

Biomist™ *Power Sanitizing System*



**The First Safe
Method for
Power-Spraying
an Alcohol-Based
Sanitizer**

BIOMIST

Saving Money. Saving Lives.

Sanitize with a *Wave of the Wand*



Operating the Biomist unit is as easy as point-and-spray.

*Compared to all
other sanitizing methods, the
Biomist™ Power Sanitizing System
saves time and is effective.
The spray covers hard to reach
corners and surfaces.*

The Biomist system sanitizes more completely and with far less effort and complexity than any previous sanitation method. It's the first safe method for power spraying equipment and facilities with a sanitizing solution of Biomist Formula D2. It kills surface pathogens.

The conventional sanitation procedure uses an aqueous dilution of alcohol dispensed with a hand-pump trigger sprayer followed by rinsing or a manual wipe-down. This sanitizing procedure is both time-consuming and inadequate. All nooks and corners have to be painstakingly swabbed by hand and often cannot be reached for thorough disinfection. To limit flammability, the alcohol is often diluted into a weakened solution, which is less effective in killing germs.

Optimal Germ-Killing Power

The proprietary Biomist sanitizer contains a solution of 58.6% alcohol. The solution also contains Four-Chain Quat to continue the sanitizing action even after the alcohol has completed its killing function and evaporated.

A 58.6% solution of alcohol has long been recognized as an optimal sanitizing agent, but its flammability presented a problem.

Fire Safe Operation

To eliminate the problem of flammability, Biomist uses high pressure bottled carbon dioxide (CO₂) as a carrier to spray the sanitizer. By enveloping the alcohol mist in a stream of CO₂ propellant, Biomist displaces any oxygen that might lead to combustion. The Biomist spray can actually be used in the presence of electrical spark or open flame without danger.

The sanitizing solution is combined with CO₂ at a mixing ratio well below the lower explosion limit of alcohol, preventing any possibility of ignition or explosion. The mixing ratio is about 0.001 volume part (%) of the sanitizing composition to 100 volume parts of carbon dioxide gas. The lower explosion limit of alcohol in the air is 2.0 volume percent.



Thorough, Effortless Coverage

The Biomist system atomizes the sanitizing solution into extremely tiny micro-particles and propels them in a high power stream, spraying a sanitizing mist up to fifteen feet from the nozzle. These micro-droplets swirl and adhere to all the nooks, crannies and crevices that would be impossible to reach with other sanitizing methods.

It diffuses uniformly throughout the space to be treated. And because the CO₂ propellant is heavier than air, it helps the sanitizer to settle onto the surfaces promptly. Thus the sanitizing effect can be produced uniformly and thoroughly.

The sanitizer self-dries rapidly, making it safe to use on corrodible metals and electronics. It does not need to be wiped down, so it saves you time and labor. You can even use it on production equipment and conveyer systems without shutting down operations. The Biomist Formula D2 has also been designed to make food contact without rinse.

Biomist, Inc., supplies users with a pressurized cylinder of liquefied carbon dioxide. The CO₂ passes through a safety valve to a heated vaporization chamber, turning the liquid CO₂ into a high pressure gas. A regulator system releases gaseous CO₂ at the optimal spraying pressure.

Easy-to-use controls allow users to determine vaporization temperature and gas pressure. The indicator lights show Standby when the machine is first turned on, Ready when the CO₂ reaches optimal temperature, and Low CO₂ when the tank gets down to some fifteen minutes of CO₂ remaining.

A timer can be set to shut the system down automatically. This is recommended for use in confined spaces. The controls also include a digital readout of the actual vaporization chamber temperature.



The CO₂ Propellant System



Biomist Control System

The Biomist power mist unit is capable of propelling a fog of sanitizing solution up to fifteen feet. The disposable reservoir screws off the applicator gun for easy replacement of the Biomist sanitizing chemicals. The sanitizer is siphoned to the nozzle by the pressure of the CO₂. The narrow aperture of the nozzle combined with the high pressure of the propellant atomizes the solution into micro-size droplets.

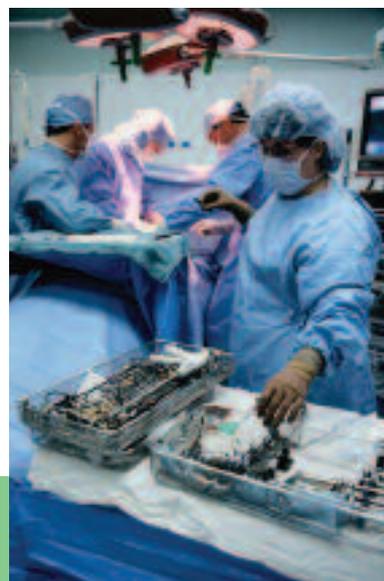
Patented Technology. Proven Performance.

The technology the Biomist system uses has been sold in Japan for more than ten years. It is now used by:

- * Ambulance services and fire departments.
- * Hospitals and extended care facilities.
- * Food production and packaging companies.
- * Pharmaceutical manufactures.
- * Food service industry.
- * Medical and dental offices.
- * Hotels, resort inns and spas.

More Effective and More Cost-Effective

The Biomist Power Sanitizing System is the fastest available sanitizing method, by far. It provides the best of both worlds: it is far more effective and far less expensive to use than all previous sanitizing methods.



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Why Do We Need the Biomist System?

The need for a superior method of sanitizing facilities and equipment is clear. Uncontrolled pathogens cost America billions of dollars and tens of thousands of human lives per year. The healthcare industry faces the greatest challenges.

Deaths linked to hospital germs represent the fourth leading cause of death in the US, only surpassed by heart disease, cancer and strokes, according to the US Center for Disease Control (CDC). These hospital-linked illnesses (known as nosocomial infections) kill more people than car accidents, fires and drowning combined. This is because healthcare facilities provide the ideal breeding ground for germs, with temperature-controlled environments and a steady stream of germ-carrying patients and visitors passing through daily.

Tested and Proven

The Biomist system has been tried and proven in independent laboratory testing. Please request our white papers to review the test results and regulatory certifications. The Biomist Power Sanitizing System is certified compliant with most relevant industry standards.



Unnecessary Deaths

According to a 2002 Chicago Tribune investigation, nearly three-quarters of the deadly nosocomial infections in 2000 (about 75,000 deaths) could have been prevented through better sanitation practices, instrument sterilization, hand washing, etc.

The food industry could also use a better method of sanitizing. The CDC estimates that 5,000 people die from food-borne pathogens in the US each year. Plus, food processors lose millions in lost profits. In recent years, single recalls of tainted ground beef have reached into the millions of pounds. Restaurant closures or lawsuits due to unsanitary conditions undermine consumer confidence—sometimes leading to business failures.

The pharmaceutical industry is well aware of its need of better, more cost-effective sanitation methods. Many of its facilities require totally aseptic conditions. One pharmaceutical plant burned to the ground due to an accident with alcohol disinfectant in 2003. Too much alcohol got into the air while sanitizing a clean room with hand pump sprayers. The alcohol exploded leading to a catastrophic fire.

Current sanitizing practices are costly, time-consuming, often ineffective, and sometimes dangerous. The best solution? The Biomist™ Power Sanitizing System.





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