BREAKTHROUGHS

Sabre BioResponse
The Science of Clean

The World Leader in Biological and Chemical Contamination Response and Protection

THE SCIENCE OF CLEAN

Kevin Bette
Chairman of the Board
Sabre BioResponse

At the core of Sabre BioResponse are patented and proven molecular technologies and processes unlike any other in the industry today. We call it our science of clean approach. Coupled with unmatched experience and world-renowned expertise, we apply our unique capabilities to help customer partners protect against and clean up the toughest biological and chemical contaminations.

From large-scale facility decontamination and remediation to combating bioterrorism, Sabre BioResponse delivers environmentally-sound solutions that protect public health, reduce downtime, save valuable resources and preserve your reputation.

Sabre BioResponse is always searching for ever-smarter ways to protect and respond. To that end, we invest in research and development initiatives, working with our academic and strategic business alliances so we can stay ahead of the next big threat.

Sabre BioResponse believes the smartest science combined with the most experienced people drives innovation, furthers our science of clean approach and most of all, allows us to protect against and respond to the toughest biological and chemical contaminants the world has to offer.

TECHNOLOGY AND PROCESS

A Unique and Powerful Decontamination Solution

Not only have we mastered the use of chlorine dioxide (ClO_2), a powerful water-soluble gas that separates and destroys biological and chemical contaminants. Sabre BioResponse has perfected the science of high-volume onsite production and use of ClO_2, making us the world leader in biological and chemical disaster response.

Our science of clean approach has produced a compound not only unrivaled in the industry, but unrivaled by Mother Nature. Sabre BioResponse produces a highly pure form of chlorine dioxide that is cleaner than what naturally occurs in the earth's atmosphere and is 99% pure.

Our patented molecular technology is an advanced approach that can be applied across a wide range of decontamination challenges, including but not limited to:

- Purifying drinking water
- Removing mold and mold spores
- Treating wastewater from oil and gas drilling
- Decontaminating biological and chemical terror attacks
- Sterilizing laboratories and clean rooms
- Disinfecting large-scale agricultural and food processing operations

Combining our one-of-a-kind process with the powerful sterilizing abilities of chlorine dioxide delivers a cost-effective, environmentally-safe way to destroy the toughest toxic molds, bacteria, viruses and chemical agents.

PATENTS AND DISCOVERIES

Patented Breakthroughs in Biological and Chemical Decontamination

"We harnessed the power of chlorine dioxide like no one has ever done before by producing the purest form of ClO_2 on the planet. And in doing so, we have shifted the paradigm in biological and chemical decontamination science and cleanup."

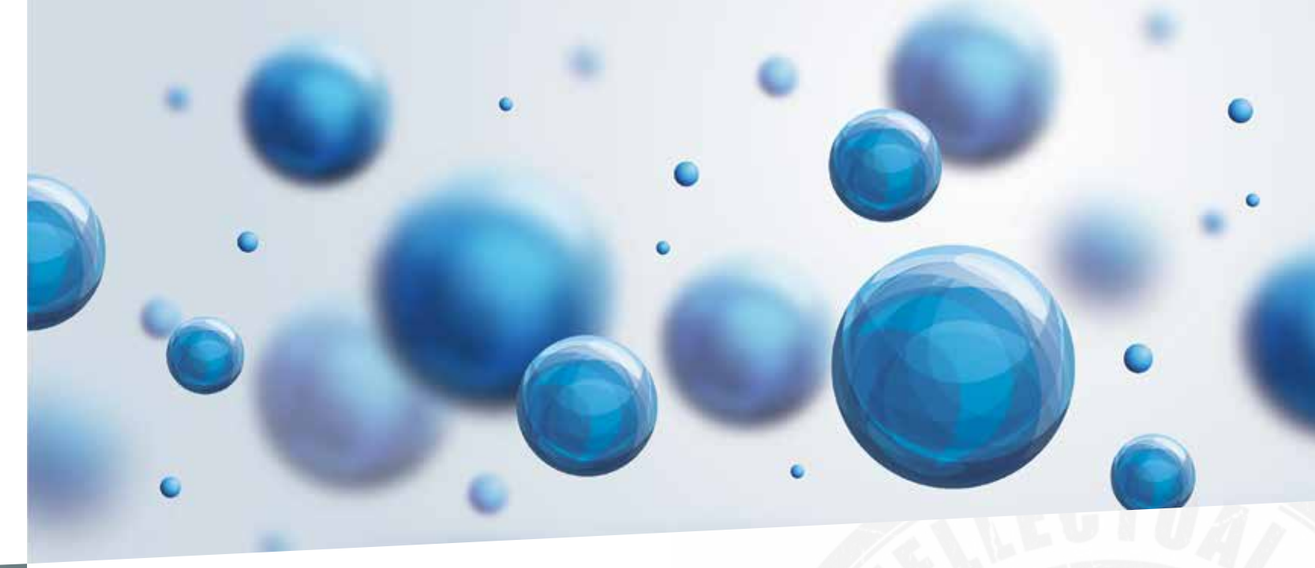
John Mason
Founder and Lead Scientist
Sabre BioResponse

