

NEWS ALERT



MCI®-2061 Test Demo Builds Confidence in 'Green' Cleaner for Oil-Stained Concrete

There are always plenty of reasons and opportunities to remove gas and oil stains from concrete. For instance, concrete driveways, garages, and bridges are often the victims of vehicle gas and oil leaks. In addition to dealing with the bad appearance, contractors must make sure concrete surfaces are thoroughly clean and free of all contaminants before applying a waterproofing membrane. A recent test demonstrates MCI®-2061 in action under the microscope and builds confidence in this "green" cleaning product for concrete oil stains.

How Green Cleaners Work

MCI®-2061 works by a dual mechanism. Biodegradable surfactants disperse oil droplets and perform the initial cleaning. If properly applied, MCI®-2061 spores then germinate into active microorganisms and perform secondary cleaning by actually digesting hydrocarbons. This activity increases as time goes on. In fact, spores that remain in the substrate after rinsing may continue to degrade residual hydrocarbons that were not removed in the initial cleaning process.

MCI®-2061 Efficacy Demonstration

To demonstrate surfactants and microorganisms at work in MCI®-2061, the product is typically applied to a small area, and before-and-after results are compared to validate the cleaning efficacy. However, the easiest and fastest way to show decomposition of organic matter is to measure COD (chemical oxygen demand) reduction in a sample. To demonstrate this, three samples of MCI®-2061 were prepared for testing of biodiesel digestion. All samples were diluted with water at a ratio of 1:100 and were also examined under the microscope.

Sample #1 (control) – MCI®-2061 without bacteria or biodiesel

Sample #2 (control) – MCI®-2061 without bacteria but with biodiesel added

Sample #3 – MCI®-2061 with bacteria and biodiesel

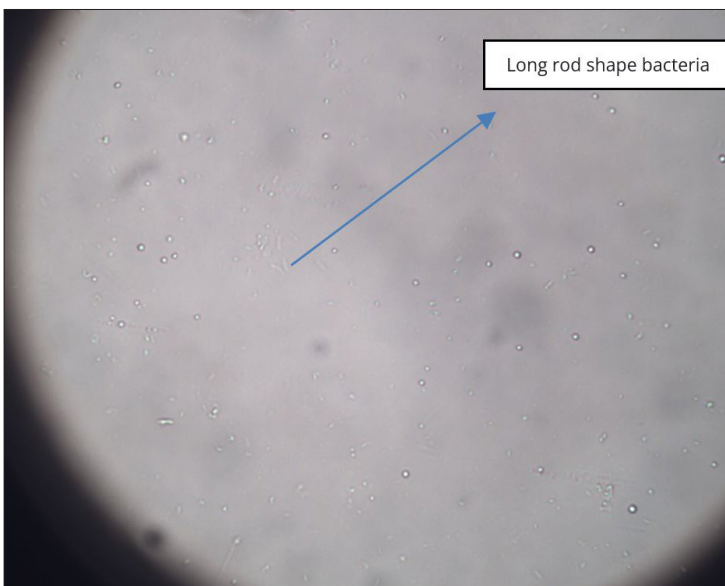
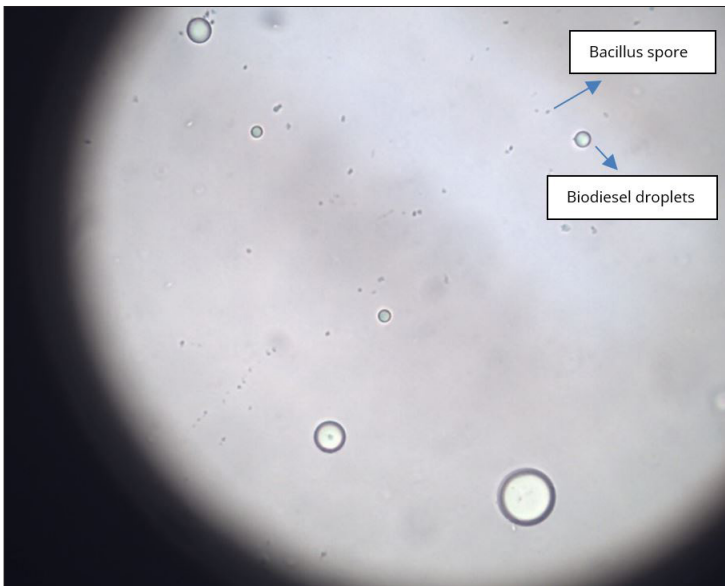
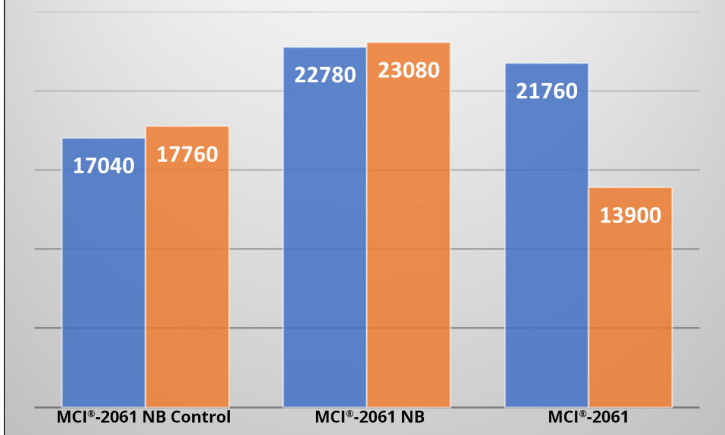
Sample ID	COD t=0 (mg/L)	COD t=1 week (mg/L)	COD reduction (mg/L)	COD Reduction %
MCI®-2061 NB Control	17,040	17,760	720	+4.23%
MCI®-2061 NB	22,780	23,080	300	+1.32%
MCI®-2061	21,760	13,900	-7860	-36.12%

COD, a measure of contaminants in the solution, dropped by 36.12% over this timeframe, while COD increased slightly in the two control samples not seeded with bacteria.

Cortec® Corporation is the global leader in innovative, environmentally responsible VpCI® and MCI® corrosion control technologies for the Packaging, Metalworking, Construction, Electronics, Water Treatment, Oil & Gas, and other industries. Headquartered in St. Paul, Minnesota, Cortec® manufactures over 400 products distributed worldwide. ISO 9001 and ISO 14001 Certified, and ISO 17025 Accredited.



COD Reduction After One Week



The bacteria count in Sample #3 increased by 43% over the course of just seven days in spite of the fact that diesel and surfactants can be toxic to bacteria. The biodiesel droplets also significantly diminished in size. On the first day of the test, the microorganisms of MCI®-2061 were still dormant and spores could be seen under the microscope. By the third day, significant growth could be detected to the point that rod-shaped bacteria had formed. These long vegetative bacteria were a sign that conditions were especially favorable for digestion of hydrocarbons.

Test results and images show MCI®-2061 in action and offer an exciting boost of confidence for anyone seeking an effective, "green" cleaning solution for oil stains on concrete. Contact Cortec® MCI® to learn more about using cleaners like MCI®-2061 that are better for the environment:

<https://www.cortecmci.com/contact-us/>

See a video of the microorganisms at:

<https://www.youtube.com/watch?v=kmAG-H9U1w0>

Keywords: green cleaner, oil stained concrete, green cleaning product, From Grey to Green, Cortec MCI, better for the environment, how green cleaners work, biodegradable surfactants, concrete oil stains, remove oil stains from concrete



Environmentally Safe VpCl®/MCI® Technologies