

BIO-DECONTAMINATION



avantor™
delivered by **VWR™**
VWR.COM

BIOQUELL HYDROGEN PEROXIDE VAPOR BIO-DECONTAMINATION*

Products and services range

ECOLAB®

bioquell
An Ecolab Solution

*Using Bioquell Hydrogen Peroxide Sterilant (EPA Registration Number: 72372-1-86703)

About Ecolab

A trusted partner at nearly three million customer locations, Ecolab is the global leader in water, hygiene and infection prevention solutions and services. With annual sales of \$12 billion and more than 50,000 associates, Ecolab delivers comprehensive solutions, data-driven insights and personalized service to advance food safety, maintain clean and safe environments, optimize water and energy use, and improve operational efficiencies and sustainability for customers in the food, healthcare, hospitality, Life Sciences and industrial markets in more than 170 countries around the world.

Our Assurance

Ecolab is committed to providing exceptional service, total plant solutions and unsurpassed industry expertise to help you achieve your business goals.

Our breadth of resources and integrated business model ensure consistency across your operations.

Bio-decontamination Products & Services

- ▲ Isolators with integrated bio-decontamination
- ▲ Mobile room bio-decontamination options
- ▲ Fixed bio-decontamination systems
- ▲ Integrated solutions for pass-through chambers and process equipment
- ▲ Rapid Bio Decontamination Service (RBDS)



**A unique range of advanced
hydrogen peroxide vapor
bio-decontamination
equipment and solutions**



Bioquell Hydrogen Peroxide Sterilant*

Bioquell's proprietary technology uses a 35% hydrogen peroxide aqueous solution to kill microorganisms. Whether for bio-decontaminating equipment or rooms, a single cycle using Bioquell Hydrogen Peroxide Sterilant provides a 6-log sporicidal kill on exposed surfaces.

You can operate Bioquell systems at ambient room temperature and relative humidity, without the need to attain significantly reduced humidity that can be associated with other hydrogen peroxide bio-decontamination systems.

Isolator with **Integrated Bio-decontamination**

Bioquell Qube

(VWR Catalog Number
76635-464)



GMP



6-log
Sporicidal Kill

The unique isolator integrated with
bio-decontamination using Bioquell Hydrogen
Peroxide Sterilant*

- ▲ Light, flexible, modular aseptic isolator in convenient configurations
- ▲ ISO 5 / EU Grade A working environment with rapid air clean up and integrated hydrogen peroxide vapor 6-log sporicidal kill bio-decontamination
- ▲ Optional 21 CFR Part 11 audit trail compliance package available
- ▲ Validated bio-decontamination cycles using Bioquell Hydrogen Peroxide Sterilant*

