) is first removed (cleaning), then sufficient contact time for 99.999% effective.
- For COVID activity, your contact time for disinfection is 10 minutes.
- What is soil load?



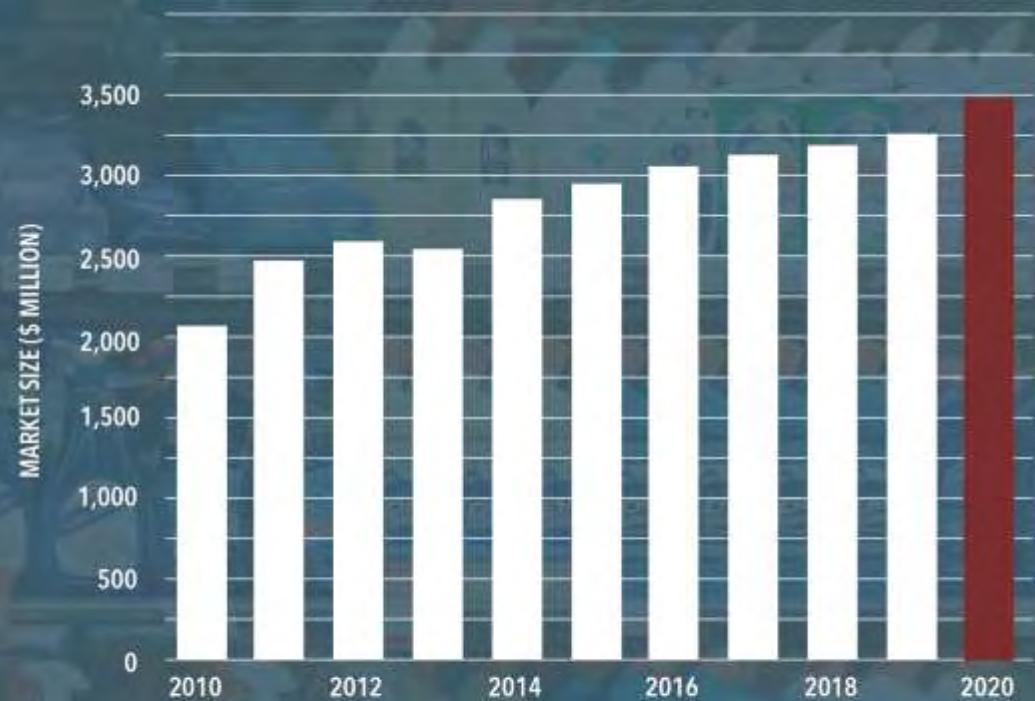
# DISINFECTANTS

**US DISINFECTANTS = \$3.5BN**

Growth in 2020 YOY: 6.7%

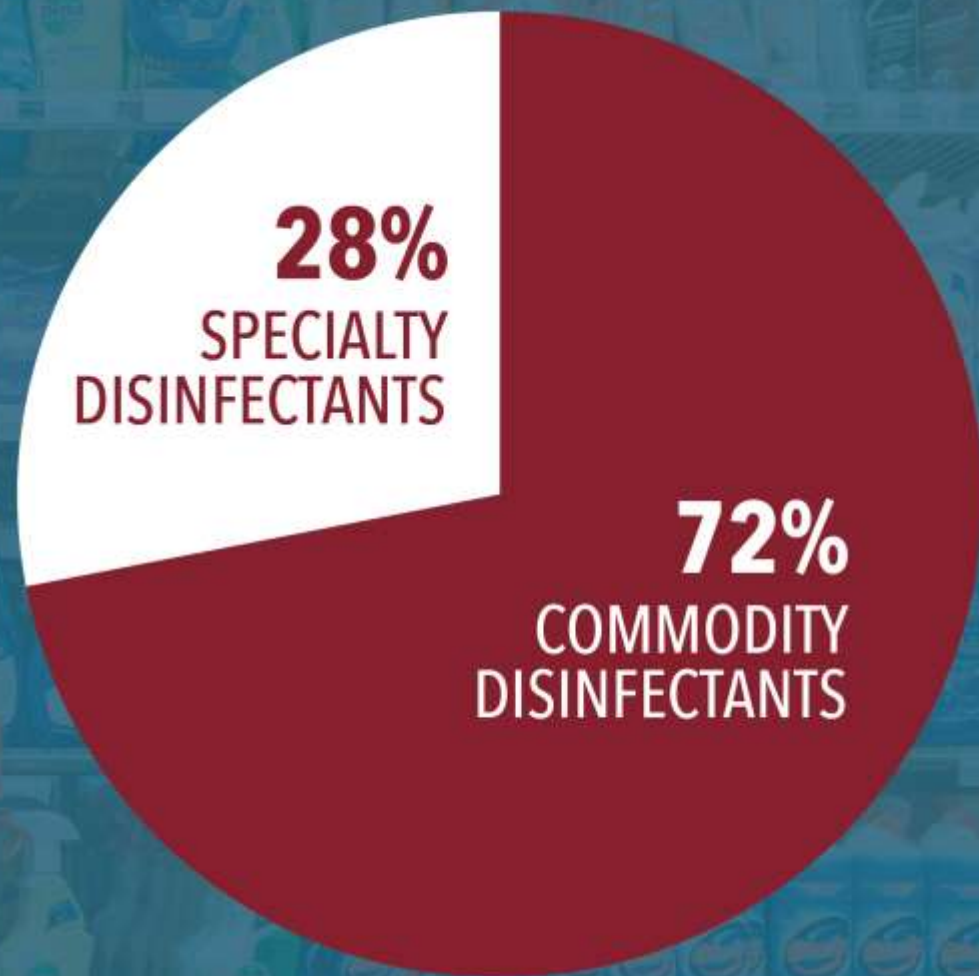
Annualized 2015-20: 3.5%

Pre-pandemic



# DISINFECTANTS

## SPECIALTY VS. COMMODITY





# WHY SURFACES?

# COVID-19 VIABILITY ON SURFACES



The most common transmission route is via direct exposure to sneezing, coughing and speaking from infected individuals.

Infected persons can also contaminate a range of surfaces of the built environment.

March 2020 NIH study – COVID-19 may survive for days.

Reinforced by articles in the Journal of Hospital Infection and the Lancet.

<https://www.nih.gov/news-events/news-releases/new-coronavirus-stable-hours-surfaces>

# COVID-19 VIABILITY ON SURFACES

MARCH 17 - NEW ENGLAND JOURNAL OF MEDICINE

SURFACE	SARS-CoV-1 [SARS 2002-2004]	SARS-CoV-2 [SARS 2019-2020]	Influenza A & B (Annual)
POROUS (CARDBOARD, CLOTH, TISSUES, PAPER)	8 hours	24 hours	8-12 hours <small>Money in I study 8-17 days</small>
HARD, NON-POROUS (PLASTIC)	3 days (72 hours)	3 days (72 hours)	1-2 days (24-48 hours)
HARD, NON-POROUS (STAINLESS STEEL)	2 days (48 hours)	3 days (72 hours)	1-2 days (24-48 hours)

# COVID-19 VIABILITY ON SURFACES



Humans “touch their face with their own hands on average 23 times per h, with contact mostly to”

- the skin (56%)
- mouth (36%)
- nose (31%)
- eyes (31%)

- Journal of Hospital Infection



# BBC REPORT OCT 2020 – SURFACE VIABILITY

What does the study say?

- Previous laboratory tests have found that SARS-Cov-2 can survive for two to three days on bank notes and glass, and up to six days on plastic and stainless steel, although results vary.
- However, the research from Australian agency CSIRO found the virus was "extremely robust," surviving for 28 days on smooth surfaces such as glass found on mobile phone screens and both plastic and paper banknotes, when kept at 20C (68F), which is about room temperature, and in the dark.
- In comparison, the flu virus can survive in the same circumstances for 17 days.
- The study, published in Virology Journal, also found SARS-Cov-2 survived for less time at hotter temperatures than cooler temperatures; it stopped being infectious within 24 hours at 40C on some surfaces.
- It also stayed longer on smooth, non-porous surfaces than on porous materials such as cloth, which was found not to carry any infectious virus past 14 days.

**SARS CoV-2  
COVID-19**



# SARS-CoV-2

## SARS-CoV-2 PANDEMIC

COVID-19 is a new disease caused by a new strain of coronavirus which humanity has not encountered before, and against which human beings have little to no existing immunity or resistance

# THIS KNOWLEDGE WILL BE NEEDED AGAIN

## EPIDEMIC

An epidemic is defined as “an outbreak of disease that spreads quickly and affects many individuals at the same time.”

## PANDEMIC

A pandemic is a type of epidemic (one with greater range and coverage), an outbreak of a disease that occurs over a wide geographic area and affects an exceptionally high proportion of the population.



JOHN HOPKINS CORONAVIRUS  
RESOURCE CENTER

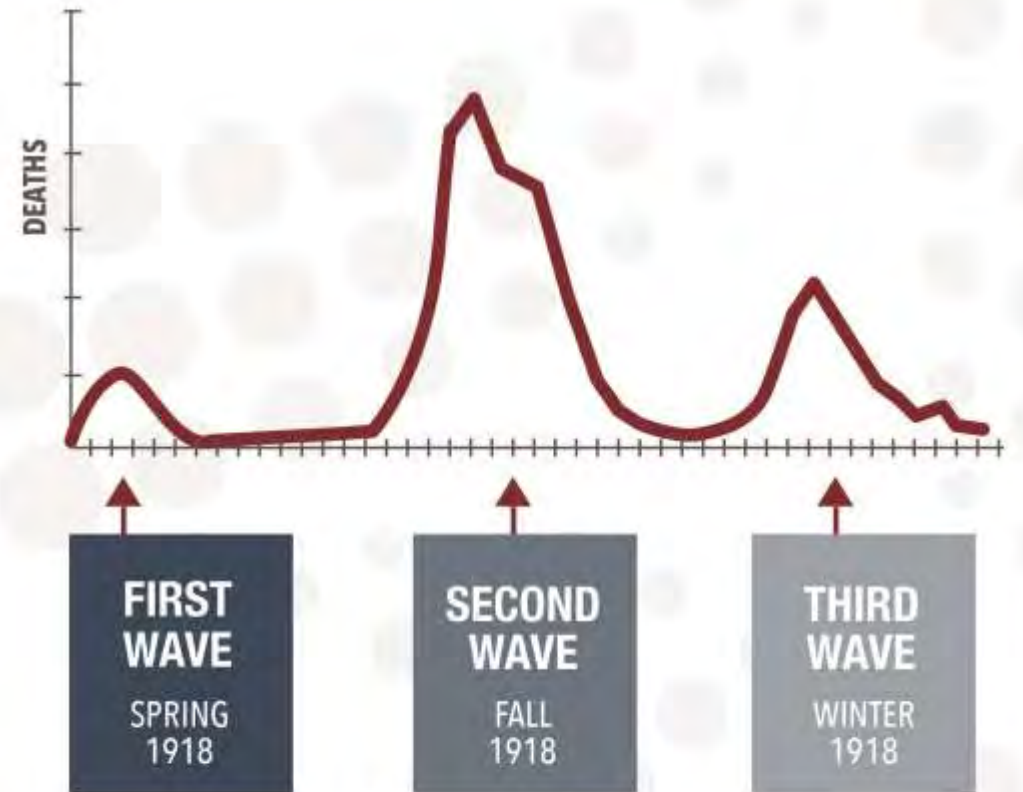
## WINTER SEASON 2020-21

- 9/17/20 (Columbus Dispatch) - **“If you're talking about getting back to a degree of normality which resembles where we were prior to COVID, it's going to be well into 2021, maybe even towards the end of 2021,”** Fauci said recently.

# COVID-19

## 1918 PANDEMIC

There were 3 different waves of illness during the pandemic, starting in March 1918 and subsiding by summer of 1919. The pandemic peaked in the U.S. during the second wave, in the fall of 1918. This highly fatal second wave was responsible for most of the U.S. deaths attributed to the pandemic.



<https://www.cdc.gov/flu/pandemic-resources/1918-commemoration/three-waves.htm>

# JOHNS HOPKINS 10-26-20



COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins ...

Global Cases

**43,331,259**

Cases by  
Country/Region/Sovereignty

**8,669,894** US

**7,909,959** India

**5,394,128** Brazil

**1,520,800** Russia

**1,208,924** France

**1,098,320** Spain

**1,090,589** Argentina

Admin0



Esri, FAO, NOAA

Global Deaths

**1,157,051**

225,434 deaths  
US

157,134 deaths  
Brazil

119,014 deaths  
India

88,924 deaths

Global Dea...

US State Level

Deaths, Recovered

33,424  
deaths, **79,092**  
recovered  
New York US

17,963  
deaths, **755,095**  
recovered  
Texas US

US Deaths,...

