

NEWS RELEASE

Jenfitch Gains EPA & USDA Organic Approval for JC 9465

Walnut Creek, CA — Jenfitch, Inc. has earned US EPA (FIFRA) and USDA Organic Standard (7 CFR Part 205) approval for its proprietary sodium oxychloride formulation, JC 9465.

12–24×

MORE EFFECTIVE THAN
CHLORINE

6-log

CFU REDUCTION IN
<10 SEC (UC DAVIS)

<1%

OF THE COST OF A
CONVENTIONAL OZONE SYSTEM

JC 9465 works even more effectively than ozone as a crop-production aid, disease and pest-control aid, fertilizer and soil-amendment aid, and livestock-production and processing aid for facilities requiring organic-approved technologies. It has improved safety and increased production across agricultural applications that use post-harvest wash systems and hydro-coolers to control cross-contamination and spoilage. From aquaculture systems in Norway to Louisiana, JC 9465 has improved yields and lowered operating cost, and the dairy industry in Canada is conducting studies using JC 9465 to control hoof disease and other cattle-health problems with great success.

“In studies using JC 9465, we have observed an increase in the availability of singlet oxygen ions and hydroxyl radical ions — which have been called ‘Nature’s detergents.’ They effectively destroy all microorganisms found in post-harvest applications in less than 30 seconds.”

Gail Jennings, Marketing Manager, Jenfitch, Inc.

Jenfitch is marketing JC 9465 ROS as an alternative to gaseous ozone, sodium hypochlorite, chlorine, and chlorine dioxide to help meet food-safety needs in the 21st century. By increasing the ORP (measured in millivolts), stress is introduced to microorganisms that inactivates them.

— The chemistry advantage

JC 9465 has been shown to be 12 to 24 times more effective than chlorine at controlling biofilms, bacteria, viruses, and spores. As a member of the reactive oxygen species (ROS) family, its power comes from electrochemical potential (voltage, E’): ozone is 2.07, singlet oxygen ions 2.42, hydroxyl radical ions 2.8, and JC 9465 2.8 — versus just 1.49 for chlorine. Understanding electrochemical potential explains why hydroxyl radical and singlet oxygen ions work even better than ozone.

In a field study with the UC Davis Post-Harvest Dept., JC 9465 achieved a 6-log (CFU) reduction in under 10 seconds on E. coli, Listeria, and Salmonella. A University of Washington study further showed it eliminates cross-contamination during apple harvesting.

OXIDATION POTENTIAL OF COMMON OXIDANTS

REAGENT	FORMULA	VOLTS
Fluorine	F ₂	3.06
Mineral Oxychloride	M _x O ₃ Cl _t	2.8–2.9
Hydroxyl Radical	OH•	2.80
Oxygen Ion	O ^{•−}	2.42
Ozone	O ₃	2.07
Hydrogen Peroxide	H ₂ O ₂	1.78
Perhydroxyl Radical	HO ₂	1.70

JC 9465 is composed of a solution of hypochlorous acid and a proprietary catalyst that controls the activation of the singlet oxygen ion and hydroxyl radical ion. Unlike sodium hypochlorite — a gas in a liquid — the singlet oxygen and hydroxyl radical ions are highly soluble in water and effective across varying water qualities (pH and temperature).

JC 9465 works like a Trojan Horse: it passes easily through the cell membrane as an oxygen molecule, then converts to ROS that attacks the nucleus of the cell, killing it instantly. Sodium hypochlorite requires a minimum of two to four minutes of contact time at very high concentration to achieve the same result.

JC 9465 is also approved for use in potable-water treatment systems up to 84 mg/L as an oxidant. It is approved to control scaling and corrosion and can be used to treat groundwater high in iron and manganese.

KEY ADVANTAGES OF JC 9465

EPA FIFRA registered & USDA Organic certified • 12-24× more effective than chlorine • installation & operating cost under 1% of a conventional ozone system • effective from post-harvest wash to potable water.

EPA FIFRA Registered

USDA Organic (7 CFR 205)

Potable Water Approved

For a copy of relevant studies and more information on the new sodium oxychloride chemistry, visit www.jenfitch.com, email sales@jenfitch.com, or call (925) 289-3559.