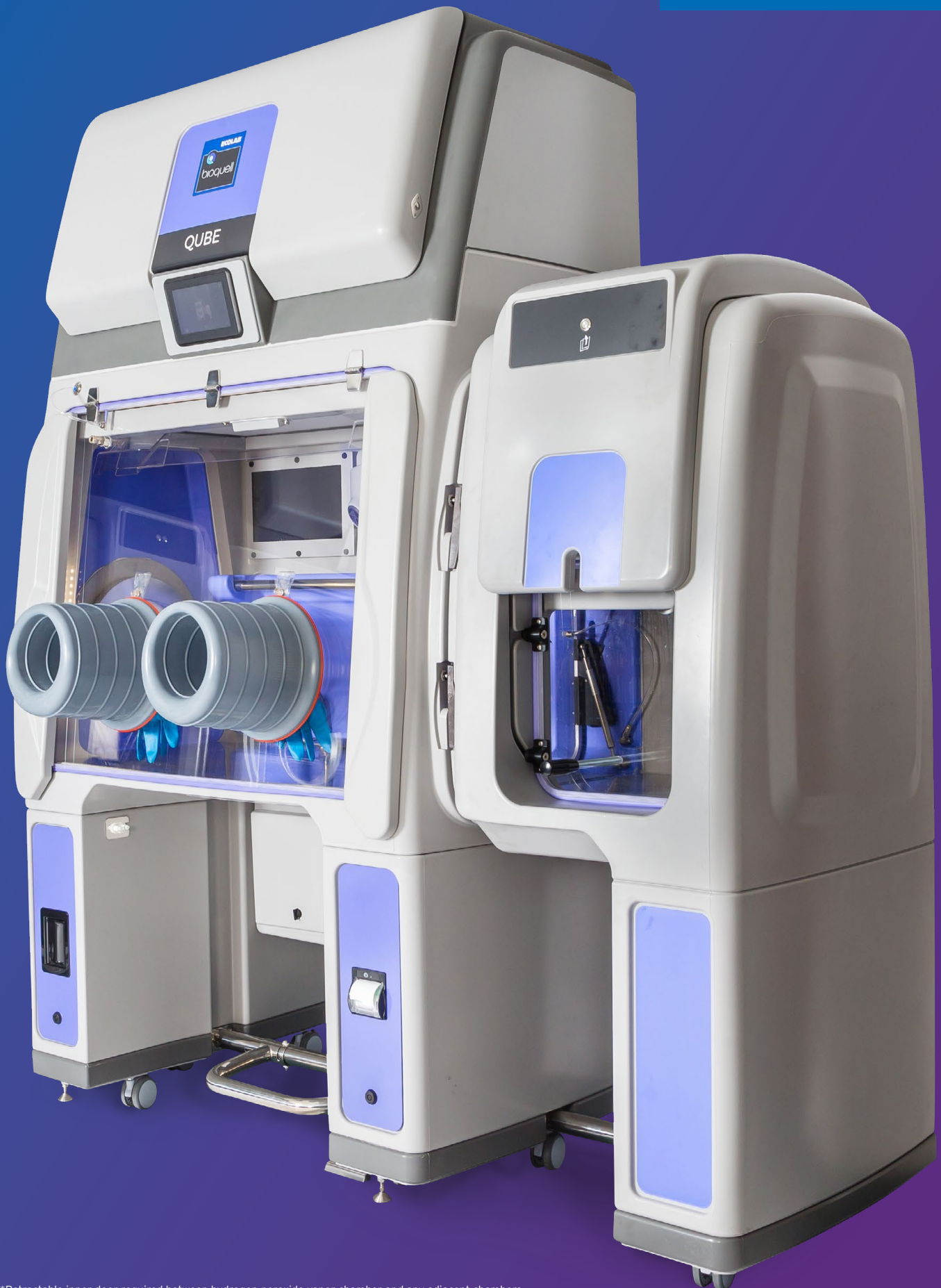
The Bioquell Qube has built-in hydrogen peroxide vapor bio-decontamination technology making it an ideal solution for aseptic processing. With multiple configurations available and a range of options and



accessories, the Bioquell Qube is suitable for applications such as:

- ▲ Gene and cell therapy
- ▲ Sterility testing
- ▲ Cytotoxics preparation
- ▲ Small batch production (clinical trials, R&D, etc.)





**Retractable inner door required between hydrogen peroxide vapor chamber and any adjacent chambers.

Room | Zone

Bio-decontamination

Bioquell ProteQ

(VWR Catalog Number
76635-468)



GMP



<400m³



BMS



6-log
Sporicidal Kill

High volume zone bio-decontamination with scalability and mobility

- Advanced distribution and aeration capabilities with wireless communication provide faster setup and cycle times
- 21 CFR Part 11 audit trail compliance package
- Hosts all components within its frame, including additional optional aeration units
- Control a network of 3 systems with one optional master control panel
- Bio-decontamination cycles using Bioquell Hydrogen Peroxide Sterilant*



Bioquell ProteQ

Bioquell BQ-50

(VWR Catalog Number
76635-458)



<200m³



6-log
Sporicidal Kill

Bioquell Hydrogen Peroxide Sterilant* delivered in a portable, easy to use system

