

PCS Process MicroClean

CERTIFICATION SUMMARY

Rev01Feb10-1150

CERTIFICATION STATEMENT

PCS Process MicroClean, as formulated by Michael Rochon of Cogent Environmental Solutions, Mansfield, Ontario, and as manufactured by Process Cleaning Solutions Ltd. (PCS), is certified under the *Envirodesic*[™] Certification Program as a suitable cleaner where Maximum Indoor Air Quality[™] is preferred and where persons who are hypersensitive to chemical exposures may be present. This certification also covers other forms of packaging of the PCS Process MicroClean formula, as manufactured by PCS, whether for private label or for specialty applications, provided that the formulation of the concentrate involved is identical to that of the PCS Process MicroClean herein certified.

SCIENTIFIC BASIS FOR CERTIFICATION

Envirodesic[™] certification for PCS Process MicroClean is based primarily on the fully disclosed ingredient list provided to *Envirodesic*[™] by Cogent, along with other scientific data and performance studies supplied by Cogent. These materials indicate that there are four primary properties of PCS Process MicroClean that merit its inclusion under *Envirodesic*[™] Certification:

1. The first property is its benign nature in terms of human health effects, i.e. the lack of toxicity of its ingredients (Oral LD50 = 7.3g/kg, Inhalation LC50 > 4.74 mg/l.) and the product's lack of volatility. Cogent Environmental and PCS are notably advanced as well in terms of full public disclosure of ingredients (sodium chloride, sodium citrate, lactic acid / buffered lactic acid).
2. The second property is its benign nature in terms of environmental impact, characterized by extremely low aquatic toxicity (EC50 = 4100 mg/l). A review of aquatic toxicity by Stantec in 2006 shows that PCS ProcessClean ingredients demonstrated a 325 times reduction in aquatic toxicity compared to surfactant based cleaners. The low aquatic toxicity was achieved partially by avoiding the use of any surfactants and other synthetic chemicals; eliminating these is in itself a major innovation in cleaning technology.
3. The third property is its production from naturally occurring inorganic ingredients. The product could theoretically be produced for hundreds of years potentially without causing significant resource depletion or damage. As such, the product qualifies as a significant innovation in the field of sustainable cleaning technology, another requirement for *Envirodesic*[™] Certification.
4. PCS Process MicroClean, when used according to instructions with appropriate cleaning processes and materials (e.g. micro fiber cloths), represents a significant step forward towards reducing and where possible eliminating the use of disinfectants and disinfectant cleaners. The product can help to achieve effective cleaning and removal of organic debris on environmental surfaces. Its effectiveness in reducing surface contamination can also be verified in situ by cleaning staff, with the use of ATP monitors.
5. Finally, product performance testing indicates that PCS Process MicroClean performed on par with traditional cleaning preparations.

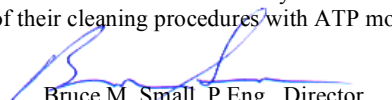
Because there are no perfumes and no volatile ingredients in the formula, we are confident that in situ emission levels from PCS Process MicroClean are well within the Molhave limit of 0.16 mg/m³ of total volatile organics being used presently as the upper limit of the benign range for the general population by the *Envirodesic*[™] Certification Program. It is noteworthy that this limit is significantly more stringent than that of other certification or "green-product" programs.

ADDITIONAL SUBJECTIVE INFORMATION REGARDING ENVIRONMENTAL HYPERSENSITIVITY

It is our opinion based on the properties and ingredients of PCS Process MicroClean that it is generally suitable for use in installations occupied by and/or designed for environmentally hypersensitive persons, and for use by environmentally hypersensitive persons themselves. Hypersensitive individuals are cautioned to test all cleaners for compatibility with their own personal sensitivities

SUITABILITY FOR USE IN PUBLIC BUILDINGS INCLUDING HEALTH CARE AND EDUCATIONAL INSTITUTIONS

From a public health point of view, it is our opinion that PCS Process MicroClean is highly suitable for use in public buildings, including hospitals, nursing homes, schools, government buildings, etc. Our experience indicates that the easiest way to lower indoor air pollution immediately in any building (and to make it more accessible to environmentally hypersensitive individuals) is to convert to low-emission cleaning products. When used with appropriate cleaning processes and materials (e.g. micro fiber cleaning cloths) PCS Process MicroClean provides a highly competent first step of cleaning and removal of organic debris that will minimize the need for any further disinfecting of environmental surfaces. The manufacturer encourages users to test the effectiveness of their cleaning procedures with ATP monitoring.



Bruce M. Small, P.Eng., Director
Envirodesic[™] Certification Program

Envirodesic[™] Certification is an ongoing process whereby additional data and consumer experience is added to a product file as it becomes available. Persons wishing to ask questions about the certification criteria or the suitability of the product for different populations are invited to contact the *Envirodesic*[™] Certification Program at any office below.