Generating Nearly Pure Chlorine Dioxide

Sabre BioResponse's patented solid-state chlorine dioxide generator uses a vacuum and generator column to produce a high-purity aqueous solution of ClO_2. Conversion efficiencies approach 95% and above.

Exclusive licensing allows Sabre BioResponse to be the only company utilizing the advanced technology to generate the aqueous solution of chlorine dioxide used in its proprietary decontamination process.

- Patent No. US 6,468,479 B1, October 22, 2002
- Patent No. US 6,645,457 B2, November 11, 2003



Using ClO_2 to Decontaminate Enclosed Spaces

This patent covers the process that controls the environment and duration of fumigation. It ensures the proper level of chlorine dioxide to effectively eliminate harmful biological and chemical contaminants within an enclosed volume of space.

Once again, Sabre BioResponse has the exclusive right to this fumigation process, allowing the company to treat a wide variety of facilities. From hospitals and food processing plants to farms, office buildings and everything in between, we offer a competitive advantage to customers looking for a safe, reliable and effective way to decontaminate their assets.

- Patent No. US 7,807,101 B2, October 5, 2010
- Patent No. US 8,741,223 B2, June 3, 2014

Chlorine Dioxide as a Fumigant and Odor Control

Another patented innovation, this invention provides methods of using chlorine dioxide gas to fumigate building spaces, HVAC systems, vehicles, equipment, documents and many other items – safely and effectively. Our patents also allow us to control odor in agricultural and industrial waste lagoons by converting odorous compounds to non-odorous compounds.

Sabre BioResponse has an exclusive user license to provide decontamination services using this proprietary and unparalleled science. The technology has been repeatedly proven in the field, remediating hundreds of facilities around the world infected with harmful mold, bacteria and viruses.

- Patent No. US 2010/0310418 A1, December 9, 2010
- Patent No. US 5,861,096, January 19, 1999

ENGINEERING

Integrated Approach to Microbial Decontamination and Protection Solutions

Sabre BioResponse is the only company in the world with a completely integrated and mobile biological and chemical decontamination solution with the ability to tackle the toughest threats.

Our comprehensive bio-response and protection module is a one-stop-shop decontamination solution. This integrated system can provide immediate and rapid response capabilities that detect and destroy biological and chemical contaminants onsite.

Sabre BioResponse's mobile units have the ability to treat and purify **2.5x's the daily water needs of the City of Los Angeles**, which has a population of 18.5 million people. No other company or technology comes close.

Beyond Conventional Thinking

EQUIPMENT

CHEMGEN™ Central Unit

This large-scale mobile response decontamination unit and command center houses everything needed to respond to the toughest biological and chemical threats. From demanding building decontaminations to municipal water treatment, the CHEMGEN™ Central Unit goes onsite to provide patented science and technologies, proprietary response capabilities and state-of-the-art communications.

Sabre BioResponse recently deployed the CHEMGEN Central Unit at the request of the U.S. Department of Agriculture to join the fight against the worst Bird Flu outbreak to hit Iowa farmers in U.S. history.

Sabre EMSYS™

The Sabre EMSYS™ is a large-scale emitter and scrubber combination unit that delivers and removes chlorine dioxide during the decontamination process.