Cumulative Cases

Active Cases

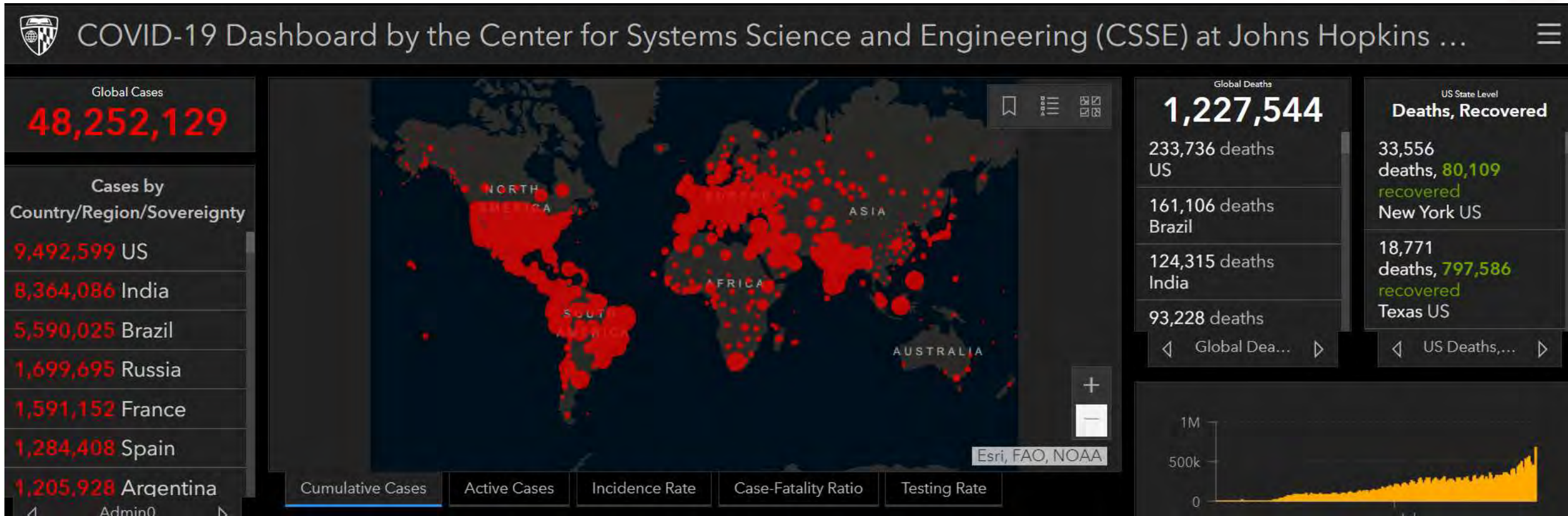
Incidence Rate

Case-Fatality Ratio

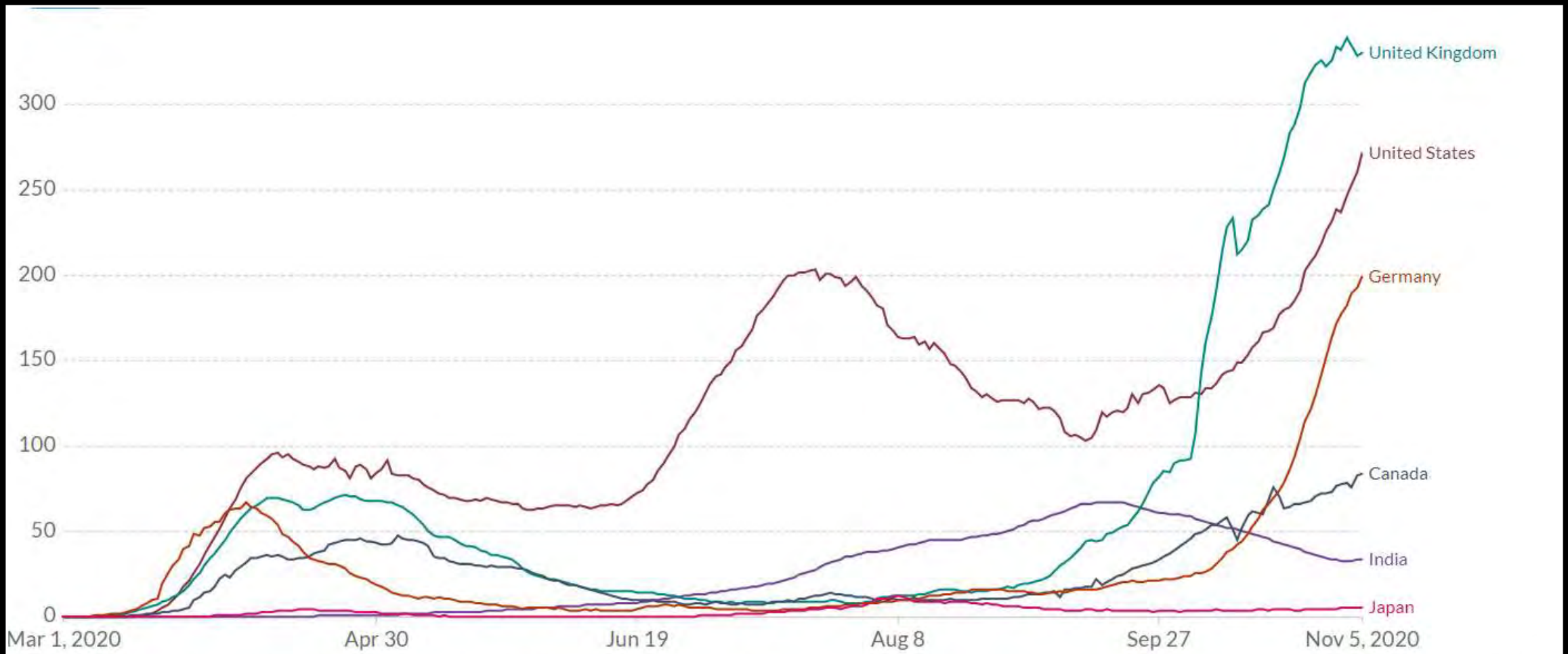
Testing Rate



# JOHNS HOPKINS 11-5-20







Source: European CDC - Situation Update Worldwide - Last updated 5 November, 10:06 (London time)

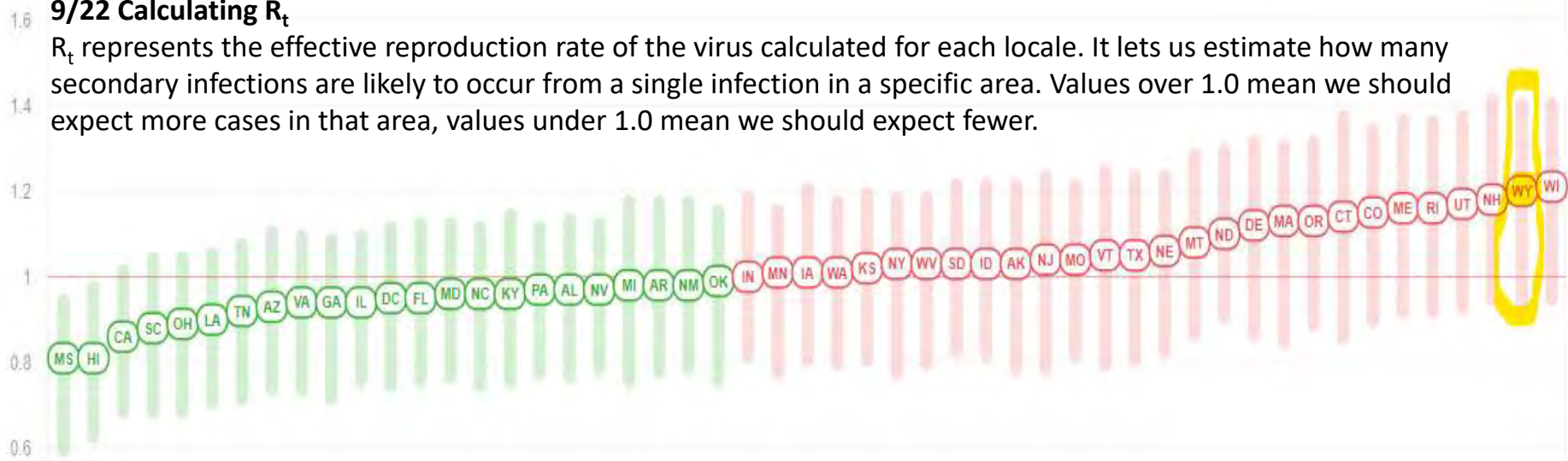
CC BY

Daily New Confirmed Cases per 1M Pop 11/5/20 – (rolling 7 day avg)

### 9/22 Calculating $R_t$

$R_t$  represents the effective reproduction rate of the virus calculated for each locale. It lets us estimate how many secondary infections are likely to occur from a single infection in a specific area. Values over 1.0 mean we should expect more cases in that area, values under 1.0 mean we should expect fewer.

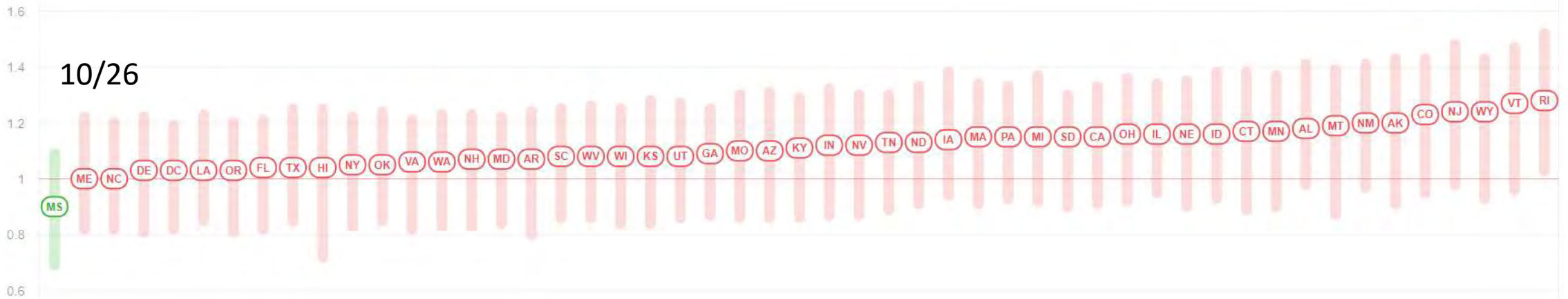
9/22



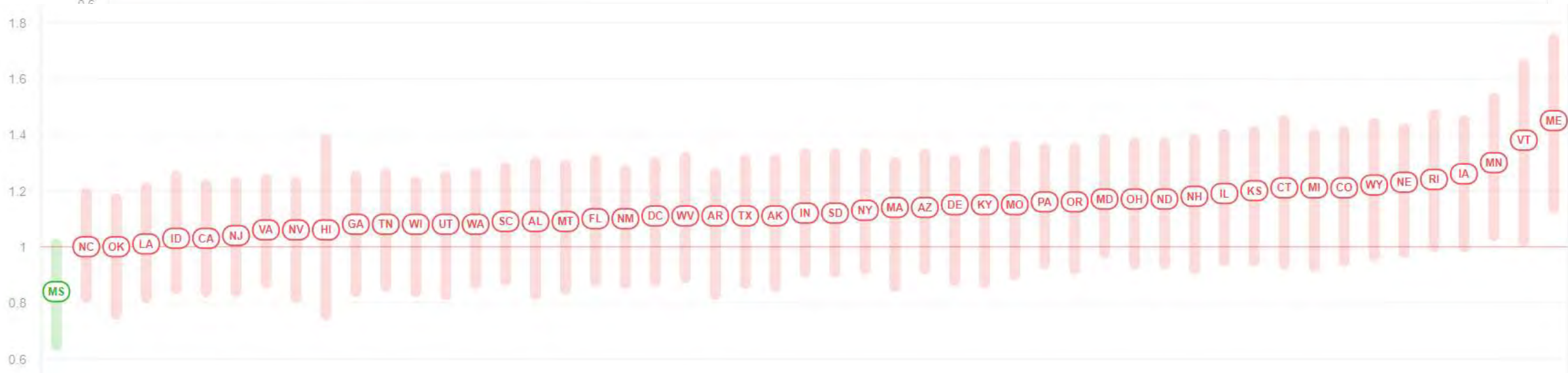
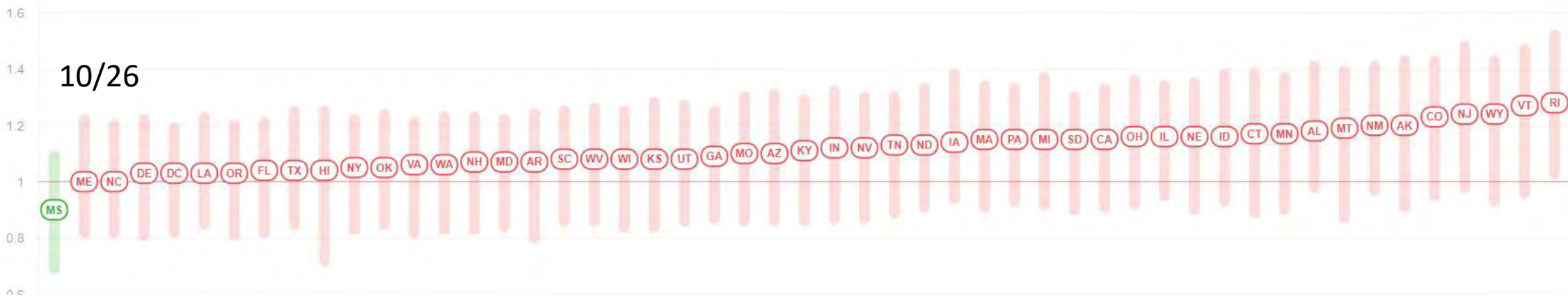
10/16



