

# R-Water Value Proposition for Healthcare

REDUCES COST. REDUCES STAFF TIME. REDUCES READMISSIONS.

## **R-Water Device**

A compact, wall-mounted device that enables facilities to produce two highly-effective disinfecting/cleaning solutions on-site.

This is accomplished via a patented, automated water electrolysis process. These two hypoallergenic water-based solutions, TK60 One-Step Disinfectant™ and FC+ All-Purpose Cleaner & Degreaser™ allows facility management to replace the majority of cleaning and disinfecting products used.





**TK60 One-Step Disinfectant** kills many pathogens including COVID-19 (Coronavirus) in 20 seconds and MRSA, C. *diff* spores, TB, and Black Mold in 60 seconds. The active ingredient in TK60 is HOCl (Hypochlorous Acid) - the same active ingredient that is in Clorox Healthcare® Fuzion® Cleaner Disinfectant.



FC+ All-Purpose Cleaner & Degreaser safely removes stains, dirt, and grime from surfaces. It also prevents detergent build-up on furnishings and flooring that often dull appearances and trap odor-causing bacteria. The active ingredient in FC+ is NaOH (Sodium Hydroxide).

Both solutions have superior safety ratings and are nonirritating to skin and lungs. Furthermore, TK60 One-Step Disinfectant complies with EPA/FDA code for use on food contact surfaces with no rinse.

The R-Water Device is continuously remotely monitored via a data link. Each R-Water Device is capable of producing on-site approximately 300 gallons of TK60 and 150 gallons of FC+ every 24 hours. The Device is designed to be easily mounted in a janitorial closet. It automatically produces ready to use (RTU) solutions via a patented, precision closed-loop process. The device features a complex micro-controlled circuit to monitor usage, internal component health, and regulate solution production. The R-Water Device can be programmed to produce RTU solutions at exact concentrations to meet application needs. Real-time remote monitoring ensures easy and prompt servicing and maintenance, as well as usage statistics. The R-Water Device Specifications sheet can be found at this link:

http://r-water.com/docs/technical/r-water-spec-sheet.pdf





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#### PROBLEMS SOLVED BY R-WATER® DEVICE



#### **COMPLICATED CLEANING PROCEDURES**

TK60<sup>™</sup> and FC+<sup>™</sup> replace a variety of products and simplify procedures to reduce training time and risk of user error.



#### **HEALTHCARE-ACQUIRED INFECTIONS (HAIS)**

CDC recommends choosing a disinfectant with a shortened contact time. TK60 is effective against a wide range of pathogens in just one minute.



#### **EXPOSURE TO HARMFUL CHEMICALS**

TK60 is 99.98%  $\rm H_2O$  and 0.02% HOCI. FC+ is 99.925%  $\rm H_2O$  and 0.75% NaOH. Neither solution contains properties that are harmful to humans, animals, or the environment. Additionally, both are free of Volatile Organic Compounds (VOC).



#### THREATS TO HUMAN HEALTH

The EPA currently recommends reducing to less toxic chemicals where possible. TK60 and FC+ are water-based and harmless to humans, thus eliminating rampant health issues such as cancer, asthma, and allergies caused by dangerous chemical exposure.



# EXPENSE AND ENVIRONMENTAL CONSEQUENCES OF PACKAGED CHEMICAL PRODUCTS

TK60 and FC+ are produced on-site eliminating procurement, shipping costs, and the problem of plastic pollution as containers can be reused.



### DAMAGE TO VALUABLE FURNITURE, FIXTURES, AND EQUIPMENT (FF&E)

TK60 and FC+ have phenomenal surface compatibility and remove old chemical build-up resulting in less frequent remodels. Both are non-corrosive, protecting your substantial investment in structures, furniture, monitors, beds, and mattress covers.



#### **SLIPS AND FALLS**

FC+ improves the coefficient of friction on floors thus providing better traction from slips and falls.







#### HARD COST SAVINGS

PRODUCTS
ELIMINATED
BY R-WATER®
SOLUTIONS

- Disinfectants (including wipes)
- Sanitizers
- Degreasers
- · Carpet & room deodorizers
- · Stain remover
- · Carpet cleaners
- Tile & vinyl mopping chemicals
- · Grout cleaners
- Surface-specific cleaners (e.g. glass, tub, stainless steel)
- Less Product Used to Assure Proper Disinfection Unlike many products, TK60<sup>™</sup> requires only one application
  to kill a variety of pathogens & remains wet for the full duration of its one minute contact time.
- Procurement Costs The R-Water Device produces TK60 and FC+™ on site. The task of ordering multiple cleaning chemicals from a myriad of manufacturers is eliminated.
- · Freight and Storage Costs Solutions are not shipped in to be received, inventoried, disbursed, rotated, and discarded.
- Waste Disposal Costs Containers used for TK60 and FC+ do not require triple-rinsing or special disposal. Used gallons, pour-spouts, sprayers, and containers can be reused, reducing waste.

