



## **ON EXEMPTION FROM EPA REGISTRATION OF SANI-SHIELD® & SANI-SCRUB®**

Unelko Corporation stands firmly behind the Environmental Protection Agency's (EPA) mandate to regulate our air, ground and water quality. Unelko also supports the EPA's enforcement of the Federal Insecticide, Fungicide & Rodenticide Act (FIFRA) by its regulation and the required registration of the entire gamut of pesticides that act directly on inanimate surfaces.

The EPA has appropriately required manufacturers of pesticides (including those marketed as sanitizers, disinfectants and sterilants) to prove the organism-killing efficacy of their products, their user safety and the absence of negative impact on air, ground and water quality resulting from their use. To prove their germ-killing efficacy, products must pass a series of "immersion" testing protocols that emanate from the sterilization of medical paraphernalia and surgical instruments. Typically, these protocols assess the products on the basis of "% killed" as a function of the time required for the specific immersed organisms to die. Invariably, all EPA-registered hard-surface sanitizers or disinfectants require some form of surface "pre-cleaning" and, even so, are only "1-time kill" products that provide no ongoing protection against re-soiling and re-contamination that can occur within seconds (from the first contaminated fingerprint, body fluid, foodstuff or spill/splatter of organism-containing organic soil).

In its wisdom, under 40 CFR 152.25(a), the EPA has differentiated between *surface-active* pesticides and those pesticides used to treat and protect an article or a substance like a paint coating or, in this case, an invisible barrier coating. Articles or substances treated in this manner are exempt from all requirements of FIFRA. By its March 6, 2000 Pesticide Registration Notice 2000-1, the EPA further clarified this *Treated Articles Exemption*; providing that (a) the incorporated pesticide is registered for use in or on the article or substance and (b) the sole purpose of the treatment is to protect the article or substance itself.

Similarly, 40 CFR 152.10 exempts (a) deodorizers, bleaches, cleaners and (c) products that exclude pests only by providing a physical barrier against pest (microorganism) access and which contain no toxicants.

The newly-patented Sani-Shield and patent-pending Sani-Scrub products meet all of these qualifications for exemption from EPA-registration. Sani-Shield contains EPA-registered hydrogen peroxide, EPA-registered C-18 organosilane quaternary (cationic monomer) and propylene glycol listed on EPA's List 4B Inert Pesticide Ingredients. Sani-Scrub contains EPA's List 4B Inert Pesticide Ingredients aluminum oxide and EPA-registered C-18 organosilane quaternary (cationic monomer). Neither product contains toxicants.

It is the chemical-mechanical spray & wipe or scrub & flush ("bio-mechanical") process of cleaning hard surfaces with Sani-Shield or cleansing with Sani-Scrub that removes all surface soil including all organisms, and simultaneously polymerizes the cationic monomer into a strongly adherent hydrophobic, physical barrier coating that inhibits the growth of any subsequently deposited organisms.



For the avoidance of doubt, it is the water, soil & stain repellent barrier that is antimicrobial – not the underlying surface on which it is formed and to which it is bonded – for as long as the barrier remains intact or until it is “over coated” by biofilms, organic or inorganic soil. When Sani-Shield or Sani-Scrub is used to clean/remove such re-soiling and re-contamination, the barrier coating is automatically rejuvenated.

Thus, Sani-Shield® and Sani-Scrub® 3-in-1 Surface Care technologies take an entirely different – practical and effective – approach to antimicrobial surface care. In 1-step, these products deep clean organic & inorganic surface soil and simultaneously form the invisible, long-lasting water, soil & stain repellent barrier coating on which bacteria, virus, mold & mildew will not grow and which also shields surfaces against the adhesion & buildup of re-soiling for easier next-time cleaning.

Although exempt from EPA registration, the Sani-Shield and Sani-Scrub products are fully compliant with the Federal Hazardous Substances Act, the EPA’s Office of Prevention, Pesticides and Toxic Substances (OPPTS) Standards and the Consumer Product Safety Commission 15 CFR 1500 Guidelines. Material Safety Data Sheets, Toxicity Tests and Efficacy Tests conducted by independent laboratories are available on written request.

The water-soluble, multi-functional, multi-surface Sani-Shield cleaner and the water-dispersible, multi-functional Sani-Scrub cleanser are definitely user, surface and earth safe. The products are non-toxic and non-fuming, and free of harsh acids or alkalis, phosphates, ammonia, glycol ethers, terpenes, hydrocarbon propellants, CFC’s and chlorine bleach. The barrier coatings formed are chemically inert, non-leaching and non-migrating into the environment.

The EPA does not endorse, warrant or assume liability for the use or misuse of the sanitizers and disinfectants that it has registered; notwithstanding the EPA requirement that all registered products bear the statement, “IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH ITS LABELING.”

By contrast, Unelko’s patented and patent-pending products are formulated into 1-Step materials; with directions for use that are clear, concise and easily followed by end-users. Unelko Corporation also stands behind its claims that “Sani-Shield and Sani-Scrub kill 99.9% of surface-contact germs with each use and that the long-lasting, invisible barrier simultaneously provided prevents the growth of bacteria, virus and fungi in-between cleaning!