10/26



# RT.LIVE

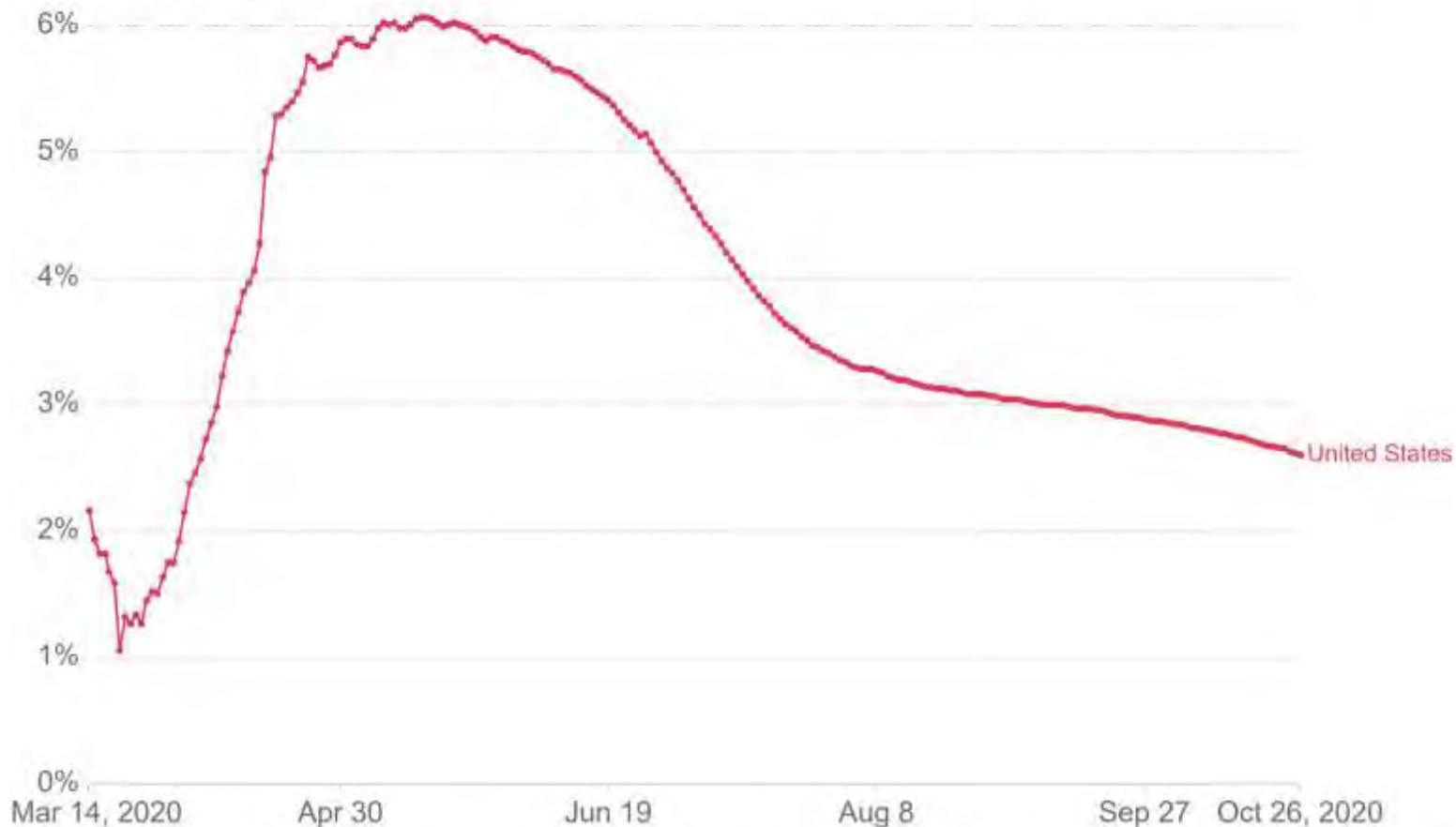


11/5

# US Case Fatality Rate thru 10-26 (ourworldindata.org)

## Case fatality rate of the ongoing COVID-19 pandemic

The Case Fatality Rate (CFR) is the ratio between confirmed deaths and confirmed cases. During an outbreak of a pandemic the CFR is a poor measure of the mortality risk of the disease. We explain this in detail at [OurWorldInData.org/Coronavirus](https://ourworldindata.org/coronavirus)



Source: European CDC – Situation Update Worldwide – Last updated 26 October, 10:35 (London time)

**The case fatality rate is the number of confirmed deaths divided by the number of confirmed cases.**



CC BY

# Third pathogenic emergent coronavirus (betacoronavirus)

PER Journal of Hospital Infection

"Together with Severe Acute Respiratory Syndrome (SARS) coronavirus and Middle East Respiratory Syndrome (MERS) coronavirus, this is the third highly pathogenic human coronavirus that has emerged in the last two decades."

Relative Contagion	SARS-CoV-1 [SARS 2002-2004]	SARS-CoV-2 [COVID-19 2020]	Ebola [2018]
R0 Value Contagiousness	2.9	1.5-3.5	1.71-2.02
Critical Transmission Factors	Symptomatic only; Closer direct contact for SARS & MERS vs COVID-19. Frequent HAIs	Non, pre-, and asymptomatic+symptomatic transmission; small/large respiratory droplets	Symptomatic & Visible symptoms; Bodily fluids (Blood,sweat, urine); direct contact
% Mortality [CFR Case Fatality Rate]	9.6-15% (MERS 34%) <b>['02-'03: 26 countries, more than 8000 infections, approximately 800 dead]</b>	1.6% March 28 2.6% October 26 [Worldwide, more than 43M infections, approximately 1.15M dead]	50% [2 nations; Current 2018 outbreak 3432 cases and 2249 deaths. US during 2014-16 outbreak: 11 cases; 2 deaths]



# HOW EPA KNOWS WHAT WORKS

SWAGs

LIST N

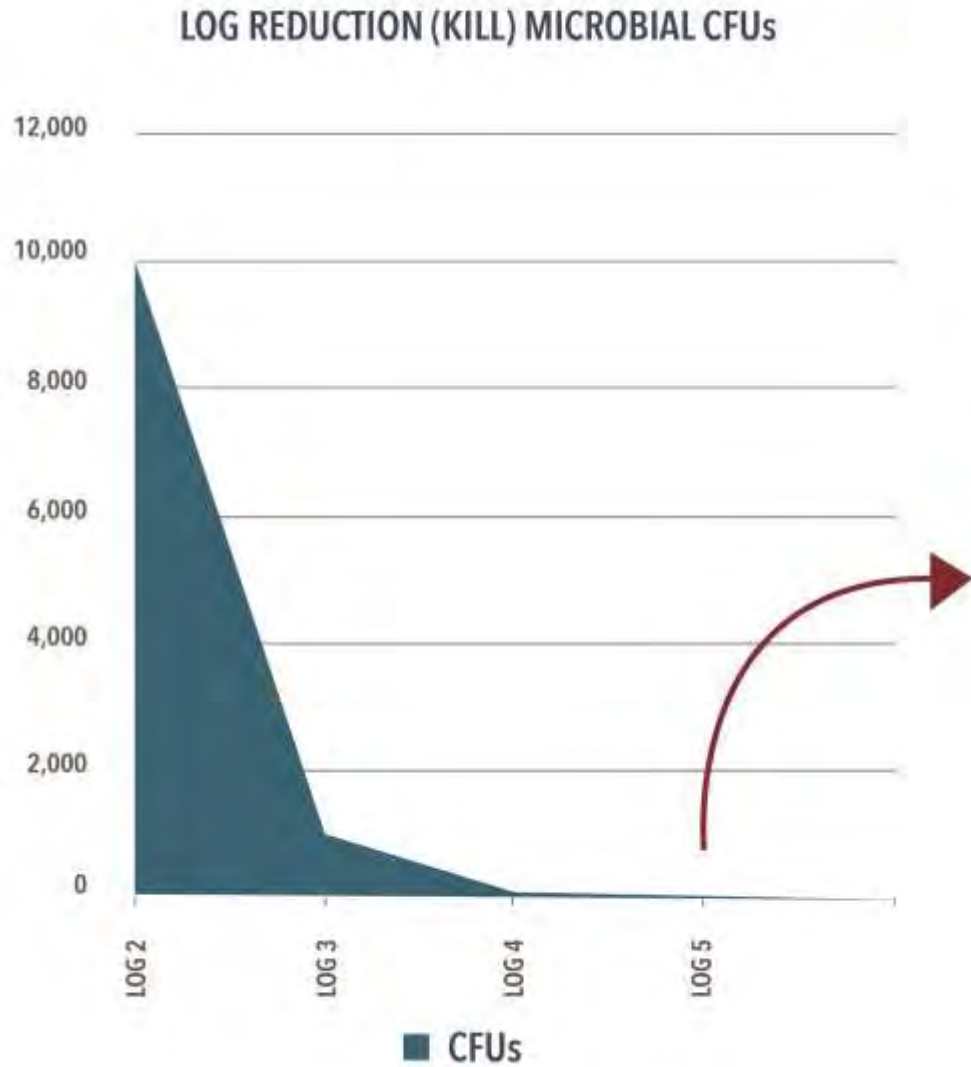
STATE TOOLS







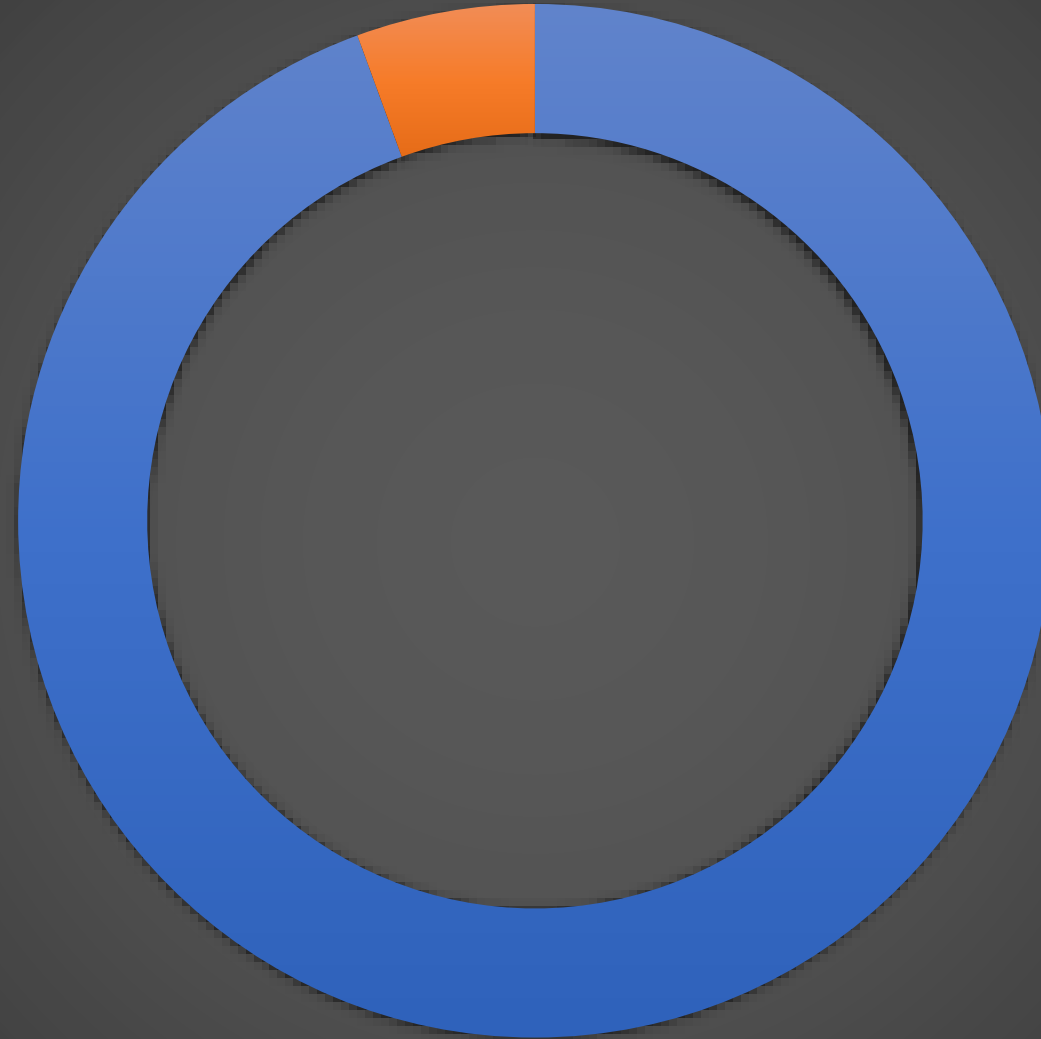
# DISINFECTANTS



## EXAMPLE:

- 2. Sanitizing is valued....but,
- 3. Disinfect, the term explicitly called out in COVID guidance, is equal to a **99.999%** reduction. Or, 1M viable microbes are now no more than a statistically negligible 10.

## Usage in COVID recommendations



■ 95% DISINFECT

■ 5% SANITIZE



# EPA PESTICIDE PRODUCT LABELING SYSTEM

iaspub.epa.gov/apex/pesticides/f?p=PPLS:1

 United States Environmental Protection Agency

Environmental Topics    Laws & Regulations    About EPA    Search EPA.gov

[Contact](#)

## Pesticide Product and Label System

The Pesticide Product and Label System (PPLS) provides a collection of [pesticide product labels \(Adobe PDF format\)](#) that have been accepted by EPA under [Section 3 of the Federal Insecticide, Fungicide, and Rodenticide Act \(FIFRA\)](#). New labels were added to PPLS on October 23, 2020.

[\[+\] More](#)

**EPA Registration, Distributor Product, or Special Local Need Number:**

The EPA Registration Number (EPA Reg. No.) appears on the label of all registered pesticides sold in the United States. To search for a particular Section 3 registration, enter the entire registration number (including the hyphen with no leading zeroes (i.e. 123456-12345), enter just the company number (the first set of digits before the hyphen) to search for all products related to that company (i.e. 123456)...

[\[+\] More](#)

- PPLS
- MASTER REGISTRATIONS
- MASTER LABEL, BUT LABEL ON THE BOTTLE IS WHAT COUNTS
- DOES NOT INDICATE STATE REGISTRATIONS LACKING



# EPA PESTICIDE PRODUCT LABELING SYSTEM

**EPA Registration Number:** 1839-83

**Company Name:** STEPAN COMPANY

**Address:** 22 W. FRONTAGE RD.

**City, State Zip:** NORTHFIELD, IL 60093

**First Registered Date:** OCTOBER 22, 1980

**Current Status (Date):** Registered (OCTOBER 22, 1980)

**Restricted Use:** NO

- PPLS
- NEXT STOP IS THE STATES FOR THREE PART EPA#S

<b>Labels</b>	Chemical	Alt Brand Name	Inactive Alt Brand Name	Transfer History	Site	Pest
---------------	----------	----------------	-------------------------	------------------	------	------

EPA Reg. No.	Product Name	Accepted Date
1839-83	DETERGENT DISINFECTANT PUMP SPRAY	<a href="#">September 03, 2020 (PDF)</a>
1839-83	DETERGENT DISINFECTANT PUMP SPRAY	<a href="#">August 26, 2020 (PDF)</a>
1839-83	DETERGENT DISINFECTANT PUMP SPRAY	<a href="#">July 02, 2018 (PDF)</a>
1839-83	DETERGENT DISINFECTANT PUMP SPRAY	<a href="#">March 08, 2018 (PDF)</a>
1839-83	DETERGENT DISINFECTANT PUMP SPRAY	<a href="#">February 28, 2018 (PDF)</a>
1839-83	DETERGENT DISINFECTANT PUMP SPRAY	<a href="#">September 21, 2017 (PDF)</a>
1839-83	DETERGENT DISINFECTANT PUMP SPRAY	<a href="#">January 14, 2014 (PDF)</a>

# PPG D20R – NO EPA #

NO EPA REGISTRATION NUMBER BECAUSE  
ONLY AVAILABLE IN EUROPE



The image is a screenshot of a PPG news article. At the top, there is a dark blue header with the PPG logo in white. Below the header is a navigation bar with the following links: NEWSROOM, SUSTAINABILITY, COMMUNITIES, and CARE. The main content of the article is as follows:

**PPG introduces Disinfectant 20R to help customers return to business during COVID-19 pandemic**

**August 12, 2020**

GENLIS, France, Aug. 12, 2020 – PPG (NYSE:PPG) today announced the introduction of Disinfectant 20R (D20R), an antiviral and antibacterial disinfectant developed specifically to help PPG customers and their employees return to business safely during the COVID-19 pandemic.