It represents a major technology breakthrough in machine engineering, playing a major role in Sabre BioResponse's efforts as the world leader in chemical and biological disaster response. With Sabre EMSYS on the scene, deadly bacteria like Anthrax, killer viruses, toxic molds and chemical agents like nerve gas don't stand a chance.

Beyond Conventional Thinking

Chosen by the EPA to Defeat Anthrax Attack

Sabre BioResponse has the only technology authorized by the EPA to decontaminate buildings infected with Bacillus Anthracis – otherwise known as Anthrax. Our DIKLORG™ chlorine dioxide sterilant precursor is a powerful sporicidal decontaminant that, when used in our patented fumigation process, works on both porous and non-porous surfaces.

Shortly after 9/11 in 2001, the Hart Senate Office Building in Washington, D.C., fell victim to the worst biological terror attack in U.S. history. When a letter containing Anthrax was opened inside the building, Sabre was called in by federal authorities to devise and implement a plan to decontaminate the structure and destroy the deadly Anthrax spores.

Our exclusive EPA registration for Anthrax was extended by the EPA for all microorganisms, including porous and nonporous surfaces. Sabre BioResponse also has the ability to provide this treatment without prior approval by the EPA.

Sabre technology in action during the Anthrax attacks on Washington, D.C.

UNRIVALED RESULTS

UNRIVALED RESULTS

Bigger Space. Better Science.

A large regional hospital in California was infected by a massive mold contamination throughout its **10 million cubic feet facility**. Only one solution was sophisticated enough to remediate the entire structure with no-growth decontamination standards.

Enter the Sabre BioResponse team of tested experts and our proven technology. In less than one week, the whole facility was decontaminated. All mold and mold spores were completely eliminated. Downtime was significantly reduced. And the hospital saved millions of dollars in lost revenue and future remediation costs.

Prior to engaging Sabre BioResponse, the hospital spent millions of dollars in remediation attempts.

Our results speak for themselves. 100 percent decontamination and zero residual toxicity.

Setting the Industry Standard

- The only technology **authorized by the EPA** for the decontamination of both porous and non-porous surfaces for all microorganisms
- Recognized by the National Academy of Science as the "standard" for facility decontamination
- Our unique **"no-growth"** decontamination and sterilization standard offers customers additional insurance options

Innovating from the Ground Up

Chlorine dioxide has been used in U.S. municipal water disinfection since the 1940's. Today the patented systems and processes of Sabre BioResponse are pushing the power of ClO_2 into new territory, revolutionizing the way water and bacteria contamination issues are treated in the oil and gas industry.

Disinfecting water for reuse in well hydrofracturing can be expensive, ineffective and often times, cause regulatory concerns.

The Sabre BioResponse team and its proprietary DIKLORG™ onsite services are changing everything. Pre-treating fluid in the storage pits and tanks with chlorine dioxide immediately eliminates harmful off-gassing. Increased water purity maximizes reuse, cuts costs in water disposal, minimizes make-up purchases and allows storage for future use without environmental risks. And with a safe, effective bacteria control system in place, the overall life and performance of the well is maximized.

There is no other system, technology or company that can match the proven results of Sabre BioResponse. And perhaps most importantly, we have a perfect safety record in our 10-plus years serving the petroleum industry.

