



Process MicroClean

Ideal choice for greening health care and other facilities

PCS Process MicroClean for enhanced removal of organic soils including bacteria with microfibre cloths.

Description:

MicroClean is an all-natural multi-purpose cleaner that improves cleaning results by adding friction to the surface being cleaned.

Uses:

One cleaner for all the daily tasks in health care facilities, schools, universities and commercial buildings. Having one product minimizes inventory requirements, simplifies training and reduces product mix-ups.

It cleans glass, stainless steel, ceramic tiles, desks and counters and is safe to use on all surfaces not damaged by detergent and water. It rapidly dissolves most soils spread from daily human activity and is outstanding on floors and in automatic scrubbers.

Directions for use:

Dilute 15 mls per 4 litres (½ ounce per gallon) of water for most daily cleaning task .

Always use with clean microfibre cloths or mops. Clean and disinfect cleaning equipment and microfibre cloths after use. Use PCS QCT 3 validated microfibre cleaning process to protect public health.

Contains:

Buffered lactic acid, sodium citrate and sodium chloride.

- . No synthetic cleaning ingredients
- . No surfactants
- . NO Voc's
- . Ingredients are listed on the label

Product Codes:

- 5943-6 • 946 ml bottle
- 5940- 6 • 6 x 2 litre closed loop
- 5942-4 • 4 x 3.78 litre dispenser package
- 5943-4 • 4x 3.78 litre open stock
- 5942-BTLPCS • MicroClean silk screen bottle
- 3528 • Portion aid
- #13121 • Burgundy, Air-Gap, 1:256 High Flow dispenser



THE ENVIRODESIC™
CERTIFICATION PROGRAM FOR MAXIMUM INDOOR AIR
QUALITY™ & MINIMUM ENVIRONMENTAL IMPACT™

www.processcleaningsolutions.com
2060 Fisher Dr. Peterborough, ON, K9J 8N4
Toll Free: 877.745.7277 Tel: 705.745.5849 Fax: 705.745.1239



Infection control

By MICHAEL ROGERS, Cogent Environmental Solutions

Surfactants can cause Resistance

Reducing the development of antibiotic resistant bacterial populations is no longer just an issue for hospitals. We all need to do what we can, because the same conditions that promote resistance operate not only in hospitals but in other environments as well.

Paradoxically, hand hygiene products are used for cleaning every indoor environment. They have toxic effects on microbial populations, they most often kill bacteria and fungi. Unlike household or commercial disinfectants, however, hand hygiene products are not designed to kill all life. A lot of the germicidal activity of hand hygiene products is due to the presence of surfactants. These surfactants, which are also found in environmental cleaners, and in some cases water, they can become resistant to the antimicrobial effects of the cleaner.

Microbial populations that develop resistance to antimicrobial development are also resistant to the antimicrobial effects of all kinds. Because of the relationship between hand hygiene and antibiotic resistance, using hand hygiene products is a defense against resistance. In fact, hand hygiene products that use of surfactants are more than a thousand times greater than the amount of antibiotic used. The bottom line is that antibiotics will continue to be effective for human and animal disease only if pathogens do not become resistant. Unfortunately, our most common treatment plans are now resistant to bacteria, fungi, and viruses. This is because of the use of surfactants in hand hygiene products, as well as many other products. These surfactants, which are also found in environmental cleaners, and in some cases water, they can become resistant to the antimicrobial effects of the cleaner.

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Antibiotic Resistant Bacteria
 An Issue for Everyone

30 September 2008 - JULY/AUGUST 2009

Surfactants can cause Resistance

Starlec

January 23, 2008
 File: 16370439

Michael Rogers
 Cogent Environmental Solutions Ltd
 18 Maxwell Street
 Caledon ON L9N 1C9
 Via e-mail: cogentenvironmental@rogers.com

Dear Mike:

Reference: A Comparison of the Acute Aquatic Ecotoxicity of Surfactants used in Cleaning Products with Natural Ingredients

In 1998 in Europe, the use of surfactants in household detergents totalled 1,448,000 tonnes/year, plus an additional 248,000 tonnes of surfactants were used in industrial and institutional products (Canadian Environmental Protection Agency, 2001). The commonly used surfactants are generally toxic to aquatic life. A reduction in the discharge of surfactants to aquatic systems would have a beneficial impact on aquatic systems.

The acute aquatic ecotoxicity of selected anionic, non-ionic and cationic surfactants commonly used in cleaning products has been compared to the acute toxicity of a few naturally occurring compounds. This comparison was undertaken to verify that if naturally occurring compounds (e.g. lactic acid, sodium chloride, carbonates, etc.) were used in new surfactants, these would have a reduced environmental impact.

Based on the EC50s and LC50s from short-term fish, crustaceans, and/or algal toxicity tests presented in Table 1 and the acute ecotoxicity classification categories provided in Table 2, the naturally occurring compounds are much less toxic to aquatic organisms than the commonly used surfactants. A comparison of the average Acute Toxicity Factors (Table 1) for the surfactants (SDFs) with the average of the Acute Toxicity Factor, for natural ingredients.