D20R is a water-based, odorless, non-corrosive and ready-to-use disinfectant for hard surfaces, including floors, handrails, plastic surfaces, furniture, and bathroom fixtures. Using its existing expertise in bacterial technologies, PPG designed D20R to maximize efficiency against viruses.



# RAMSOL – FROM AUSTRALIA; BROUGHT IN DOJ



## Ramsol RS1 Disinfectant

Technical data/use instructions

Ramsol RS1 utilizes chemical known to the EPA to be effective against SARS-CoV-2, the cause of COVID-19 virus\*

Also Effectively Kills: HIV-1 (AIDS virus) • HBV (Hepatitis B Virus) • HCV (Hepatitis C Virus) • Herpes Simplex 1 & 2 • German Measles • Athlete's Foot Fungus • Influenza • Vancomycin Resistant Enterococcus faecalis (VRE) • Methicillin Resistant Staphylococcus aureus (MRSA) • Community Associated Methicillin-Resistant Staphylococcus aureus (CA-MRSA) • Human Coronavirus • Rotavirus • Vaccinia • Adenovirus • Pandemic 2009 H1N1 Influenza A Virus (formerly called swine flu) • Gram-negative & Gram-positive pathogens

**Bactericidal**

- UTILIZES chemical known to EPA to be effective against SARS COV 2
  - And on skin
- Imported thru KC dist from Australia
- **Cool idea but you can't simply export or import a pesticide**



View all

Description. **Ramsol RS1** utilizes chemical known by EPA to be effective against SARS-CoV-2, the cause of COVID-19\* virus. **Ramsol** contains active biocides, specifically designed for the cleansing and **disinfecting** of hard and soft surfaces as well as tested and proven for use on skin.



# EPA – RE: VIRUSTATIC

PREVENTATIVE SURFACE TREATMENTS



# Is there anything I can do to make surfaces resistant to SARS-CoV-2 (COVID-19)?

EPA regulates the claims on pesticide product labels. EPA-registered surface disinfectants kill viruses at the time they are used. After use, if new viral particles come into contact with the surface, a previously applied disinfectant will not protect against these new particles.

EPA has not evaluated the efficacy of any products claiming long-lasting efficacy against viruses. Therefore, there are no EPA-registered products with label claims that they are effective against viruses over the course of hours to months (i.e., "residual" or "long lasting" efficacy claims).

There are some antimicrobial pesticides that EPA calls materials preservatives that can be incorporated into articles. Known as "treated articles," these plastics, textiles or other materials are treated with or contain a materials preservative to protect the article itself from mold or bacteria that can cause odor, discoloration or deterioration.

Treated articles cannot claim that they are effective against viruses and bacteria that cause human illness. This means that they are not appropriate for controlling COVID-19.

The Centers for Disease Control and Prevention (CDC) recommends that you clean contaminated surfaces with liquid disinfectant products to prevent the spread of disease



# How The AEGIS Microbe Shield™ Tech Works

The Shielded Surface  
*Acts like millions  
of tiny magnetic swords.*



Mold vs.  
The MicrobeShield  
The Fatal Attraction

OSCAR



End Result  
Mold Loses!

NO MORE OSCAR



In 2009, it was mold...in 2020 COVID

The Science Behind  
Getting Back To Normal

<http://www.microbeshield.com/technology/index.php>

PROVIDING PERFORMANCE • PERFECTING SAFETY • PURSUING SOLUTIONS

# GERMA-FOBE ONE-STEP



## Germafobe ONE-STEP™

An EPA - Registered Disinfecting, Cleaner and Deodorizer  
EPA Reg. No. 75174-10-93295

A weekly treatment to kill virus and bacteria.

- Remains on surfaces even with regular cleaning protocols
- An invisible shield against viruses and bacteria
- Can Be Sprayed or Fogged. Works with Electrostatic Sprayers!

\$21.99 - \$346.79

Provides an invisible microbiostatic coating to inhibit the growth of Odor Causing Bacteria, Odor Causing Mold and Mildew, and Algae.

- ONE-STEP™ **Eliminates 99.9%** of Staphylococcus aureus.
- **Kills avian influenza A (H5N1)** on hard, nonporous environmental surfaces
- Cleaner, fungicide, virucide, and deodorizer
- Deodorizes by **killing microorganisms** that cause offensive odors.
- Creates an invisible layer of protection
- Use weekly on hard surfaces
- For homes, **restaurants, hospitals, institutional and industrial** use



Henry Lewandowski • 1st

Sales, Marketing & Branding Solution Provider | GTM Strategist | National ...

Clean/Disinfect and Protect against Covid-19 for up to 28 days with one cleaning application.

Germa~Fobe's ONE-STEP Patented Technology **CLEANS, DISINFECTS** and **PROTECTS** surfaces for an extended period of time up to 28 days providing a great weekly cleaning/disinfecting solution.

Germa~Fobe is the perfect solution for Homes, Schools, Hospitals, Commercial Buildings, Gym/Fitness Centers, Healthcare Facilities, Hotels, and Public areas.

Germa~Fobe products available at your local **Sherwin-Williams** and Menards stores and via Amazon Prime.

For more info reach out at [info@hlinnovative.com](mailto:info@hlinnovative.com)

## DISINFECTANT AND INHIBITOR

Weekly per website, not the 28 days being claimed verbally.  
Best step – get registration #

EPA Reg No. 75174-10-93295

EPA Est. No. 89964-GA-1

EPA Est. No. 93295-GA-1

DISTRIBUTED BY:

Encore Coatings, LLC

# First stop EPA PPLS

EPA Reg No. 75174-10-93295

EPA Est. No. 89964-GA-1

EPA Est. No. 93295-GA-1

DISTRIBUTED BY:

Encore Coatings, LLC



FEDERAL PROTECTION AGENCY

Office of Pesticide Programs  
Antimicrobials Division (7510P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

### NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

EPA Reg. Number:

75174-10

Date of Issuance:

5/4/2020

Term of Issuance:

Conditional

Name of Pesticide Product:

SIS 200D RTU

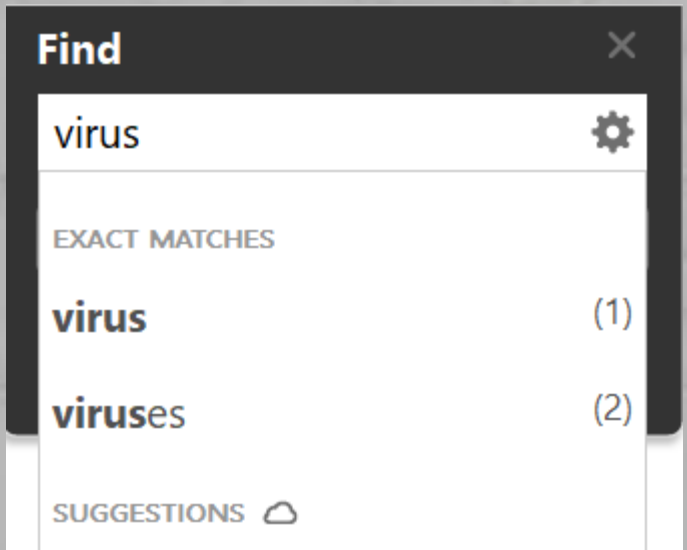
### Name and Address of Registrant (include ZIP Code):

Kevin R. Kutcel  
SiShield Technologies, Inc.  
17 Executive Park Drive, Suite 563  
Atlanta, GA 30329

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Antimicrobials Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the

- Review Master Label for 28 days claim
- Word search great on PDFs
- Virus claims only as a disinfectant



# First stop EPA PPLS

EPA Reg No. 75174-10-93295

EPA Est. No. 89964-GA-1

EPA Est. No. 93295-GA-1

DISTRIBUTED BY:

Encore Coatings, LLC

FEDERAL PROTECTION AGENCY

Office of Pesticide Programs  
Antimicrobials Division (7510P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

75174-10

Date of Issuance:

5/4/2020

Term of Issuance:

Conditional

Name of Pesticide Product:

SIS 200D RTU

## NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

## Name and Address of Registrant (include ZIP Code):

Kevin R. Kutcel

- Provides an invisible microbiostatic coating to inhibit the growth of odor causing bacteria.
- Provides an invisible microbiostatic coating to inhibit the growth of bacteria which cause staining and discoloration.
- Provides an invisible microbiostatic coating to inhibit the growth of odor causing mold and mildew.
- Provides an invisible microbiostatic coating to inhibit the growth of algae.

and accepted by the  
EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed

- Biostatic film only for bacteria and mold
- Only odor-causing – no pathogenic claims
- Word search did not find days, week, month or any performance time

# List N Advanced Search Page: Disinfectants for Coronavirus (COVID-19)

This webpage contains the same information as the [List N Tool](#), but in the original format for those who prefer this search method.

For information on how to use this list, [see our FAQs](#).

List N was last updated on October 29, 2020.

**1** EPA Registration Number

Active Ingredient(s)

**1** Product Name

Company

**1** Contact Time (in minutes)

**1** Formulation Type

**1** Surface Types

**1** Use Sites

**1** Why is this product on List N?

**1** To kill SARS-CoV-2 (COVID-19), follow disinfection directions for the following pathogen(s)

Date Added to List N

Show  entries

EPA Registration Number	Active Ingredient(s)	Product Name	Company	Contact Time (in minutes)
No matching records found				

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**1** EPA Registration Number

Active Ingredient(s)

**1** Product Name

Active Ingredient(s)	Product Name	Company
----------------------	--------------	---------

No matching records found



# Texas Pesticide Label System




- <https://www.texasagriculture.gov/RegulatoryPrograms/Pesticides/PesticideProductRegistration.aspx>
- The National Pesticide Information Retrieval System (NPIRS) at Purdue University maintains a list of pesticides registered by state.
- [http://npirspublic.ceris.purdue.edu/state/state\\_menu.aspx?state=TX](http://npirspublic.ceris.purdue.edu/state/state_menu.aspx?state=TX)
- Note the Germa-Fobe One-Step is registered in Texas
- But the actual container label isn't available


**TEXAS STATE PRODUCT REPORT**

---

**Registration Number: 75174-10**  
**Number of Currently Registered Products: 1**

 View the label in the US EPA Pesticide Product Label System (PPLS).  
 View the label in the Accepted Labels State Tracking and Repository (ALSTAR).

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**MOREAU'S GERMA-FOBE ONE-STEP**  
EPA Registration Number: 75174-10-93295  TX Product Number: 0836935

Company Number: 93295  
ENCORE COATINGS LLC  
68 CENTER RD  
CARTERSVILLE GA 30120  
Registration Year: 2022

Percent	Active Ingredient
0.0060	Alkyl* dimethyl benzyl ammonium chloride *(50%C14, 40%C12, 10%C16) (69105)
0.0027	1-Decanaminium, N-decyl-N,N-dimethyl-, chloride (69149)
0.0018	1-Decanaminium, N,N-dimethyl-N-octyl-, chloride (69165)
0.0045	1-Octanaminium, N,N-dimethyl-N-octyl-, chloride (69166)
0.0396	1-Octadecanaminium, N,N-dimethyl-N-(3-(trimethoxysilyl)propyl)-, chloride (107401)

<https://www.texasagriculture.gov/RegulatoryPrograms/Pesticides/PesticideProductRegistration.aspx>

# Where to get subregistered labels actually on containers

STATE	WEB
NEW YORK	<a href="https://www.dec.ny.gov/nyspad/products?1">https://www.dec.ny.gov/nyspad/products?1</a>
LOUISIANA	<a href="https://usaplantsla.idaf.state.la.us/USAPIantsLA/ProductRegFSA/BrandSearch.aspx">https://usaplantsla.idaf.state.la.us/USAPIantsLA/ProductRegFSA/BrandSearch.aspx</a>
CALIFORNIA	<a href="https://apps.cdpr.ca.gov/docs/label/epanum.cfm">https://apps.cdpr.ca.gov/docs/label/epanum.cfm</a>
WASHINGTON/OREGON	<a href="https://picol.cahnrs.wsu.edu/">https://picol.cahnrs.wsu.edu/</a>
NEVADA	<a href="http://nv.certifyag.com/PestPublic/Products.aspx?CompNum=N4631">http://nv.certifyag.com/PestPublic/Products.aspx?CompNum=N4631</a>
HAWAII	<a href="https://hdoa.hawaii.gov/pi/pest/licensed-pesticides/">https://hdoa.hawaii.gov/pi/pest/licensed-pesticides/</a>

# SIMPLE GUIDELINES FOR ONE REQUIREMENT

## Snapshot in Time: The 2nd Most Common Question

- Regular cleaning and disinfecting of public facilities is the key to infection control.
- Increased frequency is recommended during times of high illness among the occupants.
- Special attention should be paid to common "hot spot" or high touch points like door handles, faucets, water fountain knobs, or toys.