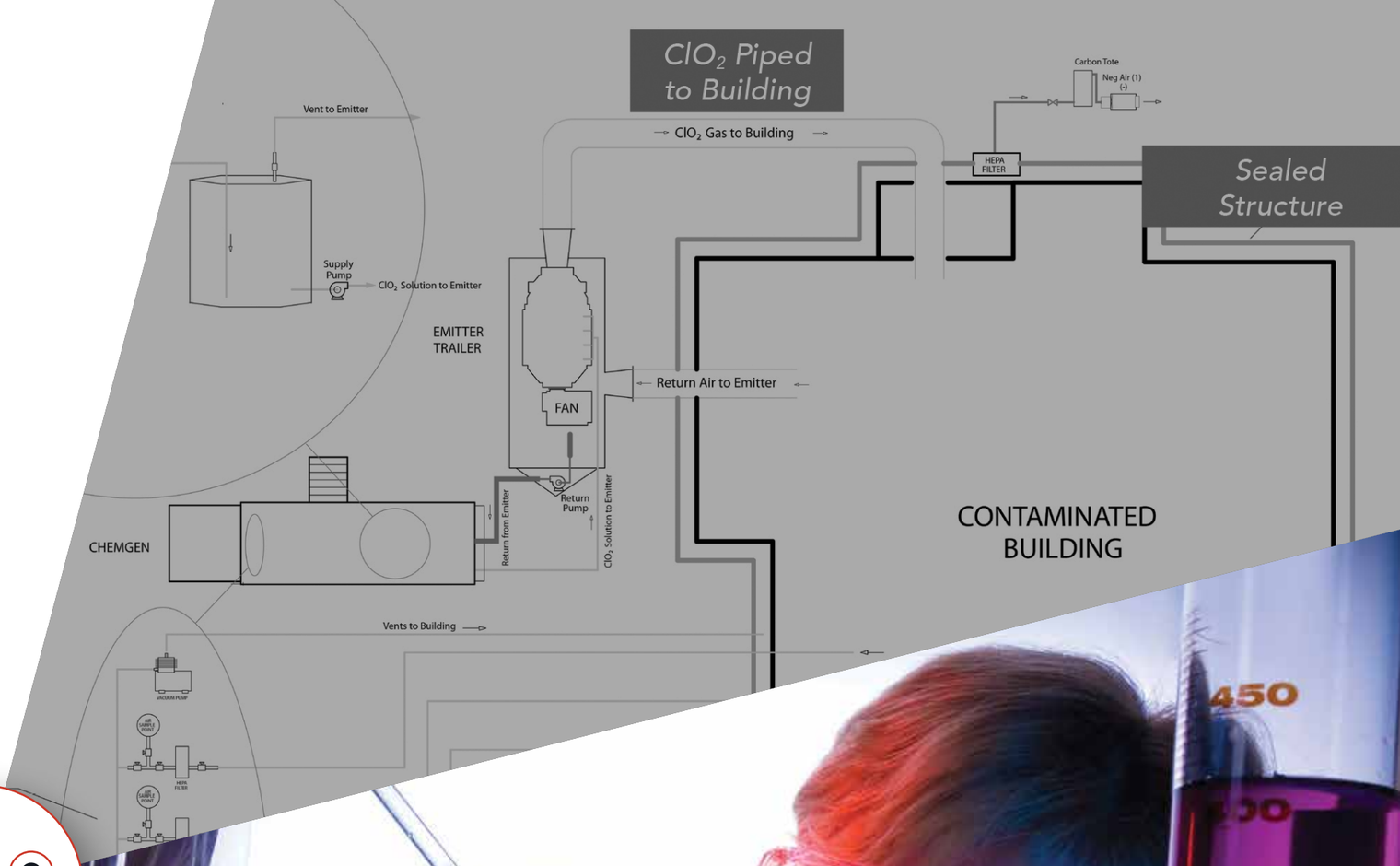
UNRIVALED RESULTS

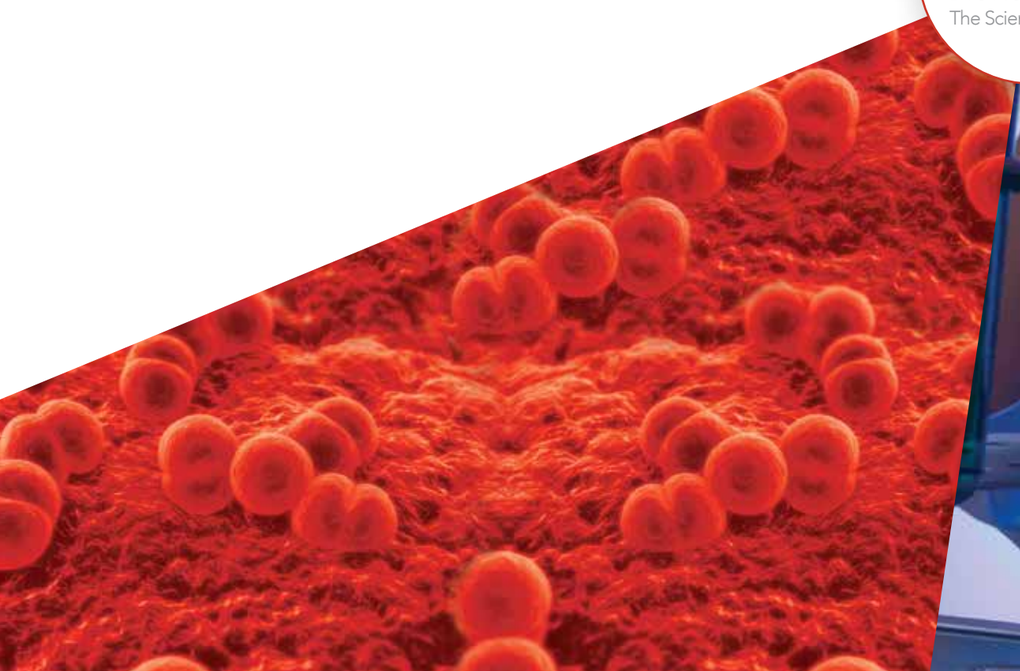
COMPANY

Sabre BioResponse, LLC is a privately held New York-based molecular technology company. We specialize in advanced, environmentally-sound solutions to decontaminate and remediate the toughest biological and chemical events.

At the heart of our unparalleled science and capabilities is a proprietary process that allows Sabre BioResponse to generate large volumes of highly pure chlorine dioxide on site. We then apply the ClO_2 – a powerful, safe water-soluble hypersterilant – to separate and destroy harmful bacteria, viruses, molds and various chemical contaminants.

The Sabre BioResponse team also provides customers the benefit of our unique expertise and experience to develop tailored programs of emergency preparedness and disaster response for any future event.





Sabre BioResponse
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TEAM

The Sabre BioResponse team is a diverse group of tested professionals from throughout the biological and chemical decontamination and protection industries.

Headed by company founder John Mason – a nationally renowned leader in response solutions for complex contamination events – our scientists, engineers and project leaders develop and deliver the most advanced remediation breakthroughs for our customers.

Our collective credentials include strong relationships working with organizations like U.S. Environmental Protection Agency, American Chemistry Council, Exxon Chemical, Department of Homeland Security, Centers for Disease Control and Prevention, Western Energy and many branches of the U.S. military.

The Sabre BioResponse mission to apply the highest level of microbial technology and expertise to the most demanding contamination challenges is guided by Kevin Bette, a leading engineer, developer and progressive business partner.

PATH OF INNOVATION

2001

