



MICROCIDE[®], INC.

Nomination for the EPA Green Chemistry Presidential Award



**The Presidential
Green Chemistry Challenge
Awards Program**
Summary of 2005 Award
Entries and Recipients



Microcide, Inc.

Technology of Safe, Biodegradable, Non-Polluting Products as Alternatives to Toxic Microbicidal Chemicals

Almost all traditional, widely used disinfecting and sanitizing products contain ingredients that are toxic or potentially toxic, are environmentally hazardous, or have a high potential for accidents. For example, oxidizing chemicals, such as hypochlorite, peracetic acid, hydrogen peroxide, ozone, and chlorine dioxide, kill microorganisms by indiscriminate oxidation of organic matter, potentially destroying antioxidants, nutrients, and vitamins while forming unknown or toxic byproducts, including cancer-causing free radicals. The non-oxidizing microbicidal quaternary ammonium compounds (QACs; other traditional disinfectants) inhibit butyl cholinesterase in blood plasma, liver, pancreas, and the white matter and are unsafe for use on fruits and vegetables because they leave large residues. Microcide uses ingredients listed by the FDA and EPA in volumes 21 and 40 of the Code of Federal Regulations (CFR) as biodegradable, generally recognized as safe (GRAS), food additives, safe, and/or nonpolluting. With these ingredients, Microcide develops broad-spectrum microbicidal products as alternatives to toxic and oxidizing chemicals for the food processing, personal care, and health industries. Their products use surface-active agents at low pH. Raising the pH diminishes the microbicidal properties, allowing safe environmental disposal and biodegradation of the products after use. These products selectively kill microorganisms on food-contact surfaces, on fresh fruits and vegetables, and on body parts (including mucosal and skin surfaces) without covalent chemical reactions. The technology presents alternative products safe for manufacturing, transportation, and use without accident potential. Two of Microcide's products, PRO-SAN and PRO-SAN L, are EPA-registered.

www.microcide.com



The US NAVY Selects PRO-SAN for the Control Manual

The Submarine Division of the Naval Safety Center Presents:



Factual Lines About Submarine Hazards

October 2002 - December 2002

The Submarine Material Review Board (SMRB) and NAVSEA have approved for submarine use, a product called Pro-San® Cleaner & Sanitizer for Food Contact Surfaces and Fruit and Vegetable Wash Powder Concentrate. Pro-San® has been added to the Submarine Material Control List (SMCL) and Atmosphere Control Manual.

www.microcide.com



MICROCIDE[®], INC.

Induction As A NASA Technology Partner



***NASA FTCSC Director
Dr. Anthony Pometto
welcomes Dr. John
Lopes, Microcide, Inc.,
as new NASA FTCSC
Affiliate Partners***

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