**YOU CANNOT PROMISE LIFESPAN BEYOND DISINFECTION.**







# EPA/CDC REQUIREMENTS, MANDATES TO DISINFECT

DISINFECTION PLANNING



# CDC/EPA FUNDAMENTAL DIRECTION

- Cleaning and disinfecting public spaces including your workplace, school, home, and business will require you to:
  - Develop your plan
  - Implement your plan
  - Maintain and revise your plan

**GUIDANCE FOR  
CLEANING AND DISINFECTING**  
**PUBLIC SPACES, WORKPLACES, BUSINESSES,  
SCHOOLS, AND HOMES**

[https://www.cdc.gov/coronavirus/2019-ncov/community/pdf/Reopening\\_America\\_Guidance.pdf](https://www.cdc.gov/coronavirus/2019-ncov/community/pdf/Reopening_America_Guidance.pdf)

# FORK IN PLAN ROAD – NEED 2 PLANS\*

Prevention thru  
intensified  
cleaning and  
disinfection



- Develop your plan
- Implement your plan
- Maintain and revise your plan

IDER/EOP  
Positive Response



- Develop your plan
- Implement your plan
- Maintain and revise your plan

# TERMS OF ART

- EVERYDAY PREVENTATIVE ACTIVITY
  - SHEP
    - SURFACE HYGIENE: EPIDEMIC & PANDEMIC
- COVID-POSITIVE RESPONSE
  - IDER
    - INFECTIOUS DISEASE EMERGENCY RESPONSE
  - EOP
    - EMERGENCY OPERATIONS PLAN



# OSHA REQUIREMENTS, MANDATES TO DISINFECT

OSHA RECOMMENDATIONS AND REQUIREMENTS



# OSHA NOTES-OCTOBER 2020

- <https://www.osha.gov/Publications/OSHA3990.pdf>
- which meekly offers a disclaimer up front:
- *This guidance is not a standard or regulation, and it creates no new legal obligations. ...The recommendations are advisory in nature*
- 
- Then at least for disinfectants we have 5 mentions of the word: SO BY NO NEW LEGAL OBLIGATIONS, THAT DOESN'T MEAN THE FOLLOWING AREN'T REQUIRED, these requirements just aren't new....
- 
- *Maintain regular housekeeping practices, including routine cleaning and disinfecting of surfaces, equipment, and other elements of the work environment. When choosing cleaning chemicals, employers should consult information on Environmental Protection Agency (EPA)-approved disinfectant labels. Follow the manufacturer's instructions for use of all cleaning and disinfection products (e.g., concentration, application method and contact time, PPE).*

# OSHA NOTES-OCTOBER 2020

Looking at the OSHA website, it is noticeable that their fomite statement is stronger than typical for US Fed guidance:

- *People can also become infected with SARS-CoV-2 by touching surfaces or objects contaminated with the virus, and then touching their mouths, noses, or eyes. Current evidence suggests that novel coronavirus may remain viable for hours to days on a variety of surfaces. Frequent cleaning of visibly dirty and high-touch surfaces, followed by disinfection, can help prevent SARS-CoV-2 and other respiratory pathogens (germs) from spreading in workplaces.*

- <https://www.osha.gov/SLTC/covid-19/hazardrecognition.html#spread>



# DELIVERY METHODS



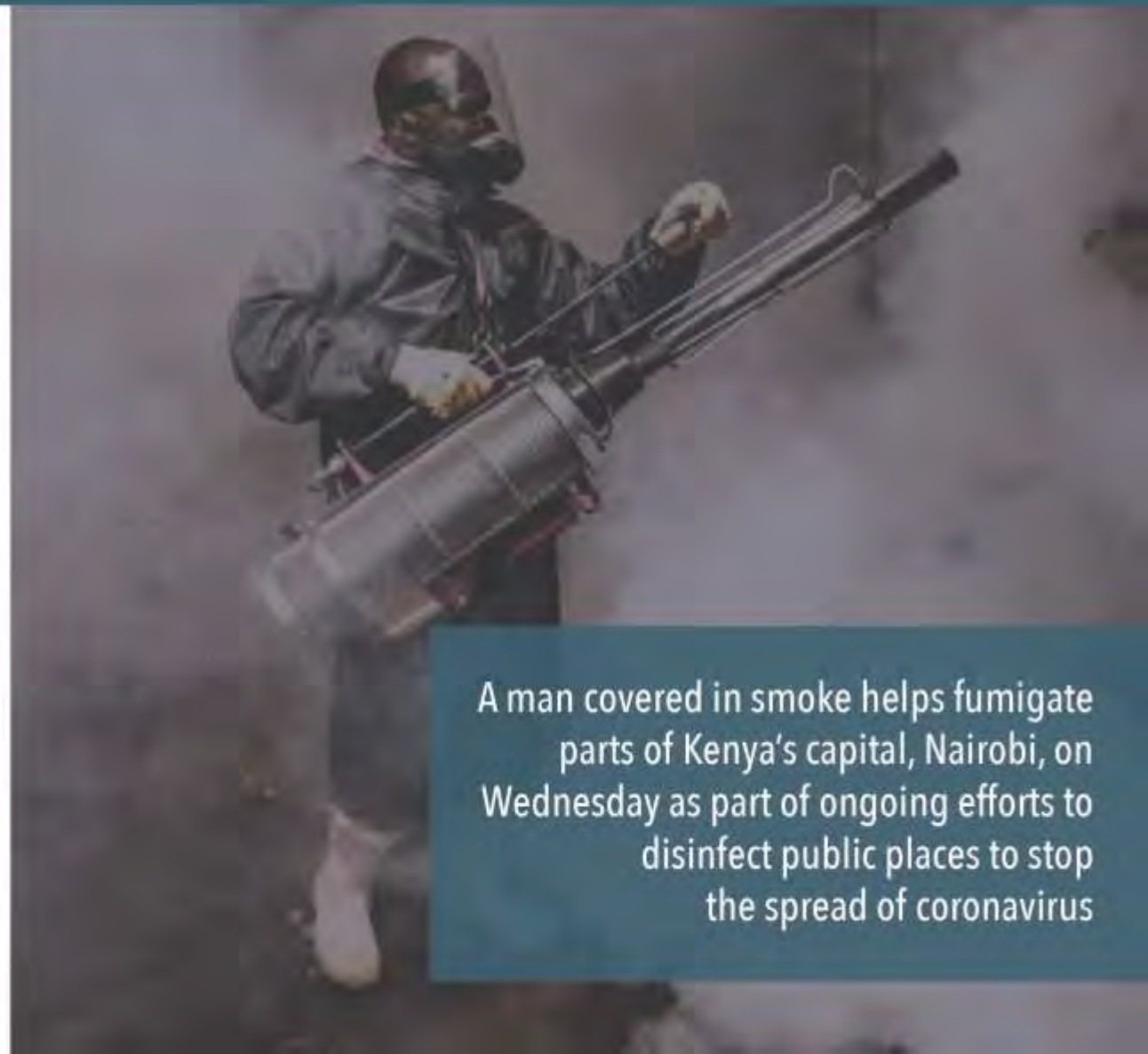
# DELIVERY METHODS

**Q.** Can I use fumigation or wide-area spraying to help control COVID-19?

*EPA re: large space broadcast fogging*

EPA does not recommend use of fumigation or wide-area spraying to control COVID-19.

The Centers for Disease Control and Prevention (CDC) recommends that you clean contaminated surfaces with liquid products, such as those provided on List N, to prevent the spread of disease.



A man covered in smoke helps fumigate parts of Kenya's capital, Nairobi, on Wednesday as part of ongoing efforts to disinfect public places to stop the spread of coronavirus

# SIMPLE FOR SMALLER SURFACES



## **Compression Sprayer / Backpack Unit**

Ease of use and mobility make these units well suited for small to medium disinfection jobs.

- Lower cost compared to other methods
- Minimum training required
- high level of availability and options
- Useful in everyday remediation activity
- Reduced contact between public and cleaning / disinfecting crews
- Equipment can be multi-functional, reused for other applications



## **Wipes / Trigger Bottle+Microfiber Cloth**

For small areas, a spray bottle of Decon 30 along with a clean microfiber cloth or Disinfectant wipes works well.

- Ideal for touchpoints including: door knobs, keyboards, faucets, water fountain knobs, levers, elevator buttons, kiosks, etc.
- EPA-Registered for use in food contact and processing operations

*Dance  
Studio  
Owner*

# DELIVERY METHODS



## ■ Conventional Application

- Pump up sprayers
- Compression Sprayers
- Handheld
- Backpack

### ADVANTAGES:

Simplicity, familiar, low training, cost, availability, control, good for tigher spaces

### DISADVANTAGES:

Production rate low for large spaces

# DELIVERY METHODS



FOAMING APPLICATORS

Foam sprayers can be powered or manual, and in an array of configurations and sizes.

## ATTRIBUTES:

- Lower cost compared to other methods
- Minimal runoff results in less cleanup
- Increased hang time, ideal for vertical surfaces
- Product is easy visible during application, reducing overuse/waste
- Minimal training
- Often slower than the other methods in large spaces
- Terrific for hard to reach spots that breed germs like backwash/overflows in sinks
- Useful in everyday remediation activity

# DELIVERY METHODS



Airless sprayers are ideal for large and complex areas and result in the best blend of wetting with minimal mess, solving surface tension holdout, and logistics.

## ATTRIBUTES:

- Disinfection specific settings utilizing high-efficiency tips yield large droplets and longer wet contact time.
- Applicator can control spray fan radius reducing product use by as much as 70%
- High production rates, portable & flexible
- Equipment can be multi-functional, reused for other applications
- Lower cost to purchase, easy and inexpensive to maintain, field serviceable
- Larger systems can support 2-3 applicators working at the same time

AIRLESS SPRAYERS

# DELIVERY METHODS



COLD MISTERS/FOGGERS

Cold mist and fog generating devices use pressure instead of heat to vaporize and deliver disinfectants. These powered devices can yield single digit micron droplets; or deliver a soaking mist. As indicated by the name, ULV (Ultra-Low Volume) misters and foggers economically transform low amounts of fogging liquid to substantial yet very fine droplet mists.

## ATTRIBUTES:

- Adjustable to produce as small as <math><10</math> microns, these droplets can remain airborne for hours which increases probability of bonding with aerosols and particulates, and pulldown (bringing unwanted airborne contaminants down to cleanable floors).
- Cold mist/fog processes avoid problems with thermal foggers including fire risk, pungent odors, and hard-to-clean oily residues.
- To preemptively mist suspected areas of severe contamination, many units can be calibrated to set and walk-away: resulting in reduced hazard with less direct exposure to cleanup workers.
- Hand-held and directed by skilled applicators, mist/ fog generators can deliver a targeted, mobile and efficient disinfection ideal for complex spaces like buses or metro/subway passenger cars.

# DELIVERY METHODS



ELECTROSTATIC SPRAYER

The only method that creates a “dry fog”. Electrostatic atomizes cleaning solutions to produce an electrically charged spray able to wrap around surfaces of all types for an even coat, and reach areas other methods cannot. After proper training, electrostatic has a valued niche role in disinfectant application.

## ATTRIBUTES:

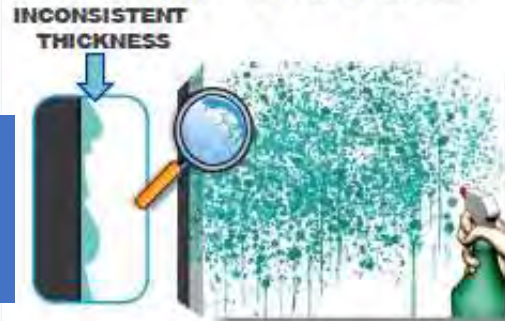
- Dry fog produced can be useful as a pre-treatment or knockdown application within severely contaminated areas prior to entry of specialized cleanup teams, which improves worker safety
- Production rates can seem high, but efficiency of laying down an ultra-thin layer often works against disinfection because surface will dry out sooner than required dwell (“kill”) time
- Wrap around effect cannot be achieved if surfaces cannot be charged, so certain common needs like carpet sanitizing are not an option
- Equipment investment is expensive, field-fixes are difficult, and repair frequency is highest of these four methods
- Proper training is required

# SANISPRAY HP

## ATOMIZATION & COVERAGE COMPARISON



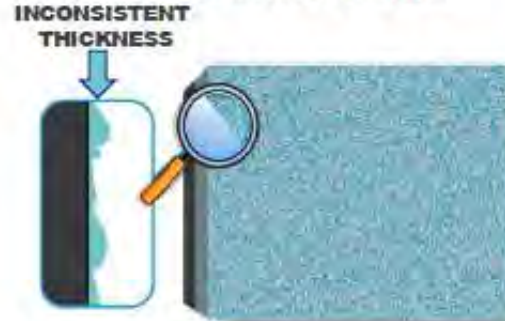
### SPRAY BOTTLES & PUMP SPRAYERS



#### INCONSISTENT FINISH

- ❌ Inconsistent application coverage
- ❌ Not spraying complete surface
- ❌ Additional applications required to achieve complete surface coverage to meet chemical dwell time requirements
- ❌ Slow manual process

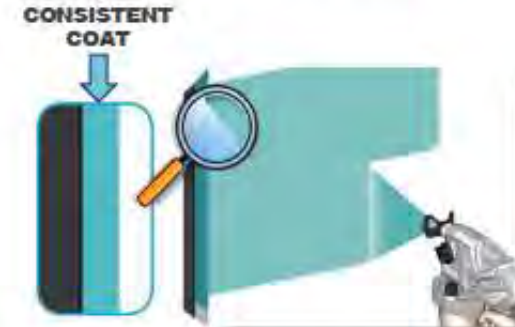
### ELECTROSTATIC & FOG SPRAYERS



#### INCONSISTENT APPLICATION THICKNESS

- ❌ Does not completely coat a surface and may dry too quickly
- ❌ May require additional time and labor of wiping to be effective
- ❌ Electrostatic "wrap effect" varies depending on type of surface /grounding /wind/distance away

### SANISPRAY HP



#### CONSISTENT COVERAGE FROM EDGE TO EDGE

- ✓ Consistent application coverage delivered in high production or fine spray methods
- ✓ Complete surface coverage to meet chemical dwell time requirements
- ✓ Fastest application method – *Period*
- ✓ Choose from 17 RAC X LP QuickChange™ tip sizes to meet spray width and speed needs



1. Electrostatic to unpolarized surface
2. Trigger hand sprayer bottle
3. Pressure Washer
4. Pump up standard nozzle
5. Pump up foaming nozzle
6. Foamer
7. Conjoined with ablative blast
8. ULV mister/foggers-sprayed directly to surface (as opposed to non-targeted, wide area spray or as a space saturation fog)
9. Airless (including air assisted like HVLP)
10. Electrostatic to polarized surface (e.g. when all factors are ideal, uncommon at best during pandemic infection prevention)

**Typical Spray  
Quality better as list  
proceeds:**

News Releases from Headquarters > Chemical Safety and  
Pollution Prevention (OCSPP)

## EPA's List of Approved SARS-CoV-2 Surface Disinfectant Products Passes 500

10/21/2020

# EPA REQUIREMENTS: LIST N

QUALIFICATION FOR LIST N, ONE-STEP CLEANER & DISINFECTANT



# COVID-19 VIABILITY ON SURFACES

- How does EPA know which products work on COVID-19 (SARS-CoV-2)?
  - While surface disinfectant products on USEPA or Health Canada Lists have not been tested specifically against SARS-CoV-2, the cause of COVID-19, EPA & Health Canada expects them to kill the virus because they:
    - Demonstrate efficacy (e.g. effectiveness) against a harder-to-kill virus; or
    - Demonstrate efficacy against another type of human coronavirus like SARS-CoV-2.