Proprietary chlorine dioxide technology chosen to decontaminate buildings hit by Anthrax terror attacks in Washington, D.C.

2002

Patent issued for Chlorine Dioxide Generator

2003

Biosecurity protocols developed for former Soviet Union facilities dealing with weaponized chemical agents

2005

Response to widespread mold contamination from hurricane Katrina

2007

Large-scale mold decontamination of 10M cubic feet hospital in Oxnard, California

2010

Patents issued for chlorine dioxide fumigation methods and applications

2014

U.S. EPA issues exclusive registration of Sabre's sporicidal sterilant for inactivation of killer bacteria – Bacilus Anthracis (Anthrax)

Sabre BioResponse

2015

Sabre BioResponse spins-off from The Sabre Companies

2015

EPA extends Sabre's exclusive registration to include all micro-organisms for all porous and non-porous surfaces

2015

Chosen by U.S. Department of Agriculture to decontaminate Iowa poultry farms impacted by the worst Bird Flu outbreak in U.S. history

ON THE HORIZON

Our team of Sabre BioResponse experts is continually working to shape the future of decontamination and disaster response. The “possibilities” we are turning into ”realities” will drive the science of clean to even greater heights of remediation success.

Imagine a fleet of fully equipped bio-response modules, strategically positioned around the globe to be rapidly deployed as one-stop-shop monitoring and decontamination solutions. We have, and we are working on them now.

Or the Bio-gun, a sterilization machine in a portable enclosure that can instantly sanitize doctors, lab technicians and their instruments. It’s currently in the initial design stage.

And that’s just the tip of the iceberg. Innovation is progress, and Sabre BioResponse is committed to pushing the limits of decontamination with molecular technology to whole new levels.

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