#### **ADDITIONAL HARD & SOFT COST SAVINGS**

#### **STAFF**

- · Training Time
  - o Procedure simplification compare time spent on training to previous training procedures.
  - o Perception of users when comparing protocols employee feedback and notes.
  - o Reduced number of products to study compare number of products and risk of misuse.
- Staff Sick Days Compare to same period of previous year.
- Labor Costs
  - o Procedure simplification compare number of steps in cleaning and disinfecting procedures.
  - o Reduced product contact time compare frequency of use and time required for proper disinfection.
  - o Turnaround times for various areas including patient rooms and OR compare to previous times.
- Financial Evaluation of Revenue Gained (e.g. potential additional surgeries in 24-hours).
- Reduced Number of Room Re-Cleans (e.g. C. diff rooms).

#### **PATIENTS**

- · HAI Rates Compare HAI rates during 90-days to same 90-day period of previous year.
- · Validation of Disinfection by Detection of Adenosine Triphosphate (ATP) or Culture Swabs Compare to previous results.
- Comments About Stains, Cleanliness, and Odors in Various Spaces Compare feedback on areas cleaned with R-Water solutions to areas cleaned using other chemicals.
- Incidents of Slips and Falls Compare incidents of slips/falls during 90-day period to same 90-day period of previous year.

#### **FACILITY**

- Restored FF&E List of repairs/replacements eliminated by using R-Water solutions.
- Measure Coefficient of Friction on Floor Surfaces Compare results in patient rooms, high-traffic areas, and dietary cleaned with FC+ to floors cleaned with other chemicals.
- Before and After Photos Carpets, flooring, tile, grout, upholstery, and other surfaces.









#### REPLACES DISINFECTANTS, SANITIZERS, DEODORIZERS, WINDOW CLEANERS

Kills times observed for TK60™ (one minute) are impressive, especially when compared to other disinfectants that have kill times ranging from 3-10 minutes

Resistant strains of pathogens connot form against it which prevents the development of multi-drug resistant organisms

TK60 is produced on-site, RTU, unlike many disinfectants that must be diluted from hazardous concentrates prior to use

Complies with EPA/FDA code for use on food contact surfaces with no rinse

Water-based solution is fragrance-free, dye-free, non-abrasive, and non-corrosive

#### SUMMARY OF EFFICACY DATA FOR TK60 AS VALIDATED BY MICROCHEM LABORATORY, ROUND ROCK, TX

CLAIM	MICROORGANISMS	LAB RESULTS	% KILL IN ONE MUNITE
Hospital/Healthcare Disinfectant Hard, Nonporous Surfaces	P. aeruginosa ATCC 15442	Positive Carriers: 0/180	100% kill in 1 min.
	S. aureus ATCC 6538	Positive Carriers: 0/180	100% kill in 1 min.
Efficacy Against COVID-19	Human Coronavirus Strain 229E	99.99% kill	99.99% kill in 20 sec.
Efficacy Against C. difficile Spores*	C. difficile spores	99.9997% kill	99.9997% kill in 1 min.
Tuberculocidal Disinfectant Hard, Nonprous Surfaces	M. bovis BCG	Positive Carriers: 0/10	100% kill in 1 min.
Efficacy Against Black Mold	A. brasiliensis	Positive Carriers: 0/10	100% kill in 1 min.

<sup>\*</sup>When used as directed (i.e., surface is wiped dry after remaining wet for 60 seconds), TK60 is 99.9999% effective against C. diff spores (6+ log reduction).



All-Purpose Cleaner™

#### REPLACES ALL-PURPOSE CLEANERS, DEGREASERS, CARPET, FLOOR, AND GROUT CLEANERS

Improved traction on flooring (coefficient of friction), resulting in reduced incidents of slips and falls

Produced at ~750 ppm NaOH, FC+ breaks down oils and fats for powerful degreasing action

FC+™ can be added directly to floor, carpet, and upholstery cleaning equipment

Water-based solution is fragrance-free, dye-free, non-abrasive, and non-corrosive

#### SAMPLE PHOTOS OF BEFORE AND AFTER CLEANING WITH FC+ ALL-PURPOSE CLEANER