**SWAG**

---

**SCIENTIFIC**

**WILD**

**ASS**

**GUESS**



# COVID-19 VIABILITY ON SURFACES

## ■ EPA LIST N

- SHOCKWAVE RTU - EPA REG. NO. 61178-2-73884
  - The 73884 is ICP-Fiberlock
- SHOCKWAVE RTU - MASTER REGISTRANT: 61178-2
  - Their product name: Public Places
- DECON 30 - EPA REG. NO. 84683-3-74771
- ICP provides this chemistry to restoration and CAT recovery marketplace

List N was last updated on April 30, 2020.

EPA Registration Number:

[Other Search Options](#) [Clear](#)

Show:  entries: [Export to PDF](#) [Export to CSV](#)



List N: Products with Emerging Viral Pathogens AND Human Coronavirus claims for use against SARS-CoV-2

EPA Registration Number	Active Ingredient(s)	Product Name	Follow the disinfection directions and preparation for the following virus	Contact Time (in minutes)
61178-2	Quaternary ammonium	Public Places	Feline calicivirus	10

EPA Registration Number:

[Other Search Options](#) [Clear](#)

Show:  entries: [Export to PDF](#) [Export to CSV](#)



List N: Products with Emerging Viral Pathogens AND Human Coronavirus claims for use against SARS-CoV-2

EPA Registration Number	Active Ingredient(s)	Product Name	To kill SARS-CoV-2 (COVID-19), follow disinfection directions for the following virus(es)	Contact Time (in minutes)
84683-3	Thymol	Benefact Botanical Daily Cleaner Disinfectant Spray	Rhinovirus	10

Showing 1 to 1 of 1 entries (filtered from 428 total entries) [Previous](#) [Next](#)

# COVID-19 VIABILITY ON SURFACES

## ■ EPA LIST N


- Use the List N Tool
- Found at:  
<https://cfpub.epa.gov/giwiz/disinfectants/index.cfm>
- More user friendly
  - Surface type
  - Formulation Type
  - Use Sites: Healthcare, Institutional, Residential

List N was last updated on April 30, 2020.


EPA Registration Number:

Show:  entries:



 United States Environmental Protection Agency

### List N Tool: COVID-19 Disinfectants



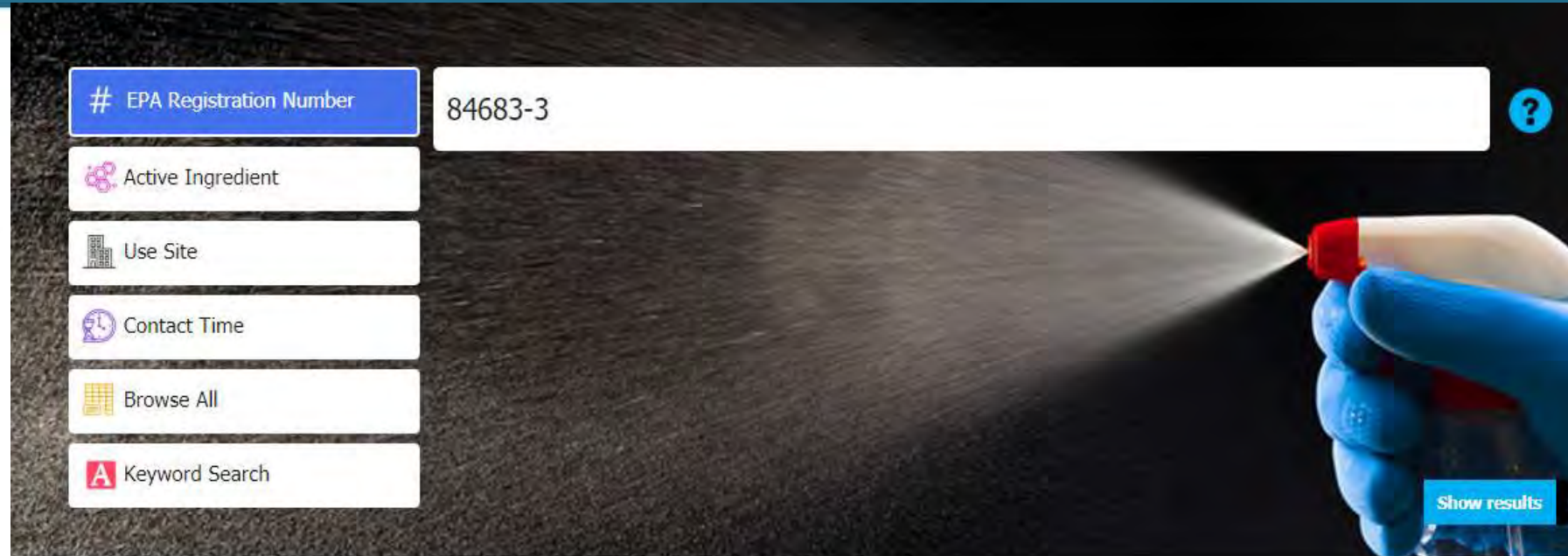
- # EPA Registration Number
- Active Ingredient
- Use Site
- Contact Time
- Browse All**
- Keyword Search

Showing 1 to 1 of 1 entries (Filtered from 428 total entries)

# COVID-19 VIABILITY ON SURFACES

## ■ EPA LIST N

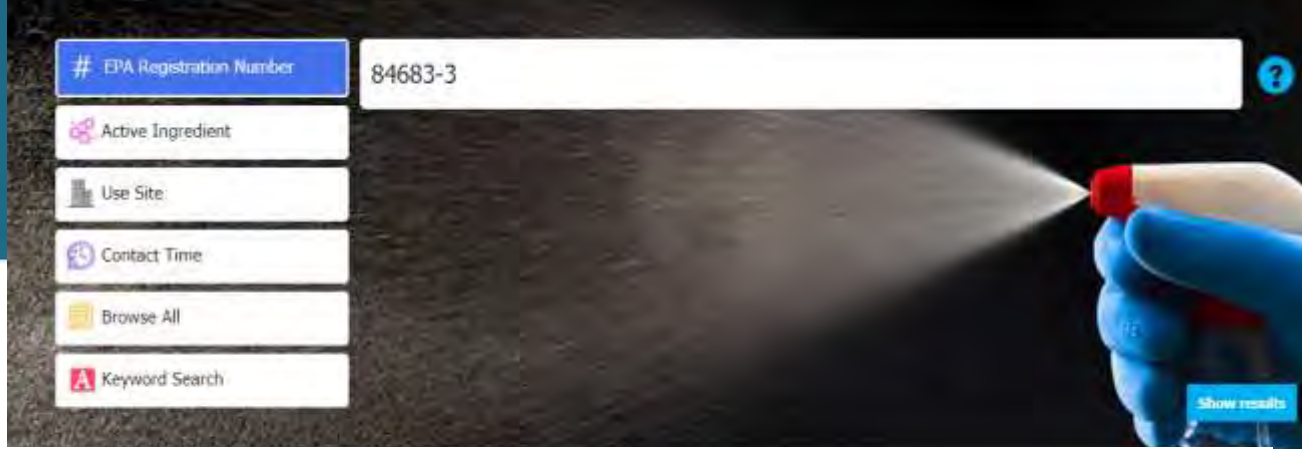
- Remember EPA List N is a starting point
- From there review the label **ON THE CONTAINER ITSELF** for the FFB (Features, Functions & Benefits you need)
- Ask what isn't on the label: Training provided, on-call subject matter expertise, reliability of supply, compatibility with valuable surfaces



Total count: 1

Show  entries

EPA Registration Number	Active Ingredient(s)	Product Name	Company	Follow the disinfection directions and preparation for the following virus	Contact Time (in minutes)	Formulation Type	Surface Type	Use Site
84683-3	Thymol	Benefect Botanical Daily Cleaner Disinfectant Spray	Cleanwell LLC	Rhinovirus	10	Ready-to-use	Hard Nonporous (HN); Food Contact No Rinse (FCNR)	Healthcare; Institutional; Residential

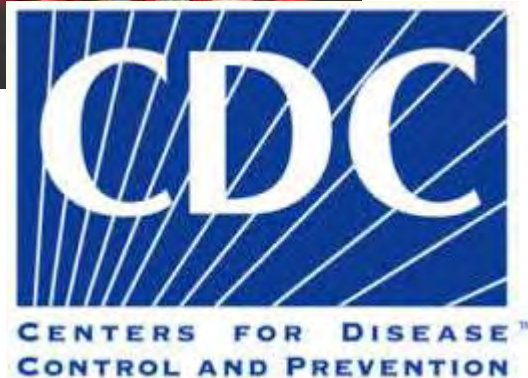


EPA Registration Number	Active Ingredient(s)	Product Name	Company	Follow the disinfection directions and preparation for the following virus	Contact Time (in minutes)	Formulation Type	Surface Type	Use Site	Emerging Viral Pathogen Claim?
1839-83	Quaternary ammonium	Detergent Disinfectant Pump Spray	Stepan Company	SARS-CoV-2	1	Ready-to-use	Hard Nonporous (HN); Food Contact Post-Rinse Required (FCR)	Healthcare; Institutional; Residential	Yes

- Starting to see testing against the organism SARS-CoV-2
  - List N will still be the go-to for COV-2
  - States will take months
- Seeing some very rapid kill times because simple enveloped virus
  - Likely, still want to specify 10m
- This is Master Registrant
- ICP delivers as Fiberlock IAQ 2500 with 1M kill time, fastest on List N of liquids



# BOTH CLEAN AND DISINFECT



## ***CDC Definitions:***

***Cleaning*** refers to the removal of germs, dirt, and impurities from surfaces. Cleaning does not kill germs, but by removing them, it lowers their numbers and the risk of spreading infection.

***Disinfecting*** refers to using chemicals to kill germs on surfaces. This process does not necessarily clean dirty surfaces or remove germs, but by killing germs on a surface after cleaning, it can further lower the risk of spreading infection.





# BOTH CLEAN AND DISINFECT



CDC's guidance for COVID-19 prevention is to both clean *AND* disinfect [frequently touched surfaces](#) daily.

Transmission of coronavirus occurs much more commonly through respiratory droplets than through objects and surfaces, like doorknobs, countertops, keyboards, toys, etc.

Cleaning of visibly dirty surfaces followed by disinfection is a

***best practice measure***

for prevention of COVID-19 and other viral respiratory illnesses in households and community settings

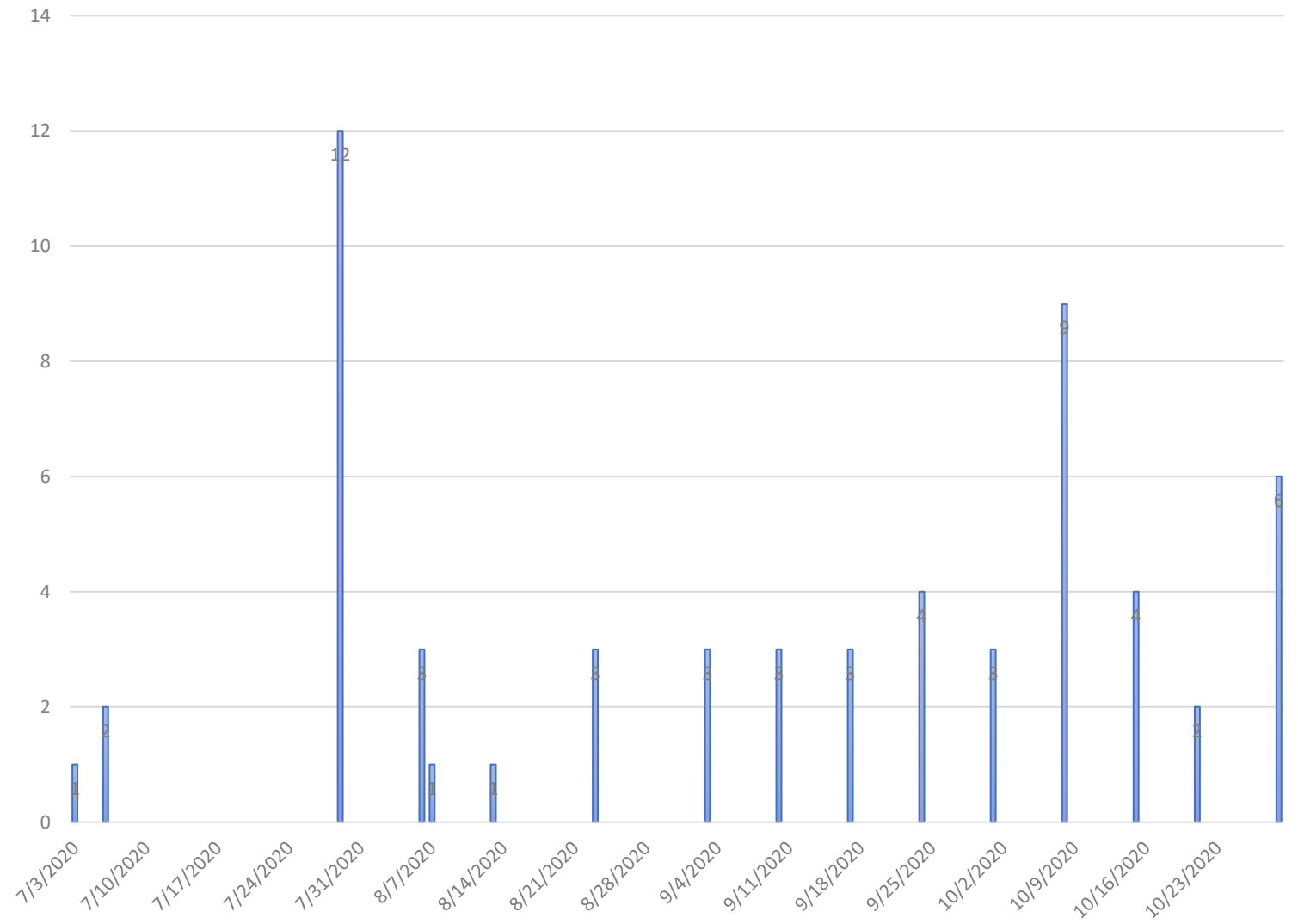
Updated July 10, 2020

[https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html?CDC\\_AA\\_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fprepare%2Fcleaning-disinfection.html](https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fprepare%2Fcleaning-disinfection.html)