Acute Toxicity Factor = The calculated median value within each trophic level (e.g. fish, crustaceans, or algae) using validated test results for acute toxicity. If several test results are available for one species within a trophic level, a median for the species is calculated first and these median values are used when calculating the median value for the trophic level. The Acute Toxicity Factor is the lowest median of the trophic levels.

A Comparison of the Acute Aquatic Ecotoxicity of Surfactants used in Cleaning Products with Natural Ingredients

ENVIRODESIC™
 ENVIRONMENTAL BUILDINGS PRODUCTS AND SERVICES FOR HEALTHY HOODS LIVING™

A More Sustainable Approach to Everyday Cleaning

The General Issue:
 Current chemical technology for the production of household and commercial cleaning detergents is not sustainable. This means that the sources of most raw materials for current products are not renewable, and that the environmental and health effects of current products are often detrimental and possibly cumulative. Society has no viable choice but to begin to shift from the old ways of cleaning things, to newer, more sustainable and more biologically compatible ways of cleaning things.

The Environmental Problem:
 Recycled amounts of surfactants and other synthetic chemicals typically found in many household and commercial cleaning detergents continue to find their way into our waterways, despite our best attempts to remove most of it from treated plants. These surfactants affect aquatic life adversely and also potentiate other more toxic chemical residues that are also present in our environment.

The Health & Safety Problem:
 Many cleaning compounds also contain volatile chemicals and perfumes that decrease indoor air quality during and after cleaning, and can adversely affect the health of humans living. Cleaning compounds are one of the primary sources of indoor pollution, and a major contributor to sick building syndrome and environmental hypersensitivity. In addition, some cleaning compounds are corrosive and can present a safety hazard to users.

The Sustainable Solution:
 To move towards a more sustainable technology, we must as a society shift away from synthetic substances to 100% natural biological ingredients, and we must move towards substances that have reduced impact in terms of both human health and the health of other organisms in our natural environment.

The expertise already exists to develop natural, biologically-produced cleaning products that are cost effective, that are on par in performance to existing products, that do not contribute to indoor pollution, and that do not deposit persistent residues in the environment that could disrupt the delicate web of life on our planet.

This "white paper" presents the evidence surrounding the aquatic toxicity of surfactant residues and makes the case for the introduction of new and more sustainable cleaning technologies.

A More Sustainable Approach to Everyday Cleaning

SAFETY DATA SHEET
 Date: September 23, 2014

SECTION 1 - IDENTIFICATION

Product identifier used on the label: Process MicroClean

Other means of identification: 5039, 5943, 5941, 5942, 5943

Recommended use of the chemical and restrictions on use: For professional use only.

Manufacturer/Supplier:
 Chemtec Products Ltd.
 Address:
 2000 Taylor Dr.
 Peterborough, ON K9J 9H4
 Telephone: 705-745-1200
 Fax: 705-745-1239
 24 Hr Emergency Fax: An Inmate: 1-800-303-6553 (North America), 011-1-302-323-5500 (International)

SECTION 2 - HAZARDS IDENTIFICATION

Classification of the chemical:
 This chemical does not meet the hazardous criteria set forth by the 2012 GHS Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

The product contains no substances which, at their given concentrations, are considered to be hazardous to health.

SECTION 4 - FIRST-AID MEASURES

Description of first aid measures:
 If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.
 If on skin (or hair): Take off contaminated clothing. Rinse skin with water/shower. If skin irritation occurs get medical attention. Wash contaminated clothing before reuse.
 If inhaled: Remove person to fresh air and keep comfortable for breathing. If respiratory issues develop call doctor/physician.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists get medical advice/attention.

Most important symptoms and effects, both acute and delayed:
 Irritation of the eyes, nose and throat.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

Process MicroClean SDS

Study No. PCSI10071-01

STUDY TITLE
 Assessment of the Combined Activity of Wiping and Disinfection for Decontaminating Hard, Non-Porous Environmental Surfaces: Testing with Healthcare-Associated Pathogens

TEST ORGANISM
 Clostridium difficile spores (ATCC 43088), Staphylococcus aureus (ATCC 6538) and Seratia melleocera (ATCC 13636)

TEST SAMPLE IDENTITY
 PCS 220
 PCS MicroClean

TEST METHOD
 Quantitative carrier test - 3 or 3 or OCT-3

AUTHOR
 Dr. David S. Geller
 Study Director

STUDY COMPLETION DATE
 Aug. 12/18

PERFORMING LABORATORY
 CSEM Co. Labs, Units 1-2, 3003 Inverness Dr., Mississauga, Ontario, Canada L4V 1T4

SPONSOR
 Process Cleaning Solutions

STUDY NUMBER
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