- Mobile, simple to operate, rapid bio-decontamination cycles with intelligent parametric control
- Offers cost-effective bio-decontamination of rooms and laboratories in non-regulated areas
- Bioquell BQ-50 suite includes separate high capacity aeration units
- Bio-decontamination cycles using Bioquell Hydrogen Peroxide Sterilant*



Bioquell BQ-50

Enclosure | Zone Pass-through & Airlock Bio-decontamination

Bioquell L-4

(VWR Catalog Number
76635-462)



GMP



<350m³



BMS



6-log
Sporicidal Kill

A versatile and mobile system for the bio-decontamination of enclosures, equipment and zones

- ▲ Multipurpose mobile generator offers flexibility of use
- ▲ Suitable for isolators, enclosures, pass-through chambers, freeze dryers, incubators and rooms
- ▲ Easy 'no touch' bottle loading
- ▲ 21 CFR Part 11 audit trail compliance package
- ▲ Validated bio-decontamination cycles using Bioquell Hydrogen Peroxide Sterilant*



Bioquell L-4

Bioquell SeQure

(VWR Catalog Number
76635-466)



GMP



<150m³



BMS



6-log
Sporicidal Kill

A next generation solution for thorough, compliant bio-decontamination

- ▲ Fixed hydrogen peroxide vapor generator for chambers or rooms
- ▲ Fast to install and validate (<1 week)
- ▲ Validated bio-decontamination cycles using Bioquell Hydrogen Peroxide Sterilant* with optional additional aeration if needed
- ▲ Bottle module with peroxide traceability and wastage minimization through the two-bottle module system
- ▲ Optional 21 CFR Part 11 audit trail compliance package available



Bioquell SeQure

Hydrogen Peroxide **Biological Indicators & Chemical Indicators**

Bioquell Hydrogen Peroxide Sterilant*

(VWR Catalog Number 76635-446)

- ▲ 15 month shelf-life; traceable
- ▲ EPA registered sterilant (EPA Registration Number: 72372-1-86703)



Bioquell Biological Indicators

(VWR Catalog Number 76635-442)

- ▲ Consistent, reliable and independently tested
- ▲ 6-log *Geobacillus stearothermophilus* biological indicators
- ▲ Developed to validate hydrogen peroxide vapor technology

Bioquell Chemical Indicators

(VWR Catalog Numbers 76635-444 & 76635-444)

- ▲ Two specially formulated options for rooms and for isolators / small enclosures

Validating Bioquell Equipment



GMP

- Professional validation of Ecolab's Bioquell Hydrogen Peroxide Sterilant bio-decontamination process within the client environment includes the provision of regulatory compliance paperwork
- Installation and operational qualification (IQ/OQ), Gas Cycle Development (GCD) and Performance Qualification (PQ) are performed to ensure equipment is operational within required timelines
- Rapid and efficient hydrogen peroxide vapor cycle development to fit client process to provide a robust bio-decontamination cycle which achieves 6-log sporicidal kill using Bioquell Hydrogen Peroxide Sterilant* in the shortest amount of time
- We provide you with documentation to satisfy your regulatory requirements, from airflow checks and particle counts to full bio-decontamination cycle development



Notes

This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal gray lines across its entire width. The lines are thin and light gray, set against a plain white background. There are no margins, text, or other markings on the page.

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OUR ASSURANCE

Ecolab is committed to providing exceptional service, total facility solutions and unsurpassed industry expertise to help you achieve your business goals.

Our breadth of resources and integrated business model ensure consistency across your operations. We look forward to the opportunity to partner with you on your transformation journey.

USE BIOQUELL PRODUCTS SAFELY. ALWAYS READ THE LABEL AND PRODUCT INFORMATION BEFORE USE.



The Avantor logo, featuring a stylized blue and green wave icon to the left of the word "avantor" in a lowercase, blue, sans-serif font. Below "avantor", the text "delivered by vwr" is written in a smaller, blue, sans-serif font. To the right of the logo, the text "VWR.COM" is written in a white, sans-serif font.

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