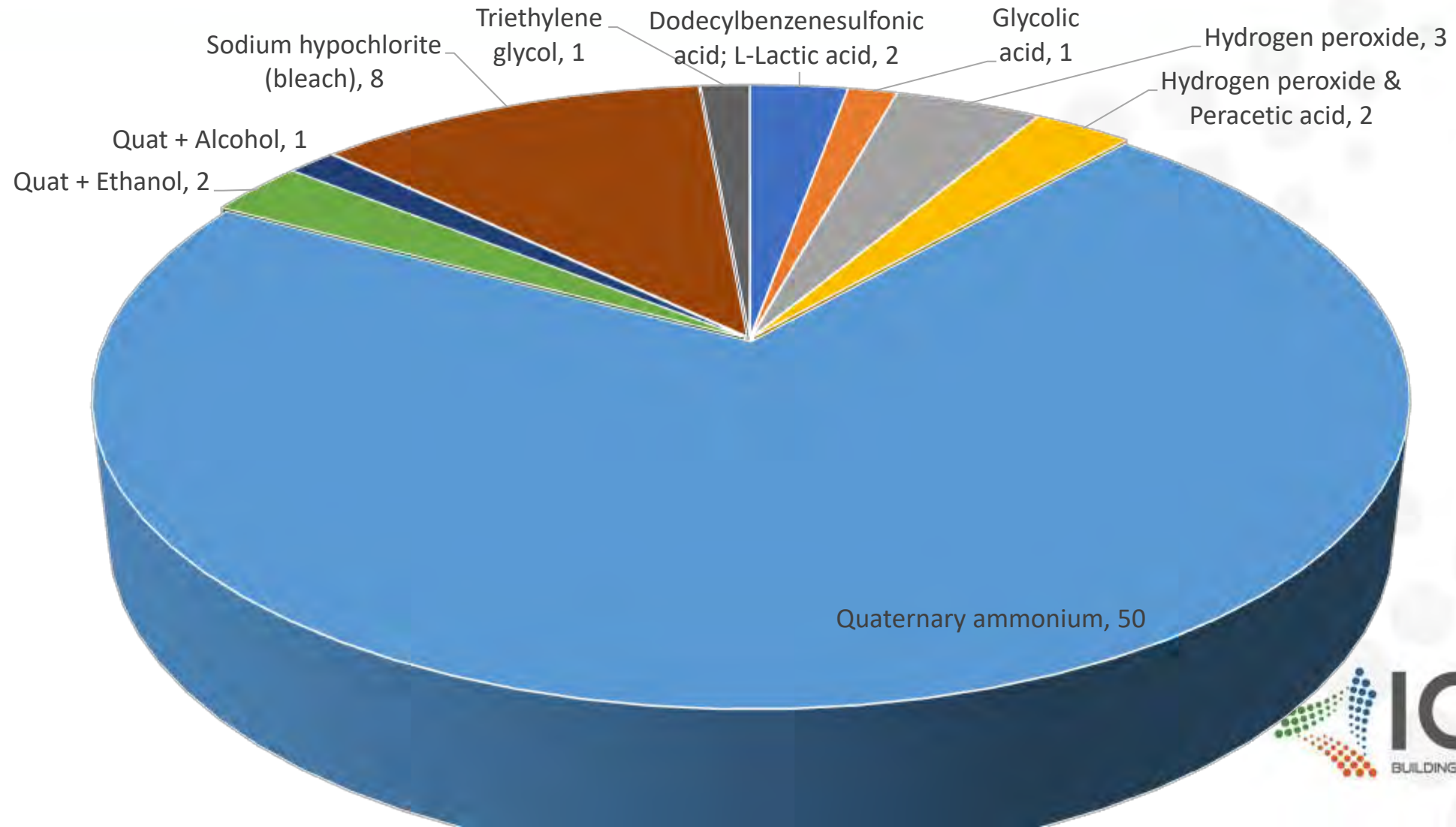


# EPA ADDITIONS TO LIST N

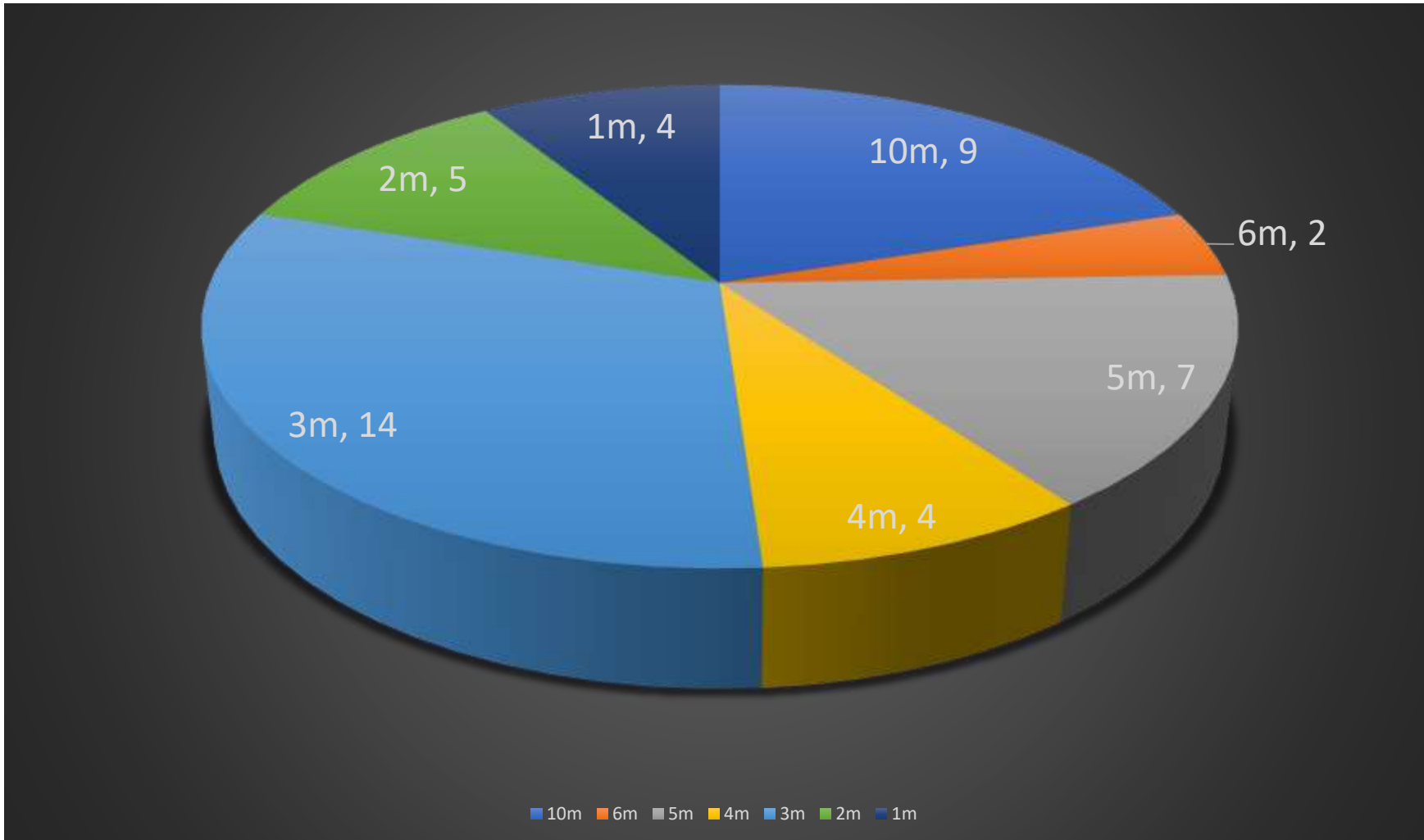
EPA ADDITIONS TO LIST N



# EPA LIST N FOR COV-2: 62 @ 11-4-20 BY ACTIVE



# EPA LIST N FOR COV-2: @ 11-4-20 BY EFFICACY TIME



Data only includes liquid disinfectants and non-oxidizers. Wipes excluded. Bleach and Peroxides excluded

# VALIDATION? ATP?



- ATP doesn't measure viruses, because viruses don't have ATP.
- That isn't to say that ATP has no role, but it has to be understood.
- ATP can be interpreted as a reduction of biological indicators.
- If bacteria, which can be measured using ATP, are decreased significantly by cleaning and disinfecting, then the virus population if it was indeed present, has now been correspondingly reduced



# COVID – SPECIFICATION MICROBIAL MITIGATION

MICROBIAL REMEDIATION SPECIFICATION



# SIMPLE GUIDELINES FOR ONE REQUIREMENT

- Follow CDC: Clean from furthest point in a space towards nearest to exit and from high-to-low (all helps against cross-contamination and duplicate effort)
- **WATCH THIS SPACE** for ICP's new mitigation master format specification:  
02 87 10 coronavirus mitigation

For assistance in the use of products in this section, contact ICP Group by calling (978) 623-9980, by email at [info@icpgroup.com](mailto:info@icpgroup.com), or visit their website at [www.icpgroup.com](http://www.icpgroup.com).

## SECTION 02 87 10 - CORONAVIRUS DISINFECTION

### PART 1 GENERAL

#### 1.1 ABBREVIATIONS

- A. Personal Protective Equipment: PPE.

#### 1.2 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Coordinate with local and State health departments to ensure that current cleaning and disinfecting protocols and guidelines are followed, including identification of new potential cases of COVID-19.

#### 1.3 SUBMITTALS

- A. Informational Submittals:
  - 1. Product Data: Manufacturer's descriptive data for materials proposed for use.

#### 1.4 QUALITY ASSURANCE

# SIMPLE GUIDELINES FOR ONE REQUIREMENT

- There are no established guidelines or regulations for epidemic or pandemic. But there will be...
- For now, no licensing is required, and there is a chaotic mix of recommendations.
- The one requirement for the **RESPONSIBLE/ACCOUNTABLE**:
  - Clean and disinfect to extent necessary to mitigate against exposure of guests, customers, visitors, members and staff to the virus on touchable surfaces.



# SIMPLE GUIDELINES FOR ONE REQUIREMENT

3 STEPS:

**1.**

IF SURFACES ARE VISIBLY  
DIRTY, CLEAN.

**2.**

**3.**

# SIMPLE GUIDELINES FOR ONE REQUIREMENT

## 3 STEPS:

**1.**

IF SURFACES ARE VISIBLY  
DIRTY, CLEAN.

**2.**

**APPLY**

ENSURE WET CONTACT TIME, AND ADJUST  
DELIVERY METHOD FOR SIZE OF SPACE  
PULLDOWN WITH MIST TO BRING DOWN  
AIRBORNE PARTICULATES

**3.**

# SIMPLE GUIDELINES FOR ONE REQUIREMENT

## 3 STEPS:

**1.**

**IF SURFACES ARE VISIBLY DIRTY, CLEAN.**

**2.**

**APPLY**

ENSURE WET CONTACT TIME, AND ADJUST DELIVERY METHOD FOR SIZE OF SPACE  
PULLDOWN WITH MIST TO BRING DOWN AIRBORNE PARTICULATES

**3.**

**ADDRESS TOUCH POINTS**

ADDRESS POTENTIALLY CONTAMINATED TOUCH POINTS SUCH AS DOORKNOBS, TOYS, KEYBOARDS, ETC. WHEN CLEARING AN AREA

# SIMPLE GUIDELINES FOR ONE REQUIREMENT

## Snapshot in Time: The 2nd Most Common Question

- Regular cleaning and disinfecting of public facilities is the key to infection control.
- Increased frequency is recommended during times of high illness among the occupants.
- Special attention should be paid to common "hot spot" or high touch points like door handles, faucets, water fountain knobs, or toys.

**YOU CANNOT PROMISE LIFESPAN BEYOND DISINFECTION.**



# DISINFECTION SOLUTIONS

Proven Severe and Strong for Disaster  
Practical Everyday as a Vaccine for Surfaces



ICP is a 40 year provider of class-leading, field tested disinfection products. With both **CONVENTIONAL** and **BOTANICAL** disinfectants, we lead the industry with product options that fit all buying preferences and application methods.

[WWW.ICPGROUP.COM](http://WWW.ICPGROUP.COM)

CONVENTIONAL



ShockWave has been formulated, and tested on more surfaces, in more situations, and to kill more organisms than any other product.



BOTANICAL



Decon 30 is the first & only authentically botanical disinfectant technology on the market today.



# | QUESTIONS?



SOLUTION SYSTEMS OF COMBINED STRENGTHS  
FROM THE ENVIRONMENTAL RESTORATION GROUP AT:

Specifications@icpgroup.com | Sales & Tech Support: 800-342-3755  
[www.icpmasterworkscommunity.com](http://www.icpmasterworkscommunity.com)



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# OUR NARRATOR

As of Spring 2020, Cole Stanton is Director of Education and AED Specification for the Building Solutions Group (BSG) of ICP (Innovative Chemical Products). In building out a more structured and robust training, knowledge, and specification capability, Cole continues to engage and serve all 24 brands and over 12,000 construction projects in the BSG portfolio. These product areas include building envelope, environmental restoration & remediation, waterproofing, aesthetic finishes, industrial performance coatings, paint removers, marine applications, cementitious technologies, and recreational/athletic surfaces. ICP is the 10th largest coatings company in North America.

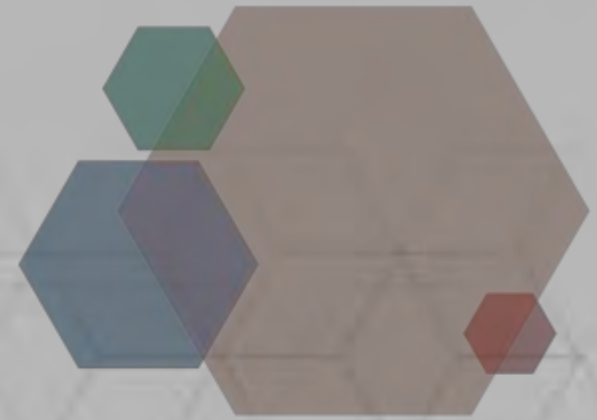
For 22 years prior, Cole served in leadership, technical and field sales roles for ICP's Fiberlock's products for remediation of asbestos, lead paint, mold, disaster recovery, and smoke/fire restoration.



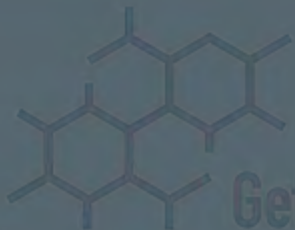


# Disinfection Solutions

Proven Severe and Strong for Disaster  
Practical Everyday as a Vaccine for Surfaces



At ICP, we understand how builders build and how buildings work – our 26 brands and 14,000 products serve over 150 distinct architectural processes in construction.

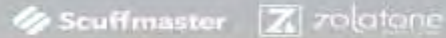


The Science Behind  
Getting Back To Normal

PROVIDING PERFORMANCE • PERFECTING SAFETY • PURSUING SOLUTIONS



ICP Building Solutions Group offers a comprehensive range of building envelope products along with class-leading cementitious and sports surfacing systems. Built on the foundation of Innovations that Improve<sup>®</sup>, ICP offers building solutions that set the standard in their markets and present unparalleled value to our customers.



### DRY ERASE PAINT

Clear dry erase paint for offices, scheduling and conference spaces



### SCUFF RESISTANT PAINTS

Highly scuff resistant decorative paint for high traffic areas

### ROOF COATINGS

For energy efficiency, aesthetics & extending the life of the roof



### DISINFECTANTS & CLEANERS

Disinfectants and cleaners for daily cleaning or remediation and restoration



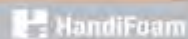
### RESINOUS FLOORING

Extensive line of resinous flooring for parking garages



### INSULATION

High volume, low pressure spray foam to save on energy costs



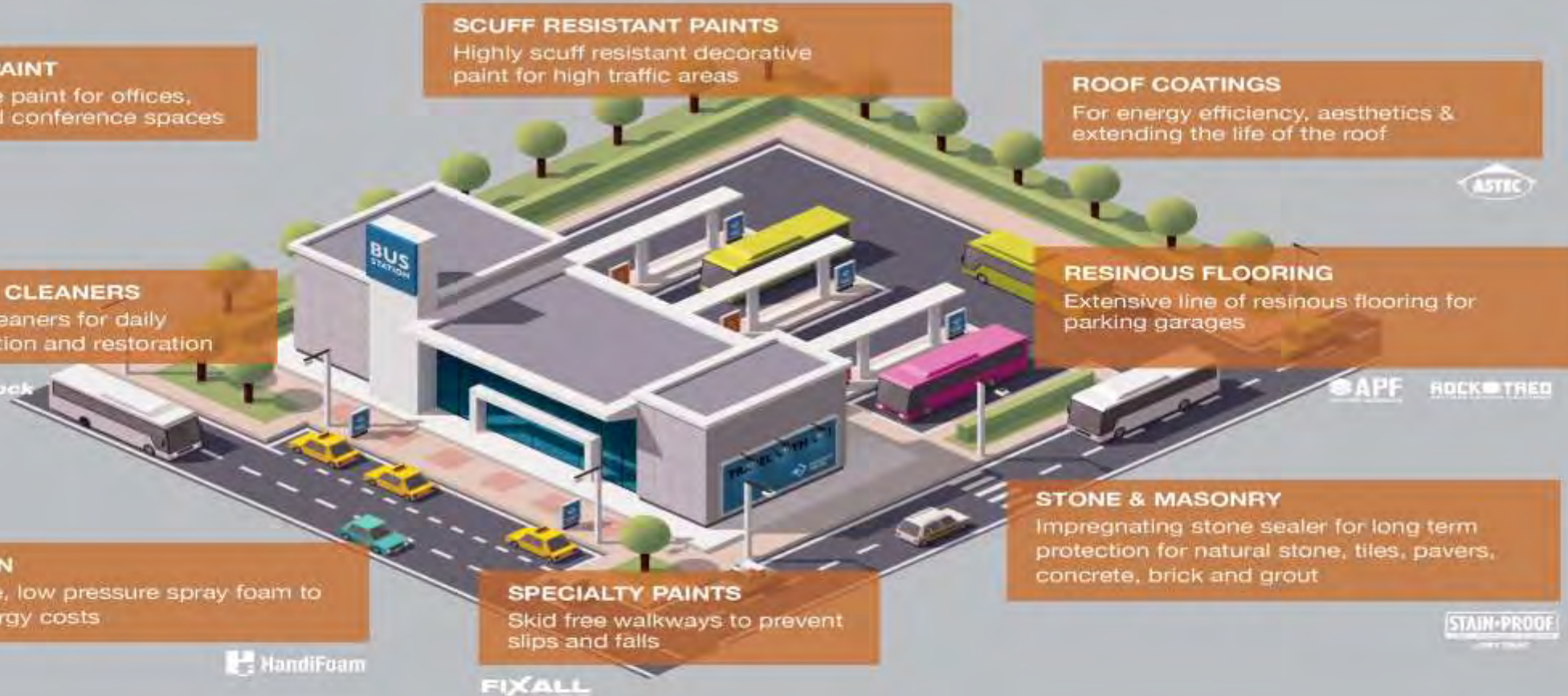
### SPECIALTY PAINTS

Skid free walkways to prevent slips and falls



### STONE & MASONRY

Impregnating stone sealer for long term protection for natural stone, tiles, pavers, concrete, brick and grout





ICP Building Solutions Group offers a comprehensive range of building envelope products along with class-leading cementitious and sports surfacing systems. Built on the foundation of Innovations that Improve®, ICP offers building solutions that set the standard in their markets and present unparalleled value to our customers.

### DRY ERASE PAINT

Clear dry erase paint for offices and conference spaces



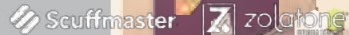
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Impregnating stone sealer for long term protection for natural stone, tiles, pavers, concrete, brick and grout



### SCUFF RESISTANT PAINTS

Highly scuff resistant decorative paint for offices, restrooms, lobbies and other high traffic areas



### DISINFECTANTS & CLEANERS

Disinfectants and cleaners for daily cleaning or remediation and restoration



### SPECIALTY PAINTS

Skid free walkways to prevent slips and falls



### ROOF COATINGS

For energy efficiency, aesthetics & extending the life of the roof



### RESINOUS FLOORING

Extensive line of resinous flooring for everything from high traffic office space to parking areas



### INSULATION

High volume, low pressure spray foam to save on energy costs





## LIQUID CHEMICALS: NOT INTUITIVE

- LIQUID PRODUCTS ARE NOT INTUITIVE
- EFFICACY CAN'T BE JUDGED BY HANDLING, SMELLING, SEEING
  - NO TASTING
- PROOF OF VALUE DELAYED UNTIL USING
- TRIAL AND ERROR IS EXPENSIVE AND DANGEROUS
- SOLUTION IS EDUCATION
- AT LEAST YOU CAN SEE CLEANERS CLEAN – VISUAL GRATIFICATION

# DISINFECTANTS: DOUBLY NOT INTUITIVE

- DISINFECTANTS ARE NOT INTUITIVE
- EFFICACY CAN'T BE JUDGED BY HANDLING CONTAINER, SMELLING
- PERFORMANCE IS NOT OBSERVABLE WHEN USING BECAUSE TARGET IS SMALLER THAN CAN BE SEEN
  - CANNOT WITNESS AN INVISIBLE ENEMY
  - THE DISINFECTANT PARADOX
- TRIAL AND ERROR IS EXPENSIVE AND DANGEROUS
  - USERS & COLLATERAL WORKERS
  - OCCUPANTS
  - STRUCTURE & MATERIALS
  - ENVIRONMENT
- SOLUTION IS EDUCATION



# DISINFECTANTS: EDUCATION VIA LABEL



- SOLUTION IS EDUCATION
- EDUCATION MADE POSSIBLE BY REGULATION
- REGULATION REQUIRES EVALUATED AND SANCTIONED LABEL AS PRIMARY COMMUNICATION TO USER
- LABEL IS FEDERAL AND CAN ALSO BE STATE
  - ENVIRONMENTAL PROTECTION AGENCY
    - FEDERAL
      - EPA REGISTRATION NUMBER
      - EPA ESTABLISHMENT NUMBER
  - US: REGISTERED STATE SOLD OR USED

# LABEL IS THE LAW: FIFRA & USEPA

- DISINFECTANT LABEL IS THE PRIMARY COMMUNICATION TO USER
- GOVERNED US BY FIFRA
  - FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT(1947)
  - ADMIN BY EPA SINCE 1972:
    - OPP – OFFICE OF PESTICIDE PROGRAMS
- **...all pesticides distributed or sold in the United States must be registered by the EPA.**
- **In order to gain registration, a manufacturer must show that the pesticide will not generally cause adverse effects on the environment.**



# THE PANDEMIC

METRICS AND TRENDLINES





# COVID-19 VIABILITY ON SURFACES

- Pandemic surface hygiene is maintained with systematic cleaning & disinfection, but not always with different products
  - For pandemic we must make choices about "one step cleaners and disinfectants"
  - Surfaces may be visibly clean, nearly clean
  - Where we always clean:
    - Bathrooms/lavatory
    - Hotspot/touchpoints
    - Surfaces in proximity to infection
      - Especially symptomatic infection



 **Fiberlock**  
TECHNOLOGIES

 **Benefect**

EPA N LIST REGISTERED DISINFECTANTS

"A one-step disinfectant spray that works in the presence of 5% organic load...TO DISINFECT/ CLEAN/ DEODORIZE: Preclean all heavily soiled surfaces prior to product application."

# DELIVERY METHODS

## ■ Expect to See:

### ■ Suddenly popular Masterformat (AIA/CSI) specification sections

■ 02 87 00 BIOHAZARD REMEDIATION

■ 02 51 29 SURFACE CLEANING DECONTAMINATION

COVID-19 Response

### Equipment Cleaning

#### Ensuring our Fleet is Clean and Rental Ready.

As the coronavirus (COVID-19) pandemic continues, our top priority at United Rentals is the safety of our team and yours. As part of this, below is an overview of the steps we are taking to ensure our fleet is sanitary and ready for your use.

#### At the Branch

Prior to equipment being rented, our employees conduct a variety of safety and technical checks to ensure the equipment functions correctly and safely. In addition to these routine checks, we have checked the equipment. We use US EPA approved disinfectants and follow manufacturer instructions on their application to spray and/or wipe commonly touched surfaces necessary to operate tools and machinery. In particular, we focus on things like controls, buttons, levers, knobs, push buttons, operator seats, and belts and cables.

#### At the Customer Worksite

When we drop the equipment off to you, our driver will also perform a "gut check" (provisionally disinfecting) of the equipment. They will use an EPA-approved disinfectant and will spray or wipe the surfaces touched by the driver when delivering the equipment.

We have communicated with our employees on disinfecting equipment, practicing good personal hygiene and social distancing, and the proper disposal of gloves, masks and any other personal protective equipment they use in connection with delivering the equipment.

The specific practices and these procedures, or in any type of violation with how United Rentals is handling the COVID-19 crisis, visit our [COVID-19 Customer Questions](#) page or contact your local United Rentals representative.



# LABEL IS THE APEX

- THE FOLLOWING ARE CONSIDERED EXTENSIONS OF THE LABEL THAT CANNOT EXCEED THE LABEL
  - DATA SHEET
  - SPECIFICATION
  - ADVERTISING
  - WEBSITE
  - STATEMENTS BY DISTRIBUTORS OR USERS/INSTALLERS
- SDS IS IMPORTANT FOR OSHA COMPLIANCE BUT LABEL EITHER SUPERIOR OR EQUAL TO REGISTERED LABEL
- TRUE STORY THIS MONTH: USDOJ CAME CALLING

# SDS V LABEL

## SAFETY DATA SHEET

- SOMETIMES EPA #
- FLASH POINT
- ODOR
- HMIS
- NFPA
- SECTION 8 –GEAR FOR WORKER PROTECTION
- EXPOSURE LIMIT VALUES
- CHEMTEL
- TRANSPORTATION
- SPILL PROCEDURES

## REGISTERED LABEL (EPA/STATE; HC)

- EPA #
- SOIL LOAD
- MICROORGANISM LIST
- **TYPE OF “-CIDE”**
- USE SITE
- DELIVERY METHOD
- QUESTIONS LIKE FOOD, RINSE
- MIXING INSTRUCTIONS
- DWELL TIME/CONTACT TIME

# DISCONNECT RE: DISINFECTANTS

GREEN BUILDING REQUIREMENT	DISINFECTANT DISCONNECT
Safe	Statement prohibited
Non-Toxic	Statement prohibited
Hypoallergenic	Statement prohibited
Low Emitting 4.2	Superseded now, but even before can only report #
Organic or Botanical	Organic is prohibited. Botanical is non-regulated, thus Permitted. But caveat emptor because there are true botanicals v “synthetic botanicals”
Green	Statement Prohibited
Non-asthmagen	Must be evaluated at product level; At category level too many assumptions, generalizations
Include or disqualify a certain active ingredient	Must be evaluated at product level; At category level too many assumptions, generalizations
Biodegradable	Statement prohibited, or very limited, and may only extend to container

# DELIVERY METHODS



## KITCHENETTE

# DELIVERY METHODS



## WORKSTATION

# DELIVERY METHODS

## AIRLESS APPROACH

ICP-we are big believers in airless disinfectant application. History with faith-based muck-out teams using airless and ShockWave after storms. Superior production rates and better wetting. ICP introduced the airless concept for this pandemic.





# DELIVERY METHODS

**AIRLESS WITH  
ENTHUSIASM**



# DELIVERY METHODS

**AIRLESS  
PAINTED WALL**



# DELIVERY METHODS

**AIRLESS  
RESILIENT FLOOR**



# DELIVERY METHODS

